BOARD OF MANAGERS:
Fred Corrigan, President; Marianne Breitbach, Vice President;
Charlie Howley, Secretary; Woody Spitzmueller, Treasurer; Curt Hennes, Manager
Note: Indicated times are estimates; actual times may vary considerably. 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.

Board Workshop 4:00 PM – Wagon Bridge Conference Room (Downstairs)
4:00- 5:00 P.M. Budget Discussion Introduction
5:00-5:15 P.M. Possible Dredging of Spring Lake Boat Launch Area
5:15-5:50 P.M. Draft Safety Manual

6:00 – 6:05 PM 1.0 BOARD MEETING CALL TO ORDER & PLEDGE OF ALLEGIANCE

6:05 – 6:10 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, turn on the microphone and state your name and address. (The Chair may limit your time for commenting.)

6:10 – 6:15 PM 3.0 APPROVAL OF AGENDA (Additions/Corrections/Deletions)

6:15-7:30 PM 4.0 OTHER OLD/NEW BUSINESS
4.1 Manager Presentations (Discussion Only)
4.2 Programs & Projects Update (Discussion Only)
4.3 Alum Treatment Checklist (Vote)

7:30-7:35 PM 5.0 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.
5.1 Meeting Minutes – June 13 Board Workshop & June 13 Board Meeting
5.2 CAC Minutes – June 30

PUBLIC HEARING – Storm Water Pollution Prevention Program (SWPPP) Annual Public Hearing
• Summary of Annual Report (Lynch)

7:35-7:45 PM 6.0 TREASURER’S REPORT
6.1 Claims List (Vote)
6.2 Cash & Investments (Discussion Only)
6.3 Financial Report (Discussion Only)

7:45 – 7:50 PM 7.0 UPCOMING MEETING/EVENT SCHEDULE:
• PLOC COOPERATORS MEETING, THURSDAY, JULY 13 1:30-3:30 P.M., PRIOR LAKE CITY HALL
• CAC Meeting, Thursday, July 28 from 6:30-8:00 PM, Prior Lake City Hall
## July 2017

### Projects Update

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>LAST MONTH’S STAFF ACTIVITIES</th>
<th>NEXT STEPS</th>
</tr>
</thead>
</table>
| **CR 12/17 Wetland Restoration**  
(Class 741)  
Project Lead: Maggie | - Continued vegetation management and monitoring by AES.  
- Move the large sign to a better viewpoint, with City assistance.  
- Continue to work with AES on invasive species control.  
- Potential volunteer planting event this summer.  
- Coordinate with UMN on carp study. | |
| **Lower Prior Lake Diagnostic Study Implementation**  
LPDS Grant (Class 743)  
Project Lead: Maggie | - Completed change order for Fairlawn Shores Project and contacted City for permits.  
- Monitored Indian Ridge for vegetation establishment.  
- Continue to explore a potential project at Sand Point Beach Park.  
- Move forward with construction on Fairlawn Shore project in July. | |
| **Carp Management**  
In Lake Management (Class 611)  
Project Lead: Amy & Maggie  
Carp Management Project (Class 747)  
Project Lead: Maggie & Kathryn | - Monitored and cleared debris from barrier sites.  
- Collected data from PIT tag receiver and changed out batteries.  
- District staff and WSB tracked carp on Spring and Upper Prior Lake.  
- Coordinate seine events on Upper Prior Lake.  
- Continue to monitor and maintain the carp barriers and PIT tag receiver locations.  
- Work with fabricator to repair FeCl barrier.  
- WSB and PLSLWD staff will continue to track the radio-tagged carp.  
- Apply for grants for continued carp management work. | |
| **Clean Water Fund Grants: Fish Point Park**  
Fish Point Park (Class 745)  
Project Lead: Maggie | - Managed informational booth at Neighborhood Park Party on June 20th.  
- Installed temporary interpretive sign at water quality project.  
- Finish designs, order and install two educational signs for site.  
- Continue to coordinate with Minnesota Native Landscapes on vegetation maintenance work.  
- Continue to water & monitor installed plants. | |
| **Flood Storage**  
Project Lead: Diane | - Consultant reviewed potential storage site capacity & constraints.  
- Develop storage sites strategy. | |
## July 2017

### Projects Update

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>LAST MONTH’S STAFF ACTIVITIES</th>
<th>NEXT STEPS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Raymond Park Restoration Project</strong></td>
<td>• Coordinate restoration work with Great River Greening and the City of Prior Lake.</td>
<td>• Continue coordinating with Great River Greening and the City of Prior Lake.</td>
</tr>
<tr>
<td><em>Project Lead: Kathryn</em></td>
<td>• Great River Greening began work on site. So far the turf grass has been killed to prep for the low-maintenance grass. Work continues this month.</td>
<td>• Restoration work continues this month. Site prep for low-maintenance turf continues. Site prep for beach restoration area begins. Buckthorn removal should also begin in July.</td>
</tr>
</tbody>
</table>
# Operations Update

<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>LAST MONTH’S STAFF ACTIVITIES</th>
<th>NEXT STEPS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Monitoring</strong>&lt;br&gt;Monitoring and Data Acquisition (Class 637)&lt;br&gt;Project Lead: Jaime</td>
<td>• Data management.&lt;br&gt;• Assisted Houston w/report card.&lt;br&gt;• Database maintenance/entry.&lt;br&gt;• Lake and Stream samples taken biweekly.&lt;br&gt;• Sampled Cate’s Lake&lt;br&gt;• New CAMP volunteer at Cate’s Lake</td>
<td>• Data management&lt;br&gt;• Sampling&lt;br&gt;• Flows&lt;br&gt;• Finalize Alum Decision Guide</td>
</tr>
<tr>
<td><strong>Ferric Chloride System Operations</strong>&lt;br&gt;Ferric Chloride System (Class 611)&lt;br&gt;Project Lead: Jaime</td>
<td>• Completed monthly DMR report.&lt;br&gt;• Samples taken weekly.&lt;br&gt;• Flows taken</td>
<td>• DMR Report&lt;br&gt;• Sampling&lt;br&gt;• Flows</td>
</tr>
<tr>
<td><strong>Permitting</strong>&lt;br&gt;Regulation (Class 648)&lt;br&gt;Project Lead: Maggie &amp; Kathryn</td>
<td>• Issued permits for #17.02 Zinran Avenue and #17.03 Prior Lake Reconstruction Projects.&lt;br&gt;• Worked with Living Hope Church to help them meet the conditions of the permit prior to issuance for Permit #17.01.&lt;br&gt;• Completed raingarden installation for Permit #05.15 raingarden installation. Project was funded by accessing existing permit security funds.&lt;br&gt;• Completed permit inspections on open permits.&lt;br&gt;• Continued to refine new permit inspection phone app which has streamlined permit inspections.&lt;br&gt;• Communicated with Shamrock Development on closing out five old permits and helping them meet the requirements.</td>
<td>• Issue permit for #17.01 when all conditions are met.&lt;br&gt;• Follow up with Wright Homes on Permit #05.15 to ensure remaining items are addressed to close out the permit.&lt;br&gt;• Continue to work with Shamrock Development to close out five old permits.&lt;br&gt;• Continue to inspect, follow-up on and close remaining open permits.</td>
</tr>
</tbody>
</table>
## Operations Update

