

Prior Lake-Spring Lake Watershed District

Annual Report

2014

Mission: To manage & preserve the water resources of the Prior Lake-Spring Lake Watershed District to the best of our ability using input from our communities, sound engineering practices, and our ability to efficiently fund beneficial projects which transcend political jurisdictions.



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INTRODUCTION

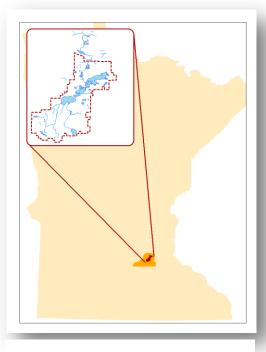
This report has been prepared by the Prior Lake-Spring Lake Watershed District (PLSLWD, or District) and details the activities of the District through the calendar year 2014. The report will focus on the District's program and project accomplishments relative to the approved Capital Improvement Plan established in the 2010 PLSLWD Water Resources Management Plan, and annual work plan. Annual reporting requirements listed in Minnesota Rules Chapter 8410.0150, Subpart 3 will also be included in this report.

ABOUT THE DISTRICT

BACKGROUND

The Prior Lake-Spring Lake Watershed District was established on March 4, 1970 by order of the Minnesota Water Resources Board (MWRB) under the authority of the Minnesota Watershed Act (Minnesota Statutes, Chapter 112). The order was in response to a petition filed by resident landowners within the watershed on June 24, 1969. This citizen petition sought establishment of the District for the purposes of wisely managing and conserving the waters and natural resources of the watershed.

The PLSLWD is approximately 42 square miles in size and is located in north central Scott County, Minnesota, encompassing parts of the cities of Prior Lake, Shakopee, and Savage and parts of Sand Creek and Spring Lake Townships. In



Location of PLSWD

addition, a portion of the Shakopee Mdewakanton Sioux Community tribal lands are located within the District.

BOARD OF MANAGERS

The PLSLWD is administered by a five-person Board of Managers (Board) appointed by the Scott County Commissioners. All of the District's policies, goals, and accomplishments are directed by the citizens who serve on the Board. The Board of Managers meets the second Tuesday of the month at 6:00 PM at the Prior Lake City Hall, located at 4646 Dakota St. SE, Prior Lake, MN 55372. Meeting notices, agendas and approved minutes are available on the District website at www.plslwd.org/meetings.

Board members serving during the calendar year 2014 are listed below.

Fred J. Corrigan	Marianne Breitbach	Curtis Hennes	
Manager	Vice President	President	
Term: 5/21/13 – 3/2/16	Term: 3/3/15-3/2/18	Term: 2/5/2013-6/11/2016	
Resides in Prior Lake	Resides in Prior Lake	Resides in Spring Lake Township	
8075 E. Marindale Dr.	14890 Pixie Point Circle SE	17286 Sunset Trail SW	
Prior Lake, MN 55372	Prior Lake, MN 55372	Prior Lake, MN 55372	
952-445-9681	952-440-7561	952-440-7443	
fcorrigan@armofmn.com	jmbreit@gmail.com	clphennes@gmail.com	
Charlie Howley Secretary Term: 7/26/14-7/25/17 4291 Coachman Lane NE		Woody Spitzmueller Treasurer Term: 5/21/2013-3/2/2016 4279 Grainwood Circle	
Prior Lake, MN 55372		Prior Lake, MN 55372 952-440-7607	
952-440-5800 chowley@htpo.com		bwspitz@integra.net	

CITIZEN ADVISORY COMMITTEE

The Prior Lake-Spring Lake Watershed District formalized its Citizen Advisory Committee (CAC) in 2011. The CAC consists of residents who provide input and recommendations to the Board on projects, reports, prioritization and act as the primary interface for the Board to integrate the current

issues of concern of the local citizens. The CAC meets monthly on the last Thursday of the month at 6:30pm at the Prior Lake City Hall, located at 4646 Dakota St. SE, Prior Lake, MN 55372.

Citizen Advisory Committee members that served during the calendar year 2014 are listed below.

