

Page 1 AGENDA Tuesday, March 19, 2024 6:00 PM

> Council Chambers Prior Lake City Hall

#### **BOARD OF MANAGERS:**

Bruce Loney, President; Frank Boyles, Vice President;

Christian Morkeberg, Treasurer; Ben Burnett, Secretary; Matt Tofanelli, Manager

Note: Individuals with items on the agenda or who wish to speak to the Board are encouraged to be in attendance when the meeting is called to order.

## Closed Board Meeting 3:30 PM – Parkview Conference Room

• District Administrator Annual Review (Closed Meeting)

## Board Workshop 4:10 PM – Parkview Conference Room

- 4:10 4:55 PM W.1 Conservation Easements Enforcement (Scott SWCD Staff)
- 4:55 5:20 PM W.2 Fish Lake Approach Discussion (Emily Dick)
- 5:20 5:30 PM W.3 Introduced Bills SF 3964/HF 4009 ("Missing Middle Housing") (Manager Boyles)
- 5:30 5:40 PM W.4 Manager Per Diem Guidance (Joni Giese)
- 5:40 5:50 PM W.5 Liaison Updates
  - District Partners in Attendance
  - Managers' Summary of other Meetings Attended
- 5:50 5:55 PM W.6 Administrator Report (Joni Giese)

## 6:00 – 6:02 PM 1.0 BOARD MEETING CALL TO ORDER & PLEDGE OF ALLEGIANCE

6:02 – 6:07 PM 2.0 **PUBLIC COMMENT** 

If anyone wishes to address the Board of Managers on an item not on the agenda or on the consent agenda, please come forward at this time. Go up to the podium, turn on the microphone and state your name and address. (The Chair may limit your time for commenting.)

6:07 – 6:10 PM 3.0 APPROVAL OF AGENDA (Additions/Corrections/Deletions)

#### 6:10 – 7:40 PM 4.0 OTHER OLD/NEW BUSINESS

- 4.1 Programs & Projects Update (Discussion)
- 4.2 Approval of New CAC Members: Ryan Murr (Vote)
- 4.3 2023 Aquatic Plant Survey Results Presentation: Steve McComas (Discussion)

- 4.4 2024 AIS Prevention Approach (Vote)
- 4.5 Ferric Chloride Site Improvements (Vote)
- 4.6 Alum Treatment Decision Process (Vote)
- 4.7 Resolution 24-378: Amending the 2024 Budget to Reclass Funds from 509-Implementation Fund, Program Salaries and Benefits to 648 – BMP and Easements Inventory & Inspections

Resolution 24-379: Amending the 2024 Budget 509 Implementation Fund, PLOC Contribution Line Item

Resolution 24-380: Authorization to Transfer Funds to the JPA/MOA Fund (Vote)

## 7:40 – 7:45 PM 5.0 **TREASURER'S REPORT**

- 5.1 Monthly Financial Reports (Discussion Only)
  - Financial Report
  - Treasurers Report
  - Cash Flow Projections
  - Cost Analysis

## 7:45 – 7:55 PM 6.0 **CONSENT AGENDA**

The consent agenda is considered as one item of business. It consists of routine administrative items or items not requiring discussion. Items can be removed from the consent agenda at the request of the Board member, staff member, or a member of the audience. Please state which item or items you wish to remove for separate discussion.

- 6.1 Meeting Minutes February 20, 2024, Board Workshop
- 6.2 Meeting Minutes February 20, 2024, Board Meeting
- 6.3 Claims List, VISA Expenditures, and Bank Purchase Card Expenditures Summary
- 6.4 2024 Board Liaison Appointments (Revised)
- 6.5 Permit Application 24.01: Panama & 13 Water Quality Retrofit
- 6.6 Water Resources Management Plan (WRMP) Amendments

## 7:55 – 8:00 PM 7.0 **UPCOMING MEETING/EVENT SCHEDULE:**

- Farmer-led Council: Lake Friendly Farm Award Banquet (RSVP Required), Wednesday, March 20, 2024, Noon (Prior Lake VFW)
- CAC Meeting, Thursday, March 28, 2024, 6:00 pm (Prior Lake City Hall Wagon Bridge Conference Room)
- Board of Managers Workshop, Tuesday, April 16, 2024, 4:00 pm (Prior Lake City Hall Parkview Conference Room)
- Board of Managers Meeting, Tuesday, April 16, 2024, 6:00 pm (Prior Lake City Hall – Council Chambers)

8:00 PM 8.0 **ADJOURNMENT** 

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March 2024 Programs and Projects Update		
PROGRAM OR PROJECT	LAST MONTH'S STAFF ACTIVITIES	NEXT STEPS
<b>Carp Management</b> Rough Fish Management (Class 611) Project Lead: Jeff	• Tracked radio-tagged carp in Spring and Upper Prior Lakes. Ice conditions made removal efforts unfeasible. Working on coordinating open water netting in Spring Lake with a current strong aggregation of radio tags.	<ul> <li>Conduct removal efforts in open water.</li> <li>Complete repairs on Freemont barrier in 2024 as weather allows.</li> </ul>
Ferric Chloride System Operations Project Lead: Jeff and Emily	<ul> <li>Presented Interim system assessment reports. Prepared staff recommendations for replacement.</li> <li>Ordered replacement failed datalogger and sensors.</li> <li>Set up de-winterization with Vessco Inc.</li> </ul>	<ul> <li>Start system in manual mode.</li> <li>Replace failed datalogger and sensors.</li> <li>Program new datalogger for flow paced dosing.</li> <li>Continue to review and finalize elements of the system assessment reports.</li> </ul>
<b>Farmer-Led Council</b> Project Lead: Emily	<ul> <li>Continued coordination with Scott SWCD.</li> <li>Planned March Lake Friendly Farm event.</li> <li>Discussed revitalized FLC strategy with SWCD.</li> <li>Attended soil health event Feb 29<sup>th</sup>.</li> </ul>	<ul> <li>Continue to support and review FLC projects.</li> <li>Plan and hold Lake Friendly Farm event March 20.</li> </ul>
<b>Cost Share Incentives</b> Project Lead: Emily	<ul> <li>Provided feedback on potential cost share projects.</li> <li>Coordinated on the possibility of a Fish Lake focus area.</li> </ul>	<ul> <li>Review cost share applications with Scott SWCD as needed.</li> <li>Present non-traditional cost share project types for Board approval as applicable.</li> </ul>
Sutton Lake Outlet and Lake Management Plan Project Lead: Emily	<ul> <li>Lake Management Plan</li> <li>Relayed 2023 drone data to EOR for review and analysis.</li> </ul>	<ul> <li>Lake Management Plan</li> <li>Organize plan for drawdown monitoring in 2024.</li> <li>Plan landowner communications in summer.</li> <li>Review drone data summary from EOR.</li> </ul>

MARCH 2024 PROGRAMS AND PROJECTS UPDATE			
PROGRAM OR PROJECT	LAST MONTH'S STAFF ACTIVITIES	NEXT STEPS	
<b>Upper Watershed</b> <b>Projects</b> Project Lead: Emily	<ul><li>Buck Wetland Enhancements</li><li>No action.</li></ul>	<ul> <li>Buck Wetland Enhancements</li> <li>Create project tracking inventory to track long-term outreach plan.</li> <li>Seek Board opinion about continued project development.</li> </ul>	
	<ul> <li>Buck Stream Restoration</li> <li>Secured landowner willingness.</li> <li>Coordination with SWCD and EOR to discuss timelines.</li> <li>Began contract drafting with Smith Partners and SWCD.</li> </ul>	<ul> <li>Buck Stream Restoration</li> <li>Continue to draft landowner/SWCD/PLSLWD agreements.</li> <li>Hold coordination meeting in April.</li> </ul>	
	<ul> <li>Spring Lake West IESF/Wetland</li> <li>Contracted with BKJ Construction to do outlet repair.</li> <li>Held meeting to learn about status of County Road 17 study commissioned by Scott County</li> </ul>	<ul> <li>Spring Lake West IESF/Wetland</li> <li>Implement Kreuger outlet pipe replacement.</li> <li>Seek to progress feasible IESF or BMP to implementation.</li> </ul>	
	<ul><li>Sutton Lake IESF</li><li>No action.</li></ul>	<ul> <li>Sutton Lake IESF</li> <li>Has not been selected as immediate priority in 2024.</li> </ul>	
	<ul> <li>2023 WBIF Studies</li> <li>Completed delineation and legal description work for the Swamp IESF easement.</li> <li>Identified recommended projects from the FLMP.</li> </ul>	<ul> <li>2023 WBIF Studies</li> <li>Work with Board to identify priority projects from FLMP.</li> <li>Continue to progress Swamp IESF easement agreement.</li> </ul>	
	<ul> <li>Potential Flood Storage Projects</li> <li>Met with landowner on Project 6.</li> </ul>	<ul> <li>Potential Flood Storage Projects</li> <li>Work with Board to identify next priority projects.</li> </ul>	
Website and Media Project Lead: Danielle	<ul> <li>Social Media</li> <li>Continue updating Facebook and Instagram about projects &amp; news: Ice out call for volunteers and historical trends, first of the season ice-out lakes, Prior and Spring ice-out and historical trends., and historical lake level influences.</li> <li>Articles</li> <li>Submit articles to Prior Lake Association and Spring Lake Association Newsletters</li> <li>Website</li> <li>Continue website undeted</li> </ul>	<ul> <li>Social Media</li> <li>Continue updating Facebook, and Instagram about projects &amp; news.</li> <li>Articles         <ul> <li>Write SCENE spring newsletter.</li> </ul> </li> <li>Website         <ul> <li>Create project and subwatershed</li> </ul> </li> </ul>	
<b>Citizen Advisory</b> <b>Committee</b> Project Lead: Danielle	<ul> <li>Continue website updates.</li> <li>March CAC Meeting Preparations</li> <li>Shared eligible CAC application with Board and New Member Committee and conducted interview</li> </ul>	<ul> <li>maps for new website</li> <li>March CAC meeting.</li> <li>Onboard new CAC member</li> <li>Review any new CAC applications</li> </ul>	

March 2024 Programs and Projects Update		
PROGRAM OR PROJECT	LAST MONTH'S STAFF ACTIVITIES	NEXT STEPS
Education Program Project Lead: Danielle	<ul> <li>See Website and Media section.</li> <li>Align planned Education and Outreach events to E+O budget.</li> <li>Meet with potential partner to set expectations for new events</li> <li>Spring Lake Township Annual Meeting Presentation</li> <li>Coordinated with volunteers on ice-out</li> </ul>	<ul> <li>See website and media section.</li> <li>Plan Storm Drain Stenciling volunteer event.</li> <li>Design and purchase logo stickers for event hand-outs</li> <li>Initiate contact with potential partners for Watershed Week events</li> <li>Prep volunteers and materials for CAMP sampling</li> </ul>
<b>Monitoring Program</b> Project Lead: Jeff	<ul> <li>Installed lake and stream level loggers.</li> <li>Logger well on Fish Lake damaged from ice.</li> <li>Begun process of ordering new well points to build new wells for Fish and Pike Lakes to allow more accurate readings during low and high water levels.</li> <li>Met with RMB on stream analysis needs.</li> <li>Communicated with landowners on access needs and monitoring routines.</li> <li>Worked on rating curves analysis in WIKSI</li> </ul>	<ul> <li>Starting stream monitoring routine</li> <li>Report on tier 2 and 3 lakes.</li> <li>Finalize mapping report on historic monitoring site locations and analysis.</li> <li>Continue creating internal protocol for using WISKI.</li> <li>Continue creating rating curves for stations in SKED</li> <li>Continue with data validation in WISKI</li> <li>Install new wells for Pike and Fish lakes</li> <li>Determine additional sites for spare water level loggers</li> </ul>
Aquatic Vegetation Management and Surveys Project Lead: Jeff	<ul> <li>Worked on 2024 contracting for delineations and surveys.</li> </ul>	<ul> <li>Contract vegetation surveys and treatments.</li> </ul>
<b>AIS</b> Project Lead: Jeff and Zach	<ul> <li>Researched alternative AIS prevention methods and equipment.</li> <li>Researched follow-up questions to February's AIS memo on boat inspections and CD3 stations.</li> <li>Completed MNDNR Delegation Agreement. This is a 3-year agreement confirming our role and authority as a LGU to provide watercraft inspections.</li> <li>Communicated expectations with public that we are expecting heavier aquatic plant and AIS growth this spring and summer due to very mild winter.</li> </ul>	<ul> <li>Contract for 2024 boat inspections.</li> <li>Coordinate with DNR on boat inspection coverage on our lakes.</li> </ul>

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March 2024 Programs and Projects Update		
PROGRAM OR PROJECT	LAST MONTH'S STAFF ACTIVITIES	NEXT STEPS
<b>Rules Revisions</b> Project Lead: Joni	<ul> <li>Scheduled meeting with Scott County and Scott WMO to address an outstanding equivalency issue associated with BMP construction inspections.</li> </ul>	<ul> <li>Hold meeting with Scott County and Scott SWCD.</li> <li>Finalize City of Prior Lake equivalency MOA.</li> <li>Finalize City of Savage interim equivalency agreement.</li> <li>Continue working with Scott County to finalize equivalency MOA and monitor Scott County rule updates required for equivalency.</li> </ul>
<b>BMPs &amp; Easements</b> Project Lead: Joni	<ul> <li>Meeting with Scott SWCD regarding next steps for potential easement violations.</li> <li>Discussions between Scott SWCD, developer and PLSLWD regarding potential easement amendment.</li> <li>Coordination with City of Savage on new easement.</li> </ul>	<ul> <li>Resume installation of missing conservation easement signs as ground thaws.</li> <li>Wrap up work on outstanding issues associated with:         <ul> <li>Development Agreement and Conservation Easement establishment process and document templates.</li> <li>Process for amending conservation easements.</li> <li>Approach for easement encroachments.</li> </ul> </li> <li>Work to resolve outstanding easement violations.</li> </ul>
<b>Permitting</b> Project Lead: Joni	<ul> <li>Coordinated with City of Prior Lake on Panama/ TH 13 Stormwater Credit project (95% review) and Fish Lake Road Phase 3 project.</li> <li>Closed out permit 18.05.</li> <li>Coordinated with City of Prior Lake on potential illicit discharge (based on resident notification)</li> </ul>	Continue to close out old permits.
Planning Activities Project Lead: Joni	Reviewed draft 1W1P report during 60- day review period.	<ul> <li>Provide review comments on draft 1W1P report during 60-day review period.</li> <li>Complete MPCA Surface Water Monitoring Requests.</li> <li>Complete application for SWAG grant.</li> </ul>

March 2024 Programs and Projects Update		
PROGRAM OR PROJECT	LAST MONTH'S STAFF ACTIVITIES	NEXT STEPS
Outlet Channel Projects and Administration Project Lead: Emily/Jeff	<ul> <li>Conducted follow up for the presentation of pipe lining project at Senate Bonding Tour.</li> <li>Prepared guidance on alternate funding mechanisms for pipe lining project.</li> <li>Began two grant applications for the pipelining project.</li> <li>Installed monitoring equipment.</li> <li>Started inspection routine.</li> <li>Worked with SWCD and easement owners on concerns.</li> </ul>	<ul> <li>Pipelining construction expected to occur in winter 2024/2025 if capital funding, or MPCA funding awarded.</li> <li>Keep watch on beaver dams and remove as necessary.</li> <li>Remove larger fallen trees/jams identified as potential concerns for flow diversion and bank erosion.</li> <li>Coordinate and contract invasive vegetation maintenance.</li> </ul>
<b>General Administration</b> Project Lead: Joni	<ul> <li>Prepared for annual financial audit scheduled for March 21 and 22.</li> <li>Prepared budget amendments.</li> <li>Wrap up annual performance reviews.</li> <li>Prepared and submitted pay equity report.</li> <li>Continued to review files for archiving.</li> </ul>	<ul> <li>Update remainder of personnel policy in 2024.</li> <li>Address outstanding encroachment issue related to a District owned parcel.</li> </ul>

3-19-2024 PLSLWD Board Meeting Materials PLSLWD Board Staff Report March 12, 2024



Subject	Approval of new CAC Member: Ryan Murr		
Board Meeting Date	March 19, 2024	Item No:	4.2
Prepared By	Danielle Studer		
Attachments	None		
Proposed Action	Motion to approve the appointment of Ryan Murr to the Advisory Committee.	District's Cit	izen

## **Background**

The District's Citizen Advisory Committee (CAC) is composed of residents of the District and advises the Board of Managers on topics relevant to the District. The CAC is required by MN Statute 103D.331 to consist of at least 5 members appointed at the discretion of the Board of Managers. A CAC New Member Subcommittee, comprised of the CAC Chair, Board of Managers liaison to the CAC, and the District staff liaison to the CAC, reviews and shares with the Board the CAC membership applications, performs applicant interviews, and provides a recommendation for membership to the Board.

## **Discussion**

Upon review of Ryan Murr's application to the CAC and an interview, the CAC New Member Subcommittee feels that Mr. Murr would be a valuable addition to the CAC.

## **Recommendation**

The CAC New Member Subcommittee recommends that the Board of Managers approve the appointment of Ryan Murr to the District's Citizen Advisory Committee.

3-19-2024 PLSLWD Board Meeting Materials PLSLWD Board Staff Report March 13, 2024



Subject	2023 Aquatic Plant Survey Results Presentation		
Board Meeting Date	March 19, 2024	Item No:	4.3
Prepared By	Jeff Anderson, Water Resources Coordinator		
Attachments	No Attachments		
Action	No action required. For discussion only.		

## **Background**

Aquatic plant survey assessments inform the District's Aquatic Plant Management Program, including when and where to treat for invasive plant species and the effectiveness of any performed treatments. The PLSLWD contracted with Blue Water Science to perform macrophyte (aquatic plant) surveys and delineations in 2023. All the Tier 1 Lakes have an established Curlyleaf Pondweed (CLP) population and are surveyed every year after ice out to determine the potential need for treatment. If CLP is treated, assessments are done post-treatment to determine effectiveness of treatment. Whole lake point intercept surveys (plant surveys) analyze the distribution, type, and growth density of native plants. Data gathered through these surveys are key indicators for project success and overall lake health. Plant survey frequencies are shown in the following table:

Lake Tier Level	Plant Survey Frequency (every x years)
1	2
2	3
3	5

The District will adjust individual lake frequencies, as needed, to support lake diagnostic studies, meet program budgets, and prioritize data needs.

## **Project Overview**

Steve McComas, with Blue Water Science, will be presenting the results of the Aquatic Vegetation Surveys he conducted in 2023 for Fish, Spring, Sutton, Upper Prior, and Lower Prior Lakes.

Fish, Spring, Upper and Lower Prior Lakes were assessed in the springtime for Curlyleaf Pondweed (CLP) abundance and need for treatment. Based on Steve's assessment, PLSLWD hired a company (PLM) to

treat CLP in areas that Steve determined CLP would likely get to heavy growth levels. Steve will show where the treatment areas were located and how effective the company was at treating those areas.

Sutton, Spring and Upper Prior Lakes were assessed in summertime for native plant abundance, species type, and distribution. Steve will discuss the results of these surveys for each lake and how the vegetation has changed over the years.

Steve will provide a more detailed written report for each surveyed lake that will be published to the PLSLWD website in each of the lakes pages under waterbodies upon receipt.

## Action Requested

No action requested.

3-19-2024 PLSLWD Board Meeting Materials PLSLWD Board Staff Report March 13, 2024



Subject	2024 Boat Inspections & CD3 Station		
Board Meeting Date	March 19, 2024	Item No:	4.4
Prepared By	Zach Nagel, Water Resources Technician Jeff Anderson, Water Resources Coordinator		
<b>Attachments</b>	CD3 system specifications		
Action	Motion to authorize the District Administrator to enter a contract with Waterfront Restorations to perform boat inspection services in 2024 at a cost of \$30,500 and the purchase of one CD3 Roadside station for the Sand Point boat launch for \$3,500.		

## **Background**

The District has and will continue to fund and prioritize boat inspections to attempt to prevent aquatic invasive species from infesting District lakes. Watercraft inspections will focus time during high-use periods – weekends and holidays. With the closure of the Sand Point public water access (PWA) for two months, there is an opportunity to reallocate a portion of the budget to alternative actions.

## **Discussion**

Boat inspections have been the primary method of AIS prevention and remain a priority for the District. With the planned closure of the Sand Point boat launch in 2024 from early-July to early-September, there will be one fewer boat launch to perform inspections. Reallocating a portion of the AIS program budget towards education and tools for boaters to use is an option to progress our AIS management goals.

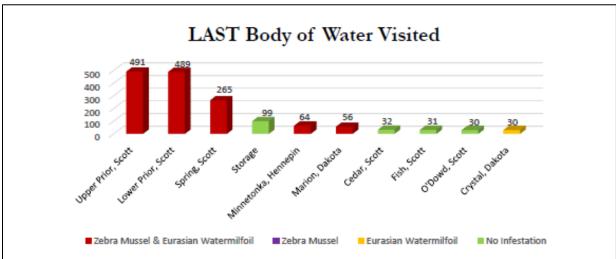
## Summary of AIS currently in our lakes:

Upper Prior Lake: Eurasian Water Milfoil (EWM), Curlyleaf Pondweed (CLP), and Zebra Mussels Lower Prior Lake: EWM, CLP, Zebra Mussels Spring Lake: EWM, CLP, Zebra Mussels Fish Lake: CLP

## AIS Laws (MN DNR):

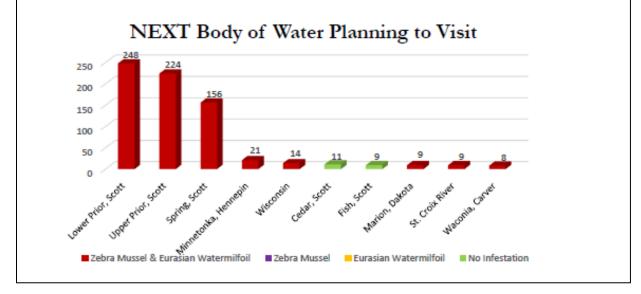
- Drain plugs must be removed while transporting watercraft and may not be in place upon arrival at boat launches.
- Aquatic plants, animals, and other listed prohibited species may not be transported or attached to watercraft when launching.
- Bait must not be released into the water.
- Lake/river water may not be transported.
- Pontoons are air-holding compartments and are not required to remove plugs, unless damaged.

The below figure taken from the 2023 Waterfront Restoration report shows numbers of boaters entering and exiting District lakes along with where they were coming from and where they were planning to visit next. This information highlights that most lake access users travel between District lakes and a primary vector of AIS is likely from another lake within the District.



**Figure 10:** Graph (above) reflects the number of boaters that reported the last lake visited prior to entering another waterbody via one of the Prior Lake-Spring Lake Watershed District staffed launches during the 2022 inspection season. Note: "No infestation" only means that such lakes are not infested with the mentioned AIS. Graph only shows the top ten responses.

Likewise, of the same entering inspections, the boater responses pertaining to which waterbody they would be visiting next, showed that the majority of boaters leaving an inspector staffed launch within the Prior Lake-Spring Lake Watershed District would return to Prior Lake (472 total), Spring (156), Minnetonka (21), or go boating in Wisconsin next (14) (Figure 11).



## CD3 Station Use:

A study conducted for Hennepin County Environment and Energy (April 2020) found ~1/4 of boat owners used the CD3 systems when no inspectors were present. They found that AIS violation rates decreased from May to October – more education and inspection hours earlier in the season may help to encourage boater behavior to remove vegetation and plugs before leaving the launch.

#### 3-19-2024 PLSLWD Board Meeting Materials

A report created by Three Rivers Park District (November 2018) found use of CD3 systems varied significantly between launches – between 5% and 22%. Use on two of the four lakes studied were greater (57%) when boaters had to wait to use the CD3 compared to when a boater ahead of them did not use the CD3 (19%). Boater satisfaction was also assessed. 63% of first-time CD3 users, and 96% of repeat users, reported they were very likely or likely to use a CD3 system in the future. The report came to the recommendation to have inspectors at boat launches with CD3 systems educate boaters on the systems to encourage their use.

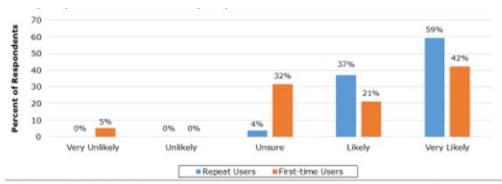


Figure 11. Likelihood respondents will use a CD3 or similar cleaning system in the future, comparison between repeat and first-time users.

The MNDNR does not fund CD3 stations but is willing to work with partners such as PLSLWD to support placement of them to reduce the spread of AIS.

#### CD3 Roadside

All CD3 stations are designed to last 10+ years and have a 1-year warranty on all internal components. The CD3 Roadside provides two different hand tools to assist in the removal of AIS on a precast concrete base. Refer to attachment for more information on this system. **The cost of one Roadside station is ~\$3,500** (\$250 shipping fee included). Site installation does not require additional material, only a level surface for the concrete pad.

All Scott County boat inspection grant funds will be dedicated toward watercraft inspection hours completed by a contractor. The hourly rate of boat inspections with Waterfront Restoration is **\$32.58**.

## **Options:**

Based on input from managers at the February workshop, options one through four were considered. All options were developed to fully expend the District's AIS boat inspection budget of \$34,000, with Option 2 also expending funds from the District's budget reserve.

## Option 1

Total AIS budget toward contract boat inspection = \$34,000 (1,009 boat inspection hours)

This option maintains consistency with the approach used in prior years, predominantly focusing AIS prevention efforts on boat inspections (for boats both entering and exiting the lake) during periods of heavy use.

## Option 2

Total AIS budget toward contract boat inspection = \$34,000 (1,009 boat inspection hours)

One CD3 *Roadside* station on the exiting lane of Sand Point boat launch using budget reserve funds = **\$3,500** 

Total Cost: \$37,500

3-19-2024 PLSLWD Board Meeting Materials

This option maintains consistency with the approach used in prior years, predominantly focusing AIS prevention efforts on boat inspections (for boats both entering and exiting the lake) during periods of heavy use. It goes one step further in providing a new approach to encourage boaters on Lower Prior Lake, which receives the most boating activity, to take actions to prevent AIS spread during periods when inspectors are not present. This option requires the expenditure of funds from the District's budget reserve.

## Option 3

Total AIS budget toward contract boat inspection = **\$30,500 (925** boat inspection hours**)** One CD3 *Roadside* station on the exiting lane at Sand Point boat launch = **\$3,500** 

## Total Cost: \$34,000

This option reduces AIS prevention efforts related to boat inspections by 8% while providing a new approach to encourage boaters on the Lower Prior Lake, which receives the most boating activity, to take actions to prevent AIS spread during periods when inspectors are not present. This option can be achieved within the District's established budget for boat inspections.

## Option 4

Total AIS budget toward contract boat inspection = \$27,000 (800 boat inspection hours)

Two CD3 *Roadside* stations (one entering lane and one exiting lane) at Sand Point boat launch = \$7,000

## Total Cost: \$34,000

This option reduces AIS prevention efforts related to boat inspections by 21% while providing a new approach to encourage boaters (both entering and exiting Lower Prior Lake) to take actions to prevent AIS spread during periods when inspectors are not present. This option can be achieved within the District's established budget for boat inspections.

## **Recommendation**

Staff recommends the Board authorize the District Administrator to enter a contract with Waterfront Restorations and purchase of a CD3 Roadside Station. The recommendation is associated with **Option 3** in the section above.

This option slightly reduces AIS prevention efforts related to boat inspections while providing a new approach to encourage boaters on the Lower Prior Lake, which receives the most boating activity, to take actions to prevent AIS spread during periods when inspectors are not present. This option can be achieved within the District's established budget for boat inspections.

## **Budget Impact**

The cost associated with the proposed motion is fully covered under budget item 637 - Boat Inspections on Spring, Fish, Upper and Lower Prior. Boat inspection services in 2024 are quoted at a cost of \$30,500 and the purchase of one CD3 Roadside station for the Sand Point boat launch is quoted at \$3,500.

## **Citations**

- Page 15
- Three Rivers Park District. (2018, November). Use and Satisfaction of CD3 Watercraft Cleaning Stations. Wildlife Forever. https://www.wildlifeforever.org/wp-content/uploads/2017/08/CD3-2018-Three-Rivers-Report.pdf

Fortin Consulting. (2020, April). Lake public access observations for Aquatic Invasive Species prevention behaviors. Hennepin County. https://www.hennepin.us/-/media/hennepinus/business/work-with-hennepin-county/docs-a-l/lake-public-access-observations-2020.pdf



## **CD<sup>3</sup> Roadside** Waterless Cleaning System

**Clean. Drain. Dry. Dispose.** CD<sup>3</sup> Systems use behavioral science to empower the public to increase compliance with invasive species rules and regulations.

#### USER OPERATED EQUIPMENT

- Waterless cleaning systems
- Free public use
- Low maintenance costs

## **PUBLIC EDUCATION & INSTRUCTIONS**

- Custom hand tools
- · Easy to follow prevention steps
- · Graphics and kiosk are customizable

## **CD<sup>3</sup> Roadside**

Empower the public with self-service hand tools to stop the spread of invasive species at public accesses. The Roadside includes two hand tools of your choice on lockable reels with 40' of sheathed, braided steel wire.

#### Hand Tool Options

- Grabber tool
- Small brush
- Plug wrench
- Hand Brush
- Boot Pick

#### Installation:

## Custom Instructions & Education\* Available

- www.stopAIS.com
   Easy to follow directions
- Boat style specific

"All CD3 Systems will come standard with operational instructional decals and legal disclaimers. Custom sign options are available

Each unit includes installation instructions and standard concrete/asphalt mounting anchor screws. Other mounting options are available upon request.

# Boot Brush Mount Option



#### FOR SALES CONTACT: stopAIS@cd3systems.com | 612-568-8310

cd3systems.com | 612-568-8310 cd3systems.com EVERYBODY LIKES A CLEAN BOAT

MADE IN MINNESOTA, USA © 2021 CD<sup>3</sup>





## Precast Concrete Base Installations

Clean. Drain. Dry. Dispose. CD<sup>3</sup> Systems use behavioral science to empower the public to increase compliance with invasive species rules and regulations.

- Install CD<sup>3</sup> Systems easily with precast concrete base pads.
- . Semi-permanent pads are shipped with unit, easily placed on a level surface and require very minimal site preparation.
- . Systems are bolted to precast pad and instantly ready for public use.