<table>
<thead>
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<th>PROGRAM</th>
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</tr>
</thead>
</table>
| **BMP Inspections**  
*Regulation (Class 648)*  
*Project Lead: Maggie & Kathryn* | • Trained interns on easement inspections and baseline documentation reports.  
• Corresponded with landowners for the A722055 easement amendment and worked with them on mortgage consents, along with their lenders. Also responded to contractor questions and concerns on lawn irrigation.  
• Continued to refine the mobile phone app created for inspecting easements which has streamlined inspection reporting.  
• Completed inspections on 40+ properties. Sent out 40+ pre-inspection letters to additional easement landowners for the 2nd round of inspections.  
• Worked with the SWCD to survey boundaries of an easement property.  
• Responded to 5 calls from easement landowners and met on-site with 4 of them to discuss resolution to their violations and/or to answer questions. | • Review amendment requests as they are received.  
• Create baseline documentation for each conservation easement property.  
• Work with landowners of A722055 to obtain necessary mortgage consents and to get both the Agreement & Easement signed and recorded.  
• Continue to inspect easements until 100% are complete.  
• Work with SWCD to survey boundaries for two additional boundaries. |
| **Citizen Advisory Committee**  
*Education and Outreach (Class 652)*  
*Project Lead: Diane* | • CAC meeting held on June 29 | • Next CAC meeting is on July 27 |
### Website and Media

**Education and Outreach (Class 652)**  
**Project Lead: Diane & Kathryn**

- Website articles posted—Lake Level Updates: June 28; Spring Lake Boat Launch
- Prior Lake American articles: WD keeps eye on lake levels; Summer of Sludge
- SCENE articles June/July: Many volunteers assist with Clean Water Clean-Up
- Facebook & Twitter- tried starting a Trivia Tuesday
- **Facebook:** same as website articles; Fish Pt Park party; simplest way to improve WQ; Trivia Tuesday announcement; Wildflower Wed. (Blue violet); Shoreline workshop-Bluff Creek WD; video on redesigned Mpls sculpture garden; Notice-Cty of PL water use; article on conservation and profitable farming; Storm damage tree care; MN bald eagles; Scott cty cover crop article; turtle road crossing-what to do; sign up for SWCD cover crop newsletter; Wildflower Wed (raspberry); farming-soil improvement pays; article on “ideal” urban lawns; attract pollinators; Trivia Tuesday answer (freshwater abundance); soils health fun fact; Trivia Tuesday question + answer-Water cycle; Mpls Sculpture garden article; Trivia Tues- Q + A (Great Lakes), Wild flower Wed (lead plant); lawn care-Mow high, sweep clean;
- 4 new likes on FB page
- **Top Posts on FB:**
  - Welcome to Trivia Tuesday/1st trivia question (214 views, 12 post clicks, 2 likes, 1 comment)
  - 1st Trivia Tuesday Answer-freshwater (123 views)

### Operations Update

- Continue writing posts and updates about projects
- Will tweet and/or update Facebook about projects & news.
# Operations Update

<table>
<thead>
<tr>
<th>PROGRAM</th>
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</tr>
</thead>
<tbody>
<tr>
<td>o Great Lakes-Trivia Quest. (120 views, 2 comments)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o Trivia question-water cycle (111 views)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o Prior Lake high summer water usage notice (107 views, 15 post clicks)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o Trivia answer-Great Lakes (103 views, 2 likes)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o Food for thought-the “ideal” lawn (99 views, 5 link clicks)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Twitter</strong>: generally same as the FB articles. 3,000 total post impressions this month. 4 new followers.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Top Posts on Twitter</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Trivia Tues Answer-freshwater (319 impressions (views), 5 post engagements)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Fish are cool-125 yr old lake sturgeon (retweet) (183 impressions, 2 post engagements)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Cool pics of super long prairie plant roots (137 impressions, 1 post engagement)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Food for thought-“ideal” lawn; soil health pays in long run; pollinator pictures; Trivia Tuesday introduction (all four posts roughly had 100 impressions, 0-2 post engagements)</td>
<td></td>
</tr>
</tbody>
</table>
## Operations Update

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<th>NEXT STEPS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost Share Program</strong></td>
<td>•</td>
<td>• Ongoing outreach to urban and rural landowners thru the SWCD</td>
</tr>
<tr>
<td>Land Mgmt (Class 611)</td>
<td>• McComas assessed CLP on Fish, Spring, and Prior – still waiting for reports</td>
<td></td>
</tr>
<tr>
<td>Project Lead: Diane</td>
<td>• Mapped vegetation density on spring, upper, and lower</td>
<td>• Summer aquatic surveys to be completed in July/August</td>
</tr>
<tr>
<td><strong>Aquatic Vegetation Management and Surveys</strong></td>
<td>• McComas assessed CLP on Fish, Spring, and Prior – still waiting for reports</td>
<td></td>
</tr>
<tr>
<td>(Class 626 and 637)</td>
<td>• Mapped vegetation density on spring, upper, and lower</td>
<td>• Summer aquatic surveys to be completed in July/August</td>
</tr>
<tr>
<td>Project Lead: Jaime</td>
<td>• McComas assessed CLP on Fish, Spring, and Prior – still waiting for reports</td>
<td></td>
</tr>
<tr>
<td><strong>Planning</strong> (Class 626 and Admin (Class 405))</td>
<td>• Weekly Staff Meetings</td>
<td>• Weekly Staff Meetings</td>
</tr>
<tr>
<td>Project Lead: Diane</td>
<td>• Weekly One2One meetings with each staff member</td>
<td>• One2One meetings with each staff member</td>
</tr>
<tr>
<td></td>
<td>• Bi-monthly meetings with Chair</td>
<td>• Bi-monthly meetings with Chair</td>
</tr>
<tr>
<td></td>
<td>• City Prior Lake Coordination Mtg</td>
<td>• Develop dam installation policy for the DNR’s approval</td>
</tr>
</tbody>
</table>
# Outlet Structure and Channel