Paul Krueger Resides in Spring Lake Twp 17746 Fairlawn Avenue Prior Lake, MN 55372	Steve Pany Resides in Prior Lake 5561 Cedarwood Street NE Prior Lake, MN 55372	Larry Rundell Resides in Prior Lake 15096 Fish Point Road Prior Lake, MN 55372		
Kim Silvernagel Resides in Prior Lake 3152 Butternut Circle Prior Lake, MN 55372	Elizabeth Schramm 18091 Yorkshire Avenue Prior Lake, MN 55372	Roger Wahl Resides in Prior Lake 16510 Inguadona Beach Prior Lake MN 55372		
Jim Weninger Resides in Spring Lake Twp 2591 Spring Lake Rd SW Shakopee, MN 55379	Adam Fitzpatrick Resides in Prior Lake 3173 Wild Horse Pass Prior Lake, MN 55372	<u>Joe Schramm</u> 18091 Yorkshire Avenue Prior Lake, MN 55372		
Bill Schmokel Resides in Prior Lake 4151 Grainwood Circle Prior Lake, MN 55372				

STAFF

Day-to-day operations of the Prior Lake-Spring Lake Watershed District are managed by a District Administrator and staff. All staff can be contacted through the main District phone number, 952-447-4166, or at the District Office, 4646 Dakota Street SE, Prior Lake, MN 55372. 2014 District Staff are indicated with an asterisk.

Diane Lynch* Amy Tucci* Jaime Rockney* **District Administrator** Administrative Assistant Water Resources Specialist dlynch@plslwd.org atucci@plslwd.org jrockney@plslwd.org Adam Lund* Michael Kinney Meghan Jackson District Administrator Intern District Outreach Specialist alund@plslwd.org Nat Kale **Emily Javens** Watershed Planner Watershed Engineer

CONSULTING SERVICES

Solicitation for consulting services for 2015/16 will be made in September 2015. The following are the consulting firms selected in 2013 for 2014/15:

Abdo, Eick and Meyers, LLP **Audit Services** Phone: 952-835-9090

www.aemcpas.com

Blue Water Science Ecological Services

Phone: 651-690-9602

Carl Almer Phone: 651-770-8448 www.eorinc.com

Engineering Services

Emmons and Olivier Resources,

Messerli and Schadow, PLLP **Accounting Services** Chris Schadow Phone: 952-927-8350 www.messerli-schadow.com Smith Partners, PLLP Legal Services Louis Smith Phone: 612-344-1400

www.smithpartners.com

^{*}Current staff as of Dec 31, 2014

WATER RESOURCES MANAGEMENT PLAN

The Minnesota Board of Water and Soil Resources (BWSR) approved the District's third generation Water Resources Management Plan (WRMP) on June 23, 2010 and the District Board adopted the plan at its July 13, 2010 meeting. A copy of the WRMP is available electronically on the District website or by request, or in hard copy format at the District office.

In 2013, a major update to the WRMP was approved by BWSR in August and adopted by the District Board in September. The three major categories to the amendment included:

- 1. Goal Revisions
- 2. Reorganized Policies and Projects
- 3. Additional and Revised Implementation Projects

Goals Revision: Previously the District had 13 goals. This lead to some confusion about what the top priorities of the District were as it related to Board actions. This plan update narrows the goals to just 5, which will make it easier for the Board and staff to focus on the priorities of the organization. The revised goals can be found in Section 2.3, and are as follows:

- 1. To minimize the negative effects of water level fluctuations in the District.
- 2. To maintain or improve the quality of all water resources within the District.
- 3. To maintain and expand the recreational, aesthetic, and wildlife habitat benefits associated with surface water and natural spaces in the District.
- 4. To improve understanding of local water resources and practices among all stakeholders in the District.
- 5. To be as efficient and effective as possible in all District activities.

ASSESSMENT OF 2014 WORK PLAN

The following is a summary of the activities completed in 2014 organized by District's revised 2013 WRMP.