## Available for CD<sup>3</sup> Models:

- Wayside Solar or 120V
- Outpost

## Size & Dimensions:

- Wayside Models:
- 94" long, 40.5" wide, 5" thick
- · Reinforced concrete
- 1/2" mounting frame/bolts
- 8" service hole
- · 1,500 lbs

#### **Outpost Model:**

- 33" long, 25.5" wide, 5" thick
- Reinforced concrete
- Moveable with 2 wheel dolly
- 325 lbs

## No-Shovel<sup>\*</sup> Installation:

- Gravel/dirt
- Asphalt
- Concrete
- Turf grass (with geofabric)
- Top back edge of curb

'Must be level surface

## SALE OR LEASE CONTACT:

stopAIS@cd3systems.com | 612-568-8310 cd3systems.com









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3-19-2024 PLSLWD Board Meeting Materials PLSLWD Board Staff Report March 12, 2024



Subject	Ferric Chloride Site Improvements		
Board Meeting Date	March 19, 2024	Item No:	4.5
Prepared By	Emily Dick		
Attachments	None		
Proposed Action	Motion to authorize staff to retain a consultant for FeCl System final design incorporating staff recommended system enhancements.		
	Motion to authorizes staff to order and replace aged FeCl that does not require additional professional design servi	• •	uipment

## **Background**

The District's Ferric Chloride Treatment System is an essential part of the District's efforts to reduce phosphorus reaching Spring Lake, and downstream Prior Lake. The District contracted EOR to conduct the Ferric Chloride System Assessment in 2023 in order to recommend system updates, equipment lifetimes, and optimization of the system. Due to drought and lack of flow through the ferric chloride system, the dosing and chemical analysis could not be completed in 2023. However, several elements of the assessment have been completed including the system component lifetimes, recommended improvements and access drive alternatives.

The Board reviewed a draft of the lifetime assessment and recommended improvements at the September 2023 Board Workshop. A second discussion of the recommendations was held when reviewing the Interim Report at the February 2024 Board Meeting. The full Ferric Chloride System Assessment Report will be completed in 2024 with the chemical dosing and alternative chemical analysis included. Site improvements do not preclude the District from making informed decisions on alternative chemicals or dosing when the full report is completed. In order to continue to safely operate the Ferric Chloride system it is recommended to proceed with site improvements. The Board of Managers has already approved the replacement of malfunctioning level sensors and datalogger in December 2023.The District has \$265,250 budgeted for these improvements in 2024.

## **Discussion**

District Staff will present recommendations for action in 2024 based on professional expertise included in the report and Board feedback. As multiple system elements are reaching, or have already exceeded, their expected lifetime, Staff recommends proceeding with the necessary upgrades to maintain the Ferric Chloride system.

Staff recommendations that will be outlined and discussed are summarized below. All cost estimates are derived from the System Assessment Interim Report with 20% contingency and will be refined in final

3-19-2024 PLSLWD Board Meeting Materials design. All costs of replacement and design as estimated could be covered by the existing 2024 FeCl Update Budget:

#### Staff Recommended System Updates

Complete Necessary Building Upgrades

- Install Garage Door (~\$18,480)
- Seal rodent access points and old PVC drain in containment area (~\$600)

Driveway Improvements (~\$30,840)

- Driveway needs to be reinforced to avoid damage from deliveries.
- Significant costs can be saved by utilizing the existing easement and drive pattern.

Replace Tank with 3,150 gallon double-walled tank (~\$42,480)

- Tank is aged and does not have a compatible lid.
- A single tank provides streamlined management with fewer components to replace and maintain.
- Replacement requires the design and installation of a garage door opening.

Replace other aged parts:

• Pump and chemical feed tubing system (valves, gauges, pressure switch) (~\$16,320- requires design)

Update safety equipment:

- Personal protective equipment and appropriate storage (~\$2,520)
- Heated, insulated eye wash (~\$2,400)

#### Staff Recommended Next Steps

<u>Action:</u> Staff retains a consultant for final design of garage door, building modifications, aged parts replacement, and driveway improvements. (Design, engineering, legal, permits, contingency estimated at ~\$45,240)

<u>Action:</u> Staff orders and replaces aged equipment that does not require additional professional design services (safety equipment, rodent access sealing). (~\$5,520)

## Recommendation

Staff recommends the Board authorize staff to retain a consultant for FeCl System final design incorporating staff recommended system enhancements.

Staff recommends the Board authorizes staff to order and replace aged FeCl system equipment that does not require additional professional design services.

## **Budget Impact**

The cost associated with proposed activity is covered under budget item 611 Highway 13 Wetland, FeCl System & Desilt, O&M.

3-19-2024 PLSLWD Board Meeting Materials PLSLWD Board Staff Report March 12, 2024



Subject	Alum Treatment Decision Process		
Boad Meeting Date	March 19, 2024	Item No:	4.6
Prepared By	Jeff Anderson, Water Resources Technician Emily Dick, Project Manager		
<b>Attachments</b>	None		
Proposed Action	Motion to approve conducting coring on Spring Lake d	luring fall o	f 2024.

## **Background**

As the District continues to assess water quality, project effectiveness, and follow lake management planning; questions have been raised on the processes of alum treatment decision making. EOR presented a draft technical memo at the January Board Retreat which would be used to inform District decision making regarding alum treatments and the accompanying sediment cores. Board managers suggested edits and clarifications.

## Discussion

Based on Board retreat feedback, staff worked with EOR on edits and will present an updated diagram which outlines the recommended processes of an alum treatment, and where Spring, Upper Prior and Fish lakes currently lie in the timeline, and the indicators to move to the next step in the process. The three District lakes that are discussed have unique distinctions within the decision process. Based on current conditions, a recommendation is only being made for sediment coring on Spring Lake at this time. Sediment coring will allow for an evaluation of the completed 3-phase alum project, provide insights and updates to current conditions and future planning.

## **Recommendation**

Staff recommends board of managers approve action to conduct coring on Spring Lake during fall of 2024.

## **Budget Impact**

The approximate cost of sediment coring will be \$20,000. District staff and EOR will collect the cores to be analyzed at a laboratory. Funds will be used from the 611 Alum Internal Loading Reserve.

3-19-2024 PLSLWD Board Meeting Materials PLSLWD Board Staff Report March 12, 2024



Subject	Resolution 24-378: Amending the 2024 Budget to Reclass Funds from 509- Implementation Fund, Program Salaries and Benefits to 648 – BMP and Easements Inventory & Inspections
	Resolution 24-379: Amending the 2024 Budget 509 Implementation Fund, PLOC Contribution Line Item
	Resolution 24-380: Authorization to Transfer Funds to the JPA/MOA Fund
Board Meeting Date	March 19, 2024 Item No: 4.7
Prepared By	Joni Giese, District Administrator
Attachments	<ol> <li>Resolution 24-378: Amending the 2024 Budget to Reclass Funds from 509- Implementation Fund, Program Salaries and Benefits to 648 – BMP and Easements Inventory &amp; Inspections</li> <li>Resolution 24-379: Amending the 2024 Budget 509 Implementation Fund, PLOC Contribution Line Item</li> <li>Resolution 24-380: Authorization to Transfer Funds to the JPA/MOA Fund</li> </ol>
Proposed Action	Motion to approve:
	Resolution 24-378: Amending the 2024 Budget to Reclass Funds from 509- Implementation Fund, Program Salaries and Benefits to 648 – BMP and Easements Inventory & Inspections
	Resolution 24-379: Amending the 2024 Budget 509 Implementation Fund, PLOC Contribution Line Item
	Resolution 24-380: Authorization to Transfer Funds to the JPA/MOA Fund

## **Background**

The Board of Managers adopted the Prior Lake-Spring Lake Watershed District 2024 budget on December 12, 2024.

## **Discussion**

Within the 2024 budget adopted by the Board of Managers on December 12, 2023, the 509 Implementation Fund, Program Salaries and Benefits budget item included funds to cover the salaries of two seasonal intern positions to perform easement inspections. The District no longer intends to hire seasonal interns in 2024, but rather has contracted with Scott SWCD to perform easement inspections for the District. Resolution 24-378: Amending the 2024 Budget to Reclass Funds from 509-Implementation Fund, Program Salaries and Benefits to 648 – BMP and Easements Inventory & Inspections will reallocate funds from the Salaries and Benefits budget line item to the 648 - BMP and Easements Inventory & Inspections budget item to cover the cost of Scott SWCD easement inspection services.

Budget estimates developed in fall 2023 indicated the 830 PLOC JPA/MOA Operations Fund would have adequate existing funds to cover budgeted 2024 operations and maintenance activities, and therefore, Prior Lake-Spring Lake Watershed District would not need to make a 2024 contribution to the 830 PLOC JPA/MOA Operations Fund. Within the 2024 budget adopted by the Board of Managers on December 12, 2023, the 509 Implementation Fund, PLOC Contribution budget item was set to \$0. Based on revised estimates, the PLOC Project Cooperators on February 16, 2024, approved invoicing \$38,981 to Prior Lake-Spring Lake Watershed District to cover the District's portion of the

#### 3-19-2024 PLSLWD Board Meeting Materials

budgeted 2024 Operations and Maintenance Activities in the 830 PLOC JPA/MOA Operations Fund. Resolution 24-379: Amending the 2024 Budget 509 Implementation Fund, PLOC Contribution Line Item will increase the 509 Implementation Fund, PLOC Contribution line item to cover the PLOC Cooperator's invoice using 509 Implementation Fund, budget reserve.

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The Memorandum of Agreement for the Use, Operation and Maintenance of the Prior Lake Outlet Channel and Outlet Structure (MOA) specifies a cost-share allocation approach that allocates annual operations and maintenance costs among the four Project Cooperators. The Prior Lake-Spring Lake Watershed District's portion of the 2024 budgeted costs is \$38,981. Resolution 24-380 provides authorization to transfer funds to the JPA/MOA Group of Funds to fulfill the District's obligation to the JPA/MOA.

#### **Recommendation**

Staff recommends the Board of Managers approve:

Resolution 24-378: Amending the 2024 Budget to Reclass Funds from 509-Implementation Fund, Program Salaries and Benefits to 648 – BMP and Easements Inventory & Inspections

Resolution 24-379: Amending the 2024 Budget 509 Implementation Fund, PLOC Contribution Line Item

Resolution 24-380: Authorization to Transfer Funds to the JPA/MOA Fund



## **Resolution 24-378**

Amending the 2024 Budget to Reclass Funds from 509-Implementation Fund, Program Salaries and Benefits to 648 – BMP and Easement Inventory & Inspections

Motion By:\_\_\_\_\_ Second By:\_\_\_\_\_

WHEREAS, Within the 2024 budget adopted by the Board of Managers on December 12, 2023, the 509 Implementation Fund, Program Salaries and Benefits budget item included funds to cover the salaries and benefits of two seasonal intern position; AND

WHEREAS, the Board of Managers on February 20, 2024, approved the District entering into professional services agreement with Scott SCWD that included fees in the amount of \$5,000 to assist the District with easement inspection activities; AND

WHEREAS, the District does not intend to hire summer interns in 2024, but rather have Scott SWCD perform easement inspection activities for the District and the fees associated with Scott SWCD contract are less than were budgeted for the seasonal intern positions in the 2024 budget;

**THEREFORE, BE IT RESOLVED** the 509 Implementation Fund, Program Salaries and Benefits budget line item be reduced by \$5,000, resulting in an amended 509 Implementation Fund, Program Salaries and Benefits budget line item of \$485,500, and correspondingly, the 648 -BMP and Easement Inventory & Inspections budget line item be increased by \$5,000, resulting in an amended 648 – BMP and Easement Inventory & Inspections budget line item of \$32,000.

The question was called on the adoption of the Resolution and there were <u>yeas and</u> nays as follows:

	Yea	<u>Nay</u>	<u>Abstain</u>	<u>Absent</u>
Boyles				
Burnett				
Loney				
Morkeberg				
Tofanelli				

Upon vote, the chair declared the resolution adopted.

It is hereby certified that the Board of the Prior Lake-Spring Lake Watershed District adopted this Resolution at a duly convened meeting of the Board held on the 19th day of March 2024, and that such Resolution is in full force and effect on this date, and that such Resolution has not been modified, amended, or rescinded since its adoption.

Dated: March 19, 2024



## **Resolution 24-379**

Amending the 2024 Budget 509 Implementation Fund, PLOC Contribution Line Item

Motion By:\_\_\_\_\_ Second By:\_\_\_\_\_

WHEREAS, Budget estimates developed in fall 2023 indicated the 830 PLOC JPA/MOA Operations Fund would have adequate existing funds to cover budgeted 2024 operations and maintenance activities, and therefore, Prior Lake-Spring Lake Watershed District would not need to make a 2024 contribution to the 830 PLOC JPA/MOA Operations Fund; AND

**WHEREAS,** Within the 2024 budget adopted by the Board of Managers on December 12, 2023, the 509 Implementation Fund, PLOC Contribution budget item was set to \$0; AND

WHEREAS, based on revised estimates, the PLOC Project Cooperators on February 16, 2024, approved invoicing \$38,981 to Prior Lake-Spring Lake Watershed District to cover the District's portion of the budgeted 2024 Operations and Maintenance Activities in the 830 PLOC JPA/MOA Operations Fund;

**THEREFORE, BE IT RESOLVED** the 509 Implementation Fund, PLOC Contribution budget item be increased by \$38,981. The budget amendment will be funded via the 509 Implementation Fund, Budget Reserve.

The question was called on the adoption of the Resolution and there were \_\_\_\_yeas and \_\_\_ nays as follows:

	Yea	<u>Nay</u>	<u>Abstain</u>	<u>Absent</u>
Boyles				
Burnett				
Loney				
Morkeberg				
Tofanelli				

Upon vote, the chair declared the resolution adopted.

It is hereby certified that the Board of the Prior Lake-Spring Lake Watershed District adopted this Resolution at a duly convened meeting of the Board held on the 19th day of March 2024, and that such Resolution is in full force and effect on this date, and that such Resolution has not been modified, amended, or rescinded since its adoption.

Dated: March 19, 2024

Ben Burnett, Secretary



## **Resolution 24-380**

Authorization to Transfer Funds to PLOC JPA/MOA Group of Funds

Motion By:\_\_\_\_\_ Second By:\_\_\_\_\_

**WHEREAS,** A Memorandum of Agreement for the Use, Operation and Maintenance of the Prior Lake Outlet Channel and Outlet Structure was approved by the "Project Cooperators" comprised of Prior Lake-Spring Lake Watershed District, the City of Prior Lake, the City of Shakopee, and the Shakopee Mdewakanton Sioux Community in May 2019; AND

**WHEREAS,** The Memorandum of Agreement (MOA) specifies a cost-share allocation approach that allocates annual operations and maintenance costs among the four Project Cooperators; AND

**WHEREAS,** The Prior Lake-Spring Lake Watershed District's portion of the 2024 budgeted costs is \$38,981;

**THEREFORE, BE IT RESOLVED,** the net amount of \$38,981 is authorized to be transferred from the District's Implementation Fund to the JPA/MOA Group of Funds to fulfill the District's obligation to the JPA/MOA.

The question was called on the adoption of the Resolution and there were \_\_\_\_yeas and \_\_\_ nays as follows:

	Yea	<u>Nay</u>	<u>Abstain</u>	<u>Absent</u>
Boyles				
Burnett				
Loney				
Morkeberg				
Tofanelli				

Upon vote, the chair declared the resolution adopted.

It is hereby certified that the Board of the Prior Lake-Spring Lake Watershed District adopted this Resolution at a duly convened meeting of the Board held on the 19th day of March 2024, and that such Resolution is in full force and effect on this date, and that such Resolution has not been modified, amended, or rescinded since its adoption.

Ben Burnett, Secretary

Dated: March 19, 2024

#### PRIOR LAKE SPRING LAKE WATERSHED DISTRICT Financial Report - Cash Basis January 1, 2024 Through February 29, 2024

	04	idaly i,	2024 111700	9111	cordary 2	, 201				**Ret	lects bills	paid through Febr	uary 29, 2024					
			2024 Source of Funds								2024 Actual Results							
Program Element		:	2023 Levy		Budget Reserve		Grant ids/Fees	2023 Budget		Febru	ary 2024	YTD	YTD % of Budget					
	General Fund (Administration)																	
	Revenues																	
	Property Taxes	\$	252,000	\$	-	\$	-	\$ 252,	000	\$	-	\$-	0%					
	Grants		-		-		-		-		-	-	#DIV/0!					
	Interest		-		-		9,000	9,0	000		-	-	0%					
	Other		-		-		-		-		-	-	#DIV/0!					
	Total Revenues	\$	252,000	\$	-	\$	9,000	\$ 261,	000		-	-	0%					
	Expenditures																	
	Administrative Salaries and Benefits	\$	145,000	\$		\$	-	\$ 145,0	000		13,055	21,678	15%					
	703 · Telephone, Internet & IT Support		7,000		-		9,000	16,0	000		1,066	2,232	14%					
	702 - Rent		27,500		-		-	27,5	600		2,387	7,161	26%					
	706 · Office Supplies		8,000		-		-	8,0	000		174	214	3%					
	709 · Insurance and Bonds		13,000		-		-	13,0	000		-		0%					
	670 · Accounting		33,500		-		-	33,5			-		0%					
	671 · Audit		10,500		-		-	10,5	600		-		0%					
	903 · Fees, Dues, and Subscriptions		1,500		-		-	1,5	00		-	-	0%					
	660 · Legal (not for projects)		6,000		-		-	6,0	000		867	867	14%					
	General Fund (Administration) Expenditures	\$	252,000	\$	-	\$	9,000	\$ 261,0	00		17,549	32,151	12%					
	Net Change in General Fund	-+	-		-		-	-		-	(17,549)	(32,151)						

#### PRIOR LAKE SPRING LAKE WATERSHED DISTRICT

Financial Report - Cash Basis

January 1, 2024 Through February 29, 2024

										**Re	flects bills	paid throu	ugh Febru	ary 29, 202			
				20	24 Sourc	e o	f Funds			2024 Actual Results							
Program							i i unus		2023		201		arresu	YTD % o			
Element		202	3 Levy		Budget Reserve	Fu	nds/Fees		udget	Febru	uary 2024	YT	D	Budget			
Liement	Implementation Fund	202	O LOTY		1000110		100/1 000		augot	TCDIT	201 y 2024		0	Duuget			
	Revenues																
	Property Taxes	\$ 1	,697,000	\$	-	\$		\$ :	1,697,000				-	0%			
	Grants/Fees	Ŷ.	-	Ŷ		Ŷ	34,000	Ý.	34,000		45,935		45.935	135%			
	Interest		-				61,000		61,000		7,661		16,126	26%			
	Sales/Other		-								-		500	#DIV/0			
	Budget Reserves		-	\$	468,500		-		468,500		-		-	0%			
	Total Revenues	\$ 1	,697,000	\$	468,500	\$	95,000	\$ 2	2,260,500		53,596		62,561	3%			
				-		-											
	Expenditures																
	Program Salaries and Benefits (not JPA/MOA)	\$	490,500	\$	-	\$	-	\$	490,500		31,059	'	68,181	14%			
												1					
Water Qual	611 Farmer-led Council	_	55,000		-		-		55,000		19		63	0%			
Water Qual	611 Cost-Share Incentives	_	68,000		-		-	-	68,000		-			0%			
Water Qual	611 Highway 13 Wetland, FeCl system & Desilt, O&M	-	244,000				61,000		305,000		84		84	0%			
Water Qual	611 Carp Management		96,500		-		-		96,500		260		260	0%			
Water Qual	611 Spring Lake Demonstration Project Maintenance		1,200				-		1,200					0%			
Water Qual	611 Alum Internal Loading Reserve		230,000		-		-		230,000					0%			
Water Qual	611 Fish Stocking		2,000		-		-		2,000					0%			
Water Qual	637 District Monitoring Program		84,500		-		-		84,500		3,790		3,795	4%			
Water Qual	626 Planning and Program Development		27,500		-		-		27,500		885		8,658	31%			
Water Qual	626 LGU Plan Review		-		4,000		-		4,000					0%			
Water Qual	626 Engineering not for programs		20,000				-		20,000		1,924		1,924	10%			
Water Qual	648 Permitting and Compliance		57,000				5,000		62,000		312		312	1%			
Water Qual	648 Update MOAs with cities & county		-		5,000		-		5,000		-			0%			
Water Qual	648 BMP and easement inventory & inspections	_	25,000		-		2,000		27,000		1,018		1,018	4%			
Water Qual	626 Upper Watershed Projects	_	194,000		442,000		-		636,000		5,262		5,269	1%			
Water Qual	626 District Plan Update		-		2,500				2,500		-			0%			
	WQ TOTAL	Ş 1,	104,700	Ş	453,500	\$	68,000	Ş 1,	626,200		13,554		21,382	1%			
Water Storage	550 District-wide Hydraulic & Hydrologic model	\$	5,000	Ş	-	\$	-	\$	5,000		-		-	0%			
Water Storage	626 Comprehensive Wetland Plan Update		35,500						35,500		-		-	0%			
	WS TOTAL	\$	40,500	\$	-	\$	-	\$	40,500		-		-	0%			
AIS	611 Aquatic Vegetation Mgmt		2,000		-	\$	12,000	\$	14,000		-			0%			
AIS	637 Automated Vegetation Monitoring (BioBase)	\$	1,300		-		-		1,300		-			0%			
AIS	637 Aquatic Vegetation Surveys		15,500		-		-		15,500					0%			
AIS	637 Boat inspections on Spring, Upper & Lower Prior	_	19,000		-		15,000		34,000		-			0%			
	AIS TOTAL	_	37,800		-		27,000		64,800		-		-	0%			
		-		4		4						1					
Ed & Out	652 Education and Outreach Program	\$	23,500	\$	15,000	_	-	\$	38,500		2,340		2,340	6%			
	E&O TOTAL	\$	23,500	\$	15,000	\$	-	\$	38,500	\$	2,340	Ş	2,340	6%			
				4								1					
	PLOC Contribution	_		\$	-	\$	-	\$	-		-			#DIV/0			
	Debt Payment Reserve		07.000	<i>.</i>	-	<i>.</i>	-	ć c	-		-		-	#DIV/0			
	Total Implementation Fund	\$ 1,	697,000	\$	468,500	\$	95,000	Ş 2,	260,500		46,953		91,904	4%			
	Net Change in Fund Balance Implementation Fund		-		-		-		-		6,643		(29,342)				
	Crent Funda (Face Antisipated							2025	Durdant								
	Grant Funds/Fees Anticipated	_				4	70.000		Budget								
	Interest Income (general fund & Implementation fund)	_				\$	70,000	\$	70,000								
	648 New Easement Acquisition Fees						5,000		5,000								
Water Qual	648 Easement amendment/violations fees						2,000		2,000								
AIS	611 Aquatic Vegetation Mgmt. (Scott County)						27,000		27,000								
	Total Grant Funds/Fees Anticipated					Ś	104,000	\$	104,000								

Budget Summary			Budget				Levy Increase	
	Fund Sources/Fund Expenditures	2024 Levy	Reserves	Grants/Rev	Budget Total	2023 Levy	Levy increase	% Increase
	General Fund	\$ 252,000		\$ 9,000	\$ 261,000	249,200		
	Implementation Fund	\$ 1,697,000	\$ 468,500	\$ 95,000	\$ 2,260,500	1,670,736	_	
	Total Fund Sources	\$ 1,949,000	\$ 468,500	\$ 104,000	\$ 2,521,500	1,919,936	\$ 29,064	1.5%
	Expenditures							
	General Fund				261,000			
	Implementation Fund				2,260,500			
	Total Expenditures				2,521,500			

Fund Balance Comr	nitments/Assingments	2024 (Budget)									
		1	2-31-23 Bal		Additions	R	eductions		12-31-24 Bal		
	611 Alum Internal Loading Reserve	\$	700,000	\$	230,000	\$	-	\$	930,000		
	626 Upper Watershed Projects	\$	442,000	\$	194,000	\$	(636,000)	\$	-		
	Debt Payment Reserve	\$	180,000	\$	-	\$	-	\$	180,000		
		\$	1,322,000	\$	424,000	\$	(636,000)	\$	1,110,000		

PLSLWD Monthly Treasurers Report Account balances as of 02/29/24	Treasurer: Christi	ian Morkeberg
4M Fund (Checking Account)	\$	1,775,593
4M Fixed Income	\$	1,660,600
Total Uncleared Transactions	\$	-
SUBTOTAL	\$	3,436,193
RESTRICTED/COMMITTED FUNDS		
Restricted - Permit Deposits, etc. (350 & 360)	\$	127,222
Restricted - PLOC Contingency Reserve (850)	\$	260,000
Restricted - PLOC O&M Funds (830)	\$	190,170
Committed - Alum Internal Loading Reserve	\$	700,000
Committed - Upper Watershed Fund Balance	\$	442,000
Committed - Debt Payment	\$	180,000
TOTAL DISTRICT/PLOC RESTRICTED OBLIGATIONS	\$	1,899,392

Available cash at end of January 2024

60.0% of 2024 Budget

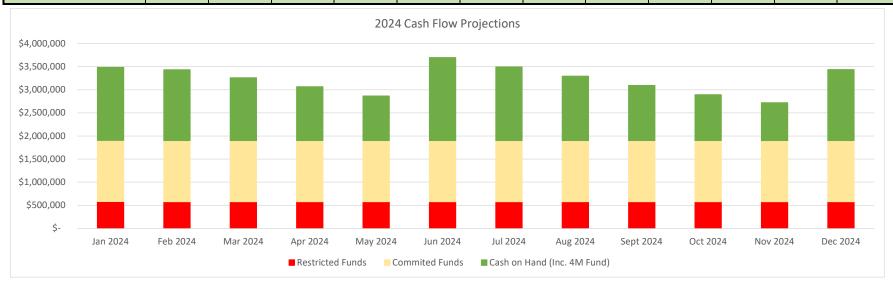
\$

1,536,802

Draft amounts subject to change during audit preparation

## **Cash Flow Chart**

Month (End of Month)	Jan 2024	Feb 2024	Mar 2024	Apr 2024	May 2024	Jun 2024	Jul 2024	Aug 2024	Sept 2024	Oct 2024	Nov 2024	Dec 2024
Restricted Funds	\$ 578,864	\$ 577,392	\$ 577,392	\$ 577,392	\$ 577,392	\$ 577,392	\$ 577,392	\$ 577,392	\$ 577,392	\$ 577,392	\$ 577,392	\$ 577,392
Commited Funds	\$ 1,322,000	\$ 1,322,000	\$ 1,322,000	\$ 1,322,000	\$ 1,322,000	\$ 1,322,000	\$ 1,322,000	\$ 1,322,000	\$ 1,322,000	\$ 1,322,000	\$ 1,322,000	\$ 1,322,000
Cash on Hand (Inc. 4M Fund)	\$ 1,585,239	\$ 1,536,801	\$ 1,363,750	\$ 1,168,180	\$ 967,424	\$ 1,799,637	\$ 1,598,880	\$ 1,398,124	\$ 1,197,366	\$ 996,608	\$ 822,852	\$ 1,538,125
Total Cash on Hand	\$ 3,486,103	\$ 3,436,193	\$ 3,263,142	\$ 3,067,572	\$ 2,866,816	\$ 3,699,029	\$ 3,498,272	\$ 3,297,516	\$ 3,096,758	\$ 2,896,000	\$ 2,722,244	\$ 3,437,517



Draft Amounts subject to chanbge during audit preparation

Starting cash on hand																Ca	ish Minimur	n Ba	alance Alert	\$	150,000		
	Jan 2024	Fe	eb 2024	Μ	ar 2024	Ap	r 2024	Ma	y 2024	J	un 2024	Jul 2024	,	Aug 2024	Sept 2024	C	Oct 2024	ļ	Nov 2024	C	Dec 2024		Total
Cash on hand (beginning of month)	\$ 3,659,456	\$	3,486,103	\$ 3	3,436,193	\$3	,263,142	\$3	,067,572	\$	2,866,816	\$ 3,699,029	\$	3,498,272	\$ 3,297,516	\$	3,096,758	\$	2,896,000	\$	2,722,244		Total
Cash Receipts																							
Property Tax Levy	\$ 7,050	\$	-	\$	-	\$	-	\$	-	\$	1,032,970	\$ -	\$	-	\$ -	\$	-	\$	-	\$	916,030	\$ 1	L,956,050
BWSR WBIF	-		41,403		-		-		-		-	-		-	-		-		-		-		41,403
BWSR BWF - Lower MN River South											-	-		-	-		-		-				-
DNR Flood Hazard Mitigation Grant	-		-		-		-		-		-			-	-		-		-		-		-
Grants - Other	500		4,000		-		-		-		-	-		-	-		-		27,000		-		31,500
PLOC Contributions	-		-		43,722		-		-		-	-		-	-		-		-		-		43,722
Interest Income	8,465		7,661		5,833		5,833		5,833		5,833	5,833		5,833	5,833		5,833		5,833		5,833		74,459
Other Receipts	-		532		-		-		875		875	875		875	875		875		875		875		7,532
Total Cash Reciepts	\$ 16,015	\$	53,596	\$	49,555	\$	5,833	\$	6,708	\$	1,039,678	\$ 6,708	\$	6,708	\$ 6,708	\$	6,708	\$	33,708	\$	922,738	\$ 2	2,154,666
Total Cash Available	\$ 3,675,471	\$	3,539,699	\$ 3	3,485,748	\$ 3	,268,975	\$ 3	,074,281	\$	3,906,494	\$ 3,705,737	\$	3,504,981	\$ 3,304,224	\$	3,103,466	\$	2,929,709	\$	3,644,982		
Cash Paid Out																							
Salaries and Per Diems	\$ 45,745	\$	44,115	\$	52,958	\$	52,958	\$	52,958	\$	52,958	\$ 52,958	\$	52,958	\$ 52,958	\$	52,958	\$	52,958	\$	52,958	\$	619,443
Office Expense, Audit, Accounting	13,490		6,217		9,667		9,667		9,667		9,667	9,667		9,667	9,667		9,667		9,667		9,667		116,374
PLSLWSD Program Costs	64,371		48,137		115,000		132,778		132,778		132,778	132,778		132,778	132,778		132,778		132,777		132,777	1	1,422,508
PLOC Contribution					38,981				-		-												38,981
PLOC Operations	3,565		5,037		6,000		6,000		12,062		12,062	12,062		12,062	12,063		12,063		12,063		12,063		117,102
Debt Service																							
Other Disbursements	\$ 62,197																					\$	62,197
Subtotal	\$ 189,368	\$	103,506	\$	222,606	\$	201,403	\$	207,465	\$	207,465	\$ 207,465	\$	207,465	\$ 207,466	\$	207,466	\$	207,465	\$	207,465	\$ 2	2,314,408
Cash on Hand (end of month)	\$ 3,486,103	\$	3,436,193	\$ 3	3,263,142	\$3	,067,572	\$2	,866,816	\$	3,699,029	\$ 3,498,272	\$	3,297,516	\$ 3,096,758	\$	2,896,000	\$	2,722,244	\$	3,437,517		

#### PLSLWD Cost Analysis Year to Date 02/29/2024

	Year to Da	te 02/29/2024
	Amount	% of total
Program staff costs	68,181	55.0%
Consultants		
EOR	11,895	
Blue Water Science	-	
Three Rivers Park District	-	
WSB & Associates	-	
Scott Soil and Water Cons.	-	
RMB Environmental Labs	78	
Stantec Consulting Services	-	
Waterfront Resorations	-	_
	11,973	9.7%
Hard costs, exclusive of prog staff & consultant costs Permitting Revenue	11,749  	9.5%
Overhead and Administration		
Staff costs	21,678	
Audit/Accounting/Legal	867	
Other admin overhead	7,874	
IT Support (Raymark)	1,732	
	32,151	25.9%
Bonds payments		0.0%
PLOC Contribution		0.0%
Expenses excluding PLOC expenses per manager report	124,055	= 100.0%

No assurance is provided on this statement.