<table>
<thead>
<tr>
<th>Activity</th>
<th>Last Month’s Staff Activities</th>
<th>Next Steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior Lake Outlet Channel</td>
<td>• Maintained and downloaded auto level logger</td>
<td>• Channel Inspections</td>
</tr>
<tr>
<td>Project Lead: Jaime</td>
<td>• Conducted weekly channel inspections</td>
<td>• Maintain and download auto level logger</td>
</tr>
<tr>
<td></td>
<td>• Closed Low-flow gate on June 27</td>
<td>• Repair boat launch gravel</td>
</tr>
<tr>
<td></td>
<td>• Conducted extra inspections at Outlet Structure to remove vegetation buildup</td>
<td>• Grout the outlet pipe seams</td>
</tr>
<tr>
<td></td>
<td>• Delivered new sand to outlet structure</td>
<td>• Fill 1st manhole with more concrete</td>
</tr>
<tr>
<td>Channel Bank Erosion (FEMA)</td>
<td>• Barr’s plans are at 60% completion</td>
<td>• Work with Barr to finalize design plans.</td>
</tr>
<tr>
<td>Project Lead: Diane &amp; Maggie</td>
<td>• Met with Shakopee to review plans for segment 4 and 7</td>
<td>• Start contacting landowners to obtain temporary construction easements.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Anticipate bidding out construction work this summer/fall, depending on</td>
</tr>
<tr>
<td></td>
<td></td>
<td>permit status.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Anticipate construction from Oct-Dec 2017</td>
</tr>
<tr>
<td>Downed Trees &amp; Sediment Delta</td>
<td></td>
<td>• Completed change order on contract with Nadeau Companies to extend the</td>
</tr>
<tr>
<td>(FEMA)</td>
<td></td>
<td>contract to 2018.</td>
</tr>
<tr>
<td>Project Lead: Diane &amp; Maggie</td>
<td></td>
<td>• Cooperators Meeting July 13</td>
</tr>
<tr>
<td>JPA/MOA &amp; TAC Meetings &amp; Admin</td>
<td>• 2018 budget drafted</td>
<td></td>
</tr>
<tr>
<td>Project Lead: Diane &amp; Jaime</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invasive Species Removal</td>
<td>• Treated thistle at Segment 4</td>
<td>• Treat Garlic Mustard at CR 16</td>
</tr>
<tr>
<td>Project Lead: Jaime</td>
<td></td>
<td>• Woody scout and foliar treat in segment 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Spot Herbicide and woody foliar. Woody materials cut/treat in Segment 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Woody materials scout/treat, overseed native grasses in Segment 4</td>
</tr>
</tbody>
</table>
### Outlet Structure and Channel

<table>
<thead>
<tr>
<th>Activity</th>
<th>Last Month’s Staff Activities</th>
<th>Next Steps</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MS4 Permit</strong></td>
<td>• Annual Report prepared</td>
<td>• MS4 procedures will be finalized with assistance from WSB</td>
</tr>
<tr>
<td><strong>Project Lead:</strong></td>
<td></td>
<td>• Conduct a public hearing on SWPPP</td>
</tr>
<tr>
<td>Diane</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| **PLOC Easements** | • Surveyor is working on final survey document for Muhlenhardt.                              | • Continue negotiations with Beckler.                                    |
| **Project Lead:**  | • Beckler is still waiting information on Met Council payment before negotiating easement purchase with the District. | • Meet with Muhlenhardt to discuss next steps for easement amendment.    |
| Maggie & Diane    | • Monitored construction work at Blue Lake Interceptor project site in Segment 7.            | • Continue to conduct site visits to Blue Lake Interceptor project site in Segment 7 until the project area is fully restored. |
MEMORANDUM

TO: BOARD OF MANAGERS
FROM: JAIME ROCKNEY
SUBJECT: BOARD OF MANAGERS CONSIDERATIONS FOR TREATING A LAKE WITH ALUM
DATE: 6/13/17

The PLSLWD has 4 lakes that are currently listed as "impaired" for excessive nutrients as of 2017. One lake (Spring Lake) has been treated with an initial dose of Aluminum Sulfate (Alum) to reduce nutrients. Initial results from this Alum Treatment was very positive and has led to citizen inquire as to why an Alum Treatment on other impaired lakes, especially Upper Prior Lake, isn’t also being immediately acted upon by the Board of Managers to reduce in-lake nutrient concentrations and improve water quality.

The purpose of this document is to provide a framework for informed discussions on whether and when to treat a lake with Alum. The following topics will be discussed below. The list of questions within each section can help guide Board decisions. “Yes” answers are in favor of an Alum Treatment.

- Internal Phosphorus Loading
- External Phosphorus Loading
- Rough Fish
- Aquatic Vegetation
- Cost
- Water Quality

Internal Phosphorus Loading

☐ Y ☐ N Does the lake have high internal phosphorus loading?

To determine if a lake has high internal phosphorus loads, the lake bottom must be analyzed for phosphorus content. This can be done by taking sediment cores and/or sampling the top and bottom layer of the lake. If phosphorus concentrations are not high in sediments or the bottom of the water column, an Alum Treatment would probably not be an appropriate option. Shallow lakes will likely not exhibit substantive difference between top and bottom water concentrations since they are typically well mixed and sediment cores should be used in place of, or in addition to, sampling of bottom water.

How high is too high? Unlike surface water concentrations, water quality standards do not exist for bottom waters of a lake. To guide us in understanding what is “too high,” Steve McComas, owner of Blue Water Science, provides a rule of thumb on analyzing the phosphorus in the bottom of the lake. Use Table 3 to compare Watershed lakes to the Rule of Thumb in Table 1.
Table 1  Rule of Thumb for analyzing lake bottom concentrations of Phosphorus

<table>
<thead>
<tr>
<th>Phosphorus Status</th>
<th>Total Phosphorus (TP) Release</th>
<th>Example</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottom TP = Top TP</td>
<td>No problem</td>
<td>Top</td>
<td>60 µg/L</td>
<td>Bottom</td>
</tr>
<tr>
<td>Bottom TP is 2X Top TP</td>
<td>Slight</td>
<td>Top</td>
<td>60 µg/L</td>
<td>Bottom</td>
</tr>
<tr>
<td>Bottom TP is 5X Top TP</td>
<td>Moderate</td>
<td>Top</td>
<td>60 µg/L</td>
<td>Bottom</td>
</tr>
<tr>
<td>Bottom TP is 10X Top TP</td>
<td>High</td>
<td>Top</td>
<td>60 µg/L</td>
<td>Bottom</td>
</tr>
<tr>
<td>Bottom TP is &gt;10X Top TP</td>
<td>Something is going on</td>
<td>Top</td>
<td>60 µg/L</td>
<td>Bottom</td>
</tr>
</tbody>
</table>

When analyzing water samples, McComas explains that “if there is a gradual bottom Total Phosphorus increase over the summer and rainfall is not correlated to the increase, then that is additional evidence of bottom release. I would think bottom TP would have to be in the high range before an alum treatment would be considered. If Total Phosphorus remains high through the fall and into winter and spring, it is likely a fish effect.” Although, this is not always the case depending on mixing and lake depth.

☐ Y  ☐ N  Is the internal load a big contributor to the lake’s overall phosphorus load? If no, then Alum Treatment is not a viable treatment option and external load reduction should be pursued. These estimates in Table 2 were created for Spring and Prior Lakes in the Spring and Upper Prior TMDL study (and before the Alum Treatment in 2013) so they are outdated, but the average below is from 1998-2006 is provided in the table below.