- 1. Capital Projects
- 2. Operations and Maintenance
- 3. Planning
- 4. Monitoring and Research
- 5. Regulation

- 6. Education and Outreach
- 7. Prior Lake Outlet Channel
- 8. Administration

CAPITAL PROJECTS

ARCTIC LAKE

A Subwatershed Analysis Project between City of Prior Lake, SMSC, and PLSLWD resulted in an implementation strategy that addressed water quality and other impairments in Arctic Lake that impact Upper Prior Lake. The District applied for a grant from the Minnesota Board of Soil and Water Resources and received funding to implement the plan through four measures to help reduce phosphorus: controlling carp, constructing a drainage swale and basin, designing and constructing iron-enhanced sand filters and restoring the wetland. Three Rivers Park District is now involved with the project because of their desire to complete the final segment of the Spring Lake Park Regional Trail nearby this project. Engineering work has begun.

COUNTY ROAD 12/17 WETLAND RESTORATION PROJECT

When Scott County planned to improve the County Road 12/17 area in 2013, the PLSLWD saw an opportunity to work collaboratively with the City of Prior Lake and Scott County to restore a wetland near the intersection of County Road 12 and County Road 17 that would reduce stormwater volume runoff and nutrient loading into Spring Lake. This project was partially funded by a Clean Water Fund grant through the Board of Water & Soil Resources.

The City of Prior Lake is the owner of the property and as per an executed cooperative agreement with PLSLWD is prohibited from altering the flood retention, water quality or



12/17 Wetland Restoration

ecological function of the wetland for 25 years. This agreement also holds the District responsible for maintaining the wetland and uplands plantings on the property for the first 5 years. It is expected that no further maintenance work on the vegetation is necessary after this period.

It is anticipated that the wetland will store an additional 186 acre-feet of stormwater per year.

LOWER PRIOR LAKE PROTECTION PROJECT IMPLEMENTATION

Lower Prior Lake is located within the City of Prior Lake and is approximately 960 acres, with a maximum depth of 60 feet. It currently meets water quality standards, but degraded water quality is a concern in the late summer when algae is prolific. A 2013 Clean Water Partnership (CWP) Diagnostic Study concluded that the water quality of the upper bay of Lower Prior Lake is strongly influenced by the water quality of Upper Prior Lake but even more so by the phosphorus loading from the watershed.

A Minnesota Clean Water Partnership grant was successfully obtained from the Minnesota Pollution Control agency to implement BMPs identified in the diagnostic study that could potentially result in maintaining or improving the water quality conditions in the Upper Basin as much as 10% within 10 years. The proposed projects will reduce phosphorus by 33 lb/yr, or 10% of the total drainage area phosphorus load of 326 lb/year to Lower Prior Lake. Lower Prior Lake Protection Project Implementation will begin in 2015.

FISH POINT PARK RETROFITS

The District received a Clean Water Fund grant from the Board of Soil and Water Resources to reduce the phosphorus loading to Lower Prior Lake by reducing the phosphorus loading in the Fish Point Park subwatershed, which was identified as having the fourth largest phosphorus load to the Lake. Three BMPs were identified to reduce phosphorus loading and control stormwater rates and volumes by retrofitting an existing ditch section with in-line iron sand filters, creating a wetland for storage and installing a new predictive control structure. Engineering design and oversight began in October and construction will begin in 2015

OPERATIONS AND MAINTENANCE

AQUATIC VEGETATION MANAGEMENT

Based upon a recommendation from Blue Water Science, 5.56 acres were treated for Curlyleaf Pondweed on Lower Prior Lake and 23.73 acres on Upper Prior Lake. This treatment was a partnership between PLSLWD and the City of Prior Lake. An Aquatic Invasive Plant Control grant from the DNR paid for part of the treatment and the remaining was split between PLSLWD and the City. The curly leaf was treated by PLM Lake and Land Management.

COST SHARE

The District had a residential incentive program and a rural cost share program. The residential incentive program included such projects as raingardens, rain barrels, shoreline restoration, buffer, turf management and lake irrigation. The District approved 12 incentive payments for raingardens, shoreline buffers and lake irrigation. Working with the Scott Soil and Water Conservation Service, the District supported rural cost-share projects such as well decommissions, filter strips and grassed waterways for four landowners.



2014 Raingarden Project

FARMER-LED COUNCIL

The Farmer Led Council was created in 2013. The primary purpose of this council is to be a "Farmer Led" organization that engages farmers to be proactive in nutrient management and conservation planning efforts in the Upper Watershed. Currently, 20% of the cropland is committed to being active in this program. In 2014, this program is being revised and will be implemented in 2015.