This statement omits required disclosures.

This statement is prepared on the cash basis of accounting.



WORKSHOP MEETING MINUTES Tuesday, February 20, 2024 Prior Lake City Hall 4:00 PM

<u>Members Present:</u>	Bruce Loney, Frank Boyles, Ben Burnett, Christian Morkeberg, Matt Tofanelli
Staff & Consultants Present:	Joni Giese, District Administrator Emily Dick, Water Resources Project Manager Jeff Anderson, Water Resources Coordinator Zach Nagel, Water Resources Technician Carl Almer, District Engineer, EOR
Others Present:	Jim Fitzsimmons, Scott SWCD Troy Kuphal, Scott SWCD Curtis Witt, Citizen Advisory Committee Jody Brennan- Scott County Commissioners Anne Sawyer- Board of Soil and Water Resources Wes Steffens- Spring Lake Township

The meeting was called to order at 4:00 PM.

## Water Resources Management Plan (WRMP) Proposed Amendment

District Project Manager Emily Dick gave an overview of proposed plan amendments. The proposed edits were identified as "additions", "deletions", "clarifications", and "changes". The suggested amendments are largely driven by grant eligibility and competitiveness. Several large funding sources require citation of projects in the WRMP in order to be eligible. Staff also suggested several words which would be helpful to grant applications, but which would not change the intent or extent of existing language. For example, groundwater protection is also inherently drinking water protection. There were two goals that are proposed to be amended to more realistic numbers: carp population from 30 kg/ha to 100 kg/ha and reporting from 12 articles a year to seven. Overall Board Managers were favorable to update in order to increase grant eligibility and competitiveness. The amendments were characterized as administrative updates, to remain grant-relevant, and not expected to be controversial.

## WRMP Amendment Process and BWSR Update

Board Conservationist Anne Sawyer from Board of Water and Soil Resources presented the typical WRMP plan amendment process. Anne presented the two pathways of "minor" or "regular (major)." In either pathway, public comment periods are available to solicit any concerns with the plan amendment. Typically, a major amendment represents substantive changes to the intent and priorities of the plan. A minor amendment is more often updates to include projects or best-known assumptions which do not shift overall District priorities. Based on the discussion, it seems that the District's amendment may fit in the "minor" process.

## 2024 AIS Prevention Approach

District Technician Zach Nagel presented multiple options of Aquatic Invasive Species (AIS) prevention for Board consideration. Historically, the District has primarily supported boating inspection as AIS prevention. A new option, a retractable tool stand to aid in vegetation removal, called CD3 was discussed. CD3 had two models with differing functionality and price for the District to consider. Overall Board Managers were interested in understanding the longevity of the CD3 devices. Managers seemed to be favorable to maintaining boat inspections but considered utilizing some capital funds to purchase a CD3 unit as a test. The Managers asked for more information on AIS in different lakes, and the goals of AIS prevention using these tools. A decision will need to be made in March in order to get boat inspection contracting arranged appropriately.

## Ferric Chloride Interim Report

District Project Manager Emily Dick gave an overview of the interim report on the Ferric Chloride System Assessment. The Assessment's completion was delayed into 2024 due to the low water level in 2023. In order to keep deliverables moving forward, an interim report with other Assessment task elements was produced. District Staff will use the interim report in order to inform recommendations to the Board on system component updates. Staff will present recommended updates at the March Board meeting. Board managers expressed interest in maintaining the system and replacing any damaged components right away to be ready for the 2024 season.

## Manager Per Diem Guidance

Postponed due to time.

## Liaison Updates

## **District Partner Reports**

- Spring Lake Association- Developing plans for 2024 including 2 newsletters, 12 events, boating safety contest, and vegetation surveys. Received a grant from DNR for \$2,250 for plant treatment. Coordinating with PLSLWD on the dive the lake event. Coordinating with DNR on the floating dock, boating etiquette signage, and buoy channel at new boat ramp. Spring Lake Regional park is expected to open this year with a kickoff event. Would like to distribute boater etiquette handout at boat inspections if possible.
- *Scott County* St. Catherine's Lake park is having a revamp, as well as new shower and bathroom at Cleary Lake.

- CAC- Approved guiding document, started a shared google drive, discussed mentorship, and had officer elections.
- Scott SWCD- Purchased a drone for surveying. Heard from Vermillion Watershed District.
- Lower Minnesota Watershed District- Had a public hearing. Mosquito control report.
- Sand Creek Township- None.
- *Spring Lake Township* Discussion on Raymond Park.
- Scott WMO- New logo and commissioners.
- Shakopee- None.
- SCALE- Legislative priorities discussion.
- Scott County- None.
- Metro Watersheds- None.
- *PLOC Cooperators* Discussed funding opportunities for the pipelining and updating operations to preempt flood conditions.
- Farmer-Led Council- None.

## Administrator Report

- MN Watersheds is hosting legislative briefing and day at the capital March 6-7, priorities are on the website.
- The District Administrator will walk through MN Watersheds expectations for Board Managers at a future date.
- In the preparation of PLOC financial statements, it was realized that contributions did not account for a midyear budget amendment for the WSB contract to prepare pipelining documents. Funds for this will be transferred retroactively.
- New legal interpretation on Board Manager appointment has been distributed by MN Watersheds.
- SCALE water committee met to discuss WBIF funding countywide, and it was decided to be the first convening meeting. By convening together, planning areas with extra funds can share with other entities in the County.
- Staff is recommending no interns in 2024, due to no workload expected. Easements historically represented a large portion of intern work and have been significantly streamlined and moved over to SWCD which accomplishes the work for less.
- Carp were aggregated last week but ice was not favorable.
- District Administrator's Annual review will be at the next workshop.
- District Administrator will be out of office Feb 29-Mar 7, Emily Dick will be acting administrator during that time.

Respectfully Submitted, Emily Dick 2/23/2024



## REGULAR MEETING MINUTES Tuesday, February 20, 2023 Prior Lake City Hall 6:00 PM

Members Present:	Bruce Loney, Christian Morkeberg, Frank Boyles, Matt Tofanelli, Ben Burnett
Staff & Consultants Present:	Joni Giese, District Administrator Jeff Anderson, Water Resources Coordinator
	Emily Dick, Water Resources Project Manager Danielle Studer, Water Resources Specialist Carl Almer, EOR, District Engineer
Others Present:	Jody Brennan, Scott County Commissioner Wesley Steffen, Spring Lake Association Curtis Witt, CAC rep Anne Sawyer, BWSR Troy Kuphal and Jim Fitzsimmons, SWCD

## • 1.0 CALL TO ORDER & PLEDGE OF ALLEGIANCE:

The meeting was called to order by President Loney at 6:07 pm. Everyone present recited the Pledge of Allegiance.

## • 2.0 PUBLIC COMMENT

• None

## • 3.0 APPROVAL OF AGENDA

• Motion to approve agenda by Manager Boyles; 2<sup>nd</sup> by Manager Burnett; passed 5-0.

## • 4.0 OTHER OLD/NEW BUSINESS

## 4.1 Programs & Projects Update

- Staff provided a report of its many activities the preceding month, and some upcoming events.
- MPCA Lower Minnesota River Watershed Restoration and Protection Strategies (WRAPS) Update planning explanation by Jeff Anderson
- Carp made a good aggregation, but the ice was not strong enough for seine equipment
- PLOC funding via the state bonding bill will learn if we are successful in May

- Troy Kuphal presented a report of partnership activities from 2023.
- Very good work by all!

## 4.3 Scott SWCD 2024 Professional Services Agreement and Cost-share Docket

• Motion to approve by Manager Tofanelli; 2<sup>nd</sup> by Manager Morkeberg; Passed 5-0.

## 4.4 2024 Education and Outreach Plan

- Education and outreach activities needed to meet MS4 requirements
- Motion to approve by Manager Burnett; 2<sup>nd</sup> by Manager Tofanelli; Passed 5-0.

## 4.5 Spring West Outlet Replacement

• Motion to approve by Manager Boyles; 2<sup>nd</sup> by Manager Burnett; Passed 5-0.

## • 5.0 TREASURER'S REPORT

## **5.1 Monthly Financial Reports**

- Treasurer Morkeberg summarized the financial information contained in the packet including:
  - Financial Report
  - Treasurers Report
  - Cash Flow Projections
  - Cost Analysis

## 5.2 Quarterly Report of Investment Activities

• Administrator Giese presented an update (contained in the packet)

## • 6.0 CONSENT AGENDA

- 6.1 Meeting Minutes January 16, 2024, Board Workshop
- 6.2 Meeting Minutes January 16, 2024, Board Meeting
- 6.3 Special Meeting Minutes January 27, 2024, Board Retreat
- 6.4 Meeting Minutes December 7, 2023, CAC Meeting
- 6.5 Claims List and Bank Purchase Card Expenditures Summary
- 6.6 Jeffers Pond 10th Addition Development Agreement
- 6.7 Buck Stream Stabilization: Phase 2 Work Order

## <u>6.8 – REMOVED – see below</u>

6.9 CAC 2024 Operating Guidelines

6.10 Upper Watershed Work Order

6.11 Three Rivers Park District Monitoring Agreement

6.12 Schumann 3rd Addition Development Agreement

# Motion to approve consent agenda by Manager Tofanelli; 2<sup>nd</sup> by Manager Burnett; Passed 5-0.

6.8 Resolution 24-377: PLOC MOA Emergency Fund Interest Transfer

• Administrator Giese explained the circumstances leading to this transaction (see Memo contained in packet)

Motion to approve Resolution 24-377 by Manager Tofanelli; 2nd by Manager Morkeberg; Passed 5-0.

# • 7.0 UPCOMING MEETING/EVENT SCHEDULE:

- Board of Managers Workshop, Tuesday, March 19, 2024, 4:00 pm (Prior Lake City Hall Parkview Conference Room)
- Board of Managers Meeting, Tuesday, March 19, 2024, 6:00 pm (Prior Lake City Hall Council Chambers)
- Farmer-led Council: Lake Friendly Farm Award Banquet, Wednesday, March 20, 2024, Noon (Prior Lake VFW)
- CAC Meeting, Thursday, March 28, 2024, 6:00 pm (Prior Lake City Hall Wagon Bridge Conference Room)

# • 8.0 ADJOURNMENT

- Motion to adjourn by Manager Morkeberg; 2<sup>nd</sup> by Manager Burnett; Passed 5-0.
- Meeting adjourned at 7:45 pm

Respectfully Submitted, Ben Burnett, PLSLWD Secretary, 3/11/24 CLA - accountant

### 3-19-2024 PLSLWD Board Meeting Materials Prior Lake Spring Lake Watershed District Claims list for Invoice Payments due for the prior month

Managers will consider approving this claims list - Staff payroll and benefits, Manager per diems, and Health insurance premiums have already been paid via ACH transfers. After the managers vote, two Managers will approve individual payments via BILL within three days of the meeting for approved claims. Then, staff will release payment via BILL to the claims list parties.

Vendor	Invoice Link	Description	Amount
1. Watershed District Projects (exclu	uding staff p	ayroll)	
EOR	<u>×</u>	General Engineering	\$ 1,352.00
		Upper Watershed Projects Support	\$ 466.50
		Buck Stream Stabilization	\$ 3,014.00
		District Monitoring Program	\$ 936.00
		Permitting	\$ 3,311.00
Minnesota Pollution Control Agency	<u>×</u>	Annual Dues	\$ 1,230.00
Smith Partners	X	Legal Services	\$ 376.60
Advantage Signs	<u>×</u>	Easement signs	\$ 1,995.00
		Subtotal	\$ 12,681.10
2. Outlet Channel - JPA/MOA (exclu	ding staff n	avroll)	
CLA	and arou be	PLOC Accounting	\$ 2,762.00
EOR		2024 PLOC Engineering Assistance	\$ 468.00
		PLOC Low Gate Benefit Analysis	\$ 156.00
		Subtotal	
		Sublota	\$ 5,580.00
3. Payroll, Office and Overhead			
ADP Manager Per Diems			\$ 534.67
ADP Staff Payroll			\$ 20,122.02
ADP Taxes & Benefits			\$ 17,698.37
NCPERS	X	March and April Life Insurance Premiums	\$ 192.00
Reliance Standard	X	March LTD and STD Premiums	\$ 852.04
HealthPartners	<u>×</u>	Health Insurance Premiums	\$ 7,266.49
City of Prior Lake	X	Rent (April 2024)	\$ 2,387.03
CLA	x	Monthly Accounting (Jan & Feb)	\$ 4,617.00
		Technology and Client Support Fee	\$ 407.00
		Monthly Payroll processing	\$ 376.00
		Prep and processing of 1099s	\$ 385.00
		Bill.com fees - January & February	\$ 122.00
Smith Partners	X	Legal Services	\$ 295.90
Rymark	X	March Billing (10 workstations)	\$ 828.25
Prior Lake Chamber of Commerce		Feb Claims list - returned check (pd in March with credit card)	\$ (120.00
Metro Sales	X	Contract base rate	\$ 155.00
VISA		February Billing	\$ 970.00
US Bank		February Billing	\$ 841.46
		Subtotal	\$ 57,930.23
		TOTAL	\$ 73,997.33

# Prior Lake-Spring Lake Watershed District VISA Transactions February 2024

Trans Date	Merchant Name	Amount	Receipt Link	Staff Approval	Class	Customer	Expense
2/1/2024	Intuit - Quickbooks Online	\$970.00	x	Patty Dronen	405 General Fund		903 Dues/Fees/Subscriptions
	TOTAL	\$970.00					

#### Prior Lake-Spring Lake Watershed District US Bank Transactions through 2/25/24

Trans Date	Merchant Name	A	Amount	Receipt Link	Staff Approval	Class	Customer	Expense	Description
1/26/2024 Irono	nclad Storage	\$	260.00	×	Jeff Anderson	611 Operations & Maintenance	Fish Mgmt - Equipment, Storage & Maintenance	876 Field Equipment & Maintenance	Equipment storage
1/25/2024 Icebe	berg	\$	(65.00)	x	Patty Dronen	626 Planning	Planning and Program Development	703 Telephone, Internet & IT support	Refund for previous month double charge
1/27/2024 Edel	lweiss Bakery	\$	39.33	×	Joni Giese	626 Planning	Planning and Program Development	902 Meals and Lodging	Board Manager Special Meeting
1/28/2024 Ama	azon	\$	48.60	×	Patty Dronen	405 General Fund		706 Office Supplies	Clock and Batteries
1/29/2024 Ama	azon	\$	13.29	×	Patty Dronen	405 General Fund		706 Office Supplies	Presentation Clicker
2/1/2024 Icebe	berg	\$	70.00	×	Patty Dronen	626 Planning	Planning and Program Development	903 Dues/Fees/Subscriptions	Monthly hosting fee
2/9/2024 Micr	rosoft	\$	4.99	×	Patty Dronen	626 Planning	Planning and Program Development	903 Dues/Fees/Subscriptions	Software
2/4/2024 Veriz	izon	\$	28.08	×	Jeff Anderson	648 Regulation	Easement Inspections & violations	876 Field Equipment & Maintenance	Cell data
2/16/2024 Dava	annis	\$	70.82	x	Patty Dronen	PLOC 831	PLOC Administrative Expenses	902 Meals and Lodging	PLOC Cooperators meal
2/16/2024 Eilee	en's Colossal Cookies	\$	8.00	×	Patty Dronen	PLOC 831	PLOC Administrative Expenses	902 Meals and Lodging	PLOC Cooperators meal
2/20/2024 PayP	Pal-Canva	\$	14.99	×	Patty Dronen	626 Planning	Planning and Program Development	903 Dues/Fees/Subscriptions	software
2/20/2024 Jimm	myJohns	\$	97.79	×	Patty Dronen	626 Planning	Planning and Program Development	902 Meals and Lodging	Board Manager meal
2/23/2024 Adob	be	\$	111.57	<u>×</u>	Patty Dronen	626 Planning	Planning and Program Development	903 Dues/Fees/Subscriptions	Software
2/23/2024 Ama	azon Prime Membership	\$	139.00	×	Patty Dronen	405 General Fund		903 Dues/Fees/Subscriptions	yearly fee - Amazon Prime
	TOTAL	\$	841.46						

3-19-2024 PLSLWD Board Meeting Materials PLSLWD Board Staff Report March 12, 2024



Subject	2024 Board Liaison Appointments (Revised)			
Board Meeting Date	March 19, 2024	Item No:	6.4	
Prepared By	Joni Giese, District Administrator			
Attachments	2024 Board Liaison Appointments (Revised 3-19-2024)			
Proposed Action	Motion to approve the 2024 Board Liaison Appointments 2024	as revised o	on March 19,	

# **Background**

The Board assigns managers and/or staff to serve as liaisons to key Watershed district Partners on an annual basis. The role of these liaisons is to provide information regarding District projects, programs and priorities to District partners and to share important updates from these organizations to the Board that may affect District interests. Subsequent the January approval of 2024 board liaison appointments, the board liaison to the Scott SWCD changed from Manager Morkeberg to Manager Tofanelli.

The listing of 2024 Board Liaison Appointments, as revised on March 19, 2024, is attached.

# **Recommendation**

Staff recommends the Board of Managers approve the 2024 Board Liaison Appointments as revised on March 19, 2024.

# PLSLWD LIAISON APPOINTMENTS 2024 (Revised 3-19-2024)

PESEWD LIAISON APPOINTMENTS 2024 (Revised 5-15-2024)						
MEETING	WHEN	WHO				
City of Prior Lake	Council Meetings Second and Fourth Tuesday, 7:00 PM Council Chambers. Work Sessions before (5:00 PM).	Frank Boyles				
City of Prior Lake Citizen Engagement Committee	CEC Third Thursday, 4:30 PM Prior Lake City Hall	PLSLWD staff (Patty Dronen) to monitor				
City of Savage	Council Meetings First & Third Monday, 7:00 PM Council Chambers	vacant				
Lower Minnesota Watershed District	Board of Managers Meeting Third Wednesday, 7:00 PM Carver County Govt. Center	Ben Burnett				
SCALE – General Membership	Second Friday, 7:30 AM	Frank Boyles				
SCALE – Executive Committee	First Friday, 7:30 AM	Frank Boyles				
City of Shakopee	Council Meetings First & Third Tuesdays, 7:00 PM	Bruce Loney				
SCALE – Service Delivery Committee	Second Monday 10:30 AM	Joni Giese				
SCALE – Water Committee	Quarterly	Joni Giese				
Scott SWCD	Supervisor Board Meeting Third Tuesday, 9:00 AM	Matt Tofanelli				
Scott WMO Planning Commission	Commission Meeting Fourth Monday, 4:00 PM	Bruce Loney				
Spring Lake Township	Board Meeting Second Thursday, 7:00 PM Spring Lake Township, Town Hall	Christian Morkeberg				
SMSC	As needed	Bruce Loney				
CAC	Last Thursday, 6:30 PM, City Hall	Matt Tofanelli PLSLWD Staff (Danielle Studer)				
Sand Creek Township	First Thursday, 7:00 PM Jordan City Hall	Christian Morkeberg				
PLOC	Varies/ Prior Lake City Hall	Bruce Loney				
Farmer-led Council	Varies – generally quarterly	Bruce Loney				
Scott County	Commissioners Board Meeting First and Third Tuesdays at 9:00 AM Scott County Govt. Center	Ben Burnett				
Metro Watersheds (Gathering of Minnesota Watersheds, Region 3)	Quarterly	Frank Boyles Joni Giese				

3-19-2024 PLSLWD Board Meeting Materials PLSLWD Board Staff Report March 12, 2024



Subject	Water Resources Management Plan (WRMP) Amendment			
Board Meeting Date	March 19, 2024	Item No:	6.6	
Prepared By	Emily Dick			
Attachments	Redlined portions of the Proposed WRMP Amendment			
Proposed Action	Motion to initiate the plan amendment process as outlined in memorandum attachment	n the		

# **Background**

A Water Resource Management Plan (WRMP) is required by state statute and sets the goals, policies, programs and projects for protecting the water resources within the watershed district. Watershed districts are required to adopt and periodically update their Water Resource Management Plans (WRMP). The WRMPs are approved by the Board of Water and Soil Resources (BWSR) and are aligned with grant funding. For example, the Watershed Based Implementation Funding requires that any proposed project be sited in the WRMP's Implementation section. The current PLSLWD WRMP is for 2020-2030. Plans can be updated as needed through a process established by BWSR. Anne Sawyer, the District's BWSR Board Conservationist, presented the general plan amendment process at the February 20<sup>th</sup> Board meeting.

# **Discussion**

The District has an interest in updating the plan as several priority water quality and flood storage projects are not identified in the plan. Including projects in the plan makes them eligible for funding sources through BWSR and the Clean Water Fund. The proposed amendments can be summarized as additions, clarifications, deletions and changes. The intent of the plan amendment is solely to update language to be eligible for grants and correct outdated information. The focus, priorities and overall intent of the plan remain unchanged.

The proposed document changes are reflected in full in the "Redlined portions of the Proposed WRMP Amendment" attachment. Board of Managers should note that a large number of redlines are indicating the removal of a hyperlink. These can be identified by redlines where the wording is not changed. For example, "Appendix AAppendix A." The proposed changes are summarized below:

#### Additions (Projects)

- Fish Lake Management Plan and Accompanying Projects
- Fish Lake as a potential alum lake
- Other Spring West locations
- Other Flood Storage Projects beyond those in the TMDL plan
- Buck Ferric Chloride System
- Swamp Iron Enhanced Sand Filter (IESF)

3-19-2024 PLSLWD Board Meeting Materials

- Alternate Sutton IESF locations (MB CD-13)
- Buck Stream Stabilization
- PLOC pipelining

#### Additions (Grant-friendly Language)

- Climate resiliency
- Equitable
- Linking that groundwater protection is drinking water protection
- Linking when habitat provides water quality benefits

#### Clarifications

- WRAPs update schedule corrected
- Tier 3 Lake "classifications" do not exist

#### Deletions

- Buck Ferric Chloride system is cost prohibitive
- Unnecessary WRMP update
- Hyperlinks (will be outdated with website update)

#### Changes

- Carp population goal from 30 kg/ha to 100 kg/ha
- Article goal from 12 to 7 per year

The proposed amendments reflected above are expected to be characterized as a "minor" update. However, the determination of "major" or "minor" update, and the according public process, will not be made by BWSR until the completion of the first public comment period. If the plan proceeds as a "minor" plan amendment the expected process is summarized as follows:

- PLSLWD Board initiates the plan amendment process.
- PLSLWD notifies plan review authorities and provides at least 30 days for comments to be sent to PLSLWD and BWSR.
- PLSLWD holds a public meeting to explain the amendments (can occur within the 30-day comment period).
- BWSR makes a determination of whether the minor or major amendment process will be followed. If minor, no further review is required.
- Plan amendment is adopted and distributed.

# **Recommendation**

Motion to initiate the plan amendment process with the plan amendments as seen in the attached.

# Budget Impact

The cost associated with proposed activity is covered under budget item 626 District Plan Update.

3.	STREAMS	27
4.	GROUNDWATER	28
В.	GUIDING PRINCIPLE #2: Manage existing and prevent new AIS in the District	29
С.	GUIDING PRINCIPLE #3: To Reduce Flooding Impacts	20
C.	GOIDING PRINCIPLE #3: 10 Reduce Flobaling Impacts	
IV.	Implementation Actions, Programs & Projects, and Funding	32
А.	Implementation Actions	32
В.	Programs & Projects and Funding	<u>51</u> <del>50</del>
1.	Capital Improvement Program	<u>53<del>52</del></u>
	1. In-Lake Alum Treatments	<u>53<del>52</del></u>
	2. County Ditch 13 Restoration	<u>55</u> 54
	3. Public Infrastructure Projects	<u>57<del>56</del></u>
	4. Arctic Lake BMP Projects	<u>59</u> 58
	5. Fish Lake Watershed Projects	<u>61</u> 60
	6. Lower Prior Lake Subwatershed Project	<u>63<del>62</del></u>
	7. Spring Lake Regional Park Project	<u>64</u> 63
	8. Spring Lake West Subwatershed Project	<u>65</u> 64
	9. Storage & Infiltration Projects	<u>66</u> 65
	10. Streambank Restoration Program	<u>69</u> 67
	11. Sutton Lake Outlet Structure	
	12. Wetland Restoration & Enhancement	
	13. Wetland Banking Program	
2.	Operations and Maintenance Program	<u>78</u> 76
	1. AIS Prevention & Management	<u>79</u> 77
	2. Carp Management Program	
	3. Cost Share Program	
	4. Farmer-Led Council Initiatives	
	5. Ferric Chloride Treatment System	
	6. Highway 13 Wetland Restoration	<u>90</u> 88
	7. PLOC Bank Restoration	<u>91</u> 89
	8. PLOC Management	<u>92</u> 90
	9. Project Maintenance	<u>93<del>91</del></u>
3.	Planning Program	<u>95<del>93</del></u>
	1. AIS Rapid Response & Prevention Plan	<u>95</u> 93
	2. Comprehensive Wetland Plan Update	<u>97<del>95</del></u>
	3. District Plan Updates	<u>99</u> 97
	4. Feasibility Reports	<u>100</u> 98
	5. Groundwater Protection Plan	<u>101</u> 99
	6. Lower Prior Lake Diagnostic Study Update	<u>102</u> 100
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# **APPENDICES**

Plan Appendices are located on the Prior Lake-Spring Lake Watershed District website Prior Lake-Spring Lake Watershed District website and include the following:

- Appendix A: BibliographyAppendix A: Bibliography
- Appendix B: Maps and Reference Figures Appendix B: Maps and Reference Figures
- Appendix C: DNR Fisheries DataAppendix C: DNR Fisheries Data
- Appendix D: District RulesAppendix D: District Rules
- Appendix E: PLOC MOA and Operating Procedures Appendix E: PLOC MOA and Operating Procedures
- Appendix F: Education & Outreach PlanAppendix F: Education & Outreach Plan
- Appendix G: Hydrologic Data and FiguresAppendix G: Hydrologic Data and Figures
- Appendix H: Long-Term Monitoring Plan
- Appendix H: Long-Term Monitoring Plan
- Appendix I: Comprehensive Wetland PlanAppendix I: Comprehensive Wetland Plan
- Appendix J: Cooperative Cost Share Program ManualAppendix J: Cooperative Cost Share Program Manual
- Appendix K: BWSR Level II Performance ReviewAppendix K: BWSR Level II Performance Review
- Appendix L: Summary of Management Plan Meeting & Public FeedbackAppendix L: Summary of Management Plan Meeting & Public Feedback
- Appendix M: Outcomes & Measures DashboardsAppendix M: Outcomes & Measures Dashboards

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Lake Townships (Figure 1). In addition, a portion of the Shakopee Mdewakanton Sioux Community (SMSC) Tribal Lands are located within the watershed. The SMSC is a sovereign nation and has the ability to partner with the District in their management of water resources. The activities and policies of the PLSLWD are administered by a five-person Board of Managers appointed by the commissioners of Scott County. The PLSLWD administers the Prior Lake Outlet Channel (PLOC) via the PLOC Memorandum of Agreement or Use, Operation, and Maintenance of the Prior Lake Outlet Channel and Outlet Structure (MOA) in Appendix E.

#### 2. PLSLWD Map

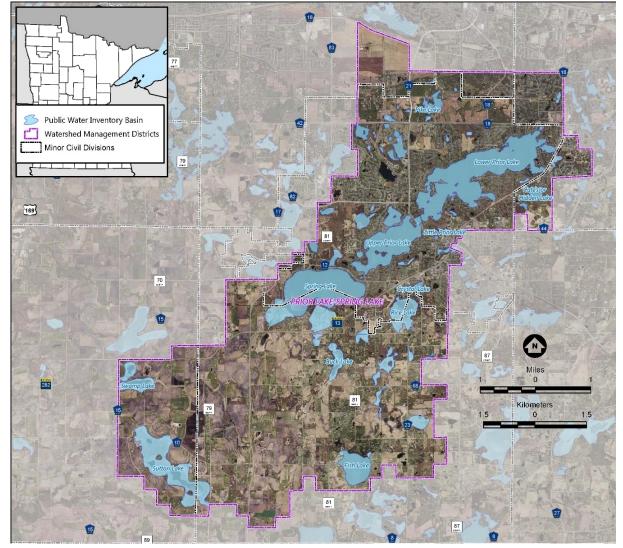


Figure 1. Map of the Prior Lake-Spring Lake Watershed District Boundary

Local plans, studies and policies (e.g. Upper Prior Lake In-Lake Phosphorous Management Plan, Integrated Pest Management Plan, Arctic Lake Subwatershed Assessment)

In total, over 50 documents were compiled to create a comprehensive list of plans to inform the Prior Lake – Spring Lake WRMP. These documents are included in the bibliography in <u>Appendix AAppendix A</u>. Information collected during this review of existing plans and policies was supplemented with information provided by the Plan Notification Process and the Stakeholder and Public Involvement Process described below.