Brian Vlach, Water Resources Supervisor at Three Rivers Park District, estimates internal loading based on sediment core analysis. “If a lake has a significant portion of total load due to internal load, then the lake could be a viable candidate for an alum treatment. In addition, lakes that have more internal load than watershed load are good candidates for an alum treatment.”

Table 2  Total phosphorus load budget for Spring and Upper Prior Lakes based on average from 1998-2006

<table>
<thead>
<tr>
<th>Lake</th>
<th>Source</th>
<th>Average Annual TP Load (lb)</th>
<th>Average Daily TP Load (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring Lake</td>
<td>Wasteload Stormwater(^1)</td>
<td>1,352</td>
<td>3.7</td>
</tr>
<tr>
<td></td>
<td>Septic Systems</td>
<td>263</td>
<td>0.7</td>
</tr>
<tr>
<td></td>
<td>Upstream Load</td>
<td>63</td>
<td>0.2</td>
</tr>
<tr>
<td></td>
<td>Watershed Load</td>
<td>3,595</td>
<td>9.8</td>
</tr>
<tr>
<td></td>
<td>Atmospheric Load</td>
<td>30</td>
<td>0.1</td>
</tr>
<tr>
<td></td>
<td>Internal Load</td>
<td>5,161</td>
<td>14.1</td>
</tr>
<tr>
<td></td>
<td>TOTAL LOAD</td>
<td>10,464</td>
<td>28.6</td>
</tr>
<tr>
<td>Upper Prior Lake</td>
<td>Wasteload Stormwater(^1)</td>
<td>419</td>
<td>1.1</td>
</tr>
<tr>
<td>Load</td>
<td>Septic Systems</td>
<td>4</td>
<td>0.01</td>
</tr>
<tr>
<td></td>
<td>Upstream Load</td>
<td>2,179</td>
<td>6.0</td>
</tr>
<tr>
<td></td>
<td>Atmospheric Load</td>
<td>16</td>
<td>0.04</td>
</tr>
<tr>
<td></td>
<td>Internal Load</td>
<td>2,598</td>
<td>7.1</td>
</tr>
<tr>
<td></td>
<td>TOTAL LOAD</td>
<td>5,216</td>
<td>14.25</td>
</tr>
</tbody>
</table>

4646 Dakota Avenue SE, Prior Lake, MN 55372
(952) 447-4166 • www.plslwd.org • info@plslwd.org
External Phosphorus Loading

☐ Y  ☐ N  Are external phosphorus loads reduced as much as possible?
Normally a lake has too much phosphorus because of what has come into the lake from streams, ditches, wetlands and overland run-off (external sources) over many years. It is recommended that external sources of phosphorus be reduced as much as possible to increase the lifespan of an alum treatment (this question is a component of MPCA permitting (letter review) for Alum Treatment. Consider completing improvement projects that reduce known sources of phosphorus before conducting an alum treatment, especially if the water quality is very near the water quality standard.

☐ Y  ☐ N  Would it take a long time to address all external sources?  If “yes”, and an improvement is desired soon, an Alum Treatment could give some temporary relief. According to Vlach, “there are some cases in which the watershed is so fully developed that it may not be cost effective or practical to try and decrease watershed phosphorus loading. We have one lake that has a fully developed watershed that there really isn’t much that can be done to improve the load going to the lake. In these cases, doing an alum treatment in the lake might be more cost effective than trying to improve watershed loading. Bottom line is that you need to look at the watershed and decide what improvements can or should be made and whether it is reasonable from a cost perspective before considering the alum treatment.”

☐ Y  ☐ N  Is the size of the watershed small?  According to McComas, “based on lake modeling results, large watersheds with high phosphorus loading are less likely to result in a successful alum treatment.”

Rough Fish

☐ Y  ☐ N  Have rough fish been assessed and controlled?  Although up for debate, it is believed rough fish can root up the sediment and vegetation which causes phosphorus to be mixed into the water column and feeds algae. Rough fish could also interfere with the Alum floc layer exposing non-treated sediment which could release phosphorus or increase the amount of alum needed to be effective, thereby increasing the cost of treatment. According to Vlach, “Carp biomass of 100 kg/ha or more in a lake suggests that a lake has a potential carp problem.” If the population is unknown, an estimate should be conducted to see if there are too many fish. Just having rough fish in a lake doesn’t necessarily mean they are a problem. Rough fish populations should be reduced below 100 kg/ha before treating a lake with Alum.

Aquatic Vegetation

☐ Y  ☐ N  Is an adequate amount of vegetation growing in the lake?  Poor water clarity limits the growth of aquatic vegetation and poor vegetation growth limits water clarity. Vegetation and water clarity go hand-in-hand. If water clarity is improved, more vegetation can grow, but vegetation can also help improve water clarity. Which comes first? A rule of thumb is that if 40% of the lake has vegetation growing in the lake bed, good water clarity can be sustained. An alum treatment can greatly increase the amount of sunlight reaching the vegetation, promoting vegetation growth. Aquatic vegetation can also cause issues with recreation.

☐ Y  ☐ N  Will the District or other organization take on the control of potential nuisance vegetation growth, like Curlyleaf Pondweed, Eurasian Watermilfoil, or even native vegetation?  If an Alum Treatment is conducted, consider how much more vegetation would grow. In the case of Upper Prior Lake, 85% of the lake is littoral (shallow enough to grow aquatic plants). It is important to know that vegetation growth could become problematic and invasive species, like Curlyleaf Pondweed or Eurasian Watermilfoil, may start to take over. The future maintenance of nuisance aquatic vegetation should be clear to residents and District Managers before approving an Alum Treatment. The DNR only allows 15% of the littoral zone to be treated.
Cost
☐ Y  ☐ N  Is an Alum Treatment in the budget?
Alum Treatments have high up-front costs, but low overall cost per pound of Phosphorus treated when compared to other nutrient reduction projects. If funding is not immediately available, other funding mechanisms and/or leveraging of others dollars could help defray costs, such as: pursuing grant opportunities, bonding, setting up special taxing districts, and partnerships with Cities, Townships, etc.

Water Quality
☐ Y  ☐ N  Is the water quality getting worse or staying the same?  The amount of internal phosphorus loading from sediments and water quality conditions are usually the driving factors for considering whether an Alum Treatment is warranted. There are many ways to analyze a lake’s condition, but the most widely accepted way is to compare the lake to water quality standards. The PLSLWD’s goal is to meet water quality standards, not to prevent all algae blooms. If a lake meets water quality standards, and has occasional algae blooms, it is not the role of the Watershed to control or prevent these blooms as these are natural processes. Weather conditions and lake characteristics are huge factors in water quality and frequency of algae blooms. For instance, deep lakes are naturally clearer than shallow lakes. Shallow lakes should not be expected to look like deep lakes.