FERRIC CHLORIDE TREATMENT FACILITY

A desiltation pond was built in 1978 to capture phosphorus before the stormwater from County Ditch 13 reached Spring Lake. In 1998, a Ferric Chloride plant was constructed to use this chemical upstream of the desiltation pond to bind up phosphorus.

In 2013, the system was redesigned to release a Ferric Chloride (FeCl₃) solution into a desiltation basin, rather than the stream, per a MPCA permit requirement. Initial targets for design parameters, with input and agreement by regulatory agencies, was to allow flows up to approximately 30 cfs into the desiltation pond for the majority of normal operations. High flows were to overtop a high flow bypass weir east of the existing pond which flows directly to Spring Lake to prevent possible resuspension and flushing within the desiltation pond.

The desiltation pond was dosed with Ferric Chloride from April 1st to October 31stin 2014. Samples were taken weekly during treatment to analyze the efficiency of the treatment. Due to the abnormal flooding conditions in 2014, staff was not able to determine how well the retrofit was operating based on the samples collected. In 2015, staff will conduct ongoing monitoring to help analyze how well the retrofit is doing. Results of the 2014 sampling can be found in the Annual Ferric Chloride Report available on www.plslwd.org.

ROUGH FISH MANAGEMENT

The second Annual Carp Tournament was held on Saturday, May 31 at both Spring and Prior Lakes. There were 19 teams registered and 707 pounds of carp were removed. \$2000 was distributed between 3 teams with the biggest catch, plus one with the heaviest fish. Knotty Oar, a local marina, will be hosting the event in2015. Saint Mary's University of Minnesota was hired to electrofish Arctic and Spring Lakes in the fall. In each lake, the electrofishing boat was maneuvered 5-8 times in a zig-zag manner near the inshore zone for 20 minute intervals in order to cover a minimum of 50% of the shoreline. The results of the electrofishing indicated that based upon the average adult carp



2014 Carp Tournament

size of 5 kg, Arctic Lake may have 264.5 kg/ha and Spring Lake may have 343.k kg/ha densities—far exceeding the minimum state threshold of 100 kg/ha for managing carp densities in Minnesota Lakes. The report stated that there could be significant ecological improvement with active carp removal and long-term management of carp populations in the lakes.

The fish collected during the electrofishing were removed from the lake and transported to the Shakopee Mdewakanton Sioux Community Organics Recycling Facility by Buckingham Companies, Inc. to be processed.

SPRING LAKE TOWNSHIP PARCEL

The 350 feet of shoreline the District purchased from Spring Lake Township will be used as a demonstration site for shoreline stabilization. The District will work with Great River Greening on design and implementation in 2015-16.

PLANNING

STORMWATER MANAGEMENT & FLOOD MITIGATION STUDY

Due to the extensive flooding in 2014, the District partnered with the City of Prior Lake and collaborated with Spring Lake Township to initiate a study that updates the watershed's hydraulic and hydrologic model, reviews flood related issues and projects, identifies potential flood reduction strategies and develops an



2014 Flood

implementation plan. This Stormwater Management and Flood Mitigation Study will begin in 2015.

The District sustained over \$1 million in damages in the Prior Lake Outlet Channel due to the flood. The District applied for federal funding for repairs from the Federal Emergency Management Administration (FEMA) and will coordinate with Scott County for state legislative funding in 2015.

BUCK LAKE DIAGNOSTIC AND FEASIBILITY STUDY

In 2011, the District conducted the 2011 Spring/Upper Prior Nutrient TMDL Study and determined that 38% of the total phosphorus loading to Spring Lake was contributed through the Buck Lake System. More recent monitoring data indicated that approximately 26% of the total phosphorus watershed loading to Spring Lake originated from the Buck Lake tributary, which represented the second highest watershed source after County Ditch 13.

The Study was designed to provide feasibility and long-term cost effectiveness of chemical treatment options for this watershed. This study was completed in 2014. Given the total capital costs as well as the annual operation and maintenance costs of those options, the Board decided not to pursue an implementation plan.