#### C. Issues Identification Mapping Exercise

While the PLSLWD Board of Managers and staff were well aware of the priority issues and concerns facing the watershed, having worked on these same issues since the 2010-2019 WRMP, they took the opportunity to explore additional resource restoration and protection needs using an Issues Identification Mapping Exercise (IIME).

The IIME, also referred to as "zonation", is a conservation prioritization software that uses geographic information and user input weighting to identify locations on the landscape that have varying degrees of environmental sensitivity or management priority. This tool utilized existing data layers and a values model approach to assign weights to the various conservation features located in the watershed. In total, there were 24 data layers or conservation features included in the IIME. While many of the data layers were generated by state agencies (e.g. Lakes Vulnerable to Phosphorous Addition (MNDNR) and Altered Watercourses (MPCA)), a quarter of the data layers were generated by Scott County or PLSLWD (e.g. wells with nitrate concentrations greater than 10 ppm (Scott County) and Wetland Management Classifications (PLSLWD)).

As one of the IIME tools, the PLSLWD Board, staff, and advisory committees were asked to take a survey to assess their value ratings within five potential priority areas. The results of this survey are shown below in **Figure 4** and were used to weight the potential issue areas in the mapping process.

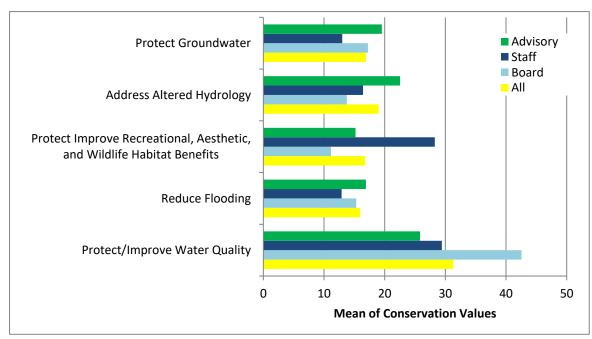


Figure 4. Results of Broad-Scale IIME Survey

After stacking the 24 data layers on top of each other and applying the values provided by the PLSLWD Board of Managers, staff and Technical Advisory Committee, a map identifying 10 potential issue areas was generated

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#### Table 2. Summary of potential issue areas identified by IIME

Potential Issue Area for Consideration	Layers most influential in determining high ranking
Haas Lake	• DWSMA
	Ecological Corridor Areas
	Sites of Biodiversity Significance
Spring Lake Regional Park	High Quality Wetlands
	Ecological Corridor Areas
	Regional Park
	Sites of Biodiversity Significance
Hwy 13 Wetland	Groundwater Sensitivity
	Areas of High Soil Loss Potential
	Altered Watercourses
	Basins for Flood Storage
County Ditch 13	Groundwater Sensitivity
	Altered Watercourses
	High Quality Wetlands
	Wetlands for Water Quality
Spring Lake Township Wetlands	Groundwater Sensitivity
	Altered Watercourses
	Wetlands for Water Quality
	Basins for Flood Storage
Fish Lake Outlet Channel	Altered Watercourses
	High Quality Wetlands
	Ecological Corridor Areas
	Wetlands for Water Quality
Panama Avenue Wetland	Cultivated Areas
	Ecological Corridor Areas
	Wetlands for Water Quality
	Basins for Flood Storage
Direct Drainage to Lower Prior Lake	Groundwater Sensitivity
	Lakes Vulnerable to Phosphorus Addition
	Significant Shoreland Area
	Existing Urban Areas
Cate's Channel	High Quality Wetlands
	Wetlands for Water Quality
	Altered Watercourses
	Existing Urban Areas
Rice Lake/Crystal Lake	Lakes Vulnerable to Phosphorus Addition
	High Quality Wetlands
	Ecological Corridor Areas
	Wetlands for Water Quality

*NOTE: Potential areas chosen for further consideration and project development in* **bold***.* 

Through the IIME process, the Board had a clearer view of where to place the PLSLWD's priorities over the next ten years. While many of the above ten potential issue areas held high resource values, most did not have significant issues or opportunities for regionally significant projects. Based on the feedback received from the public engagement process (Appendix LAppendix L), the Board determined that with the limited resources available, work should be focused more on the most widely used resources and/or those most in need of improvements due to state listed impairments. However, this IIME process helped the PLSLWD identify three issue areas that held multiple benefits to PLSLWD resources which were ultimately chosen for consideration

and incorporation of projects into this WRMP: These resources include: 1) **Spring Lake Regional Park** where there is an opportunity for a regional stormwater pond or water quality improvement; 2) **County Ditch 13** where an improvement would not only help improve the stream system, but also Spring and Prior Lakes; and 3) **Direct Drainage to Lower Prior Lake**, a regionally significant resource which also impacts the downstream waterbody, Pike Lake. These three issue areas were prioritized to be included in the Tiered Lake approach.

The direct watersheds of Spring and Upper Prior Lakes were not included in the IIME as there was general consensus that the District has been focusing on these impaired waters and will continue to do so.

# D. Plan Partners and Role in Plan Development

In addition to drawing from existing local and regional plans and incorporating agency input, significant efforts were made to engage member communities, stakeholder groups and the public in the planning process. One of the most critical components of any planning process is engaging members of the community in sharing local knowledge and identifying values and motivations that will inform the process and plan content. This section describes the various groups involved in the public engagement process. A complete list of the meetings held during the plan development process is provided in Appendix LAppendix L.

#### 1. PLSLWD Board of Managers

The PLSLWD Board of Managers participated in a series of workshops that produced the Managers' priorities for watershed management issues, goals and implementation actions over the 10-year timeframe of the WRMP.

During this series of special meetings, the Board discussed how they would like to address newer issues such as groundwater management and changes in precipitation patterns as well as on-going issues related to upland storage and priorities for lake management. The key findings of these discussions were that there are three priority concerns (water quality, AIS and flood reduction), but there were also areas that the Board would like more information such as what role the PLSLWD should play in groundwater management, what the pros & cons would be of a PLSLWD boundary change to better reflect where the water drains, at what level the Board should consider wetland management, and to what degree can the PLSLWD better address and make progress on flood reduction goals.

#### 2. Technical Advisory Committee

The PLSLWD's Technical Advisory Committee (TAC) included one staff representative from the BWSR, MNDNR, MPCA, Metropolitan Council, Scott County Watershed Management Organization, Scott Soil & Water Conservation District (SWCD), Shakopee Mdewakanton Sioux Community (SMSC), Lower Minnesota River Watershed District (LMRWD), Scott County, City of Prior Lake, City of Savage, City of Shakopee, and Spring Lake Township.

The TAC participated in the plan development process by participating in the IIME (taking the survey and discussing the results) and providing feedback on the issues, measurable goals and implementation plan.

#### 3. Citizen Advisory Committee

The PLSLWD's Citizen Advisory Committee (CAC) consists of residents who provide input and recommendations to the Board of Managers on projects, reports and prioritization and act as the primary interface for the Board to address the current issues of concern of local citizens. There were fourteen citizen representatives on the CAC, all of whom participated in the plan development process.

Like the TAC, the CAC participated in the plan development process by participating in the IIME (taking the survey and discussing the results) and providing feedback on the issues, measurable goals and the implementation plan.

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#### 4. Farmer-Led Council

The PLSLWD's Farmer-Led Council (FLC) is comprised of local farmers who develop and guide the implementation of strategies that the PLSLWD will use to accomplish agriculture's share of the nutrient reduction goal. Agricultural lands make up the majority of the land in the Spring Lake and Upper Prior Lake watersheds. As such, farmers are the most important stewards of the land and their active input and participation is critical to achieving water quality goals.

The FLC participated in the plan development process by participating in an Agricultural Issues Survey, summarized in Appendix LAppendix L, identifying issues of concern to the agricultural community and providing feedback on measurable goals and strategies.

#### 5. Stakeholders and the General Public

PLSLWD held two meetings with the public over the course of the plan development process: the first to identify issues and concerns and the second to weigh in on the implementation plan and review draft plan content. Information collected during the stakeholder and public engagement process is summarized in Appendix LAppendix L.

While much of the feedback supports the issues, policies and goals brought forward from previous plans, new information was brought to light that resulted in the development of new issues, policies and goals, allowed for further refinement of existing issues, policies and goals or led to discussions with the Managers and staff about priorities for watershed management. For example, feedback received from the public indicated that protecting the recreational value and ecological health of the PLSLWD's resources was a big concern and priority for residents of the watershed. This need led to a discussion about all of the PLSLWD's surface water resources (e.g. smaller, disconnected lakes and streams) and how they are being managed now and into the future.

#### E. Previous Plan Recommendations

During the PLSLWD's Level II performance review in 2016 (Appendix KAppendix K), BWSR concluded that the PLSLWD had completed or was making progress on 37 of their 62 action initiatives (60%). Several of the items were not started pending the completion of the Minnesota Pollution Control Agency's <u>Watershed Restoration</u> and Protection Strategies (WRAPS) study and report for the Lower Minnesota River watershed. Some of the actions that were dropped were projects that the managers considered and evaluated but determined to be infeasible or not warranted. BWSR was particularly impressed with the PLSLWD's tracking and reporting of the changing conditions of the water resources in the District, particularly the lakes. The PLSLWD's website contains detailed information about water quality and other lake conditions. However, while there were many excellent projects implemented by the PLSLWD, BWSR provided three key recommendations to the Board for future consideration:

- 1) To consider setting measurable resource condition targets for PLSLWD lakes;
- To consider how to engage with all PLSLWD partners in both communication and collaboration to address PLSLWD goals; and
- 3) To address the Local Water Plan compliance action item.

- **GOAL WQ2:** Meet the state water quality standards for aquatic recreation on Spring Lake.
- **GOAL WQ3:** Meet the state water quality standards for aquatic recreation on Upper Prior Lake.
- **GOAL WQ4**: Improve water quality in Fish Lake by reducing annual phosphorous load by 40 lbs/year (50% of Lower MN Watershed Restoration and Protection Strategy).

### b) Tier 2 Lakes

One of the Tier 2 lakes (Pike Lake) has been identified by the MPCA as being impaired for aquatic recreation due to excess nutrients, both from internal and external sources. The remaining three Tier 2 lakes have received significant recent or planned investment into the water resource due to their unique attributes as well as their connectivity and direct impact on Tier 1 lakes. While none of the four Tier 2 lakes have public access points, they still provide important water quality, aesthetic, and ecological benefits to the PLSLWD.



**POLICY:** PLSLWD is committed to achieving improvements to water quality for Tier 2 lakes (Pike Lake, Sutton Lake, Arctic Lake, and Buck Lake).

- GOAL WQ5: Improve water quality in Arctic Lake by supporting SMSC's improvement efforts to reduce watershed phosphorus loading by 37 lbs/yr and by partnering with SMSC, the City of Prior Lake and the Three Rivers Park District on future projects as opportunities arise.
- GOAL WQ6: In partnership with SMSC and the City of Prior Lake, improve Pike Lake by achieving 10% percent improvement in TP concentrations to work toward the TMDL pollutant reduction requirements.
- **GOAL WQ7**: Assess the quality of Sutton Lake and develop a Lake Management Plan.
- GOAL WQ8: Assign a District water quality standard for Buck Lake and set management goals for the next 10-year plan.

#### c) Tier 3 Lakes

There are several other lakes where monitoring data exists but there is insufficient information to assess if the resource meets the state's water quality standard. These lakes include: Crystal, Jeffers Pond, Rice, and Swamp. All but Jeffers Pond contributes stormwater runoff to the Prior-Spring chain-of-lakes. None have public access; however, they are valued by the residents who live near the resources which provide scenic, flood-reduction, water quality, and aesthetic benefits to the public and habitat for wildlife.



Policy: PLSLWD intends to monitor and assess the water quality for Tier 3 lakes (Haas Lake, Cates Lake, Jeffers Pond, Rice Lake, Crystal Lake, and Swamp Lake).

• GOAL WQ9: Assess the quality of Tier 3 Lakes-and assign lake management classifications.

#### 2. WETLANDS

The 2012 Comprehensive Wetland Plan inventoried a total of 716 wetlands covering 3,533 acres of the watershed. Of these, the 2012 Comprehensive Wetland Plan identifies two classes of protection wetlands: the Hydrology Class and the Natural Areas Management Class wetlands. The Hydrology Class warrants protection in order to preserve existing downstream water quality function and groundwater recharge function. The Natural Areas Management Class warrants protection based on the high ranking for vegetative diversity and wildlife habitat. Additionally, the City of Prior Lake has identified several high-quality wetlands that need to be protected from



adjacent land use changes. For instance, the wetland in the Trillium Cove development is a high-quality wetland (floating bog) that is accessible to the public via a trail system. Encroachment of terrestrial invasive species is affecting the resource. In addition, Rice Lake Park Wetland is also a high-quality resource in need of a buffer and vegetative management.

A significant portion of the wetlands within the upper watershed of the PLSLWD have been lost to agricultural land use activities (i.e. tiling and ditching). While development-related wetland impacts are mitigated per Wetland Conservation Act (WCA) regulations, replacement often occurs outside the watershed. Wetland restoration and enhancement projects, while an on-going activity for the PLSLWD as part of its flood reduction strategies (needed to address the flood protection goal), have been limited in number.

The PLSLWD has identified high quality wetlands to protect and degraded wetlands to enhance as part of its Comprehensive Wetland Plan (Appendix IAppendix I). Efforts for restoration will consist of referral of restorations to other appropriate agency programs, projects required as a part of future development as well as easement acquisition and restoration by the PLSLWD itself.

*Policy: PLSLWD is committed to maintaining or improving the quantity & quality of wetlands in the District.* 

- GOAL WQ10: Maintain no net loss of wetlands in the District.
- GOAL WQ11: Restore or enhance 5% (24 of 482 acres) of the Restoration/Enhancement Management Class of wetlands (as identified in the Comprehensive Wetland Plan), focusing on those that work towards prioritized and/or multiple PLSLWD goals.

#### **3. STREAMS**

There are several stream systems located in the watershed. The major stream systems serve as conveyance for stormwater runoff as it makes its way from the upper watershed (e.g. County Ditch 13) to the chain-of-lakes and on to the Minnesota River via the Prior Lake Outlet Channel.

The MPCA has identified two streams that do not support aquatic life and are impaired for biotic integrity: specific reaches of County Ditch 13 and the Prior Lake Outlet Channel. Both of these stream reaches are highly altered and viewed more as conveyance systems than high quality streams. As such,

addressing altered hydrology and pollutant loading from areas tributary to these systems continues to be the primary focus of the PLSLWD and its member communities.



That said, there are several smaller stream systems located in the watershed that residents who attended WRMP public meetings expressed interest in having the PLSLWD manage for other functions such as wildlife habitat and recreational value. Examples of higher priority resources identified through the public engagement process include Buck Lake Creek and Cates Creek. The PLSLWD intends to conduct assessment of these systems and potentially establish management goals for incorporation into a plan amendment.

Policy: PLSLWD is committed to improving streambank stability on public waters & major streams.

- GOAL WQ12: Stabilize a minimum of ten bank erosion/slumping sites, prioritizing those in the watersheds of Tier 1 or Tier 2 lakes and/or meet multiple PLSLWD goals<sup>1</sup>.
- GOAL WQ13: Improve the stability of the Prior Lake Outlet Channel through annual maintenance, <u>pipelining</u>, and complete 10,000 linear feet of bank repair work (PLOC Master Plan, 2019).

#### 4. GROUNDWATER

Land alterations have the potential to impact groundwater resources as well as groundwater dependent natural resources. The Scott County Geological Atlas indicates that there are portions of the watershed that are highly susceptible to groundwater contamination. Without proper land-use and water resource management, the following impacts could occur: reduced groundwater quality, reduced groundwater recharge, alterations to drinking water supply, and alterations to the functions and values of groundwater dependent natural resources. The Twin Cities



Metropolitan Area Master Water Supply Plan's water supply profile for the

communities located in the watershed identify several issues related to drinking water protection including:

- Significant vulnerability to contamination: travel time from land surface to bedrock aquifers is estimated to be less than 50 years in Sand Creek Township, SMSC, Savage, Shakopee, Spring Lake Township, and Prior Lake.
- Potential for significant decline in aquifer water levels: regional groundwater modeling indicates significant aquifer decline under 2040 demand pumping rates in Shakopee, Spring Lake Township, SMSC, and Prior Lake.
- Potential impacts on surface water features and ecosystems from groundwater pumping; groundwater-dependent natural resources and surface waters in the area may be directly connected to regional groundwater system in Savage, Shakopee, Spring Lake Township, SMSC, and Prior Lake.

Additionally, Scott County's assessment of groundwater monitoring identifies the need to better coordinate the collection and analysis of groundwater data.

#### Drinking Water Protection

The Twin Cities Metropolitan Area Master Water Supply Plan indicates that communities in the PLSLWD are located in areas vulnerable to groundwater contamination. Although watershed districts are not

<sup>&</sup>lt;sup>1</sup> this is an interim goal that is to be revised via a plan amendment after the inventory and assessment work has been completed.

# 774 Implementation Actions that Help Achieve One or More Goals:



The Implementation Actions are organized by the measurable goals listed in Section III above. Note that some Implementation Actions address multiple goals and may be listed more than once. The Implementation Actions that repeat are identified by italicized text. Each of the Implementation Actions later will be organized into PLSLWD programs, keeping the same numbering system and color scheme as below:



- *Italicized grey text* = Implementation Action repeated from previous goal. Note that it keeps the same number.
- Implementation Actions are numbered in order, 1-7477, regardless of color (program). •

**GOAL WQ1**: Maintain or improve 5-year average for Total Phosphorus, Chlorophyll-a and Secchi depth in Lower Prior Lake.

ISSUE	SOURCE		IMPLEMENTATION ACTIONS
External Loading	Stormwater Runoff	1	Review the Lower Prior Lake Diagnostic Study and set new goals as needed.
		2	Implement stormwater retrofits in the Lower Prior Lake drainage area as opportunities arise.
		3	Continue to provide assistance to the City of Prior Lake for its Targeted Intensive Street Sweeping program.
		4	Implement activity identified in the 2020 Lower Prior Lake Subwatershed Feasibility Study.
		5	Enforce District Rules through active permit program and assess the need for rule updates on a five-year basis.
		6	Provide information to residents to encourage individual choices that benefit water quality and to increase participation in cost-share programs.
		7	Regularly and effectively monitor water quality on Tier 1 lakes and its tributaries in order to inform District plans and projects.

#### **GOAL WQ2:** Meet the state water quality standards for aquatic recreation on Spring Lake.

ISSUE	SOURCE	IMPLEMENTATION ACTIONS
External Loading	Stormwater Runoff	<i>Continue to provide assistance to the City of Prior Lake for its Targeted Intensive Street Sweeping program.</i>
		<i>5</i> Enforce District Rules through active permit program and assess the need for rule updates on a five-year basis.
		<i>6 Provide information to residents to encourage individual choices that benefit</i> <i>water quality and to increase participation in cost-share programs.</i>
		<i>Regularly and effectively monitor water quality on Tier 1 lakes and its tributaries in order to inform District plans and projects.</i>
		8 Implement <u>nutrient reduction BMPs in the Spring West subwatershed</u> , <u>such as those the strategy</u> -identified in the Spring Lake West Subwatershed Feasibility Study.
		9 Implement one or more storage and infiltration projects identified in- <u>upper</u> watershed planning efforts such as District feasibility studies, the 2023 Flood Storage Decision Matrix, the 2016 Flood Study, the Upper Watershed Blueprint and the_ Spring & Upper Prior Lake TMDL Implementation Plan.
		10 Update the District's Comprehensive Wetland Plan which identifies strategic wetlands that help work towards achieving prioritized and/or multiple goals, including climate resiliency.
		Strategically target and implement a minimum of one wetland restoration in the Spring Lake Watershed identified in Comprehensive Wetland Plan.
		Continue to provide cost-share opportunities for residential & agricultural water quality <u>and habitat</u> improvement projects within the watershed, including Farmer-Led Council initiatives, that reduce nutrient loading or runoff volume.
		Collaborate with LGUs and/or other partners on three or more retrofit water quality and volume management BMPs and/or water quality improvement research studies.

Collaborate with the City of Prior Lake to promote efforts for the Innovative P load reductions program.

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IV

Reassess feasibility of Buck Chemical Treatment System and implement if feasible.

Implement a streambank restoration project, such as the Buck Stream Stabilization.

## \*\*\*Goal WQ2 continued from previous page\*\*\*

ISSUE	SOURCE	$\rightarrow$	IMPLEMENTATION ACTIONS
External Loading	Stormwater Runoff	15	Collaborate with Scott County to incorporate water quality improvement components at Spring Lake Regional Park <i>(Source: Scott County Local Water Resources Plan, Page 33).</i>
		16	Develop <u>equitable</u> regional stormwater management plans with municipalities that includes a stormwater utility credit program for future development areas.
		17	Work with the Farmer-Led Council to create win-win programming in agricultural areas to improve water quality, including cover crop programs, no-till incentives, and other soil health initiatives.
		18	Continue to provide water resources information and project updates to residents through social media platforms, press releases, targeted mailings, email blasts, signage and the District's website.
		19	Organize public participation/information events (e.g. Clean Water Clean-Up or District Tours) at least four times per year.
		20	Continue to help support, organize and facilitate a Citizens Advisory Committee and its projects.
		21	Continue to help support, organize and facilitate a Farmer-Led Council and its initiatives.
		22	Continue supporting SCWEP and partner with Scott SWCD and/or other LGUs in Scott County to hold a minimum of two training events for residents per year that helps provide information for projects that benefit water quality and/or flood reduction.
		23	Coordinate with other LGU partners at least once per year to provide targeted outreach to landowners to encourage them to use good water resource practices and/or participate in cost-share opportunities which not only fulfils MS4 education and outreach obligations but also supports all District projects & programs.
		24	Coordinate effectively with LGU partners by meeting a minimum of biennially with each partner in the District to discuss upcoming projects, opportunities to collaborate, and partnerships to increase efficiency and reduce overlap, and through regular attendance at SCALE and other regional meetings by Board liaisons and staff.
		25	Develop a plan to conduct outreach to non-profit partners (e.g. Great River Greening, Freshwater Society, UMN, etc.) on an annually basis to assess potential opportunities to leverage funds and/or collaborate on projects.
	County Ditch 13 System	26	Operate and maintain the Ferric Chloride Treatment System, completing dredging of the desilt pond as necessary. <u>Make system improvements</u> informed by 2023/2024 Ferric Chloride System Assessment.
		27	Partner with local farmers, landowners, Scott County, Spring Lake Township and Sand Creek Township to identify opportunities and implement projects to improve stabilization of banks, <u>habitat</u> and water quality in County Ditch 13, <u>such as an iron enhanced sand filter (ie. MB CD-13, Sutton, Swamp BMP sites)</u> .
Internal Loading	AIS	28	Annually update and implement the Integrated Pest Management (IPM) Plan for Common Carp.



30

Annually assess curly-leaf pondweed on Tier 1 lakes, implementing chemical or physical controls as needed to reduce harmful growth.

IV

Complete aluminum sulfate treatments on Spring Lake<u>, Fish Lake</u> and Upper Prior Lake as needed to achieve water quality standards.

# **GOAL WQ3:** Meet the state water quality standards for aquatic recreation on Upper Prior Lake.

ISSUE	SOURCE	IMPLEMENTATION ACTIONS
External	Stormwater	Implement activities that help reduce phosphorus in Spring Lake (see
Loading	Runoff	above Implementation Actions).
		Enforce District Rules through active permit program and assess the need
		for rule updates on a five-year basis.
		6 Provide information to residents to encourage individual choices that
		benefit water quality and to increase participation in cost-share programs.
		7 Regularly and effectively monitor water quality on Tier 1 lakes and its tributaries in order to inform District plans and projects
		<i>g</i> Implement one or more storage and infiltration projects identified in <u>upper</u>
		watershed planning efforts such as District feasibility studies, the 2023
		<i>Flood Storage Decision Matrix, the 2016 Flood Study, the Upper</i> <u>Watershed Blueprint and </u> —the Spring & Upper Prior Lake TMDL
		Implementation Plan.
		Undate the District's Comprehensive Wetland Plan which identifies
		10 strategic wetlands that help work towards achieving prioritized and/or
		multiple goals, including climate resiliency.
		<i>Continue to provide cost-share opportunities for residential &amp; agricultural</i>
		water quality and habitat improvement projects within the watershed,
		including Farmer-Led Council initiatives that reduce nutrient loading or
		runoff volume.
		Collaborate with LGUs and/or other partners on three or more retrofit
		water quality and volume management BMPs and/or water quality
		<i>improvement research studies.</i> <i>Collaborate with the City of Prior Lake to promote efforts for the Innovative</i>
		P load reductions program.
		Develop equitable regional stormwater management plans with
		<i>nunicipalities that includes a stormwater utility credit program for future</i>
		development areas.
		Continue to provide water resources information and project updates to
		residents through social media platforms, press releases, targeted
		mailings, email blasts, signage and the District's website.
		<i>Organize public participation/information events (e.g. Clean Water Clean-</i>
		Up or District Tours) at least four times per year.
		20 Continue to help support, organize and facilitate a Citizens Advisory
		Committee and its projects.
		<i>Continue to help support, organize and facilitate a Farmer-Led Council and its initiatives.</i>
		Continue supporting SCWEP and partner with Scott SWCD and/or other
		LGUs in Scott County to hold a minimum of two training events for
		residents per year that helps provide information for projects that benefit
		water quality and/or flood reduction.
		23 Coordinate with other LGU partners at least once per year to provide
		targeted outreach to landowners to encourage them to use good water
	1	resource practices and/or participate in cost-share opportunities which not

#### \*\*\*Goal WQ3 continued from previous page\*\*\*

ISSUE	SOURCE	IMPLEMENTATION ACTIONS
Internal Loading	AIS	<ul> <li>Develop a plan to conduct outreach to non-profit partners (to assess potential opportunities to leverage funds and/or collaborate on projects.</li> <li>Annually update and implement the Integrated Pest Management (IPM) Plan for Common Carp.</li> </ul>
	. 1	<i>29</i> Annually assess curly-leaf pondweed on Tier 1 lakes, implementing chemical or physical controls as needed to reduce harmful growth.
	Lake Sediment	<i>Complete aluminum sulfate treatments on Spring Lake<u>, Fish Lake</u> and Upper Prior Lake as needed to achieve water quality standards.</i>

# **GOAL WQ4:** Improve water quality in Fish Lake by reducing annual phosphorous load by 40 lbs/year (50% of <u>Lower MN Watershed Restoration and Protection Strategy</u>).

ISSUE	SOURCE	IMPLEMENTATION ACTIONS
External Loading	Stormwater Runoff	<ul> <li>Enforce District Rules through active permit program and assess the need for rule updates on a five-year basis.</li> <li>Provide information to residents to encourage individual choices that benefit water quality and to increase participation in cost-share programs.</li> <li>Regularly and effectively monitor water quality on Tier 1 lakes and its tributaries in order to inform District plans and projects.</li> </ul>
	Agricultural Runoff	<ul> <li>Continue to provide cost-share opportunities for residential &amp; agricultural water quality <u>and habitat</u> improvement projects within the watershed, including Farmer-Led Council initiatives that reduce nutrient loading or runoff volume.</li> <li>Continue to help support, organize and facilitate a Farmer-Led Council and its initiatives.</li> <li>Coordinate with other LGU partners at least once per year to provide targeted outreach to landowners to encourage them to use good water resource practices and/or participate in cost-share opportunities which not only fulfils MS4 education and outreach obligations but also supports all District projects &amp; programs.</li> </ul>
Internal Loading	Altered/Loss of Wetlands AIS	<ul> <li>of agricultural runoff (tile drainage) on the north side of Fish lake, completing a project as opportunities and funding are available.</li> <li>Partner with the new or current owners of the Fish Lake Acres Campground to implement wetland restoration and enhancement project as feasible.</li> <li>Annually update and implement the Integrated Pest Management (IPM) Plan for Common Carp.</li> <li>Annually assess curly-leaf pondweed on Tier 1 lakes, implementing chemical or physical controls as needed to reduce harmful growth.</li> <li>Complete an updated Fish Lake Management Plan to inform future management and potential BMPs to improve Fish Lake.</li> <li>Study and implement projects identified in the Fish Lake Management Plan to reduce phosphorus loads in Fish Lake.</li> <li><i>Complete aluminum sulfate treatments on Spring Lake, Fish Lake and Upper Prior Lake as needed to achieve water quality standards.</i></li> </ul>

**GOAL WQ5:** Improve water quality in Arctic Lake by supporting SMSC<sup>\_\_</sup>s improvement efforts to reduce watershed phosphorus loading by 37 lbs/yr and by partnering with SMSC, the City of Prior Lake and the Three Rivers Park District on future projects as opportunities arise.

ISSUE External Loading	SOURCE Stormwater Runoff	5	IMPLEMENTATION ACTIONS Enforce District Rules through active permit program and assess the need for rule updates on a five-year basis.
		33	Support the SMSC with implementation of stabilization and retrofit water quality BMP projects in the Arctic Lake watershed as identified.
		34	Monitor and assess data for the District's waterbodies as prescribed in the District's Long-Term Monitoring Plan.
Internal Loading	Common Carp	35	Support SMSC <sup>L</sup> 's monitoring program by sharing information and resources to better understand nutrient dynamics within Arctic & Pike Lakes and partner with them as part of the IPM Plan for Common Carp.

**GOAL WQ6:** In partnership with SMSC and the City of Prior Lake, improve Pike Lake by achieving 10% percent improvement in TP concentrations to work toward the TMDL pollutant reduction requirements

ISSUE	SOURCE	IMPLEMENTATION ACTIONS
External Loading	Stormwater Runoff	<i>5</i> Enforce District Rules through active permit program and assess the need for rule updates on a five-year basis.
		<i>Provide information to residents to encourage individual choices tha benefit water quality and to increase participation in cost-share programs.</i>
		<i>Monitor and assess data for the District's waterbodies as prescribed in the District's Long-Term Monitoring Plan.</i>
		Work with the developers to include enhanced water quality <u>and habita</u> features in projects, providing cost-share as incentives.
Internal Loading	Common Carp	<i>Annually update and implement the Integrated Pest Management (IPM Plan for Common Carp.</i>
		<i>Support SMSC</i> 's monitoring program by sharing information and resources to better understand nutrient dynamics within Arctic & Pike Lakes and partner with them as part of the IPM Plan for Common Carp.