Look at water quality trends (at least the past 3 years, but longer if it’s available) to see if water quality is getting better, worse, or staying relatively constant (Figure 1 and 2). If water quality is decreasing or staying the same, an Alum Treatment may be a viable option. However, if the trend is improving and/or is near the water quality standard, consider waiting to see if the water quality naturally meets the state standard before treating with Alum.

Keep in mind it is possible to have highly degraded water quality but little internal loading from sediment. It is also possible to have good water quality and high internal loading.

Table 3  Water quality parameters that are used for analyzing nutrient impairment status are listed in this table. Red, italicized text are parameters that did not meet the state water quality standard in 2016 based on Three Rivers Park District sampling efforts.

<table>
<thead>
<tr>
<th>Lake</th>
<th>Total Phosphorus Water Quality Standard / 2016 Surface Average (µg/L)</th>
<th>2016 Lake Bottom Total Phosphorus Average (µg/L)</th>
<th>Chi-a Water Quality Standard / 2016 Average (µg/L)</th>
<th>Secchi Depth WQ Standard / 2016 Secchi Depth Average (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish</td>
<td>≤40 / 42</td>
<td>392</td>
<td>≤14.2 / 28</td>
<td>≥1.4 / 1.2</td>
</tr>
<tr>
<td>Lower Prior</td>
<td>≤40 / 23</td>
<td>96</td>
<td>≤14.2 / 5</td>
<td>≥1.4 / 5.1</td>
</tr>
<tr>
<td>Pike (East bay)</td>
<td>≤60 / 162</td>
<td>N/A</td>
<td>≤20 / 64</td>
<td>≥1.0 / 0.4</td>
</tr>
<tr>
<td>Pike (West bay)</td>
<td>≤60 / 93</td>
<td>N/A</td>
<td>≤20 / 35</td>
<td>≥1.0 / 0.7</td>
</tr>
<tr>
<td>Spring</td>
<td>≤60 / 60</td>
<td>358</td>
<td>≤20 / 40</td>
<td>≥1.4 / 0.9</td>
</tr>
<tr>
<td>Upper Prior</td>
<td>≤60 / 68</td>
<td>889</td>
<td>≤20 / 36</td>
<td>≥1.0 / 1.2</td>
</tr>
</tbody>
</table>

4646 Dakota Avenue SE, Prior Lake, MN 55372
(952) 447-4166 • www.plslwd.org • info@plslwd.org
**Figure 1** Total Phosphorus Trends on Upper Prior Lake (May – Sept Avg)

**Figure 2** Secchi Depths and Chlorophyll-a Trends on Upper Prior Lake (May – Sept Avg)
Members Present: Curt Hennes, Charlie Howley, Marianne Breitbach, Fred Corrigan & Woody Spitzmueller

Staff & Consultants Present: Diane Lynch, District Administrator
Maggie Karschnia, Water Resources Project Manager
Jaime Rockney, Water Resources Specialist
Amy Tucci, Administrative Assistance
Carl Almer, EOR

Others Present: Meghan Stiling, Resident
Brett Chimento, Resident
Melissa Hanson, Spring Lake Township
Pete Young, City of Prior Lake

• CALL TO ORDER/PLEDGE OF ALLEGIANCE: Meeting called to order by President Corrigan at 6:02 PM.

President Corrigan acknowledged the Knotty Oar Marina for hosting the 4th Annual Carp Tournament in May.

President Corrigan welcomed and introduced Melissa Hanson, the new Spring Lake Township Clerk.

• 2.0 PUBLIC COMMENT: None

• 3.0 APPROVAL OF AGENDA:
Manager Hennes moved to approve the agenda. Second by Manager Breitbach. All ayes. Motion passed 5-0.

• 4.1 HIGH WATER PROCEDURE:
Carl Almer, EOR and Pete Young, City of Prior Lake, gave an overview of rising lake level triggers and precautionary management/response procedures.
• **4.2 PROGRAMS AND PROJECTS UPDATE:**
  Staff gave updates on ongoing District projects and activities.

• **4.3 A722055 EASEMENT AMENDMENT EXTENSION REQUEST:**
  Manager Spitzmueller moved to approve the extension request. Second by Manager Hennes. All ayes. Motion passed 5-0

• **4.4 MANAGER PRESENTATIONS**
  Managers presented on liaison meetings they have attended and/or other events in the District they have participated in.

• **4.5 RAYMOND PARK AGREEMENT WITH SPRING LAKE TOWNSHIP**
  Discussion only.

• **4.6 CITY HALL LEASE EXTENSION**
  Manager Howley moved to approve the District’s lease with Prior Lake City Hall. Second by Manager Breitbach. All ayes. Motion passed 5-0.

• **4.7 CERTIFICATION AND DELEGATE APPOINTMENT**
  Manager Howley moved to appoint Managers Hennes & Corrigan as delegates for MAWD conference and Manager Breitbach as an alternate. Second by Manager Spitzmueller. All ayes. Motion passed 5-0.

• **4.8 MAWD BYLAWS, MOPP AND BUDGET**
  Manager Howley moved to approve the Bylaw changes. Second by Manager Breitbach. All ayes. Motion passed 5-0.


  Manager Howley moved to approve the MAWD budget. Second by Manager Breitbach. Managers Hennes, Corrigan and Spitzmueller, nay. Motion failed 3-2.

• **4.9 2017 EDUCATION & OUTREACH PLAN**
  Manager Hennes moved to approve the 2017 Education and Outreach Plan. Second by Manager Spitzmueller. All ayes. Motion passed 5-0.

• **4.10 CARP MANAGEMENT PLAN**
  Manager Hennes moved to approve the Carp Management Plan. Second by Manager Spitzmueller. All ayes. Motion passed 5-0.
• **5.0 CONSENT AGENDA**
  Manager Hennes moved to approve the consent agenda. Second by Manager Spitzmueller. All ayes. Motion passed 5-0.

• **6.1 CLAIMS LIST**
  Manager Spitzmueller moved to approve the claims list. Second by Manager Breitbach. All ayes. Motion passed 5-0.

• **6.2, 6.3 & 6.4 CASH & INVESTMENTS/FINANCIAL REPORT**
  Woody Spitzmueller gave an overview of the District’s cash position & spending.

• **7.0 UPCOMING MEETINGS/EVENTS**
  ○ CAC Meeting, Thursday, June 30 from 6:30-8:00 PM, Prior Lake City Hall

**ADJOURNMENT**
Manager Spitzmueller moved to adjourn meeting. Second by Manager Henes. All ayes. Motion passed 5-0. Meeting adjourned at 8:15 PM.

__________________________________
Charlie Howley, Secretary
WORKSHOP MEETING MINUTES
Tuesday, June 13, 2017
Prior Lake City Hall

Members Present: Curt Hennes, Woody Spitzmueller, Charlie Howley, Fred Corrigan & Marianne Breitbach

Staff Present: Diane Lynch, District Administrator and Jaime Rockney, Water Resources Specialist

Others Present: Mary Texer, Board Manager, Capitol Region Watershed District; Yvonne Shirk and David Raby, Lower MN River Watershed District Managers

The meeting was called to order by Fred Corrigan, Board President, at 4:30 p.m.