SEDIMENT CORE ANALYSIS

SPRING LAKE

A report on sediment coring that was done on Spring Lake by the St. Croix Watershed Research Station in 2013. The report is titled "Historical water quality and ecological change in Spring Lake, Scott Co., MN" and concludes that historic, pre-settlement TP in Spring Lake was in the range of 60 ppb +/- 5 ppb. This information was used to apply to the Minnesota Pollution Control Agency (MPCA) for a Site Specific Standard for Spring Lake of 60 ppb so that the current TMDL goal of 40 ppb would be revised. It is anticipated that the application will be acted upon by the MPCA in 2015.

The complete report can be found at www.plslwd.org or by contacting the PLSLWD office.

MONITORING AND RESEARCH

Monitoring was conducted in accordance with the Monitoring Plan and included a mix of staff, volunteer, and contract work which incorporated in-lake monitoring, stream water quality and flow measurements, precipitation and aquatic vegetation monitoring. Partners included Metropolitan Council Environmental Services, Three Rivers Park District, Shakopee Mdewakanton Sioux Community, Scott Soil and Water Conservation District (SWCD), Blue Water Science, and Emmons and Oliver Resources (EOR). The District also hired an intern.

STREAM MONITORING DATA

STREAM CHEMISTRY SAMPLING

Stream samples were collected at 15 locations around the watershed by PLSLWD staff. Water temperature, conductivity, pH, turbidity, and dissolved oxygen were also measured at these locations using a Hydrolab MS5 multi-parameter meter.

- Three sites were sampled to fulfill the MPCA permit for the Ferric Chloride site
- For an intense study on the Upper Watershed, four sites were added in 2014
- The District Monitoring Program included 2 sites
- Two sites were added in 2014 at Fish Point Park for the Fish Point Park Retrofit grant
- Two agricultural tile outlets were monitored for the Farmer Led Council program. Samples were also taken just upstream of those tile outlets

STAGE AND FLOW MONITORING

Continuous stage and flow monitoring occurred in conjunction with the stream chemistry and lake monitoring. Stage and flow monitoring consists of level loggers that record stage continuously and flow measurements. By combining chemistry and stage/flow monitoring results, loads can be calculated using the FLUX modeling software. The sites mentioned in the Stream Chemistry section above (except the Farmer-led Council and Fish Point Park Retrofit grant sites) also had level loggers. In addition to those sites, three loggers were installed on the outlets of the lakes and the lake data was used to calculate loads.



Flow measurements were collected by PLSLWD and Scott SWCD. Flow meters used include FloMate 2000 and a Sontek Flowtracker. Level loggers were all pressure transducers except for one ultrasonic distance sensor.

DEPLOYMENTS

Deployment monitoring data was collected by installing sondes in the water for an extended amount of time (two weeks at a time). This method is used to collect continuous data upstream and downstream of a location of interest in order to view changes both spatially and temporally. Parameters collected include conductivity, temperature, turbidity, and dissolved oxygen. In 2014, a special study on the Upper Watershed deployed3 sondes at two of the Upper Watershed Sites and one location by the Ferric Chloride sitefrom June 6-22.

LAKE MONITORING DATA

AUTOMATED LEVEL LOGGERS

Two automated level loggers were installed to monitor the lake levels on Spring and Prior Lakes. The loggers were programmed to log the lake level every 15 minutes and then transmit the data to the PLSLWD website once per hour which was accessible to the public.

DNR STAFF GAGE

Two staff gages were monitored weekly for the DNR on Pike, and Lower Prior Lake. Staff gages are surveyed in every year by DNR to tie the results to Mean Sea Elevation.

THREE RIVERS PARK DISTRICT

Three Rivers Park District monitored four lakes in 2014: Fish, Pike, Upper Prior, and Spring Lakes. These lakes are monitored 13 times per year, and where possible, profile samples are collected.

CAMP VOLUNTEER LAKE MONITORING

The CAMP program was coordinated by Metropolitan Council, and locally coordinated by the PLSLWD. Three volunteers collected lake samples for the CAMP program in 2014.

Lake	Volunteer(s)		
Lower Prior (site 2)	Adam Lund		
Haas	Tom Chaklos		
Buck Lake	Steve Beckey		

Volunteers collect samples every other week during ice-free conditions, which include parameters such as secchi depth, phosphorus, and chlorophyll-A.