ISSUE Low Diversity	SOURCE Dominant Plant Species	<i>IMPLEMENTATION ACTIONS</i> <i>Monitor and assess data for the District's waterbodies as prescribed i</i> <i>the District's Long-Term Monitoring Plan.</i>
		37 Develop a lake management plan for Sutton Lake.
		Provide <u>equitable_opportunities</u> for communities to engage in an provide feedback for projects, programs, and District plans throug neighborhood & public meetings, online surveys, direct mailings, District tours, presentations at local groups, etc.

**GOAL WQ7:** Assess the quality of Sutton Lake and develop a Lake Management Plan.

IV

# \*\*\*Goal WQ7 continued from previous page\*\*\* ISSUE SOURCE IMPLEMENTATION ACTIONS Low Dominant Plant 39 Engage local government partners, elected & appointed officials, state agencies, non-profits, and experts in planning efforts for District projects & programs, as appropriate.

**GOAL WQ8:** Assign a District water quality standard for Buck Lake and set management goals for the next 10-year plan.

ISSUE	SOURCE	IMPLEMENTATION ACTIONS	
High phosphorus	Internal Ioading	Monitor and assess data for the District's waterbodies as prescribed in the District's Long-Term Monitoring Plan.	
levels		Conduct a lake diagnostic study for Buck Lake to determine phosphorus budget, including a sediment core analysis, and identify restoration strategies based on applicable standard.	

GOAL WQ9: Assess the quality of Tier 3 Lakes-and assign lake management classifications.

ISSUE	SOURCE	IMPLEMENTATION ACTIONS
Minimal	Limited	Monitor and assess data for the District's waterbodies as prescribed in
information	historical	<i>the District's Long-Term Monitoring Plan.</i>
available	monitoring	

#### GOAL WQ10: Maintain no net loss of wetlands in the District.

ISSUE	SOURCE	IMPLEMENTATION ACTIONS
Loss of wetland quantity	Development	<ul> <li>Enforce District Rules through an active permit program and assess the need for rule updates on a five-year basis.</li> <li>Provide information to residents to encourage individual choices that benefit water quality and to increase participation in cost-share programs.</li> </ul>
		<ul> <li>Conduct outreach to new developments early in the planning process to identify areas of opportunity for water quality improvements.</li> <li>Protect wetlands and wetland buffers under PLSLWD conservation easements or other municipal control through District Rule J enforcement or other mechanisms.</li> </ul>
		43 Create a District wetland banking program to ensure no wetland loss when the use of wetland credits is necessary for a project within the District.
	Agricultural activities	<i>Coordinate with other LGU partners at least once per year to provide targeted outreach to landowners to encourage them to use good water resource practices and/or participate in cost-share opportunities which not only fulfils MS4 education and outreach obligations but also supports all District projects &amp; programs.</i>
		<ul> <li>Identify opportunities to use other programs (e.g. Conservation Reserve Enhancement Program, non-profit organization programs, etc.) to temporarily or permanently protect wetlands in the agricultural areas.</li> <li>Continue to provide cost-share opportunities for wetland restoration projects.</li> </ul>

**GOAL WQ11:** Restore or enhance 5% (24 of 482 acres) of the Restoration/Enhancement Management Class of wetlands (as identified in the Comprehensive Wetland Plan), focusing on those that work towards prioritized and/or multiple District goals.

ISSUE	SOURCE		IMPLEMENTATION ACTIONS
Loss of Wetland Quality	Insufficient targeting & outreach	6	Provide information to residents to encourage individual choices that benefit water quality and to increase participation in cost-share programs.
		18	Continue to provide water resources information and project updates to residents through social media platforms, press releases, targeted mailings, email blasts, signage and the District's website.
		20	<i>Continue to help support, organize and facilitate a Citizens Advisory Committee and its projects.</i>
		21	Continue to help support, organize and facilitate a Farmer-Led Council and its initiatives.
		23	Coordinate with other LGU partners at least once per year to provide targeted outreach to landowners to encourage them to use good water resource practices and/or participate in cost-share opportunities which not only fulfils MS4 education and outreach obligations but also supports all District projects & programs.
		38	Provide <b>equitable</b> opportunities for communities to engage in and provide feedback for projects, programs, and District plans through neighborhood & public meetings, online surveys, direct mailings, District tours, presentations at local groups, etc.
		39	Engage local government partners, elected & appointed officials, state agencies, non-profits, and experts in planning efforts for District projects & programs, as appropriate.
		45	Continue to provide cost-share opportunities for wetland restoration projects.
		46	Update the Comprehensive Wetland Plan (CWP) to discretely characterize wetland storage capacity and downstream water quality functions.
		47	Use CWP information to strategically target wetland restorations through outreach & implementation of a wetland acquisition program.
	Development	41	Conduct outreach to new developments early in the planning process to identify areas of opportunity for water quality improvements.
		48	Coordinate with LGU partners to improve/protect buffers on public property through habitat improvement, signage, or regular inspections.
		49	Monitor and enforce existing conservation easements.
Loss of Wetland Quality	Upstream Waterbodies	24	Coordinate effectively with LGU partners by meeting a minimum of biennially with each partner in the District to discuss upcoming projects, opportunities to collaborate, and partnerships to increase efficiency and reduce overlap, and through regular attendance at SCALE and other regional meetings by Board liaisons and staff.

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ISSUE	SOURCE	IMPLEMENTATION ACTIONS
Loss of Wetland Quality	Upstream Waterbodies	25 Develop a plan to conduct outreach to non-profit partners (e.g. GRG, TPL, Freshwater Society, UMN, etc.) on an annually basis to assess potential opportunities to leverage funds and/or collaborate on projects.
		50 Assess the storage capacity of the Hwy 13 wetland to maintain pretreatment function for the Ferric Chloride Treatment System and dredge/restore as recommended.
		51 Enhance the habitat and wetland functions of the Frog Farm Wetland.

#### \*\*\*Goal WQ11 continued from previous page\*\*\*

# **GOAL WQ12:** Stabilize a minimum of ten bank erosion/slumping sites, prioritizing those that impact Tier 1 or Tier 2 lakes and/or meet multiple District goals.

SOURCE	IMPLEMENTATION ACTIONS
Historical damage to banks	27 Partner with local farmers, landowners, Scott County, Spring Lake Township and Sand Creek Township to identify opportunities and implement projects to improve stabilization of banks <u>, habitat</u> and water quality in County Ditch 13 <u>, such as an iron enhanced sand filter (ie. MB</u> <u>CD-13</u> , Sutton, Swamp BMP sites).
	<i>Coordinate with other LGU partners at least once per year to provide targeted outreach to landowners to encourage them to use good water resource practices and/or participate in cost-share opportunities which not only fulfils MS4 education and outreach obligations but also supports all District projects &amp; programs.</i>
	52 Develop a Streambank Restoration Program that strategically prioritizes sites for stabilization based on water quality & flooding benefits and implements a minimum of ten projects.
	53 Complete bank erosion inventory project for streams and other tributaries in the upper watershed to establish baseline conditions and the number of sites that needing stabilization.
Stormwater drainage	<i>Provide information to residents to encourage individual choices that benefit water quality and to increase participation in cost-share programs.</i>
	<i>Continue to help support, organize and facilitate a Farmer-Led Council and its initiatives.</i>
	Provide increased incentives for establishment of buffers and filter strips along private ditches and streams through the Cost Share Program.
	<i>Continue supporting SCWEP and partner with Scott SWCD and/or other LGUs in Scott County to hold a minimum of two training events for residents per year that helps provide information for projects that benefit</i>
	Historical damage to banks Stormwater

#### \*\*\*Goal WQ12 continued from previous page\*\*\*

ISSUE	SOURCE		IMPLEMENTATION ACTIONS
Streambank erosion & slumping	Stormwater drainage	24	Coordinate effectively with LGU partners by meeting a minimum of biennially with each partner in the District to discuss upcoming projects, opportunities to collaborate, and partnerships to increase efficiency and reduce overlap, and through regular attendance at SCALE and other regional meetings by Board liaisons and staff.
	25	25	Develop a plan to conduct outreach to non-profit partners (e.g. GRG, TPL, Freshwater Society, UMN, etc.) on an annually basis to assess potential opportunities to leverage funds and/or collaborate on projects.
		39	Engage local government partners, elected & appointed officials, state agencies, non-profits, and experts in planning efforts for District projects & programs, as appropriate.

**GOAL WQ13:** Improve the stability of the Prior Lake Outlet Channel through annual maintenance, pipelining, and complete 10,000 linear feet of bank repair work (PLOC Master Plan).

ISSUE	SOURCE	IMPLEMENTATION ACTIONS
Erosion along PLOC	Significant rain events & flooding	<ul> <li>Maintain (or finish completion of) the Prior Lake Outlet Channel Stabilization Project (7,400 linear feet of bank repair funded by FEMA Public Assistance funding), completing as-builts and post-stabilization bank assessment work on repaired channel banks.</li> <li>Repair an additional 10,000 linear feet of eroded banks at locations identified in the PLOC Master Plan (EOR, 2019).</li> <li>Manage the Prior Lake Outlet Channel per the Memorandum of Agreement for Use, Operation, and Maintenance of the Prior Lake Outlet Channel and Outlet Structure, Version 9, dated April 2, 2019.</li> </ul>

GOAL WQ14: Actively participate in groundwater planning efforts to support municipal protection of highly vulnerable areas of DWSMA's or groundwater dependent natural resources.

ISSUE	SOURCE		IMPLEMENTATION ACTIONS
Groundwater quality and/or contamination	Current and future land uses	39	Engage local government partners, elected & appointed officials, state agencies, non-profits, and experts in planning efforts for District projects & programs, as appropriate.
		58	Serve on wellhead protection planning teams to assist public water suppliers with planning and implementation activities to address land use planning concerns.
		59	Develop a plan on how to better incorporate consideration of groundwater <u>and drinking water</u> protection when reviewing new permits and completing capital projects to incorporate the alignment with NFMP and GPR activities.
	Improperly sealed wells	60	Continue to provide Cost Share funding for the sealing of decommissioned wells in partnership with the SWCD.
	Quality of groundwater	61	Develop new incentives for low-impact development practices and BMPs that reduce the need for irrigation, promote infiltration, and protect groundwater quality through the Cost Share Program.

**GOAL AIS1:** Develop and implement an Aquatic Invasive Species (AIS) Response and Prevention Plan in coordination with Scott County to help prevent new AIS from entering Tier 1 lakes (lakes with public access).

# **GOAL AIS2:** Effectively manage common carp in Tier 1 and Tier 2 lakes to <u>10</u>+0 kg/ha or below.

ISSUE	SOURCE		IMPLEMENTATION ACTIONS
New AIS can	Infested boats	28	Annually update and implement the Integrated Pest Management (IPM)
reduce water	entering lakes	20	Plan for Common Carp.
quality		34	Monitor and assess data for the District's waterbodies as prescribed in the District's Long-Term Monitoring Plan.
		35	Support SMSC <sup>2</sup> 's monitoring program by sharing information and resources to better understand nutrient dynamics within Arctic & Pike Lakes and partner with them as part of the IPM Plan for Common Carp.

**GOAL RF1:** Achieve the first-tier priority flood reduction goal to reduce the flood level on Prior Lake (from 905.62) to 905.5 feet for the 25-year return period (Source: Prior Lake Stormwater Management & Flood Mitigation Study, 2016).

ISSUE	SOURCE	IMPLEMENTATION ACTIONS
Flooding	Insufficient	21 Continue to help support, organize and facilitate a Farmer-Led Council
on Prior	upstream	and its initiatives.
Lake	storage	
		23 Coordinate with other LGU partners at least once per year to provide
		targeted outreach to landowners to encourage them to use good water
		resource practices and/or participate in cost-share opportunities which
		not only fulfils MS4 education and outreach obligations but also supports
		all District projects & programs.
		25 Develop a plan to conduct outreach to non-profit partners (e.g. GRG, TPL,
		Freshwater Society, UMIN, etc.) on an annually basis to assess potential
		opportunities to leverage funds and/or collaborate on projects.
		27 Partner with local farmers, landowners, Scott County, Spring Lake
		Township and Sand Creek Township to Identify opportunities and
		implement projects to improve stabilization of banks <u>, habitat</u> and water
		quality in County Ditch 13, such as an iron enhanced sand filter (ie. MB
		<u>CD-13, Sutton, Swamp BMP sites</u> ). Engage local government partners, elected & appointed officials, state
		<i>agencies, non-profits, and experts in planning efforts for District projects</i>
		& programs, as appropriate.
		Conduct an according to the unland storage sites identified in the
		65 Stormwater Management & Flood Mitigation Study, 2016 and the Upper
		Subwatershed Assessment to create a prioritized list of potential storage
		areas based on refined cost estimates, feasibility, and opportunity.
		Complete flood reduction projects in order to provide a total of 176 acre-
		feet of storage in the upper watershed (includes Sutton Lake project) <u>and</u>
		to improve climate resiliency.
		Develop a Detention Policy in coordination with LGU partners (which
		includes the Spring Lake Dam Policy) for each of the waterbodies in the
		District that identifies normal operating levels and ability to manage
		water levels for flood management.
	Historical &	<i>5</i> Enforce District Rules through active permit program and assess the need for rule updates on a five year basis
	new land	Torrule updates on a nee-year basis.
	development	6 Provide information to residents to encourage individual choices that
		benefit water quality and to increase participation in cost-share
		programs.
		<i>Develop <u>equitable</u> regional stormwater management plans with municipalities that includes a stormwater utility credit program for future</i>
		development areas.
		Coordinate effectively with IGU partners by meeting a minimum of
		biennially with each partner in the District to discuss upcoming projects,
		opportunities to collaborate, and partnerships to increase efficiency and
		reduce overlap, and through regular attendance at SCALE and other
		regional meetings by Board liaisons and staff.
		Provide incentives through the Cost Share Program to member
		68 communities and the development community to promote the use of
		green infrastructure that contributes to flood reduction on Prior Lake.

# 1. Capital Improvement Program

Capital projects are generally large, expensive projects that cannot be funded easily with one of the existing implementation mechanisms, such as the costshare framework. The PLSLWD will seek to implement these projects in partnership with local entities where possible, and seek grant funding, again where possible. The PLSLWD is prepared to contribute at least 25% of the estimated cost of the planned expenditures in this section, regardless of the outcome of grant applications. Each individual project is intended to significantly advance a goal or goals of the PLSLWD.

CAPITAL IMPROVEMENT PROGRAM

10-Year Budget: \$3,266,100

Page 7

All capital projects will be preceded by a study, concept plan and/or cost-benefit analysis to determine their feasibility, either as part of a greater study (such as a TMDL study), or in the preceding year as a separate expenditure (see Section IV.C.3.4 – Feasibility Reports). The Board may choose not to fund planned capital expenditures if the outcome of the feasibility report is unfavorable.

#### **1. IN-LAKE ALUM TREATMENTS**

WATERBODIES ADDRESSED:

#### MANAGEMENT GOALS ADDRESSED:

• WQ2: Meet water quality standards on Spring Lake

• Tier 1 Lakes

30

WQ3: Meet water quality standards on Upper Prior Lake
 WQ4: Improve water quality in Fish Lake

#### **IMPLEMENTATION ACTIONS PEFORMED:**

Complete aluminum sulfate treatments on Spring Lake, <u>Fish Lake</u> and Upper Prior Lake as needed to achieve water quality standards.

#### **Background & Purpose**

The Spring Lake-Upper Prior Lake Nutrient TMDL identified internal load as a significant source of phosphorus to Spring and Upper Prior Lake. The reduction of internal pollutant loading through one or more internal load management projects is identified as an important strategy in the improvement of water quality in Spring Lake and Upper Prior Lake. Controlling internal loading is necessary to improve water quality and clarity in Spring Lake and Upper Prior Lake.

Spring Lake has been dosed with two of the three phased aluminum sulfate (alum treatment) applications. The first application was in 2013 and the second was in 2018. A third application is scheduled for 2020.

The Upper Prior Lake Alum Treatment Feasibility Study (2019) prescribes a two-phased treatment approach. The first of which is scheduled for 2020 and the second is tentatively scheduled for 2022, depending on lake response and the success of the PLSLWD's Carp Management Program.

Legacy (in-lake) phosphorus loading is also anticipated to be an issue on Fish Lake. This source of phosphorus can be managed by conducting an alum treatment. All efforts will be made to reduce incoming phosphorus and remove carp before exploring an alum treatment.

#### **Implementation Steps**

1. Continue to fund In-Lake Alum Reserve Fund: This fund has been established to dampen annual levy fluctuations associated with in-lake alum treatments.

#### 2. COUNTY DITCH 13 RESTORATION

#### 10-Year Budget: \$272,500

#### WATERBODIES ADDRESSED:

# MANAGEMENT GOALS ADDRESSED:

- Tier 1 Lakes: Spring, Upper Prior
- **WQ2**: Meet water quality standards on Spring Lake
- **WQ12**: Stabilize a minimum of ten bank erosion sites
- **RF1:** Achieve first-tier flood reduction goal on Prior Lake

Streams

11

16

23

24

52

53

#### **IMPLEMENTATION ACTIONS PERFORMED:**

Partner with local farmers, landowners, Scott County, Spring Lake Township and Sand Creek 27 Township to identify opportunities and implement projects to improve stabilization of banks, habitat and water quality in County Ditch 13, such as an iron enhanced sand filter (ie. MB CD-13, Sutton, Swamp BMP sites).

#### SUPPORTING IMPLEMENTATION ACTIONS:

Strategically target and implement a minimum of one wetland restoration in the Spring Lake Watershed that is identified in Comprehensive Wetland Plan.

Develop equitable regional stormwater management plans with municipalities that includes a stormwater utility credit program for future development areas.

Coordinate with other LGU partners at least once per year to provide targeted outreach to landowners to encourage them to use good water resource practices and/or participate in cost-share opportunities which not only fulfils MS4 education and outreach obligations but also supports all District projects & programs.

Coordinate effectively with LGU partners by meeting a minimum of biennially with each partner in the District to discuss upcoming projects, opportunities to collaborate, and partnerships to increase efficiency and reduce overlap, and through regular attendance at SCALE and other regional meetings by Board liaisons and staff.

Develop a Streambank Restoration Program that strategically prioritizes sites for stabilization based on water quality & flooding benefits and implements a minimum of ten projects.

Complete bank erosion inventory project for streams and other tributaries in the upper watershed to establish baseline conditions and the number of sites that needing stabilization.

Provide increased incentives for establishment of buffers and filter strips along private ditches and streams through the Cost Share Program.

#### **Background & Purpose**

The greatest amount of phosphorus loading from external sources into Spring Lake comes from the County Ditch 13 system. This system has been altered over time in both shape/direction and amount of flow. Working with local farmers, landowners, Scott County, Spring Lake Township and Sand Creek Township to improve the stabilization of banks and water quality in County Ditch 13 will provide multiple benefits to residents. Those benefits include flood reduction, water quality improvements, wildlife habitat, stream improvements, and aesthetics.

#### Implementation Steps

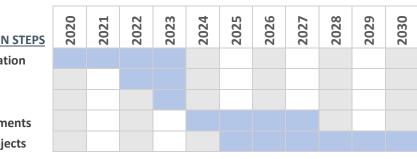
The first step of this project is envisioned as 2-3 year effort culminating in a vision for the future of the County Ditch 13 system, one which sets the stormwater management goals, standards and framework for the potential transition from agricultural to predominantly rural residential land use (as planned by land use authorities). Once a plan has been developed, the 2020-2030 WRMP will be revised/updated to include specific undertakings for this project.

PRIOR LAKE-SPRING LAKE WATERSHED DISTRICT

- Gather Information: Activities completed in other projects such as the PCSWMM update, Comprehensive Wetland Plan update, Upper Watershed Blueprint development and municipal land use plans will be used to help to frame the overall vision for the County Ditch 13 system including proposed management, potential strategies and implementation projects. Partner with local farmers, landowners, Scott County, Spring Lake Township and Sand Creek Township to identify opportunities to improve stabilization of banks and water quality in County Ditch 13.
- 2. Develop Goals: Anticipated benefits, landowner interest, and discussions with the current ditch authority will help frame a Vision Plan that will be developed outlining goals for the project.
- 3.—Update the Water Resource Management Plan: Update the 2020 2030 WRMP to include specific projects for the County Ditch 13 Restoration.
- 4.<u>3.</u> Execute Agreements: Work with landowners, farming operators, Scott County, and LGUs to draft and execute agreements for work along County Ditch 13.
- 5.4. Implement Projects: Complete implementation projects to restore County Ditch 13.

## IMPLEMENTATION STEPS

- 1. Gather Information
- 2. Develop Goals
- 3. Update WRMP
- 4. Execute Agreements
- 5. Implement Projects



#### **Funding Sources**

The funding for restoration of County Ditch 13 will likely come from a variety of sources. Implementation Steps  $1-\frac{34}{2}$  will come from the District Levy. The PLSLWD will pursue state grants (e.g. BWSR Clean Water Fund grant), potential contributions from partners, and landowner contributions for the completion of the projects in Step  $\frac{45}{2}$ .



10-Year Budget: \$100,000

#### WATERBODIES ADDRESSED:

**5. FISH LAKE WATERSHED PROJECTS** 

# MANAGEMENT GOALS ADDRESSED:

- Tier 1 Lakes
- Tier 2 Lakes: Buck

- WQ4: Improve water quality in Fish Lake
- WQ2: Meet water quality standards on Spring Lake
- WQ3: Meet water quality standards on Upper Prior Lake

## IMPLEMENTATION ACTIONS PERFORMED:

Explore a potential biofiltration or iron-enhanced sand filtration treatment of agricultural runoff (tile 31 drainage) on the north side of Fish lake, completing a project as opportunities and funding are available.

Partner with the new or current owners of the Fish Lake Acres Campground to implement wetland 32 restoration and enhancement project as feasible.



Complete an updated Fish Lake Management Plan to inform future management and potential BMPs to improve Fish Lake.

Study and implement projects identified in the Fish Lake Management Plan to reduce phosphorus loads in Fish Lake.

#### SUPPORTING IMPLEMENTATION ACTIONS:

24

Coordinate effectively with LGU partners by meeting a minimum of biennially with each partner in the District to discuss upcoming projects, opportunities to collaborate, and partnerships to increase efficiency and reduce overlap, and through regular attendance at SCALE and other regional meetings by Board liaisons and staff.

## Background & Purpose

Fish Lake water quality slightly exceeds the state water quality standard of 40 ug/L of phosphorus and is considered impaired for excess nutrients. A WRAPS and Total Maximum Daily Load (TMDL) study is anticipated to be completed by the MPCA in 20202027.

Fish Lake is known to have a high internal load of phosphorus, but there are also some inputs from external sources. An assessment of the watershed and monitoring shows a tributary on the north side of the lake contributes relatively large amounts of phosphorus that comes from an open tile inlet in a farm field. A tributary from the west side of the lake has also been observed to have high turbidity. These hotspots will be assessed for potential conservation projects, which will reduce sedimentation and phosphorus from these tributaries, along with strategies identified in the MPCA's upcoming TMDL Implementation Plan. After the external sources have been addressed, the lake monitoring will show whether internal projects (possibly an alum treatment) may be needed to reach the water quality standard. Since the water quality is very near the standard, the PLSLWD hopes it can reach that goal solely by addressing external sources.

#### Implementation Steps

1. Targeted Outreach: The PLSLWD will work with Scott SWCD, Spring Lake Township, and the FLC to conduct targeted outreach to the landowners surrounding Fish Lake to explore the interest in potential projects. Specifically, the PLSLWD will coordinate an outreach effort to the landowner on the north side of the lake to explore a potential biofiltration or iron-enhanced sand filtration treatment of agricultural runoff (tile drainage), and to the new or current owners of the Fish Lake Acres Campground to explore a potential wetland restoration and enhancement project.

- Feasibility Studies: The PLSLWD will complete a feasibility study for projects of interest such as <u>theboth the</u> north and west tributaries that have been identified as nutrient sources, as well as any potential projects identified in the<u>updated Fish Lake Management Plan and</u> upcoming TMDL Implementation Plan. The PLSLWD will work with the landowners to identify their goals and concerns.
- 3. Update the Water Resource Management Plan: Update the WRMP to include specific projects for the Fish Lake Watershed Project.
- 4.<u>3.</u> Implement Projects: Based on Board direction, the PLSLWD will implement one or more costeffective projects that improve the water quality of Fish Lake.

	2020	2021	022	023	2024	025	026	2027	028	029	2030
<b>IMPLEMENTATION STEPS</b>	5(	5(	5(	5	5(	5(	5(	5(	5(	5(	5
1. Targeted Outreach											
2. Feasibility Studies											
3. Update the WRMP											
4. Implement Projects											

#### **Funding Sources**

The funding for the Public Infrastructure Partnership Projects will come from the District Levy, partner contributions (e.g. Spring Lake Township, Scott County, etc.) and state grant sources (e.g. BWSR Clean Water Funds, Watershed-Based Funding grant, etc.)



## 8. SPRING LAKE WEST SUBWATERSHED PROJECT

10-Year Budget: \$230,000

## WATERBODIES ADDRESSED:

## MANAGEMENT GOALS ADDRESSED:

- Tier 1 Lakes: Spring, Upper Prior
- WQ2: Meet water quality standards on Spring Lake
- WQ3: Meet water quality standards on Upper Prior Lake

#### IMPLEMENTATION ACTIONS PERFORMED:



Implement the strategynutrient reduction BMPs in the Spring West subwatershed, such as those identified in the Spring Lake West Subwatershed Feasibility Study.

#### SUPPORTING IMPLEMENTATION ACTIONS:

Collaborate with LGUs and/or other partners on three or more retrofit water quality and volume management BMPs and/or water quality improvement research studies.
 Coordinate effectively with LGU partners by meeting a minimum of biennially with each partner in the District to discuss upcoming projects, opportunities to collaborate, and partnerships to increase efficiency and reduce overlap, and through regular attendance at SCALE and other regional meetings by Board liaisons and staff.
 Work with the developers to include enhanced water quality and habitat features in projects, providing cost-share as incentives.
 Conduct outreach to new developments early in the planning process to identify areas of opportunity for water quality improvements.

#### Background & Purpose

The Spring West Subwatershed is drained via a stream (ditch) running east from the Highway Department that enters the west side of Spring Lake. This ditch has been monitored for several years and the results indicate high phosphorus, conductivity, chlorides, *E. coli* and nitrates. There is potentially to design and implement a water quality BMP along this ditch corridor in this watershed that has higher concentrations than any other subwatershed the PLSLWD has monitored. The feasibility study completed in 2020 prepared concept plans for the preferred alternative, a refined cost estimate and identification of assumptions and additional data needs for advancing the preferred alternative to final design.

#### Implementation Steps

- Engineering & Design: Coordinate with landowners and LGUs to complete design plans for <u>nutrient</u> reduction <u>BMPs</u>, <u>such as</u> the projects identified in the 2020 Spring Lake West Subwatershed Feasibility Study. Agreements will be acquired as needed.
- Project Construction: The PLSLWD will acquire grants as available and complete construction of the project.

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IMPLEMENTATION STEPS	202(	202	202	202	202	202	202(	202	202	202	203(
1. Engineering & Design											
2. Project Construction											

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#### Funding Sources

The funding for this Project will come from the District Levy, potential partner contributions (Scott County, and/or landowner contributions), and state grant sources (e.g. BWSR, MPCA, etc.) as available.

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#### 10-Year Budget: \$3,242,850

#### WATERBODIES ADDRESSED:

#### MANAGEMENT GOALS ADDRESSED:

• WQ1: Maintain or Improve water quality in Lower Prior Lk.

- Wetlands
- Tier 1 Lakes: Spring Lake, Lower Prior, Upper Prior
- WQ2: Meet water quality standards on Spring Lake
- WQ3: Meet water quality standards on Upper Prior Lake
- **RF1:** Achieve first-tier flood reduction goal on Prior Lake

#### IMPLEMENTATION ACTIONS PERFORMED:

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Implement one or more storage and infiltration projects identified in <u>upper watershed planning</u> <u>efforts such as District feasibility studies, the 2023 Flood Storage Decision Matrix, the 2016 Flood</u> <u>Study, the Upper Watershed Blueprint and</u> the Spring & Upper Prior Lake TMDL Implementation Plan.

Complete flood reduction projects in order to provide a total of 176 acre-feet of storage in the upper watershed (includes Sutton Lake project) and to improve climate resiliency.

#### SUPPORTING IMPLEMENTATION ACTIONS:

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Implement the strategy identified in the Spring Lake West Subwatershed Feasibility Study.



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Collaborate with LGUs and/or other partners on three or more retrofit water quality and volume management BMPs and/or water quality improvement research studies.

Coordinate effectively with LGU partners by meeting a minimum of biennially with each partner in the District to discuss upcoming projects, opportunities to collaborate, and partnerships to increase efficiency and reduce overlap, and through regular attendance at SCALE and other regional meetings by Board liaisons and staff.

#### **Background & Purpose**

The 2016 Prior Lake Stormwater Management & Flood Mitigation Study recommended a short-term strategy to meet the first-tier, high priority Prior Lake protection level of 905.5 feet above sea level for the 25-year return period. In addition, in order to meet a second-tier flood level goal, the Study recommended that the PLSLWD would lead efforts to cost-effectively provide additional flood protection above the high-priority protection level of 905.5 based on future assessments as part of an adaptive management strategy.

- 1. Develop Upper Watershed Blueprint: See Section IV.C.3.9. This Blueprint will use information from the Spring & Upper Prior Lake TMDL Plan as well as other resources to identify potential storage & infiltration projects.
- Prioritize Potential Projects: The PLSLWD will complete baseline analysis of sites and conduct initial outreach to landowners. This information will be used to prioritize potential projects based upon cost/benefit/feasibility to achieve a collective total of 176-acre feet of storage in the upper watershed in combination with the Sutton Lake Outlet project within the timeframe of this plan.
- 3. Engineering & Design: The PLSLWD will complete engineering and design for one or more projects.
- 4. Construction: The PLSLWD will implement one or more storage and infiltration projects, including one identified in <u>upper watershed planning efforts such as District feasibility studies, the 2023 Flood</u> <u>Storage Decision Matrix, the 2016 Flood Study, the Upper Watershed Blueprint and</u> the Spring &

Upper Prior Lake TMDL Implementation Plan, to achieve a total of 176 acre-feet of storage in the upper watershed (in combination with the Sutton Lake project) and to improve climate resiliency.