Alum Treatment Checklist
The Board reviewed the Checklist. The Board will vote on it at the July Board meeting.

MAWD Transition Plan
Mary Texer reviewed a PowerPoint presentation that outlined the major organizational changes for the Minnesota Association of Watershed Districts (MAWD). She encouraged the District to support the bylaws change, which was the key document for a successful transition process.

The meeting adjourned at 5:55 p.m.

__________________________________________
Charlie Howley, Secretary
Prior Lake-Spring Lake Watershed District
Citizen Advisory Committee

Thursday June 29, 2017
6:30 p.m.
Prior Lake City Hall

Our mission is to manage and 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.

The Prior Lake-Spring Lake Watershed District Citizen Advisory Committee (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 address the current issues of concern of the local citizens.

CAC Members present: Steve Pany, Kim Silvernagel, Jodi See, Jim Weninger, Elizabeth Schram
Others present: Diane Lynch, District Administrator; Marianne Breitbach, PLSLWD Manager; Curt Hennes, Manager and Bill Kallberg, formerly of the LAC.

I. Meeting called to order at 6:30pm
II. Agenda-additions-Approval of Agenda & May meeting minutes.
III. Watershed District Projects update / Discussion topics:
   a) Carp management project.
      a. Gates-
         i. Rolling carp barrier by the desilt pond. It has been moved to be more in the channel – having a difficult time with getting it to ‘roll’ properly. There is also a PIT tag reader there.
         ii. Barrier at the ferric chloride plant that will read the fish PIT tags as they move back/forth – this is working very well.
         iii. Carp barrier at the Ferric Chloride plant at the weir but the tines are bent; working to get them fixed.
         iv. There is a PIT tag reader at Spring Lake channel near Prior Lake.
       b. Carp Tournament- Sherriff had taken some complaints but Diane has not heard any feedback.
          i. Fishermen seem to want to continue; Thane Tandy is taking on more and more ‘ownership’ of the contest.
             1. Notify lakeshore owners next time? Thane may have done this as well.
       c. Better ability to hire carp seiners –
          i. Focus is on Upper Prior; fish are so dispersed and not bunching up...consideration to bait them with corn into one area.
          ii. Discussions with DNR over a year ago and still in discussions...rule has not changed. Tony has a good relationship with DNR and is still working on this.
             1. Will Mr. Geyer take on Upper Prior if it has zebra mussels?
             2. Seining nets are very expensive- should the watershed purchase a couple to loan to the seiners? (This is envisioned in the LCMR grant proposal)
             3. The District asked MAWD to support this and they did. The District could ask them to lobby this in 2018.
          iii. Seining on Artic turned up very little carp again--maybe because it is a deep lake.
          iv. LCCMR grant is still in progress. Both the U of M and EOR put in grant proposals.
b) High water status / concerns.
   a. Low flow gate has been closed.
   b. Curlyleaf Pondweed on the outlet structure was a problem over this past high-water time.
      i. Watershed is pulling off once a day at this time, but in the past it was done 2x per day.
         City helps with the removal.
      ii. Interns helped, so did the Prior Lake Association.
   c. Also working on a Spring Lake dam policy-some modeling is being done. Final form coming soon, in the next meeting or two.
   d. Jim W. brought up a past discussion on a dam on Spring Lake and shared some homeowners concerns about this.

c) Rating of lakeshore property. Lake friendly rating 1=good 4=poor.
   a. How to rate a lakeshore? Should we rate homeowners’ lakeshore?
   b. Interns are taking pictures of lakeshore for another purpose and maybe can use that for contacting the owner to suggest updates.
   c. Maybe the watershed could make it available to lakeshore owners?
   d. Would need a fact sheet and suggest the workshops and water quality improvement award.
   e. Maybe put this on Facebook to provide the information? Or at the City’s new Outreach committee meetings to spread the awareness.
   f. Maybe incorporate this into the water quality improvement award for next year’s guidelines?
   g. Consider other ways to encourage lakeshore owners to do better.

d) Strategies: more membership PLA & SLA for future cost share projects.
   a. Why does PLA contribute to the fireworks? Very expensive, could that money be used to better the lake quality?
   b. Membership on other lakes is sometimes increased when face-to-face contact is made. Associations also provide the membership with information on how the money is being used.
   c. Could the person doing the boat inspections hand out materials?
   d. List of suggestions and a card to promote them is another way to get the word out on the associations.
   e. Invite a member from either association to speak at a board meeting. This would be at the front of the agenda.

e) New management Spring Lake Township.
   a. Kathy Neilsen is now working on a SCALE project. Melissa Hanson is the new clerk.

f) Report: Fish Point Park party Tuesday June 20.
   a. Curt was able to attend.
   b. Gave a prize for kids game on ‘bugs’
   c. The ‘bugman’ was there and had presentations for the kids.
   d. Seemed well attended
   e. New trees that were planted look good.
   f. Water quality award information was not displayed as most organizing thought this was geared more towards kids activities.
   g. Indian Ridge Park looks nice.
   h. Fairlawn Shores Park will be worked on soon.

g) Spring Lake access is going to close in Sept-
   a. Notification to owners is not part of watershed’s work, should come from DNR.
   b. Watershed did post this information on their website.
   c. Plans for improvements are still TBD-
   d. Maybe include SLA to gain support for what type of improvements are needed.

h) Impact of 400 new homes N.E. Prior Lake.
   a. At last CAC meeting, Bill assured that the water run-off needs to stat on that new development property. i.e. holding ponds
b. New establishment to seed; owners can use phosphorous—now a days most people use sod. But Bill also confirmed that all of the water run-off would get contained in the water retention ponds.

c. Vierling cattle are gone...what might be happening to this land?

i) Lakefront Days booth citizen engagement strategies promo items.
   a. Aug 3 & 4 (first weekend in August)
   b. Diane will send out volunteer day/time.
   c. Hand outs or trinkets...many being considered; a few are can cozies, wild flower seeds, rain gauges, printed water bottles etc.
   d. The District should use the SWCD’s groundwater demonstration teaching activity again this year.
   e. Would like to have all the traffic go by the booth to the Midway vs. having a second entrance.

j) Water Quality Improvement award update
   a. Diane provided Liz and Jodi with a list of individuals to be contacted (~18 total)
   b. Jodi is interested in attending the park parties to provide the WQ Improvement Award.
   c. Jodi will provide a press release for Scott County Scene and another publication.
   d. Diane will capture the list of people who attended the smaller programs such as rain garden classes.

k) Management plan
   a. Will be updated by 2019
   b. New rule passed requires cities to have their Comprehensive and Water Plans done by the end of 2018.
   c. The District will start its revision process in late August.

IV. Next CAC meeting is July 27.

V. Comments, suggestions, questions.
   a. Next month, Jodi would like to have an update on the buffer law.
   b. Jim had a question on Raymond Park upgrade-
      i. First herbicides have been put down.
      ii. Great River Greening will be involved to do their work & will have volunteer events as well.
      iii. Diane will confirm when it is happening so Jim can let the SLA members know.