AQUATIC VEGETATION SURVEYS

Blue Water Science conducted vegetation surveys on four lakes – Spring, Upper Prior, Lower Prior, and FishLake. These surveys include the type and density of vegetation at predetermined sampling locations throughout the lakes. In lakes with invasive plants, Blue Water Science recommends treatment options, when deemed appropriate.

AQUATIC VEGETATION DENSITY MAPPING

A new program in 2013, aquatic vegetation density, bathymetry, and bottom hardness in a lake was mapped utilizing a depth finder. Volunteers used their own boats, attached the depth finder, and followed predetermined tracks to cover all or parts of Spring, Upper Prior, and Lower Prior lakes. Prior Lake Association donated \$700 in both 2013 and 2014 towards the purchase of a depth finder. Your Boat Club volunteered the use of a boat for volunteers mapping Prior Lake at no charge to the District.

The potential benefits of this project include:

- A better understanding of density and location of vegetation in lakes
- More accurate bathymetric maps
- Lake bottom sediment composition maps
- Improved implementation and analysis of curlyleaf pondweed treatments
- Greater understanding of lake ecology and sediment deposition rates
- Better fisheries management and for sports fishing



Density Mapping Demonstration Day

PRECIPITATION

Three volunteers collected rain and snowfall data daily in 2014 – Jonathan Cohen, Richard Schultz, and Larry Mueller. The PLSLWD then forwarded the data to the State Climatologist. District staff also recorded daily precipitation at the office location.

SUBWATERSHED ASSESSMENT

As indicated earlier, one of the District's top priorities is to reduce nutrient levels in Spring Lake. In 2014, the District hired the Scott Soil and Water Conservation District to conduct a detailed analysis of the Upper Watershed. The analysis is designed to identify priority sites for rural nonpoint source pollution reduction, along with specific BMPs that would reduce phosphorus, sediment and related pollutants from reaching streams and ditches that flow into Spring Lake. The study will be completed in early 2015.

SEDIMENT CORE ANALYSIS

SPRING LAKE

A report on sediment coring that was done on Spring Lake by the St. Croix Watershed Research Station in 2013. The report is titled "Historical water quality and ecological change in Spring Lake, Scott Co., MN" and concludes that historic, pre-settlement TP in Spring Lake was in the range of 60 ppb +/- 5 ppb. This information was used to apply to the Minnesota Pollution Control Agency (MPCA) for a Site Specific Standard for Spring Lake of 60 ppb so that the current TMDL goal of 40 ppb would be revised. It is anticipated that the application will be acted upon by the MPCA in 2015.

The complete report can be found at www.plslwd.org or by contacting the PLSLWD office.

REGULATION

INSPECTIONS

District staff continued to attend the City of Prior Lake's weekly development review committee meetings at Prior Lake City Hall in 2014.

Annual inspections continued on District-owned Best Management Practices (BMP) and easements. In early 2014, staff completed the necessary inspections. In May, the District hired the Scott County Soil and Water Conservation District to conduct the inspections for the remainder of the year. In 2015, it is anticipated that the District will conduct all inspections.



Permit Inspections

PERMIT ACTIVITY

The District issued one new permit in 2014: 14.01: KiciYapi Culvert Replacement. The District anticipates that it will close several permits in 2015.

EDUCATION AND OUTREACH

CITIZEN ADVISORY COMMITTEE

PLSLWD staff continued to conduct and attend monthly Citizen Advisory Committee (CAC) meetings. In 2014, the CAC strove to understand their role to the Board of Managers. CAC meeting minutes and monthly updates are included in every Board meeting package, and a Board member was assigned to attend regular CAC meetings. In October, there was a joint meeting of the City of Prior Lake's Lakes Advisory Committee and the CAC. The purpose was to identify opportunities to work together on projects.

The Fall Community Festival booth was handled by the CAC liaison and staff to promote Watershed District activities and lake friendly lawn care practices. CAC members participated in the Prior Lake Clean Up for Water Quality in the Fall as well as stenciled storm sewers in the City of Prior Lake.

COMMUNITY INVOLVEMENT

The District gave presentations at the Prior Lake Association's Annual Meeting and at the Savage Senior Center.