## **10. STREAMBANK RESTORATION PROGRAM**

10-Year Budget: \$237,300

WATERBODIES ADDRESSED:	MANAGEMENT GOALS ADDRESSED:
	• WO1. Maintain or improve water quality in Lower Dries U.
	• WQ1: Maintain or improve water quality in Lower Prior Lk.
• Tier 1 Lakes	• WQ2: Meet water quality standards on Spring Lake
<ul> <li>Tier 2 Lakes</li> </ul>	• WQ3: Meet water quality standards on Upper Prior Lk.
Streams	• WQ4: Improve water quality in Fish Lake
	• WQ12: Stabilize a minimum of ten bank erosion sites

#### IMPLEMENTATION ACTIONS PERFORMED:

Develop a Streambank Restoration Program that strategically prioritizes sites for stabilization based on water quality & flooding benefits and implements a minimum of ten projects.



52

Complete bank erosion inventory project for streams and other tributaries in the Upper Watershed to establish baseline conditions and the number of sites that needing stabilization.

Implement a streambank restoration project, such as the Buck Stream Stabilization.

## SUPPORTING IMPLEMENTATION ACTIONS:

27

Partner with local farmers, landowners, Scott County, Spring Lake Township and Sand Creek Township to identify opportunities and implement projects to improve stabilization of banks<u>, habitat</u> and water quality in County Ditch 13<u>, such as an iron enhanced sand filter (ie. MB CD-13, Sutton,</u> <u>Swamp BMP sites</u>).

Provide increased incentives for establishment of buffers and filter strips along private ditches and streams through the Cost Share Program.

#### Background & Purpose

Both measured and anecdotal evidence indicates that streams in the upper watershed of Spring & Prior Lakes are eroding and/or slumping, causing loss of usable land, impairments to biota, and adverse water quality impacts downstream. As many of the stream segments and ditches lie on private property, there is not an existing inventory of where problem areas might exist.

This project will complete an inventory of all those stream segments in the upper watershed that the PLSLWD can gain access to with assistance from the Scott SWCD, Farmer-Led Council, Scott County, and Spring & Sand Creek Townships. This information will be used to summarize and prioritize potential project areas and its benefits to landowners, wildlife habitat, downstream water resources and residents. Based on this inventory, the PLSLWD will implement, on average, one bank restoration project per year over the course of this 2020-2030 WRMP.

In addition, there are a number of smaller stream systems located in the watershed that residents who attended WRMP public meetings expressed interest in having the PLSLWD manage for other functions such as wildlife habitat and recreational value. Examples of higher priority resources identified through the public engagement process include Buck Lake Creek and Cates Creek. The PLSLWD will consider conducting additional assessment through its monitoring program of these systems and potentially establish management goals for incorporation into a future plan amendment.

10-Year Budget: \$356,700

## **11. SUTTON LAKE OUTLET STRUCTURE**

#### WATERBODIES ADDRESSED:

#### MANAGEMENT GOALS ADDRESSED:

- Tier 1 Lakes: Spring, Upper Prior
- Tier 2 Lakes: Sutton
- Streams: Ditch 13

- WQ7: Assess Sutton Lake & develop a Management Plan
- eams: Ditch 13
- **RF1:** Achieve first-tier flood reduction goal on Prior Lake

#### IMPLEMENTATION ACTIONS PERFORMED:

37 Develop a lake management plan for Sutton Lake.

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Complete flood reduction projects in order to provide a total of 176 acre-feet of storage in the upper watershed (includes Sutton Lake project) and to improve climate resiliency.

#### SUPPORTING IMPLEMENTATION ACTIONS:



Develop a Detention Policy in coordination with LGU partners (which includes the Spring Lake Dam Policy) for each of the waterbodies in the District that identifies normal operating levels and ability to manage water levels for flood management.

#### **Background & Purpose**

In response to the 2014 flood, the PLSLWD completed the Prior Lake Stormwater Management & Flood Mitigation Study in coordination with the City of Prior Lake. This study identified potential upstream storage areas to reduce flooding on Prior Lake, one of which was an outlet control structure on Sutton Lake. Installation of a controlled outlet weir to control high flows will provide drawdown capacity below the normal pool elevation to improve aquatic vegetation and habitat and increase flood storage, and is expected to achieve a potential high water line reduction of 0.12 foot on Prior Lake. Furthermore, this project will allow Sutton Lake to bounce periodically, more similar to a natural lake/wetland system that does not have a ditched outlet. The weir will not raise the 100-year, 24-hour High Water Line (HWL) on Sutton Lake.

A MNDNR Public Waters Work Permit was issued on February 8, 2019 for the Sutton Outlet Control Structure based on the 60% Draft Plan Set. This permit is conditioned on final construction plan set and operating plan approval by the MNDNR Area Hydrologist and Wildlife Manager prior to construction. In response to these conditions EOR submitted to MNDNR on April 4, 2019 a draft operating plan for review and comment. On April 18, 2019 the PLSLWD was informed that the operating plan triggered additional statute and rule requirements that were not considered by the MNDNR when the permit was issued. The PLSLWD resubmitted the operating plan with conditioned drawdown and developed final plans for construction that have been approved by the MNDNR.

- 1. Complete Construction: Construction of the outlet weir is scheduled for 2020.
- Complete Natural Resource Inventories: Bathymetric surveying of Sutton Lake and the extent and density of existing cattail vegetation, wetland seed bank field investigation and a Natural Resources Inventory (NRI) to document plant and animal communities within the project area.
- 3. Develop Lake Management Plan: A lake management plan is required by MNDNR if the PLSLWD intends to pursue drawdown below the existing control elevation of Sutton Lake. In addition, the landowners surrounding the lake have expressed interest in lake management for waterfowl.
- 4. Implement Lake Management Plan: Implement activities identified in the lake management plan.

## 12. WETLAND RESTORATION & ENHANCEMENT

10-Year Budget: \$539,950

WATERBODIES ADDRESSED:	MANAGEMENT GOALS ADDRESSED:
<ul><li>Wetlands</li><li>Tier 1 Lakes</li></ul>	<ul> <li>WQ2: Meet water quality standards on Spring Lake</li> <li>WQ3: Meet water quality standards on Upper Prior Lake</li> <li>WQ4: Improve water quality in Fish Lake</li> <li>WQ11: Restore/enhance wetlands in the District</li> <li>RF1: Achieve first-tier flood reduction goal on Prior Lake</li> </ul>

## IMPLEMENTATION ACTIONS PERFORMED:

11 Strategically target and implement a minimum of one wetland restoration in the Spring Lake Watershed identified in Comprehensive Wetland Plan.

Use CWP information to strategically target wetland restorations through outreach & implementation of a wetland acquisition program.

Enhance the habitat and wetland functions of the Frog Farm Wetland.

Restore two or more wetlands that help contribute to flood reduction on Prior Lake.

#### SUPPORTING IMPLEMENTATION ACTIONS:

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Update the District's Comprehensive Wetland Plan which identifies strategic wetlands that help work towards achieving prioritized and/or multiple goals, including climate resiliency.

Partner with the new or current owners of the Fish Lake Acres Campground to implement wetland restoration and enhancement project as feasible.

Continue to provide cost-share opportunities for wetland restoration projects.

*Update the Comprehensive Wetland Plan (CWP) to discretely characterize wetland storage capacity and downstream water quality functions.* 

Monitor and enforce existing conservation easements.

#### Background & Purpose

The PLSLWD has restored several wetland areas in the watershed and has created an inventory of potential additional sites. The PLSLWD will continue to solicit wetland restoration program participation by expanding communication and education programs regarding wetland restoration and acquisition. Where they qualify, the PLSLWD will attempt to enroll wetlands into the BWSR wetland bank.

- 1. Establish Reserve Fund: Similar to in-lake alum treatment, the PLSLWD intends to establish a reserve fund for wetland restoration. The reserve funds are intended to receive \$50K or more per year, starting in 2021 for the duration of the WRMP. Funds reserved for restoration will be used for that purpose only.
- Identification & Outreach: The PLSLWD will identify potential sites and conduct strategic outreach to landowners based on the PLSLWD's updated Comprehensive Wetland Plan (Appendix IAppendix I), including those in the Spring Lake Watershed and those that contribute to flood reduction on Prior Lake. Outreach will include social media, articles in papers and newsletters, direct mailings, SWCD staff contacts, and advertisement at local events.

## **3. COST SHARE PROGRAM**

10-Year Budget: \$717,200

WATERBODIES ADDRESSED:	MANAGEMENT GOALS ADDRESSED:					
<ul><li>All District Lakes</li><li>Wetlands</li><li>Streams</li></ul>	<ul> <li>WQ1: Maintain or Improve water quality in Lower Prior Lake</li> <li>WQ2: Meet water quality standards on Spring Lake</li> <li>WQ3: Meet water quality standards on Upper Prior Lake</li> <li>WQ4: Improve water quality in Fish Lake</li> <li>WQ5: Improve water quality in Arctic Lake</li> <li>WQ6: Improve water quality in Pike Lake</li> <li>WQ10: Maintain no net loss of wetlands in the District</li> <li>WQ11: Restore/enhance wetlands in the District</li> <li>WQ12: Stabilize a minimum of ten bank erosion sites</li> <li>RF1: Achieve first-tier flood reduction goal on Prior Lake</li> </ul>					
IMPLEMENTATION ACTIONS PERFORMED:						
Continue to provide cost share opportunities for residential & agricultural water quality improvement projects within the watershed, including Farmer-Led Council initiatives, that reduce nutrient loading to lakes.						

- Work with the developers to include enhanced water quality and habitat features in projects, providing cost-share as incentives.
- 45 Continue to provide cost-share opportunities for wetland restoration projects.
- Provide increased incentives for establishment of buffers and filter strips along private ditches and streams through the Cost Share Program.
- 60 Continue to provide Cost Share funding for the sealing of decommissioned wells in partnership with the SWCD.
- Develop new incentives for low-impact development practices and BMPs that reduce the need for irrigation, promote infiltration, and protect groundwater quality through the Cost Share Program.
- Provide incentives through the Cost Share Program to member communities and the development community to promote the use of green infrastructure that contributes to flood reduction on Prior Lake.
- <sup>69</sup> Provide financial incentives to residents and businesses in the District to implement BMPs that reduce flooding to the lakes through the Cost Share Program.

#### SUPPORTING IMPLEMENTATION ACTIONS:

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- Provide information to residents to encourage individual choices that benefit water quality and to increase participation in cost-share programs.
- Continue to provide water resources information and project updates to residents through social media platforms, press releases, targeted mailings, email blasts, signage and the District's website.
- Continue supporting SCWEP and partner with Scott SWCD and/or other LGUs in Scott County to hold a minimum of two training events for residents per year that helps provide information for projects that benefit water quality and/or flood reduction.

Coordinate with other LGU partners at least once per year to provide targeted outreach to landowners to encourage them to use good water resource practices and/or participate in cost-share opportunities which not only fulfils MS4 education and outreach obligations but also supports all District projects & programs.

## 4. FARMER-LED COUNCIL INITIATIVES

#### 10-Year Budget: \$764,250

#### WATERBODIES ADDRESSED:

#### MANAGEMENT GOALS ADDRESSED:

• WQ2: Meet water quality standards on Spring Lake

- All District Lakes
- Wetlands
- Streams

- WQ3: Meet water quality standards on Upper Prior Lake
  WQ4: Improve water quality in Fish Lake
- WQ6: Improve water quality in Pike Lake

#### **IMPLEMENTATION ACTIONS PERFORMED:**

Work with the Farmer-Led Council to create win-win programming in agricultural areas to improve water quality, including cover crop programs, no-till incentives, and other soil health initiatives.

Continue to help support, organize and facilitate a Farmer-Led Council and its initiatives.

#### SUPPORTING IMPLEMENTATION ACTIONS:

- 2 Continue to provide cost-share opportunities for residential & agricultural water quality <u>and habitat</u> improvement projects within the watershed, including Farmer-Led Council initiatives that reduce nutrient loading or runoff volume.
- 27

Partner with local farmers, landowners, Scott County, Spring Lake Township and Sand Creek Township to identify opportunities and implement projects to improve stabilization of banks, <u>habitat</u> and water quality in County Ditch 13, <u>such as an iron enhanced sand filter (ie. MB CD-13, Sutton</u>, Swamp BMP sites).

#### Background & Purpose

To help the PLSLWD reach its nutrient reduction goals for its water resources, PLSLWD has engaged with local farmers to build a Farmer-Led Council (FLC). Agricultural lands make up the majority of the landscape in the Spring Lake & Upper Prior Lake watersheds. As such, farmers are the most important stewards



of the land and their active input and participation is critical to achieving water quality goals.

The role of the FLC is to develop and guide the implementation of strategies that PLSLWD will use to accomplish agriculture's share of the nutrient reduction goal. Specifically, the FLC will:

- Inform decision makers and the general public about practical issues and opportunities related to soil and water conservation on agricultural lands
- Identify base-level and site-tailored practices that are available and needed
- Define the approach for engaging with and assisting farmers to implement practices
- Establish a schedule with reasonable milestones and timelines for progress
- Identify potential barriers to implementation, along with tools and resources needed to overcome them

The FLC has focused its efforts on win-win programming for PLSLWD and farmers. This includes soil health initiatives such as cover crops, nutrient management, and no-till farming. The FLC incentives allow innovative new phosphorus reduction ideas to be implemented and refined prior to introduction to the regular cost-share docket if successful.

## **5. FERRIC CHLORIDE TREATMENT SYSTEM**

<u>10-Year Budget</u>: \$1,333,950

## WATERBODIES ADDRESSED:

### MANAGEMENT GOALS ADDRESSED:

• Tier 1 Lakes: Spring, Upper Prior

- WQ2: Meet water quality standards on Spring Lake
- WQ3: Meet water quality standards on Upper Prior Lake

#### **IMPLEMENTATION ACTIONS PERFORMED:**

Operate and maintain the Ferric Chloride Treatment System, completing scheduled dredging of the desilt pond as necessary. <u>Make system improvements informed by 2023/2024 Ferric Chloride</u> <u>System Assessment.</u>

#### **Background & Purpose**

The ferric chloride treatment system is located on the County Ditch 13 channel immediately south of MN Highway 13 and was constructed in 1998. The structure and ferric chloride injection system require periodic adjustment and inspection to ensure effective operation. This system is inspected three times per week to ensure all is working properly. Sampling is conducted once a week per the MPCA permit. System maintenance includes checking the pump, filling the ferric tank, weeding, inspecting the weir, spring set up, winter shut down, and checking the lines for leaks.

The desiltation (i.e. sedimentation) pond is located on the County Ditch 13 tributary entering the southwest corner of Spring Lake. The pond was one of the earliest PLSLWD projects and was designed to decrease sedimentation occurring in the western end of Spring Lake. The basin has been dredged on several occasions over the years and enhanced to serve a flocculation basin for the Ferric Chloride Treatment System.

The desiltation pond was constructed in 1978, cleaned out in 1999 and again in 2012 to return the pond back to the original storage capacity. This basin will need to be dredged at least once during the lifetime of this plan.

#### **Implementation Steps**

- 1. Operate the Ferric Chloride Treatment System: Annually dosing of ferric chloride (FeCl) into the stream that flows into Spring Lake as per the FeCl Treatment System operation plan.
- 2. Desiltation Pond Survey: Survey basin storage capacity every three years to establish typical maintenance frequency and schedule next maintenance excavation project.
- 3. Desiltation Pond Maintenance Excavation: Prepare plans and specifications, obtain permits, solicit bids and construction administration for restoration of basin flocculation capacity. Also includes survey and soil sampling per NPDES-SDS requirements.
- 4. Desiltation Pond Outlet Improvement: Develop outlet structure improvement concept plan options to enhance flow capacity and monitoring capability and consider implementation with future maintenance excavation project.
- 5. Assess FeCl Dosing Curve: Consider flow and season conditioned dosing curve refinements to enhance performance.
- Replace and Update Storage Facility: The tank holding ferric chloride has a lifespan of 10-20 years. The tank was installed in 1997 and should be replaced as soon as possible. The shed was not designed with replacement in mind and will need to be rebuilt or modified in order to replace the tank.

IV

#### WATERBODIES ADDRESSED:

- Tier 2 Lakes: Pike
- Streams: PLOC

#### MANAGEMENT GOALS ADDRESSED:

- WQ13: Improve the stability of the Prior Lake Outlet Channel
- **RF2:** Continue to operate the PLOC

#### **IMPLEMENTATION ACTIONS PERFORMED:**

- Manage the Prior Lake Outlet Channel per the Memorandum of Agreement for Use, Operation, and Maintenance of the Prior Lake Outlet Channel and Outlet Structure, Version 9, dated April 2, 2019 and revisions after the Master Plan is completed in 2024.
  - The Prior Lake Outlet Structure is operated according to the MNDNR-approved Prior Lake Outlet Control Structure Management Policy and Operating Procedures (last revised July 3, 2017).

#### **Background & Purpose**

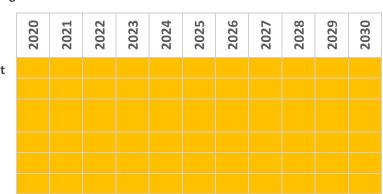
The PLOC is funded by a MOA between the "Cooperators:" the PLSLWD, the Shakopee Mdewakanton Sioux Community and the cities of Shakopee and Prior Lake. In 2019, the Cooperators substantively revised the MOA, of which one of the revisions was to include an inspection program identifying responsible parties for each and every crossing of the PLOC. The Cooperators also developed a Master Plan to assess the current conditions of the PLOC from a channel capacity, bank stability, easement alignment with physical conditions and invasive species management. The Cooperators requested the Master Plan as a means to guide MOA activities over five years as a bridge to consideration of alternate means to manage the channel. At the end of the five years (2024), the Cooperators will determine what the next MOA will entail.

#### Implementation Steps

PLSLWD activities for the PLOC include administration, Cooperator meeting coordination, invasive plant management, culvert/channel inspections, channel repair, XP-SWMM model maintenance, water quantity monitoring, and outlet structure and pipe maintenance as outlined in the MOA. The Prior Lake Outlet Structure will be operated in accordance with the MNDNR-approved Prior Lake Outlet Control Structure Management Policy and Operating Procedures.

#### **IMPLEMENTATION STEPS**

- 1. Invasive Plant Management
- 2. Channel Inspections
- 3. Channel Repairs (incl.
- <u>pipelining)</u>
- 4. XP-SWMM Model Maint.
- 5. Outlet Operations
- 6. MOA Management



#### **Funding Sources**

The funding for this Project will come from the District Levy and the other PLOC partners (City of Shakopee, City of Prior Lake, and SMSC) as laid out in the PLOC MOA. <u>Grants will be sought to support pipelining.</u>

## 9. PROJECT MAINTENANCE

10-Year Budget: \$85,000

WATERBODIES ADDRESSED:	MANAGEMENT GOALS ADDRESSED:
	• WQ1: Maintain or Improve water quality in Lower Prior Lake
• Tier 1 Lakes	WQ2: Meet water quality standards on Spring Lake
	• WQ3: Meet water quality standards on Upper Prior Lake

#### **IMPLEMENTATION ACTIONS PERFORMED:**

Implement stormwater retrofits in the Lower Prior Lake drainage area as opportunities arise.

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Operate and maintain the Ferric Chloride Treatment System, completing scheduled dredging of the desilt pond as necessary. <u>Make system improvements informed by 2023/2024 Ferric Chloride System Assessment.</u>

## SUPPORTING IMPLEMENTATION ACTIONS:

13 Collaborate with LGUs and/or other partners on three or more retrofit water quality and volume management BMPs and/or water quality improvement research studies.

19 Organize public participation/information events (e.g. Clean Water Clean-Up or District Tours) at least four times per year.

Coordinate effectively with LGU partners by meeting a minimum of biennially with each partner in the District to discuss upcoming projects, opportunities to collaborate, and partnerships to increase

efficiency and reduce overlap, and through regular attendance at SCALE and other regional meetings by Board liaisons and staff.

Assess the storage capacity of the Hwy 13 wetland to maintain pretreatment function for the Ferric Chloride Treatment System and dredge/restore as recommended.

#### Background & Purpose

After the construction of Public Infrastructure Partnership Projects is completed, there is typically a vegetation maintenance period before the PLSLWD officially hands the project over to the respective LGU partner. As of 2019, the following projects require maintenance until accepted by the LGU partner:

- 12/17 wetland (until 2020) City of Prior Lake
- Raymond Park (until 2020) City of Prior Lake
- Fairlawn Shores (until 2021) City of Prior Lake
- Fish Lake Shoreline Project (until 2021) Spring Lake Township

In addition, the PLSLWD has acquired fee title or easement to lands that it has restored and/or maintains the vegetation on. As of 2019, the PLSLWD has the following maintenance lands:

- Spring Lake Shoreline Project oak savanna and shoreline restorations
- Frog Farm Wetland PLSLWD allows neighbor to hay for vegetation maintenance
- FeCl system easements maintain/mow vegetation for access

#### **Implementation Steps**

1. Develop Annual Maintenance Plans: Annually develop maintenance plans for current projects for incorporation into the budget into the following calendar year each August.

## 3. Planning Program

Planning is integral to the efficient and effective management of the PLSLWD's resources, and to ensure regular progress toward PLSLWD goals. Planning includes staying abreast of regional, state, and federal water resource issues, keeping the PLSLWD's WRMP up to date, reviewing plans from other local government entities, and performing studies and feasibility reports.

## 1. AIS RAPID RESPONSE & PREVENTION PLAN

10-Year Budget: \$61,000

PLANNING

PROGRAM

WATERBODIES ADDRESSED:	MANAGEMENT GOALS ADDRESSED:
• Tier 1 Lakes	AIS1: Develop and implement AIS Plan
	• WQ2: Meet water quality standards on Spring Lake
	• WQ3: Meet water quality standards on Upper Prior Lake
	• WQ4: Improve water quality in Fish Lake

## IMPLEMENTATION ACTIONS PERFORMED:

Create and implement an AIS Rapid Response and Prevention Plan for Tier 1 lakes in collaboration with local and state partners.

#### SUPPORTING IMPLEMENTATION ACTIONS:

Continue to provide water resources information and project updates to residents through social 18 media platforms, press releases, targeted mailings, email blasts, signage and the District's website. Organize public participation/information events (e.g. Clean Water Clean-Up or District Tours) at 19 least four times per year. Monitor and assess data for the District's waterbodies as prescribed in the District's Long-Term 34 Monitoring Plan. Provide equitable opportunities for communities to engage in and provide feedback for projects, 38 programs, and District plans through neighborhood & public meetings, online surveys, direct mailings, District tours, presentations at local groups, etc. Engage local government partners, elected & appointed officials, state agencies, non-profits, and 39 experts in planning efforts for District projects & programs, as appropriate. Partner with local partners and/or the University of Minnesota to implement strategies to prevent the spread of known and emerging AIS in Tier 1 lakes.

As new research allows, implement strategies to better manage the spread and population of zebra mussels in and out of Prior Lake.

#### **Background & Purpose**

62

Preventing new introductions and infestations of AIS in the District's lakes is crucial to avoiding their establishment, spread, and irreversible consequences. History has proven that once an AIS has become established and widespread, eradication is nearly impossible, and control efforts can become perpetual and costly programs.

## 2. COMPREHENSIVE WETLAND PLAN UPDATE

10-Year Budget: \$32,500

## WATERBODIES ADDRESSED:

## **MANAGEMENT GOALS ADDRESSED:**

• All District Lakes

• WQ10: Maintain no net loss of wetlands in the District

Wetlands

• WQ11: Restore/enhance wetlands in the District

• **RF1:** Achieve first-tier flood reduction goal on Prior Lake

#### **IMPLEMENTATION ACTIONS PERFORMED:**

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Update the District's Comprehensive Wetland Plan which identifies strategic wetlands that help work towards achieving prioritized and/or multiple goals, including climate resiliency.

Update the Comprehensive Wetland Plan (CWP) to discretely characterize wetland storage capacity and downstream water quality functions.

#### **SUPPORTING IMPLEMENTATION ACTIONS:**

44

Identify opportunities to use other programs (e.g. Conservation Reserve Enhancement Program, nonprofit organization programs, etc.) to temporarily or permanently protect wetlands in the agricultural areas.

#### **Background & Purpose**

The PLSLWD's current Comprehensive Wetland Plan (CWP) was adopted by the Board on April 10, 2012. The CWP was created to help accomplish goals and meet policies set forth in the 2010-2019 WRMP and was modeled after the Comprehensive Wetland Protection and Management Plan (CWPMP) process developed under MN Rule 8420.0830 for the Minnesota Wetland Conservation Act (WCA). The 2012 CWP was used to develop wetland management standards to support other important water resource management activities in the PLSLWD. In addition, PLSLWD provided an inventory of the Restoration/Enhancement Management Class of wetlands to Scott County for the purpose of mapping potential Public Values for potential flexibility during the Planned Unit Development (PUD) process.

Since the 2012 CWP was adopted, better mapping information (e.g. LiDAR) is now available to further identify and refine wetland areas in the District. In pursuit of wetland restoration projects that address water quality & flood reduction goals, it is vital that the PLSLWD have the best information available for its outreach efforts to potential partners and landowners for wetland restorations and upper watershed storage sites.

#### **Implementation Steps**

- 1. Update Wetland Inventory: Update existing CWP wetland database and mapping using remote sensing techniques to incorporate LiDAR data, SSURGO Soils data, MLCCS land use data, and highresolution aerial photography. This effort will provide more accurate wetland boundaries, estimate storage (volume) capacity, delineate likely water sources and drainage area, characterize landscape position and basin morphometry, and distance to downstream water resources of value. Other relevant databases will also be incorporated into this update including the University of MN Restorable Wetland Inventory and any information available from the Scott SWCD.
- 2. Prioritize Wetland Basins for Upper Watershed Storage: Complete cost-benefit assessment based on preliminary estimate of probable cost to restore wetlands versus the flood storage and water quality benefit they could provide. Provide the update inventory to Scott County to support the use of Public Value areas for the County's PUD process.

PRIOR LAKE-SPRING LAKE WATERSHED DISTRICT

## 5. GROUNDWATER PROTECTION PLAN

10-Year Budget: \$16,800

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## WATERBODIES ADDRESSED:

MANAGEMENT GOALS ADDRESSED:

• Groundwater

• **WQ14:** Active participation in groundwater planning efforts.

## IMPLEMENTATION ACTIONS PERFORMED:

58 59 Serve on wellhead protection planning teams to assist public water suppliers with planning and implementation activities to address land use planning concerns.

Develop a plan on how to better incorporate consideration of groundwater<u>and drinking water</u> protection when reviewing new permits and completing capital projects to incorporate the alignment with NFMP and GPR activities.

#### **SUPPORTING IMPLEMENTATION ACTIONS:**

*Continue to provide Cost Share funding for the sealing of decommissioned wells in partnership with the SWCD.* 

Develop new incentives for low-impact development practices and BMPs that reduce the need for irrigation, promote infiltration, and protect groundwater quality through the Cost Share Program.

#### **Background & Purpose**

At the request of the PLSLWD's local partners, work with the Scott SWCD to provide funding for residential well-decommissioning (sealing unused wells) as a result of a public water supply expansion project. For individual requests, follow the current Scott County Cost Share Docket for the cost-sharing amount.

#### Implementation Steps

- 1. Incorporation of Groundwater Considerations: Develop and implement a plan to better consider groundwater protection when reviewing new permits and completing projects. The Groundwater Considerations Plan will be approved by the Board no later than 2024.
- Groundwater Protection Planning: Assist public water suppliers with planning and implementation activities to address land use planning concerns, serving on wellhead protection planning teams as opportunities arise. If no opportunities present themselves, schedule a meeting with County and local officials to discuss groundwater planning.

2020

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#### **IMPLEMENTATION STEPS**

- **1.** Incorporation of Groundwater Considerations
- 2. Groundwater Protection Planning

#### **Funding Sources**

The funding for this Project will come from the District Levy.



2030

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202

## 8. REGIONAL STORMWATER PLANNING

#### WATERBODIES ADDRESSED:

#### MANAGEMENT GOALS ADDRESSED:

• WQ1: Maintain or Improve water quality in Lower Prior Lk.

• Tier 1 Lakes

- WQ2: Meet water quality standards on Spring Lake
  WQ3: Meet water quality standards on Upper Prior Lake
- **RF1:** Achieve first-tier flood reduction goal on Prior Lake

#### **IMPLEMENTATION ACTIONS PERFORMED:**



Develop <u>equitable</u> regional stormwater management plans with municipalities that includes a stormwater utility credit program for future development areas.

#### SUPPORTING IMPLEMENTATION ACTIONS:

Coordinate effectively with LGU partners by meeting a minimum of biennially with each partner in the District to discuss upcoming projects, opportunities to collaborate, and partnerships to increase efficiency and reduce overlap, and through regular attendance at SCALE and other regional meetings by Board liaisons and staff.

Work with the developers to include enhanced water quality <u>and habitat</u> features in projects, providing cost-share as incentives.

41

Conduct outreach to new developments early in the planning process to identify areas of opportunity for water quality improvements.

#### **Background & Purpose**

Any unit of government may prepare a plan by which regional stormwater management facilities may be constructed in anticipation of, or concurrent with, land disturbing activity. The PLSLWD is in a position to facilitate advancement of regional stormwater management planning and seeks to develop concept plans in advance of development, including expansion within orderly annexation areas.

#### Implementation Steps

- Identify Likely Expansion Area: Coordinate with the municipalities and Scott County to identify areas most likely to develop on an annual basis. Consider regional stormwater projects and development of a stormwater utility for future development areas.
- Regional Concept Plan Development: Utilize existing databases, models and plans such the PLSLWD's wetland inventory, PCSWMM model and Upper Watershed Blueprint, develop concept plans for areas to be developed and engage the development community in advance of preliminary plat/PUD submittal.
- 3. Program Development: Consider development of a program or revisions to existing programs enabling PLSLWD to accept and maintain easements acquired through the Scott County PUD process. Also consider implementation of associated stormwater improvements and wetland restorations on the areas so acquired if they are not completed as part of the development process.

#### **IMPLEMENTATION STEPS**

1. Identify Likely Expansion Areas 2. Regional Concept Plan Development

2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030

#### **Funding Sources**

<u>10-Year Budget</u>: \$55,600

Page 9

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The funding for this Project will come from the District Levy.