VI. Adjourned at 8:06 pm
MS4 Annual Report for 2016

Reporting period: January 1, 2016 to December 31, 2016

Due: June 30, 2017

Instructions: Complete this annual report to provide a summary of your activities under the 2013 MS4 Permit (Permit) between January 1, 2016 and December 31, 2016. MPCA staff may contact you for additional information.

Fillable document available at https://www.pca.state.mn.us/sites/default/files/wq-strm4-06a.doc (for personal use only, not for submittal).

Questions: Contact Cole Landgraf (cole.landgraf@state.mn.us, 651-757-2880) or Megan Handt (megan.handt@state.mn.us, 651-757-2843)

MS4 General Contact Information

<table>
<thead>
<tr>
<th>Full name</th>
<th>Diane Lynch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>District Administrator</td>
</tr>
<tr>
<td>Mailing address</td>
<td>4646 Dakota Street SE</td>
</tr>
<tr>
<td>City</td>
<td>Prior Lake</td>
</tr>
<tr>
<td>State</td>
<td>MN</td>
</tr>
<tr>
<td>Zip code</td>
<td>55372</td>
</tr>
<tr>
<td>Phone</td>
<td>952-440-0067</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:dlynch@plslwd.org">dlynch@plslwd.org</a></td>
</tr>
</tbody>
</table>

Preparer Contact Information (if different from the MS4 General Contact)

<table>
<thead>
<tr>
<th>Full name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
</tr>
<tr>
<td>Organization</td>
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<tr>
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<tr>
<td>State</td>
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<tr>
<td>Zip code</td>
</tr>
<tr>
<td>Phone</td>
</tr>
<tr>
<td>Email</td>
</tr>
</tbody>
</table>
MCM 1: Public Education and Outreach

The following questions refer to Part III.D.1. of the Permit.

Q2 Did you select a stormwater-related issue of high priority to be emphasized during this Permit term? [Part III.D.1.a.(1)]
   - Yes
   - No

Q3 What is your stormwater-related issue(s)? Check all that apply.
   - TMDL(s)
   - Local businesses
   - Residential BMPs
   - Pet waste
   - Yard waste
   - Deicing materials
   - Household chemicals
   - Construction activities
   - Post-construction activities
   - Other

Q4 Have you distributed educational materials or equivalent outreach to the public focused on illicit discharge recognition and reporting? [Part III.D.1.a.(2)]
   - Yes
   - No

Q5 Do you have an implementation plan as required by the Permit? [Part III.D.1.b.]
   - Yes
   - No

Q6 How did you distribute educational materials or equivalent outreach? Check all that apply and provide circulation/audience associated with each item. [Part III.D.1.a.]
   - Yes
   - Newsletter
   - Utility bill insert
   - Newspaper ad
   - Radio ad
   - Television ad
   - Cable access channel
   - Stormwater-related event
   - School presentation or project
   - Website
   - Other (1)
   - Other (2)
   - Other (3)

Other (1), describe: One District lake tour; Spring Lake Demonstration site and Lakefront Days booth
Q7  Intended audience? Check all that apply.

<table>
<thead>
<tr>
<th></th>
<th>Residents</th>
<th>Local Businesses</th>
<th>Developers</th>
<th>Students</th>
<th>Employees</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brochure</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newsletter</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cable access channel</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stormwater-related event</td>
<td>✔</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School presentation or project</td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Website</td>
<td>✔</td>
<td>✔</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q8  Enter the total circulation/audience (if unknown, use best estimate):

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Brochure</td>
<td>423</td>
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<tr>
<td>Newsletter</td>
<td>251</td>
</tr>
<tr>
<td>Cable access channel</td>
<td>1200</td>
</tr>
<tr>
<td>Stormwater-related event</td>
<td>150</td>
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<tr>
<td>School presentation or project</td>
<td>1350</td>
</tr>
<tr>
<td>Website</td>
<td>2,784,856</td>
</tr>
<tr>
<td>Other (1)</td>
<td>295</td>
</tr>
</tbody>
</table>

Provide a brief description of each activity related to public education and outreach (e.g. rain garden workshop, school presentation, public works open house) held and the date each activity was held from January 1, 2016 to December 31, 2016. [Part III.D.1.c.(4)]

<table>
<thead>
<tr>
<th>Date (mm/dd/yyyy)</th>
<th>Description of activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/05/2016</td>
<td>Lakefront days (2 days)</td>
</tr>
<tr>
<td>04/10/2016</td>
<td>Spring Lake Association Meeting</td>
</tr>
<tr>
<td>10/27/2016</td>
<td>Prior Lake Association Meeting</td>
</tr>
<tr>
<td>09/20/2016</td>
<td>Outdoor Education Day (9/20-23) Scott County</td>
</tr>
<tr>
<td>05/01/2016</td>
<td>Clean Water Clean-Up (Spring)</td>
</tr>
<tr>
<td>10/30/2016</td>
<td>Clean Water Clean-Up (Fall)</td>
</tr>
</tbody>
</table>
Q11 Between January 1, 2016 and December 31, 2016, did you modify your BMPs, measurable goals, or future plans for your public education and outreach program? [Part IV.B.]

☐ Yes
☐ No

Describe those modifications:

We provided more opportunities for public involvement

MCM 2: Public Participation/Involvement

The following questions refer to Part III.D.2.a. of the Permit.

Q12 You must provide a minimum of one opportunity each year for the public to provide input on the adequacy of your Stormwater Pollution Prevention Program (SWPPP). Did you provide this opportunity between January 1, 2016 and December 31, 2016? [Part III.D.2.a.(1)]

☐ Yes
☐ No

Q17 Between January 1, 2016 and December 31, 2016, did you receive any input regarding your SWPPP?

☐ Yes
☐ No

Q19 Between January 1, 2016 and December 31, 2016, did you modify your BMPs, measurable goals, or future plans for your public participation/involvement program? [Part IV.B.]

☐ Yes
☐ No

MCM 3: Illicit Discharge Detection and Elimination

The following questions refer to Part III.D.3. of the Permit.

Q20 Do you have a regulatory mechanism which prohibits non-stormwater discharges to your MS4? [Part III.D.3.b.]

☐ Yes
☐ No

Q21 Did you identify any illicit discharges between January 1, 2016 and December 31, 2016? [Part III.D.3.h.(4)]
Q30  Do you have written Enforcement Response Procedures (ERPs) to compel compliance with your illicit discharge regulatory mechanism(s)? [Part III.B.]
   ○ Yes
   ○ No

Q31  Between January 1, 2016 and December 31, 2016, did you train all field staff in illicit discharge recognition (including conditions which could cause illicit discharges) and reporting illicit discharges for further investigations? [Part III.D.3.e.]
   ○ Yes
   ○ No

Q32  How did you train your field staff? Check all that apply.
   □ Email
   □ PowerPoint
   ✔ Presentation
   □ Video
   □ Field Training
   □ Other

The following questions refer to Part III.C.1. of the Permit.