The City of Prior Lake, Scott SWCD and the District hosted 4 raingarden workshops in the Spring and 2 Restore Your Shore workshops in the Fall. There were 10 and 47 registrants, respectively. Along with the City of Prior Lake, the District hosted a Clean Up for Water Quality in the Fall that engaged 18 volunteers.

PRESS AND SOCIAL

The District submitted 13 articles in the Prior Lake American and the Spring Lake Association newsletter. There were 8 educational postings on the website. In addition, a section was created on the website for the 2014 flood and 6 flooding updates were provided. Lake levels for Prior and Spring Lakes were updated daily and then hourly on the website during the flood. After the flood and the peaks were reached, the lake levels were updated daily. There were 11 additional website postings on a variety of subjects and activities.

PRIOR LAKE OUTLET CHANNEL

STRUCTURE

The Outlet Structure outletted approximately 12,028 acre-feet of water during 2014.

CHANNEL

More than 40 channel inspections were made throughout the year to ensure the integrity and efficiency of the system was maintained.

Continuous flow was recorded at four locations along the outlet channel (Prior Lake Outlet Structure, Pike Lake Trail, Deans Lake Inlet-by SWCD, and the Service Road). Sonde measurements were also taken at some culvert crossings.



RESTORATION AND MAINTENANCE

The Prior Lake Outlet Structure and Channel was constructed in 1983 to address high lake level issues on Prior Lake, which does not have a natural outlet. The Channel is utilized by the District in managing lake levels on Prior Lake as well as providing a 7 mile stormwater conveyance system for the surrounding communities.

The 2014 spring flooding caused extensive damage to the Prior Lake Outlet Channel and culverts. The water level of Prior Lake peaked four feet higher than average. The Channel sustained severe erosion, debris and sediment disposition. Two culverts were washed out and one field crossing sustained significant piping and erosion. In addition, a temporary dam was constructed on the channel between Spring and Prior Lakes to speed up the egress of water from Prior Lake. The dam was in place for 3 months. The District applied for funding from FEMA for the repairs and anticipated working with Scott County to secure additional state funding.

WETLAND BANKING PROGRAM

The Prior Lake-Spring Lake Watershed District does not have a locally adopted wetland banking program within its jurisdiction.

STATUS OF LOCAL PLAN ADOPTION AND IMPLEMENTATION

With approval of the District's WRMP in June of 2010, local units of government (LGU) having land use planning and regulatory responsibility are required by statute to prepare or update existing local water management plans. There were no revisions in 2014.

STORMWATER

The District does not participate in stormwater monitoring or drainage design performance standards.

FINANCIAL REPORT

The 2014 PLSLWD Audit was completed by Abdo, Eick and Meyers LLP, and includes both the District's Annual Financial Report and the Independent Auditor's Report on Compliance with Minnesota Legal Compliance Guide for Local Governments for the year ended December 31, 2013. A copy of the 2014 Annual Audit is available for review on the District website and at the District office after May 12, 2015, when it is approved by the Board of Managers.

2014 FINANCIAL SUMMARY

Values presented in the chart and graph below are unaudited. Please refer to the 2013 Annual Audit for more details.

2014 FINANCIAL SUMMARY

Fund	Starting Balance	Approved Budget	Tax Levy Revenue*	Additional Revenue**	Expenditures	Ending Balance
General	\$142,108	\$98,000	\$98,884	\$1,622	\$119,358	\$123,256
509 Implementation	\$727,275	\$825,725	\$421,108	(\$25,125)	\$663,008	\$460,250
MOA/JPA Funds	\$417,849	\$366,880	\$ 0	\$193,969	\$161,277	\$450,541
Bond Debt Service	\$12,770	\$149,275	\$159,567	\$130	\$149,770	\$22,697
Total	\$1,300,002	\$1,439,880	\$679,559	\$170,596	\$1,093,413	\$1,056,744

^{*}Tax levy revenues shown are tax levy dollar amounts collected. The 2014 actual tax levy was \$680,000.

^{**} Additional revenues include permit fees, investment income, transfers (to)/from other funds, and grant funding used of \$67,820.