WATERBODIES ADDRESSED:	MANAGEMENT GOALS ADDRESSED:
• All Lakes	<ul> <li>WQ2: Meet water quality standards on Spring Lake</li> <li>WQ3: Meet water quality standards on Upper Prior Lak</li> <li>RF1: Achieve first-tier flood reduction goal on Prior Lake</li> <li>RF5: Assess progress on flood reduction goals</li> </ul>

# 65 Conduct an assessment of the upland storage sites identified in the Stormwater Management & Flood Mitigation Study, 2016 and the Upper Subwatershed Assessment to create a prioritized list of potential storage areas based on refined cost estimates, feasibility, and opportunity.

Develop a Detention Policy in coordination with LGU partners (which includes the Spring Lake Dam Policy) for each of the waterbodies in the District that identifies normal operating levels and ability to manage water levels for flood management.

Complete an assessment of progress towards flood reduction goals on year 9 of the plan along with an increased precipitation and intensity resiliency scenario analysis, and set new goals for the next 10-year plan.

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Reassess feasibility of Buck Chemical Treatment System and implement if feasible.

#### SUPPORTING IMPLEMENTATION ACTIONS:

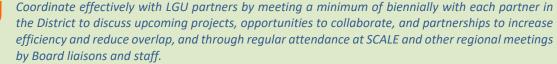


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Collaborate with LGUs and/or other partners on three or more retrofit water quality and volume management BMPs and/or water quality improvement research studies.

Develop <u>equitable</u> regional stormwater management plans with municipalities that includes a stormwater utility credit program for future development areas.



Partner with the City of Prior Lake to set goals for and complete modeling updates that provide sufficient information to inform future flood reduction decisions.

#### **Background & Purpose**

Building off activities such as the PCSWMM model update, Comprehensive Wetland Plan update, and County Ditch 13 visioning, the PLSLWD intends to update and prioritize its approach to pursuing upper watershed storage by prioritizing downstream water quality improvement in addition to flood damage reduction.

Identifying pollutant loading hotspots on the landscape is often an effective way to target projects for downstream water quality improvement. However, as the scale and complexity of a watershed increase, the usefulness of pollutant loading estimates alone is diminished. While it is relatively straightforward to estimate pollutant loading using lookup tables and well-established empirical formulae at the field or site scale, at the watershed scale there are complex phenomena that factor into whether pollutants contained in runoff actually reach a given downstream resource. Proximity is one part of that equation, but

PRIOR LAKE-SPRING LAKE WATERSHED DISTRICT

**EDUCATION &** 

OUTREACH

PROGRAM

# 4. Education and Outreach Program

The best advocate for water resources is an engaged and informed citizenry. Educational programs are designed to improve the general understanding of water resources and the impact each citizen has upon them. Outreach programs seek to make connections and change behaviors.

## **1. CITIZENS ADVISORY COMMITTEE**

10-Year Budget: \$47,000

#### WATERBODIES ADDRESSED:

**MANAGEMENT GOALS ADDRESSED:** 

• All Lakes

IV

- Streams
- Wetlands

20

38

All Goals

#### **IMPLEMENTATION ACTIONS PERFORMED:**

Continue to help support, organize and facilitate a Citizens Advisory Committee and its projects.

Provide <u>equitable</u> opportunities for communities to engage in and provide feedback for projects, programs, and District plans through neighborhood & public meetings, online surveys, direct mailings, District tours, presentations at local groups, etc.

#### **Background & Purpose**

Watershed districts in Minnesota are required by state statute to maintain a Citizen Advisory Committee (CAC) to provide input to the Board on various actions of the district. The CAC holds <u>bi</u>monthly meetings and follows adopted bylaws. The CAC continues to provide a valuable role, informing the PLSLWD of water resource concerns around the District and providing feedback on proposed PLSLWD projects. The CAC is also encouraged to lead their own projects and initiatives and develop annual goals and project plans. PLSLWD staff will continue to support the CAC, ensuring that monthly meetings continue and providing opportunities for CAC members to become more involved in PLSLWD activities.

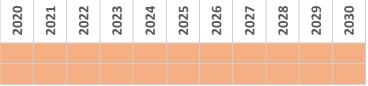
- <u>BiMmonthly CAC meetings</u>: The CAC will meet <u>bimonthly to develop and implement research and educational projects which reflects the Board of Managers' Priority Concerns of Water Quality; Storage and Flood Reduction; and Aquatic Invasive Species (AIS). They will review draft reports and provide comments to the Board of Managers, in a timely manner.
  </u>
- CAC-led projects: The CAC will pursue projects which expand the PLSLWD's impact and help reach more community members. The Citizens Advisory Committee will identify research projects volunteers can undertake which reflects the Board of Managers' Priority Concerns of Water Quality; Storage and Flood Reduction; and Aquatic Invasive Species (AIS).

IMPLEMENTATION ACTIONS, PROGRAMS & PROJECTS, AND FUNDING

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IV

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1. <u>Bi</u>Mmonthly CAC Meetings

**IMPLEMENTATION STEPS** 

2. CAC-Led Projects

## Funding Sources

The funding for this Project will come from the District Levy.



## 2. COMMUNICATIONS & PUBLIC RELATIONS

WATERBODIES ADDRESSED:

## MANAGEMENT GOALS ADDRESSED:

All Lakes

All Goals

Streams

Wetlands

#### IMPLEMENTATION ACTIONS PERFORMED:

18

38

Provide information to residents to encourage individual choices that benefit water quality and to increase participation in cost-share programs.

Continue to provide water resources information and project updates to residents through social media platforms, press releases, targeted mailings, email blasts, signage and the District's website.

Provide equitable opportunities for communities to engage in and provide feedback for projects, programs, and District plans through neighborhood & public meetings, online surveys, direct mailings, District tours, presentations at local groups, etc.

#### **Background & Purpose**

The PLSLWD's Education & Outreach program's activities are outlined in the annual Education & Outreach Plan written each year. The PLSLWD is required to provide educational opportunities for their citizens because the PLSLWD holds a Municipal Separate Storm Sewer System (MS4) permit from the MPCA.

The PLSLWD will seek to keep residents up to date with District news, events, programs and projects and provide information about topics relating to water resources, ecology, natural systems, biodiversity and other relevant environmental topics. A number of mediums will be used to communicate information with the public including the PLSLWD website; social media; newspapers, including the Prior Lake American and Scott County SCENE; and other publications, such as the Wavelength in the City of Prior Lake's utility bills and others. In addition to writing articles, the PLSLWD will publish an annual report of PLSLWD activities, factsheets, brochures, videos and other materials. The PLSLWD will also reach out to other local non-profit partners and local schools to identify other partnership opportunities.

#### **Implementation Steps**

- 1. Annually Update & Implement District Education & Outreach Plan: Update the PLSLWD's Education & Outreach Plan every year to meet strategic goals and implement the education and outreach actions highlighted in the Plan.
- 2. Website Updates: Keep website information on PLSLWD projects, programs and events up to date, adding updated reports and documents as needed. Provide relevant information regarding water resources and natural resources topics to serve as reference information for residents and partners.
- 3. Write articles for publication: Write at least twelve seven articles per year covering PLSLWD projects, events, programs, PLSLWD news, success stories, tips for best management practices and other nature interest stories each year. Articles can be published on PLSLWD website, social media platforms, shared by partners and submitted for publication in local newspapers including the Prior Lake American and the Scott County SCENE.
- 4. Social Media: Use relevant social media platforms to provide PLSLWD news, tips for residents, interesting nature information, project updates, etc.

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10-Year Budget: \$62,500

8.	PUBLIC ENGAGEMENT EVEN	<u>10-Year Budget</u> : \$115,350	
	WATERBODIES ADDRESSED:	MANAGEMENT GOALS ADDRES	SED:
	<ul><li> All Lakes</li><li> Streams</li><li> Wetlands</li></ul>	All Goals	

## IMPLEMENTATION ACTIONS PERFORMED:

19

Organize public participation/information events (e.g. Clean Water Clean-Up or District Tours) at least four times per year.

Continue supporting SCWEP and partner with Scott SWCD and/or other LGUs in Scott County to hold a minimum of two training events for residents per year that helps provide information for projects that benefit water quality and/or flood reduction.

## SUPPORTING IMPLEMENTATION ACTIONS:

38

Provide <u>equitable</u> opportunities for communities to engage in and provide feedback for projects, programs, and District plans through neighborhood & public meetings, online surveys, direct mailings, District tours, presentations at local groups, etc.

#### Background & Purpose

The PLSLWD will host events each year to engage and involve the public. Examples of events include PLSLWD tours of projects or resources in the District, clean-up events, etc. The PLSLWD will continue to partner with other local groups, such as cities and the Scott SWCD, to host workshops for residents on topics such as raingardens, shoreline restorations, prairie restorations and maintenance, winter maintenance and salt use, etc.

The PLSLWD's 50<sup>th</sup> Anniversary is in 2020 and special activities will be planned to engage the public and celebrate the District's anniversary.

- 1. Organize public events: Organize at least four public events each year, such as clean-up events, restoration plantings, neighborhood meetings, etc.
- Organize 50<sup>th</sup> anniversary celebration events: Organize several public events to celebration the PLSLWD's 50<sup>th</sup> Anniversary in 2020. Events could include bike rides or hikes around the District to highlight PLSLWD projects or natural resources, a trivia night at a local brewery and a story corps project to record local resident's stories and knowledge of the PLSLWD and its lakes.
- 3. Participate in public events: Attend public events, such as Lakefront Days, farmers' markets or other community events, to engage the public and inform them on water resources and natural resources topics.
- 4. Host or partner to support workshops: Host or partner with other LGUs to host training events for residents, contractors and other relevant people to provide information for projects or practices that benefit water quality and other topics. Workshop examples including raingardens, prairie restoration, shoreline restoration, winter salt application use, property management, etc.

# 5. Monitoring Program

Monitoring and research are needed to better understand watershed impacts, evaluate issues, and determine appropriate watershed management approaches within the watershed. In addition, long-term monitoring provides the PLSLWD with the information needed to demonstrate performance towards meeting the goals of the WRMP as well as the various TMDL Implementation Plans. The PLSLWD should also make sure that data collected are quality-assured and quality-checked (QA/QC'ed) and made available annually to the public and appropriate agencies. Updated



water quality summaries are provided annually on the waterbodies tab. Otherwise, data can be found be searching the <u>Water Quality Database</u>.

To ensure that the PLSLWD monitors water quality on a time and cost efficient basis, a long-term monitoring plan (Appendix HAppendix H) has been created. The long-term monitoring plan covers lakes, streams, best management practices (BMPs), precipitation, wetlands, and groundwater.

## **1. BUCK LAKE DIAGNOSTIC STUDY**

10-Year Budget: \$45,000

## WATERBODIES ADDRESSED:

MANAGEMENT GOALS ADDRESSED:

• Tier 2 Lakes: Buck

40

• WQ8: Assign water quality standard & goals for Buck Lake

#### IMPLEMENTATION ACTIONS PERFORMED:

Conduct a lake diagnostic study for Buck Lake to determine phosphorus budget, including a sediment core analysis, and identify restoration strategies based on applicable standard.

#### SUPPORTING IMPLEMENTATION ACTIONS:

Monitor and assess data for the District's waterbodies as prescribed in the District's Long-Term Monitoring Plan.

#### Background & Purpose

The Buck Lake drainage area was previously assessed primarily to estimate the cost-benefit of constructing another ferric chloride treatment system to manage stormwater runoff before discharge to Spring Lake. This project was shelved as it was deemed cost prohibitive. Public comment received during development of this management plan suggested the PLSLWD assess the quality of Buck Lake not only for its role in protection of downstream lakes, but for its inherent recreational and habitat value. The purpose of this Buck Lake study is to, for the first time, assess this resource by evaluating historic and current water quality trends; identify pollutant sources and loads; and assign numerical goals and quantify of pollutant reductions necessary to reach assigned PLSLWD goals for the resource as well as for the benefit of downstream water quality.

#### Implementation Steps

1. Prepare Diagnostic Study: Assess historic and current water quality trends, identify pollutant sources and loads (including sediment core collection and aquatic plant surveys), develop watershed and inlake loading models, conduct public meetings, identify load reduction strategies and practices, assign PLSLWD goals, prioritize implementation activities, and prepare report.

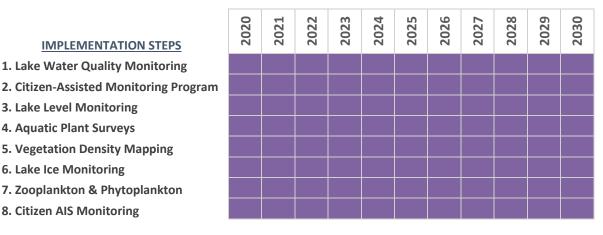
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In order to stay abreast of monitoring techniques, PLSLWD staff will attend trainings and workshops as well as keep good relationships and partnerships with other monitoring organizations. New and innovative monitoring equipment or methods may be tested by the PLSLWD when applicable.

## **Implementation Steps**

- 1. Lake Water Quality Monitoring: Annual water quality monitoring (completed by Three Rivers Parks District as of 2019) on Lower Prior, Upper Prior, Spring, Fish, and Pike Lake. Arctic Lake is monitored by SMSC.
- Citizen-Assisted Monitoring Program (CAMP): Citizen volunteers or staff collect a surface water sample for laboratory analysis and provide some user perception information about each lake's physical and recreational condition. Includes Swamp, Sutton, Crystal, Buck, Haas, Lower Prior (site 2), Cates, Jeffers, and Fish Lakes.
- 3. Lake Level Monitoring: Automatic level data loggers and staff gauges are used to monitor lake levels. Level loggers will transmit real-time data to the website.
- 4. Aquatic Plant Surveys: Plant surveys will assess the distribution, type, and growth density of all plants. Lakes with potential nuisance curly-leaf pondweed (CLP) will be surveyed just after ice out to determine the potential need for treatment. If CLP is treated, an assessment will be done post-treatment to determine effectiveness of treatment.
- 5. Vegetation Density Mapping: Annually map lakes on a rotating basis for lake plant biomass densities, bathymetry, and bottom hardness using sonar to capture long-term trends of lake plant density and growth in the PLSLWD's lakes.
- 6. Lake Ice Monitoring: Volunteer ice observers will inform the PLSLWD when the lake is at least 90% on and off each year for PLSLWD records for all lakes.
- 7. Zooplankton & Phytoplankton: Monitor zooplankton & phytoplankton every 3, 5, or 10 years based on lake tier.
- 8. Citizen AIS Monitoring: Organize and implement a citizen AIS monitoring program that includes such activities as zebra mussel plates and dock reporting, boat launch inspections, etc.

Additional detail about the above implementation steps can be found in the PLSLWD's Long-Term Monitoring Plan in Appendix HAppendix H.



#### **Funding Sources**

The funding for this Project will come from the District Levy.

10-Year Budget: \$175,950

## **1. PERMIT PROGRAM**

WATERBODIES ADDRESSED:	MANAGEMENT GOALS ADDRESSED:
<ul><li> All Lakes</li><li> Wetlands</li><li> Streams</li></ul>	<ul> <li>WQ1: Maintain or Improve water quality in Lower Prior Lake</li> <li>WQ2: Meet water quality standards for Spring Lake</li> <li>WQ3: Meet water quality standards for Upper Prior Lake</li> <li>WQ4: Improve water quality in Fish Lake</li> <li>WQ5: Improve water quality in Arctic Lake</li> <li>WQ6: Improve water quality in Pike Lake</li> <li>WQ10: Maintain no net loss of wetlands in the District</li> <li>RF3: Eliminate/reduce impact of development on flooding</li> </ul>

#### IMPLEMENTATION ACTIONS PERFORMED:

5 Enforce District Rules through active permit program and assess the need for rule updates on a five-year basis.

#### SUPPORTING IMPLEMENTATION ACTIONS:

Develop regional stormwater management plans with municipalities that include a stormwater 16 utility credit program for future development areas. Coordinate effectively with LGU partners by meeting a minimum of biennially with each partner in 24 the District to discuss upcoming projects, opportunities to collaborate, and partnerships to increase efficiency and reduce overlap, and through regular attendance at SCALE and other regional meetings by Board liaisons and staff. Work with the developers to include enhanced water quality and habitat features in projects, providing cost-share as incentives. Conduct outreach to new developments early in the planning process to identify areas of opportunity for water quality improvements. Protect wetlands and wetland buffers under PLSLWD conservation easements or other municipal control through District Rule J enforcement or other mechanisms. Create a District wetland banking program to ensure no wetland loss when the use of wetland credits 43 is necessary for a project within the District. Develop a plan on how to better incorporate consideration of groundwater protection when 59 reviewing new permits and completing capital projects. Provide incentives through the Cost Share Program to member communities and the development community to promote the use of green infrastructure that contributes to flood reduction on Prior Lake.

#### **Background & Purpose**

The PLSLWD will enforce District Rules (Appendix DAppendix D) through an active permit program and will continue to issue permits for other government entities, including municipal, county and state projects. The PLSLWD will also issue permits when called for by District rules, agreements with other entities or watershed law; when requested by the local municipality; or for projects within PLSLWD easements, specifically easements on the Prior Lake Outlet Channel.

PLSLWD staff will participate in city Development Review Committees (DRC) and Scott County Development Review Team (DRT) meetings to incorporate water quality and quantity BMPs on new development and redevelopment.

PLSLWD staff will monitor conservation easements on a regular basis, initially annually. Staff will communicate and build relationships with landowners through inspection letters, site visits, newsletters, etc. If easements are in compliance with the terms of the easement agreement they could be monitored less frequently, such as once every two or three years. Staff will work with landowners who are in violation of the easement to bring the conservation easement area back into compliance. An easement amendment may be requested by the landowner per the PLSLWD's Easement Amendment Request Policy in order to retain the conservation easement area while helping the landowner achieve compliance. Additionally, new conservation easements should be pursued as new developments trigger Rule J and as other strategic opportunities present themselves.

In addition, the PLSLWD will complete an inventory of BMPs for which the PLSLWD has taken on maintenance responsibility. Once a BMP inventory is complete, monitoring of the BMP will occur every 1-3 years, depending on needs. The PLSLWD will work with the responsible partners to ensure any necessary maintenance is performed.

Many wetlands in the watershed are protected by city buffers and/or conservation easements which they acquired through the permitting process as a result of the District's permitting equivalency. However, the City of Prior Lake has indicated that they may not have the capacity to monitor these buffer areas as needed. As a result, staff from the City of Prior Lake and the PLSLWD have discussed having PLSLWD assist with the monitoring of City conservation easements located in the District. In 2021 the PLSLWD will work with the City to assess needs and will partner with the City to help monitor their easements as needed.

#### Implementation Steps

- 1. Regularly Monitor Easements: Conservation easements will be monitored regularly every 1-3 years, based on compliance status and risk of future violation for each easement.
- Enforce Conservation Easements: The PLSLWD will take Board-directed action steps when an easement remains out of compliance for more than two years, per the PLSLWD's Easement Enforcement PolicyEasement Enforcement Policy.
- 3. Easement Amendments: The PLSLWD will process requests to change the easement per the PLSLWD's Easement Amendment PolicyEasement Amendment Policy as they are received.
- 4. BMP Inventory & Monitoring: The PLSLWD will inventory historical BMPs that have existing, recorded agreements, and develop & implement a monitoring plan.
- 5. Assistance Inspections: The PLSLWD will work with the City of Prior to assess their needs for assisting with easement and/or BMP inspections in 2021. The PLSLWD and the City then would potentially implement a partnership plan approved by the Board to move forward with inspecting those areas as soon as 2022.

#### **IMPLEMENTATION STEPS**

- 1. Regularly Monitor Easements
- 2. Enforce Conservation Easements
- 3. Complete Easement Amendments
- 4. BMP Inventory & Monitoring
- 5. Assistance Inspections

#### Funding Sources

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The funding for this Project will come from the District Levy, easement amendment request fees, and invoiced enforcement costs to landowners.

IV

definable boundaries (e.g., roads), and a single property cannot be in more than one watershed district. This can result in significant differences between the legal boundary and the hydrologic boundary. The PLSLWD will keep PLSLWD's legal boundary matched to its hydrologic boundary as accurately as possible, so that the land that drains to PLSLWD water resources is captured within the legal boundary to the maximum extent possible. This may involve including additional areas such as those flowing to Tier 1 lakes and the Prior Lake Outlet Channel watershed as well as removing the Cates Lake subwatershed.

## Work Program and Budget Process

The following process provides a method for the development of each year's budget and assessing consistency with the 2020 Plan (e.g., goals, action items). The PLSLWD will develop a work plan annually. The process will incorporate program evaluation (evaluation of the "Outcomes & Measures"), track changes to the original plan content and projections, and determine if plan amendments are required.

## I. Work Program Content

- **a.** Review of previous year's work program and accomplishments. *Did the PLSLWD complete tasks identified? What were the documented "Signs of Success"?*
- **b.** Discussion of studies, data, and public input that influences proposed projects, schedules, and budgets.
- **c.** Identification of new issues for potential inclusion in work program and budget. *What influence or effect does the new issue have on established priorities, programs, or projects?*
- **d.** Identification of funding issues presented by proposed work program bonding needs, levy adjustments, budget/levy policy impacts, new funding approaches.
- Progress summary for each goal using the Outcomes & Measures Dashboards in Appendix MAppendix
   M that identifies associated projects in the plan and any proposed adjustments (identifying completed efforts, ongoing efforts, and updated project schedules and budgets).
- f. Need for plan amendments identify whether changes require amendments.
- **g.** Estimated annual budget by major program area. This budget table shall reference the applicable PLSLWD goals.

## II. Work Program Development and Review Process

- **a.** Information identified above shall be collected and developed beginning in March of each year by staff beginning in 2021.
- **b.** The proposed work program, budget, and levy will be presented to the Board of Managers for discussion no later than the August Board meeting starting in 2021.
- **c.** The preliminary budget and levy shall be presented at a public hearing, deliberated by the Board, and approved at the September Board meeting, prior to September 30 of each year.
- **d.** The preliminary levy shall be certified to Scott County by September 30 of each year.
- e. Identified plan amendments shall be drafted and submitted to the Board of Managers for review and approval at the September Board meeting and to the agencies for review by September 30.
- **f.** Following local review of the proposed PLSLWD work program and budget, the Board of Managers shall revise, if necessary, and approve the final work program, budget, and levy. The levy shall be certified to Scott County by December 30 of each year.

## III. Reporting

a. Annual Reporting. As indicated, the PLSLWD annually evaluates its progress toward achieving its goals and performing those items listed in its Implementation Plan. Rule 8410.0150 Subpart 1 requires Watershed Districts to prepare an annual activity report which is due within the first 120 days of the calendar year. Rule 8410 specifies the content of the Annual Report.



The desired outcomes of each goal identified in this plan are included in this section along with the measure that will be used to determine if that outcome was achieved. This information is included in **Table 6** and will be used, along with the goals dashboards (**Figure 7**; <u>Appendix M</u>Appendix M), to track progress throughout the course of this 10-year WRMP. The implementation actions that will result in these goals being met are also included in this section.

Pursuant to Rule 8410, the PLSLWD will evaluate the actions within the Implementation Table with the annual activity report every two years. During this evaluation, the PLSLWD also plans to evaluate progress towards Plan goals. The PLSLWD's efforts from 2010 to 2016 have been well-characterized in BWSR's Level II Performance and Assistance Program (PRAP) report (Appendix KAppendix K). The PRAP will continue to be used as a means of evaluating implementation progress.

## **Goal Dashboards**

In this 2020-2030 WRMP, the PLSLWD intends to better measure and track progress towards goals to ensure adequate progression through the use of dashboards. <u>Appendix MAppendix M</u> provides an Outcomes & Measures Dashboard for each goal for the PLSLWD to use internally to help better track and make adjustments as necessary. These dashboards will be updated every two years during the required evaluation period. As the Management Plan is amended, the Appendices will also be updated to provide the most current information on progress towards goals.

Below is an example of the dashboard for Goal WQ5 for Arctic Lake. Note that the dashboards include information not only on how to track progress, but what to consider if the PLSLWD is not meeting certain milestones during the 10-year plan. This dashboard also provides a quick reference for which projects are helping to achieve the goal.

Penorm	ance Measures:	Every two years, assess water quality (TP, ChI-a and Secchi) to measure improvements; track load reductions associated with project implementation.														
Baseline Measures (2008	-2017) :	PROJECTS	THAT WIL	L HELI	PACHIE	VE THE	GOAL	:								
otal Phosphorus (TP)	127.5 µg/l															
Chlorophyll-a (Chl-a)	40 µg/l	Capital Projects	2020	2021	2022 203	23 2024	2025	2026	2027	2028	2029	203				
Secchi depth	0.43 m	Arctic Lake BMP Projects*			V	1			1							
Outcome: Support & coordinat	te with SMSC	Operations & Maintenance Projects	2020	2021	2022 20	23 2024	2025	2026	2027	2028	2029	203				
on projects, resulting in impr		Carp Management Program*	1	1	× v	· ~	1	1	1	1	1	~				
quality in one or more measu	res by 2029.	Cost Share Program	1	1	× •	1	1	1	1	1	1	1				
2-Year Average Track	ina:	Planning Projects	2020	2021	2022 20	23 2024	2025	2026	2027	2028	2029	203				
TP Chl-a	Secchi	Feasibility Reports		1	v		1		1		1					
2021		The second second and the second s														
2023		Monitoring Projects	2020	2021	2022 202	23 2024	2025	2026	2027	2028	2029	203				
2025		Lake Monitoring	1	1	× ×	· •	1	~	1	1	1	~				
2027								_				_				
2029		Regulation Projects	2020	2021	2022 203	23 2024	2025	2026	2027	2028	2029	203				
		Permit Priogram	1	1	1 1	<ul> <li>✓</li> </ul>	1	~	1	1	1	1				
	king	Conservation Easement Program	1	✓	1 1	1	1	1	1	1	1	~				
Load Reduction Trac		District Rules Updates	√				1					1				
Load Reduction Trac Project Year	lb/year															
and the land of th	lb/year	* Projects in <b>bold</b> have the greatest poten	itial to achie	eve wa	ter qualit	y improv	ement	results								



See Appendix MAppendix M for a complete compilation of dashboards for each of the PLSLWD's goals.

#### Outcomes & Measures Table

Periodically evaluating success provides the Board of Managers with a mechanism to evaluate progress and make the necessary adjustments needed for improvement. While the dashboards provide detail and information for each individual goal, the following table includes an overview of each water quality goal, listing the desired outcome and measure of success for each along with the appropriate programs that help achieve the goal. This table is used to provide a larger look at the PLSLWD's planned activities for each goal and a quick overview of what measures will be used to determine success.



Table 6. Measures and Outcomes of each Goal and their associated Projects and Programs

	neasures and Outcomes of each doar and t							C	CAPIT	TAL P	ROJEC	CTS			0	PERA	TION	IS & I		TENA	NCE		PI		ING			E	E & O	)	M	οΝΙΤ	TORIN	1G &	RESE/	<b>ARCH</b>	<u>1 I</u>	REGULATIO
Goal#	Goals (Desired OUTCOMES)	MEASURES	Strategies	PROJECTS	CountyDitch13 Restments	udicinfrastructure Projects Victic Lake Binne	ishLake Watersheets	owerPrint_akeSubwatershorts	oring Lake Mucco	togge & Influation Providence	uthn Lake O Ditton Lake O	WetlandRestoration 9	AS Presenting Program	arpManagement	ot Share Program	enmer-LedCouncil Initiatives	tehway 13 U.S.	PLOCBank Restoration	noiet Marie	US Rapid Responses &	bitrict Plantus.	easibilityReports	Lower Prior Lake D	Planning & Programming	Poer Water Panning	Titens. Advisory Community	unnunications & Aubico.	italigicoutreach	luck Lake Diegnostince.	are Nonitoring tream & r	Effectiveness / Monitoring	VetlandMonitoring	Precipitation & Weather Groundware	Peppritig and parts	CSWAMM Model Update	Orenani.	bitrict Rules Linus	İstrict Boundary Revision
WQ1	Maintain or improve the 5-year average for TP, Chlorophyll-a and Secchi depth in Lower Prior Lake.	Every two years, evaluate water quality trends on a 5-year running average to ensure water quality is maintained or improved.	1-7		x		×			<b>x</b> x			x		x				x			x	x >			x x	x	x	x	x		x		x		x	x	
WQ2	Meet the state water quality standards for aquatic recreation on Spring Lake.	Use in-lake water quality monitoring results to assess progress every two years; request delisting to MPCA.	3, 5-30	x	xx		x	x	x	x x		<b>x</b> x	x	x	x x	x	x		x	x		x	;	x x	x	x x	x	x x	x x	x	x	x		x	x	x	x	
WQ3	Meet the state water quality standards for aquatic recreation on Upper Prior Lake.	Use in-lake water quality monitoring results to assess progress every two years; request delisting to MPCA.	5-7, 9, 10, 12- 14, 16, 18-25, 28-30	x	×	x	x		x	x x		<b>x</b> ×	x	x	x x	x	x		x	x		x	;	x x	x	x x	x	x	x	x	x	x		x	x	x	x	
WQ4	Improve water quality in Fish Lake by reducing annual phosphorous load by 40 Ibs/year (50% of Lower MN Watershed Restoration and Protection Strategy).	Every two years, assess water quality to measure improvements; reduce annual P load by 40 lbs/year by 2029.	5, 6, 7, 12, 21, 23, 28, 29, 31, 32				x			x		x	x	x	× x					x	x	x	;	×		x x	x	x	x	x	x	x		x	x	x	x	
WQ5	Improve water quality in Arctic Lake by supporting SMSC's improvement efforts to reduce watershed phosphorus loading by 37 lbs/yr and by partnering with SMSC, the City of Prior Lake and the Three Rivers Park District on future projects as opportunities arise.		5, 33-35			x								x	x						x	x	;	x		x x	x	x	x					x	x	x	x	
WQ6	In partnership with SMSC and the City of Prior Lake, improve Pike Lake by achieving 10% percent improvement in TP concentrations to work toward the TMDL pollutant reduction requirements.	Every two years, assess TP concetrations to measure improvements; track load reductions associated with project implementation.	5, 6, 28, 34-36											x	× x						x	x	;	x		x x	x	x	x					x	x	x	x	
WQ7	Assess the quality of Sutton Lake and develop a Lake Management Plan.	Assessment of lake quality and development of management plan.	34, 37-39								x										x	x	;	×		x x	x	x	x					x				
WQ8	Assign a District water quality standard for Buck Lake and set management goals for the next 10-year plan.	Conduct a lake diagnostic study to identify water quality standard; set management goals for next 10-year plan.	34, 40																		x	x	,	x		x x	x	x	<b>x</b> ×					x				
WQ9	Assess the quality of Tier 3 Lakes and assign lake management classifications.	In-lake water quality monitoring; assign lake classifications.	34																		x	x	;	x		x x	x	x	x					x				
WQ10	Maintain no net loss of wetlands in the District.	Every two years, track wetland impacts and mitigation measures.	5, 6, 23, 41-45									х			х					x	x	x	;	x		x x	х	x				x		x	x	x	х	

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# VI. LAND AND WATER RESOURCES INVENTORY

This section of the WRMP outlines the hydrologic and geologic characteristics of the PLSLWD. This inventory provides supporting information to orient specific issues, goals, and strategies with locations throughout the watershed. Information in this section is not exhaustive, so links are included for more information and supporting information is included in <u>Appendix BAppendix B</u> and <u>Appendix G</u>.

## A. Existing and Future Conditions

This section of the Water Resource Management Plan is an inventory of existing conditions and proposed future development within the PLSLWD. This section is divided into three main subsections: Physical Environment, Biological Inventory, and Human Environment. The **Physical Environment** subsection provides a general physical description of the watershed and describes the geomorphology, geology, and soils. The **Biological Inventory** subsection summarizes the major biological communities and inventories important plant and animal species. The **Human Environment** subsection describes land use and growth patterns, recreational resources, and potential environmental hazards. All maps referenced in this section appear in **Appendix B**.

#### 1. Physical Characteristics

The physical characteristics of a watershed include its physical setting, geology, geomorphology, soils, and water resources. Each of these topics is discussed in this section except for water resources which is the focus of Part B of this section.

## a) Physical Setting

The PLSLWD includes approximately 42 square miles of land located entirely within Scott County, Minnesota. The Vicinity map and the District map show the PLSLWD boundaries; the surrounding area is shown for location reference (Appendix BAppendix B). The District encompasses land in five local units of government and one tribe: the Cities of Prior Lake, Savage, and Shakopee, as well as Sand Creek and Spring Lake Townships the Shakopee Mdewakanton Sioux Community. The Municipalities map shows the boundaries of the District as well as the municipal boundaries of these five local governmental units. The City of Prior Lake and Spring Lake Township comprise most of the PLSLWD's area, while Sand Creek Township and the cities of Shakopee and Savage have relatively little land area within the District.

In 1983, an outlet channel was constructed beginning at the southwest end of Lower Prior Lake. With the outlet channel in place, drainage flows north under County Road 21, through Jeffers Pond, Pike Lake, Deans Lake, and Blue Lake before its eventual discharge to the Minnesota River near the Old Highway 18 Bridge.

The PLSLWD is bordered by the Lower Minnesota River Watershed on the north, and the Scott County Water Management Organization (WMO) on all other sides.

## b) Geology and Geomorphology

The surficial geology of the PLSLWD is almost entirely comprised of glacial till deposits. The only surficial geological unit of any other origin is a few small regions of peat deposits. Glacial till and drift were brought to the region through a series of glaciations coming from the northeast and the northwest. The Superior lobe came from the northeast bringing reddish-brown drift, eroded from the bedrock of the Superior region. Glaciers coming from the northwest brought gray clayey, calcareous drift eroded from North Dakota, Manitoba, and northwestern Minnesota. The hills, ridges, and kettle lakes of the region were formed when the Des Moines Lobe began to stagnate and melt. This resulted in the creation of the irregular topography of the region. The Surface Geology map shows the surficial geology of the District.

**Environmental Hazards** subsection describes areas that have potential pollutant sources to surface or groundwater such as hazardous material handlers, landfills, feedlots, and other potential pollutant sources.

#### a) Land Use

#### **Historical Background**

The earliest European settlers in the Prior Lake-Spring Lake Watershed arrived in 1853. These early settlers resided south of Spring Lake in what was to become Spring Lake Township.

The first annual town meeting for Spring Lake was held May 11, 1858 at the house of W.H. Calkins. Spring Lake Village was originally surveyed and recorded in 1857. A considerable number of lots were sold as the town rapidly grew. A grist mill was built at the outlet of Spring Lake in 1859, the first store in Spring Lake Village was built in 1865 and there is also a cemetery which was laid out and recorded in 1863. Following the construction of the Hastings & Dakota Railway the town saw a general decline.

Prior Lake Village was surveyed and recorded in 1875 on land owned by C.H. Prior. The first building erected in Prior Lake was a store built in 1871. The Prior Lake post office was established in 1872, and by 1882, the Prior Lake business district had expanded to include one flour and feed mill, one general merchandise store, one wheat storehouse, one blacksmith shop, and two saloons. The Grainwood Resort opened on the lake in 1879, followed by several other smaller resorts; Fish Point (1907); Grainwood Landing (1906-1910); and Spranks Resort (1910-1940).

By 1940, Spring Lake had 59 cottages, 5 resorts, and more than 125 boats used for fishing, boating and other recreational purposes. Lower Prior Lake had 90 cottages and 2 resorts and more than 150 boats (Minnesota Department of Conservation 1940).

#### **Present Land Use**

Land use within the District reflects five basic location mechanisms: proximity to Minneapolis and St. Paul, proximity to transportation, proximity to Prior and Spring Lakes, availability of wastewater service, and local controls. The Existing Land Use map presents the existing land uses for the District.

Existing land uses within the District include both urban and rural land use types. Urban developments are primarily residential units located adjacent to the lakes with some commercial and industrial development primarily occurring along Highway 13 through the City of Prior Lake. The predominant residential land use is single family residential units. Commercial and industrial land use in the watershed is comprised of warehousing, residential services, and office space. Rural land use is primarily comprised of small to medium sized farms with the average farm size being about 150 acres. The major farming activities include row crop production of corn and soybeans along with a few farms with cattle grazing in pastures. The agricultural areas of the District are primarily located in the southern part of the District south of Prior and Spring Lakes and outside the Metropolitan Urban Service Area (MUSA).

The MUSA map, as shown in Appendix BAppendix B, presents the current MUSA boundaries for the District. Metropolitan Council Environmental Services (MCES) operates all the regional wastewater treatment facilities for the Greater Twin Cities Metropolitan Area. As the wastewater authority, MCES establishes the limits of the MUSA boundary. Within this boundary residents and businesses receive municipal services. Outside this boundary, residents and businesses must rely on on-site wastewater treatment systems. As a result, the MUSA boundary determines in large part the extent of urban development. Comparing the MUSA boundary map to the existing land use map reveals the close connection between urban development and the availability of wastewater services.

#### **Future Land Use**

Under the Metropolitan Land Planning Act, the communities within the District were required to prepare and submit land management plans with projections of future land use. Appendix B Shows the 2030 Land Use map, which is a compilation of proposed future land use by the municipalities within the District.

Recent trends in land use patterns for the District indicate that residential development is spreading out from the core area around Prior and Spring Lakes into adjacent areas. Population of the City of Prior Lake has doubled since 1995, with 2017 population estimates at 26,401. Population estimates for Scott County by the Metropolitan Council and State Demography Unit estimate 2017 populations at 145,827 people. Agriculture has experienced a modest decline in cropland acreage and in the number of farms. However, much of the soil within the District is classified by the Natural Resource Conservation Service as good farmland, with an area around Sutton Lake being classified as prime agricultural land. These agricultural areas are also the least affected by the most common type of development because they are furthest away from the metropolitan core cities and the highly desirable recreational lakes and are outside of the MUSA. Therefore, it is expected that agricultural land uses will continue to remain present within the District although pressure of urbanization is increasing dramatically. Commercial agriculture is becoming less viable as seen in the increase in cluster or large lot subdivisions.

Land use information for the District was obtained from land management plans prepared by the local municipalities and by the county. For more detailed information on land use, refer to the city land use plans prepared by the Cities of Prior Lake, Savage, and Shakopee. For areas outside of these municipalities, land use information is provided by Scott County. The county land use plan appears as a portion of the Scott County 2040 Comprehensive Water Resources Plan, adopted in June 2019.

#### b) <u>Recreational Resources</u>

Land and water-based recreational opportunities exist within the District. Water-based recreation in the District is primarily focused on Spring, Upper Prior, and Lower Prior Lakes. There are numerous parks within the District, the largest of which is Spring Lake Regional Park, located on the north shore of Spring Lake and covering about 400 acres. Lakefront Park is the second largest park and is located on the southeast shore of Lower Prior Lake within the City of Prior Lake; it hosts one of two public beaches on Lower Prior. Jeffers Pond Park is the third largest park facility, covering 147 acres and including both Upper and Lower Jeffers Ponds. Sand Point Beach Park is another important community park which hosts the other public beach on Prior Lake and is adjacent to the Lower Prior Lake boat launch. Locations of park and boat launch facilities in the District are shown on the Recreational Resources map.

Public boat landings within the District include one each on Fish, Spring, Upper and Lower Prior Lakes. These landings are maintained by the MNDNR. There is also one additional winter access point on both Spring and Lower Prior Lakes.

Spring, Upper Prior, and Lower Prior Lakes have a combined surface area of approximately 1,800 acres. These lakes receive intense recreational pressure year-round. Open water activities include fishing, boating, kayaking, canoeing, water skiing, jet skiing, sailing, wakeboarding, and swimming. During the winter when the lake is ice-covered, recreational activities include snowmobiling, ice fishing, skating, and cross-country skiing.

The few swimming beaches in the District are quite popular. According to the City of Prior Lake, annual visitors to Sand Point Beach on the north shore of Lower Prior Lake reach 30,000-48,000 each year and

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## **B. Hydrologic Systems**

This section is an inventory of basic hydrologic data for the PLSLWD. The inventory is divided into four subsections: Precipitation, Water Quantity, Water Quality, and Groundwater. All tables and figures for this section appear in <u>Appendix GAppendix G</u>.

#### 1. Precipitation and Drainage

Snow and rainfall data for the District is obtained from the State Climatology Office. Over 100 years of precipitation data has been collected in the Lower Minnesota River watershed and is summarized in Figure 2 of Appendix GAppendix G. These stations are used by the District because of their proximity, their long period of record, and the high degree of confidence in the data. Additional precipitation records can be obtained from local sites through the state's volunteer precipitation monitoring network overseen by the state climatologist and the weather station that was installed by PLSLWD staff in 2018 at Spring Lake Townhall. Figure 1 of Appendix GAppendix G presents the ten-year historical record of precipitation at the PLSLWD site.

#### a) Precipitation and Evaporation

The annual average rainfall for this area is approximately 31 inches of water per year. When rainfall is below average, lakes with small tributary areas can drop rapidly. In the absence of specific evaporation data, these values can be used to estimate future lake levels and recovery times for lakes when combined with observation well data and hydrology models.

### b) <u>Topography</u>

The hydrologic system of the District is characterized by its drainage features including ditches, streams, floodplains, wetlands, and lakes. Topography and drainage patterns for the District are typical of glaciated areas. The terrain ranges from rolling hills to nearly level land with numerous basins of glacial origin, such as kettle lakes, scattered throughout the District. The Subwatershed Map, shown in Appendix BAppendix B, shows the major drainage features of the watershed including subwatershed boundaries, lakes, streams, and drainage ditches. Discussion of wetlands and floodplains are presented later in this section.

The highest ground in the watershed is 1,100 feet above mean sea level (MSL). This high ground is located along the eastern boundary of the watershed in Spring Lake Township (S23, T114N, R22W). The lowest ground in the watershed is the end of the outlet channel at an elevation of approximately 880 feet above MSL. The shoreline of Prior Lake has varied historically depending upon the lake level. The elevation of Prior Lake has ranged from a recorded low of 883.6 in 1938 to a recorded high of 907.6 in 1906.

The major lakes of the District are Spring Lake, Upper Prior Lake, and Lower Prior Lake. In general, water flows from southwest to northeast through the watershed. The southwestern portion of the watershed includes Swamp Lake, Sutton Lake, Fish Lake and Buck Lake. This region is drained primarily by County Ditch 13 for Swamp and Sutton Lakes and by the Buck Lake channel for Fish and Buck Lakes. These channels discharge to Spring Lake, which discharges to Upper Prior Lake, which in turn flows into Lower Prior Lake.

There was no consistent outflow from the watershed until 1983, when an outlet channel was constructed beginning at the southwest shore of Lower Prior Lake. With the Prior Lake outlet channel in place, drainage flows north in a pipe under County Road 21, then the channel daylights and flows through Jeffers Pond, Pike Lake, Dean Lake and Blue Lake, before its eventual discharge to the Minnesota River.

### c) Floodplain

The United States Army Corps of Engineers and the Federal Emergency Management Agency (FEMA) have mapped the District's floodplains. The Floodplain Map, found in <u>Appendix BAppendix B</u>, shows an approximation of the floodplains delineated by these agencies. These floodplains represent the area that

would be inundated by a 100-year flood event. This map does not show all floodplains within the District and is in part, based on approximate hydrologic methods and limited topographical data. Refer to Flood Insurance Rate Maps (FIRM) for more detailed information. Flood Insurance Rate Maps (FIRM) and Flood Insurance Studies (FIS) are available online via <u>FEMA's interactive website</u>.

#### 2. Waterbodies

#### a) <u>Public Ditches</u>

County Ditch 13 is the only public ditch in the District. This ditch follows the path of the original natural stream for most of its length. However, the original natural stream was widened and straightened into today's current Ditch 13 to increase its capacity to drain land for agricultural purposes. Scott County maintains maps of this system which differentiate the public ditch from private laterals/extensions, and natural drainage ways. The County controls the public ditches and is the ditch authority for the purpose of implementing M.S. 103E (Drainage Law).

## b) Lakes

Approximately 8 percent of the District is covered by lakes. There are four lakes in the District that are greater than 100 acres in size and eight lakes with areas between 20 and 100 acres. The lakes that are greater than 100 acres and support fishing, swimming, and other body and non-body contact recreational uses are considered priority waterbodies. Lakes in the District are listed in Table 4 and Table 5 in Appendix GAppendix G, with their major physical, chemical, and biological characteristics. Additional fishery and water quality data can be found in Appendix CAppendix C.

#### c) Wetlands

MN Rule 8420 (the Wetland Conservation Act) states per MN Rule 8420.0105, "Wetlands must not be impacted unless replaced by restoring or creating wetland areas of at least equal public value. This chapter regulates the draining or filling of wetlands, wholly or partially, and excavation in the permanently and semipermanently flooded areas of type 3, 4, or 5 wetlands, and in all wetland types if the excavation results in filling, draining, or conversion to nonwetland."

MNDNR protected wetlands are defined in M.S. 105.37 as "all Type 3, 4, and 5 wetlands, as defined in United States Fish and Wildlife Service Circular No. 39 (1971 edition), not included within the definition of public waters, which are 10 or more acres in size in unincorporated areas or 2.5 or more acres in incorporated areas." Permits are required from the MNDNR for any alteration of protected wetlands or waters below the ordinary high-water elevation. A detailed map of MNDNR protected wetlands can be found on the MNDNR website.

The United States Fish and Wildlife Service (USFWS) has also compiled wetland maps through the National Wetland Inventory (NWI). The NWI maps identify wetland types 1-8, regardless of size, and therefore provide a more complete accounting of wetland areas. Detailed USFWS NWI maps can be found on the <u>USFWS interactive Geospatial Wetlands Information website</u>. The District has chosen to use this interactive mapping tool, as opposed to a hard copy map, as it is the most up to date and allows flexibility in selecting data sets.

In 1994, the Scott SWCD conducted a detailed wetland inventory for the southern half of the District. Under this effort, the SWCD reviewed maps from the MNDNR, the Metropolitan Mosquito Control District, the United States Department of Agriculture, the United States Fish and Wildlife Service, and the United States Geological Service to identify existing wetlands, drainage areas for these wetlands, and drainage channels. Tile records were reviewed to obtain information on drained wetlands. Historical aerial photographs dating

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back to 1937 were also reviewed to identify original wetland areas. Field reconnaissance was used to complete the inventory by providing a field verification of the mapping results. The maps and records from this wetland inventory are not included in this plan because the extensive detail of this inventory would make this plan excessively cumbersome. However, the inventory records and maps can be viewed at the District office.

In 2012, Emmons and Olivier Resources (EOR) prepared a Comprehensive Wetland Plan for PLSLWD to accomplish goals and meet policies set forth in this WRMP. This plan was used to develop wetland management standards used to support water resource management activities in the Watershed District and an updated inventory was created, which can be found in the District files.

The Wetland map, found in Appendix BAppendix B, shows the general location of MNDNR protected wetlands in the District as determined by the Scott SWCD.

#### 3. Water Quantity

Water quantity has been identified as a priority issue for the District and will likely continue to be so in the future as development continues throughout the watershed. A thorough understanding of water quantity issues is a major component of the watershed management plan. Water quantity issues can be divided into two categories: issues relating to the quantity of water stored and issues relating to the quantity of water flowing through a given point. This section summarizes and discusses data on water storage in terms of lake levels and flow data.

To supplement the existing data on lake levels and flow, several hydrologic models have been developed for the District. These models serve as an important tool for analyzing the relative importance of various factors that influence water levels and flow rates. In addition, these models can be used to make predictions regarding future water levels and flow rates in the District. Various models have been used depending upon desired analysis parameters and include XP-SWMM, SWAT, HydroCAD, PCSWMM, and HEC-RAS. Details on modeling and model calibration can be found in individual project reports.

#### a) <u>Lake Levels</u>

The most comprehensive data on lake levels in the District are for Upper and Lower Prior Lakes. Because these two lakes are joined by a wide channel, water level readings for both lakes are essentially equal. Figure 6 of **Appendix G** shows the historic record of water level data for these lakes from 1906. This figure shows that lake levels are significantly influenced by long-term rainfall patterns, although this linkage has been dampened by the construction of the lake outlet which moderates high lake levels and decreases the odds of successive high-water years.

Lake levels for Upper and Lower Prior Lakes have historically been one of the most important issues in the District. Before 1983, Lower Prior Lake did not have an overland outlet. As a result, water levels in the lakes fluctuated widely depending upon rainfall patterns. Since the construction of the outlet channel, the lake levels have stabilized somewhat, but lake level issues still arise. When lake levels are high, water levels encroach on numerous dwellings, but when water levels are too low, water recedes from some shallow bays making boat access to the lake difficult.

In 2016, the Prior Lake Stormwater Management & Flood Mitigation StudyPrior Lake Stormwater Management & Flood Mitigation Study was completed by Barr Engineering and jointly sponsored by the District and the City of Prior Lake in collaboration with Spring Lake Township. The study updated the watershed's hydrologic model, reviewed flood-related issues and projects, identified potential flood reduction strategies and developed an implementation plan to reduce future flooding and improve agency

response to flooding. The number of dwellings that are potentially adversely affected at a given water level is documented on page 6 of that report.

Water level data are available for other lakes, including Fish, Spring, Cates, and Pike Lakes on the District website or MNDNR Lake Finder. Limited data is available for other waterbodies in the District, such as Haas, Crystal, Rice, Sutton, and Swamp Lakes.

Table 6 of Appendix GAppendix G lists ordinary high water (OHW) levels for lakes in the District. The OHW is defined in M.S. 103G.005 as:

"An elevation delineating the highest water level that has been maintained for a sufficient period of time to leave evidence upon the landscape, commonly the point where the natural vegetation changes from predominantly aquatic to predominantly terrestrial; for watercourses, the ordinary high water level is the elevation of the top of the bank of the channel; and for reservoirs and flowages, the ordinary high water level is the operating elevation of the normal summer pool."

The OHW is an important regulatory concept as it defines the extent of the MNDNR protected public waters and wetlands. Any project that would alter the OHW or would occur below the OHW would require a MNDNR permit.

#### b) Flow Gauging

#### **District-wide**

With assistance from the Scott SWCD, the District monitors flow at several locations around the watershed, ranging from the upper watershed, outlets of lakes, and along the Outlet Channel. Some of the flow data for the District have been collected as part of short-term special studies, such as the Upper Watershed Study from 2014-2016.

Stream flow data is used to calibrate and verify the District's various hydrologic models and calculate pollutant loads. Stream flow measurements will be completed as determined in the District's long-term monitoring plan. The Water Quality Monitoring map, found in Appendix B Appendix B, shows the locations of monitoring stations from current and past water quantity and water quality studies.

#### **Outlet Channel**

Flow calculations for the outlet channel are integral for implementation of the PLOC MOA. Additional details on modeling for this project can be found in the document, which is available for review on the District website. Additional monitoring of flows in the outlet channel will be completed by the District in accordance with the District's monitoring plan.

#### 4. Water Quality

Lakes within the District are monitored by Three Rivers Park District or by volunteers through the Metropolitan Council Citizen-Assisted Monitoring Program (CAMP). Data is stored in the District's Water Quality Database (WQDB) and summaries of lake water quality data is posted on the Waterbodies tab of the District's website. The monitoring program provides an assessment of water quality and identifies possible water quality trends in a timely manner so that prompt management action can be taken. The monitoring program also helps evaluate the effectiveness of District projects meant to improve water quality. The District currently operates its monitoring program based upon an annual and long-term monitoring plan.

## a) Summary of Historical Lake Water Quality Data

Historic data includes information on phosphorus, nitrogen, chlorophyll-a, suspended solids, dissolved oxygen, and Secchi disk transparency. The District's website and Appendix GAppendix G contain some of the most recent data collected.

#### Phosphorus

Phosphorus is an essential nutrient for algae growth and it is often the limiting nutrient. As a result, the concentration of phosphorus is of particular concern in aquatic systems as its concentration often determines the abundance of algae; the overabundance of algae results in numerous interrelated water quality problems that may adversely impact recreational, aesthetic, and fisheries uses of lakes. Appendix GAppendix G, Section A shows the mean summer total phosphorus (TP) concentrations for Cates, Buck, Crystal, Sutton, Swamp, Arctic, Haas, Fish, Pike, Spring, Upper Prior, and Lower Prior Lakes from 2014-2017 (unless otherwise noted).

#### Chlorophyll-a

Chlorophyll-a is a photosynthetic pigment common to all plants including algae. The concentration of chlorophyll-a is used as a convenient surrogate measure of algae abundance. Appendix GAppendix G, Section A presents the mean summer chlorophyll-a concentrations for Fish, Buck, Spring, Pike, Arctic, Upper Prior, and Lower Prior Lakes for the years each lake was sampled between 2004-2017. Chlorophyll-a concentrations over 30  $\mu$ g/L are generally considered nuisance algae conditions and hypereutrophic.

#### b) <u>Secchi Disk Transparency</u>

Secchi disk transparency is a measure of water clarity. The Secchi depth is determined by lowering a black and white disk to the point where the disk disappears from view. The depth of disappearance is then recorded as the Secchi depth. Because of its ease of measurement, Secchi depth readings have been promoted through volunteer monitoring programs. Appendix GAppendix G, Section A shows the mean summer Secchi depth readings for Cates, Fish, Spring, Pike, Upper Prior, and Lower Prior Lakes for all years available between 2005 and 2017. Secchi depth readings less than 1.0 m for shallow lakes, or 1.4 m for deep lakes, are generally considered poor water clarity conditions and hypereutrophic.

#### c) <u>Stream Water Quality Data</u>

Stream water quality data collection for the District has also focused on eutrophication related parameters and has primarily been directed at evaluating contributions to the eutrophication of lakes. These data include information on flow, nutrients, and suspended solids. This data can be found in the District's water quality database (www.plslwd.org/wqdb).

#### d) Impaired Waters and TMDLs

The District has several lakes that do not meet state and federal water quality requirements and have been included on the State of Minnesota List of Impaired Waters, also known as the 303(d) list after the relevant section of the federal Clean Water Act. Impairments are listed in Table 7 under Appendix GAppendix G.

In 2008 and 2009 the District undertook a TMDL study for excess nutrients for both Spring and Upper Prior Lakes. A stakeholder group of local and agency representatives assisted the District in diagnosing the sources of excess nutrients to the lakes, establishing load reduction targets, and identifying Best Management Practices and activities to achieve load reduction and water quality goals. The final TMDL study was written by PLSLWD, MPCA, and Wenck Associates, Inc and approved in 2011. The TMDL Implementation Plan was finalized in 2012.

approved plan. Additionally, the Shakopee Mdewakanton Sioux Community is exempt from PLSLWD rules on tribal lands.

## 1. Rules and Standards

The District's permitting program is based upon the District rules and standards, which are included in Appendix DAppendix D. The Board of Managers updated its rules in 1996 with the assistance of member communities. The update included major revisions which reflected the philosophies of the Board of Managers. In addition to removing ambiguous text, the rules clarified regulatory roles of the cities, county, and District. They also addressed water quality issues in redeveloping areas and eliminated regulatory overlap by leaving wetland regulations to local governmental units who implement the Wetland Conservation Act. Another area of overlap was eliminated with the cessation of District permitting for dredging and shoreline improvements. This area is adequately addressed by the MNDNR, and in the case of larger projects, by the U.S. Army Corps of Engineers.

In 2001, the Board of Managers made significant additions to the rules by adopting general standards, a performance standard for infiltration, and buffer strip requirements for wetlands and watercourses. These additions reflected the District's goals of enhancing water quality and volume control within the watershed. The Board worked closely with the cities, county and other interested parties on this revision, which was adopted in February 2001. The rules underwent minor revisions in 2003 and again in 2015.

The rules and standards of the PLSLWD cover the topics of definitions, procedural requirements, general standards, stormwater management, erosion and sediment control, floodplain alteration, wetland alteration, bridge and culvert crossing, drainage alterations, buffer strips, enforcement, variances, appeals, and permitting fees and security. The District will rely on these rules while entertaining regulatory enforcement and variance actions.

The District is near completion of another round of rule revisions which is anticipated to be completed in 2020. Primary revisions contemplated are for linear road project and redevelopment standards, volume control standards, wetland bounce and inundation, and providing greater flexibility in demonstration of compliance with the stormwater rule including ability for stormwater banking/credits, off-site treatment, regional planning, municipal cost cap, and a stormwater impact fund.

#### 2. Equivalency Agreements

If municipalities wish to provide full regulatory control, the District will cede permit authority only following completion of an approved local plan, adoption of the ordinances, and implementation of inspection and administrative procedures necessary to ensure the full regulatory standards of the District are met. Equivalency of local water management plans and official controls will be determined according to the process in MN Statute 103B and the PLSLWD 2020-2030 WRMP, as amended. To make a finding of equivalency, the Board must determine that:

- The local unit of government (LGU) having land use planning and regulatory responsibility has adopted a local water management plan and official controls that follow the policies and achieve the standards and objectives articulated in the PLSLWD 2020-2030 WRMP, as amended, and the District's rules, as amended.
- The LGU has developed and is implementing a program to permit land disturbing activities in accordance with its official controls and to inspect, monitor and enforce compliance with the official controls.
- The LGU has developed and is implementing a program for operating and maintaining the best management practices required by its official controls and procedures, either directly or through developers' or homeowners' agreements.

New and/or Revised Materials Presented at the Board Meeting From: <frank10350@mchsi.com>

Sent on: Tuesday, March 19, 2024 5:19:30 PM

- To: Jan Voit <jvoit@mnwatersheds.com>; jelindeen@locklaw.com
- CC: Joni Giese <jgiese@PLSLWD.ORG>; tony.albright@poulhaas.com; Bruce Loney <bruceloney1972@gmail.com>

Subject: SF1370 and HF4009

Ms. Volt, and Ms. Lindeen I am contacting you since you are respectively the Executive Director and Lobbyist for Minnesota Watersheds. I am one of five managers serving the Prior Lake Spring Lake Watershed District. I have a question for you. Is Minnesota Watersheds actively opposing (SF1370 and HF4009)? I believe that SF1370 will survive and HF4009 will be amended to match.

Senate File 1370 eliminates zoning powers/rule making and enforcement in cities and other local government agencies (e.g., watershed districts)to allegedly to create more moderate priced housing. Under the proposals up to six plex dwelling units could be constructed on property presently zoned low density, which in many of the cities in Scott County, is maximum one to three dwelling units per acre. The buildings replacing the existing would have little if any height and setback minimums.

Under the new laws, neighborhood property owners with an interest in sharing their public comments before the approving authority ( planning Commission , city council, conservation authority, or staff) are barred from doing so since no public hearing is allowed. The developer only needs to file for a building permit. Unbelievable that adjacent property owners are barred from the approval process that affects the biggest investment of their/our lifetimes.

Most amazing is the fact after totally tearing down present zoning laws, this legislation provides no mechanism to assure that modest price owner occupied housing will be constructed.

Nor do the bills provide adequate time (only seven days) for the city to determine whether the area Infrastructure ( water, sewer, stormwater, gas, electrical, telephone, cable, watershed and more) which were originally designed for one to three dwelling units can somehow serve up the six units and potentially more in the same space! Infrastructure answers come from at least six different entities. Giving each a little more than a day to prepare a detailed response is totally unreasonable.

The legislation only allows the approving entity to require one stall off street parking to per unit. Our streets become more polluted from more vehicles directing oil, gas, grease, antifreeze, particulates of all sorts directly into stormwater systems to private and public waterbodies. How does that serve our collective public health?

"Accessory Dwelling Units" are also allowed so there will be the likelihood of additional impervious surface on all lots whether in the shoreland or not. Since the cost of land is one of the biggest expenses in home building, I believe that we can count on much less permeable surface resulting from this legislation. Most important from a watershed district perspective is by negating District adopted rules and/or water resource management plans, this legislation reduces and perhaps eliminates the ability of watersheds districts from enforcing-district-rules or compliance with water resources management plans. These plans, like comprehensive plans are mandated by the State of Minnesota!

The above are just a few of the undesirable characteristics of these bills. There is a gunnysack full of public protections dismantled in this 12-page piece of legislation. One of the most egregious is requiring one of floor coverage ratios which will result in the largest possible development on every lot footprint.

I cannot speak for our watershed since the Board has not approved any action with respect to this legislation. What I am hoping is that Minnesota Watersheds and the lobbyist employed are very active in defeating or modifying this legislation as presently written. Thanks for reading. I have added contact information for Tony Albright who is an excellent resource and lobbyist for SCALE.(Scott County Association for Leadership and Efficiency). I believe that the interests of cities and watersheds are intertwined so let us help one another!

Thank You, Frank Boyles 952-292-0400