Fish Point Park ___ **Lower Prior** Retrofits Protection Impl Arctic Lake Capital Restoration Projects **Upper Watershed** Grant Operations & Maintenance **Education &** Outreach Regulation Monitoring & Planning Research

509 IMPLEMENTATION EXPENDITURES - 2014

GRANTS

Grants obtained by the District that were active in 2014 were as follows:

• Aquatic Invasive Species Control Grant

Goal: Treat 29 acres of curlyleaf pondweed treatment on Upper and Lower Prior Lake

Funding Source: MN Department of Natural Resources

Total Grant Amount: \$1,500 for Upper Prior Lake, \$1,000 for Lower Prior Lake

Effective: April 22, 2014 to October 15, 2014

Lower Prior Lake Protection Project Implementation grant

Goal: Reduce watershed phosphorus loading by 33 lb/yr, or 10% of the total drainage area

phosphorus load of 326 lb/year

Funding Source: Clean Water Partnership Grant through MN Pollution Control Agency

Total Grant Amount: \$128,522

Effective: October 7, 2014 to September 30, 2017

• Fish Point Park Retrofits grant

Goal: Implement three elements designed to reduce phosphorus loading and control stormwater rates and volumes of a significant subwatershed of Lower Prior Lake **Funding Source:** Clean Water Fund Grant through Board of Water & Soil Resources

Total Grant Amount: \$131,200

Effective: May 6, 2014 to December 31, 2016

• Runoff Reduction – Prior Lake-Spring Lake WD grant

Goal: Create additional storage and remove excessive nutrients by creating three wetland and treatment basins and a filtration system to clean water draining to Spring Lake. **Funding Source:** Clean Water Fund Grant through Board of Water & Soil Resources

Total Grant Amount: \$101,582

Effective: March 30, 2011 to December 31, 2014

2015 WORK PLAN

The following is a summary of implementation activities planned to be completed in 2014 and the amount budgeted for that activity.

The following is a summary of implementation activities planned to be completed in 2015 and the amount budgeted for that activity.

509 Implementation Fund	\$600,000		
General Revenue	\$98,000		
Debt Service Fund	\$152,000		

CAPITAL PROJECTS

The District will continue participating in a restoration partnership on Arctic Lake with the City of Prior Lake, Three Rivers Park district and Shakopee Mdewakanton Sioux Community and BMP Retrofits at Fish Point Park, partnering with the City of Prior Lake. As indicated earlier, work will continue on the Lower Prior Implementation Plan.

OPERATIONS AND MAINTENANCE

The Cost Share and Residential Incentives programs and Farmer Led Council will be continued. Operation and Maintenance of the Ferric Chloride Facility will continue. Aquatic Vegetation Treatment will occur if curlyleaf is determined a nuisance. The District will conduct a Carp Tournament to remove carp from both Spring and Prior Lakes.

PLANNING

The CR 12/17 wetland restoration, a partnership with the City of Prior Lake and Scott County, was completed in 2014. As indicated earlier, the District is partnering with the City of Prior Lake and collaborating with Spring Lake Township on a Stormwater Management and Flood Mitigation Study. It is anticipated that the results of the study will lead to a comprehensive flood mitigation plan.

MONITORING AND RESEARCH

The District will continue its monitoring program in 2015, which includes stream monitoring, flow monitoring, lake quality, lake level, plant surveys, and plant density monitoring. It is expected that another Carp Tournament will be conducted.

REGULATION

The District will draft new rules and update its SWPPP to comply with the new MS4 requirements. Permits will be reviewed and closed out.

EDUCATION AND OUTREACH

The District will continue its education and outreach program to meet the requirements of its MS4 permit and improve understanding of local water resources and practices among all stakeholders in the District. The District has joined the Scott County Clean Water Education Program and will be participating in innovative public outreach and education opportunities. The District will also apply for a Green Corps intern to assist with this area.

PRIOR LAKE OUTLET CHANNEL

The District will continue to coordinate the partnership between PLSLWD, City of Prior Lake, City of Shakopee and the Shakopee Mdewakanton Sioux Community. Major damage to the channel will be repaired once funding is received from FEMA and the State of Minnesota. Other maintenance and projects will be discussed and decided upon by the Technical Advisory Committee and JPA/MOA members.