Q33  Did you update your storm sewer system map between January 1, 2016 and December 31, 2016? [Part III.C.1.]
   ○ Yes
   ○ No

Q34  Does your storm sewer map include all pipes 12 inches or greater in diameter and the direction of stormwater flow in those pipes? [Part III.C.1.a.]
   ○ Yes
   ○ No

Q35  Does your storm sewer map include outfalls, including a unique identification (ID) number and an associated geographic coordinate? [Part III.C.1.b.]
   ○ Yes
   ○ No

Q36  Does your storm sewer map include all structural stormwater BMPs that are part of your MS4? [Part III.C.1.c.]
   ○ Yes
   ○ No

Q37  Does your storm sewer map include all receiving waters? [Part III.C.1.d.]
Q38 In what format is your storm sewer map available?
- [ ] Hardcopy only
- [ ] GIS
- [ ] CAD
- [x] Other
Other, describe: Adobe file

Q39 Between January 1, 2016 and December 31, 2016, did you modify your BMPs, measurable goals, or future plans for your illicit discharge detection and elimination (IDDE) program? [Part IV.B.]
- [ ] Yes
- [x] No

MCM 4: Construction Site Stormwater Runoff Control

The following questions refer to Part III.D.4. of the Permit.

Q40 Do you have a regulatory mechanism that is at least as stringent as the Agency's general permit to Discharge Stormwater Associated with Construction Activity (CSW Permit) No. MN R100001 (http://www.pca.state.mn.us/index.php/view-document.html?gid=18984) for erosion and sediment controls and waste controls? [Part III.D.4.a.]
- [x] Yes
- [ ] No

Q41 Have you developed written procedures for site plan reviews as required by the Permit? [Part III.D.4.b.]
- [ ] Yes
- [x] No

Q42 Have you documented each site plan review as required by the Permit? [Part III.D.4.f.]
- [ ] Yes
- [x] No

Q43 Enter the number of site plan reviews conducted for sites an acre or greater of soil disturbance between January 1, 2016 and December 31, 2016:

1

Q44 What types of enforcement actions do you have available to compel compliance with your regulatory mechanism? Check all that apply and enter the number of each used from January 1, 2016 to December 31, 2016.
☑ Verbal warnings
☑ Notice of violation
☐ Administrative orders
☐ Stop-work orders
☐ Fines
☐ Forfeit of security of bond money
☐ Withholding of certificate of occupancy
☐ Criminal actions
☐ Civil penalties
☐ Other

Enter the number of verbal warnings issued: 20

Enter the number of notice of violations issued: 10

Q45 Do you have written Enforcement Response Procedures (ERPs) to compel compliance with your construction site stormwater runoff control regulatory mechanism(s)? [Part III.B.]

☐ Yes
☐ No

Q46 Enter the number of active construction sites an acre or greater that were in your jurisdiction between January 1, 2016 and December 31, 2016:

1

Q47 Do you have written procedures for identifying priority sites for inspections? [Part III.D.4.d.(1)]

☐ Yes
☐ No

Q48 How are sites prioritized for inspections? Check all that apply.

☑ Site topography
☑ Soil characteristics
☑ Types of receiving water(s)
☑ Stage of construction
☑ Compliance history
☑ Weather conditions
☐ Citizen complaints
☐ Project size
☐ Other

Q49 Do you have a checklist or other written means to document site inspections when determining compliance? [Part III.D.4.d.(4)]

☐ Yes
☐ No
Q50 Enter the number of site inspections conducted for sites an acre or greater between January 1, 2016 and December 31, 2016:

31

Q51 Enter the frequency at which site inspections are conducted (e.g. daily, weekly, monthly): [Part III.D.4.d.(2)]

weekly

Q52 Enter the number of trained inspectors that were available for construction site inspections between January 1, 2016 and December 31, 2016:

2

Q53 Provide the contact information for the inspector(s) and/or organization that conducts construction stormwater inspections for your MS4. List your primary construction stormwater contact first if you have multiple inspectors.

(1) Inspector name: Maggie Karschnia
Organization: Prior Lake Spring Lake Watershed District
Phone (Office): 952-447-9808
Preferred contact method: E-mail

(2) Inspector name: Kathryn Keller-Miller
Organization: Prior Lake Spring Lake Watershed District
Phone (Office): 952-447-4166
Email: kkeller-miller@plslwd.org
Preferred contact method: E-mail

(3) Inspector name:
Organization:
Phone (Office):
Phone (Work Cell):
Email:
Preferred contact method:

Q54 What training did inspectors receive? Check all that apply.

☑ University of Minnesota Erosion and Stormwater Management Certification Program
☐ Qualified Compliance Inspector of Stormwater (QCIS)
☐
Q55 Between January 1, 2016 and December 31, 2016, did you modify your BMPs, measurable goals, or future plans for your construction site stormwater runoff control program? [Part IV.B.]

- Yes
- No

MCM 5: Post-Construction Stormwater Management

The following questions refer to Part III.D.5. of the Permit.

Q56 Do you have a regulatory mechanism which meets all requirements as specified in Part III.D.5.a. of the Permit?

- Yes
- No

Q57 What approach are you using to meet the performance standard for Volume, Total Suspended Solids (TSS), and Total Phosphorus (TP) as required by the Permit? [Part III.D.5.a.(2)]

Check all that apply.


- Retain a runoff volume equal to one inch times the area of the proposed increase of impervious surfaces on-site
- Retain the post-construction runoff volume on site for the 95th percentile storm
- Match the pre-development runoff conditions
- Adopt the Minimal Impact Design Standards (MIDS)
- An approach has not been selected
- Other method (Must be technically defensible--e.g. based on modeling, research and acceptable engineering practices)

Q58 Do you have written Enforcement Response Procedures (ERPs) to compel compliance with your post-construction stormwater management regulatory mechanism(s)? [Part III.B.]

- Yes
- No
Between January 1, 2016 and December 31, 2016, did you modify your BMPs, measurable goals, or future plans for your post-construction stormwater management program? [Part IV.B.]

☐ Yes
☐ No

MCM 6: Pollution Prevention/Good Housekeeping for Municipal Operations

The following questions refer to Part III.D.6. of the Permit.

Q60  Enter the total number of structural stormwater BMPs, outfalls (excluding underground outfalls), and ponds within your MS4 (exclude privately owned).

<table>
<thead>
<tr>
<th>Structural stormwater BMPs</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outfalls</td>
<td>35</td>
</tr>
<tr>
<td>Ponds</td>
<td>0</td>
</tr>
</tbody>
</table>

Q61  Enter the number of structural stormwater BMPs, outfalls (excluding underground outfalls), and ponds that were inspected from January 1, 2016 to December 31, 2016 within your MS4 (exclude privately owned). [Part III.D.6.e.]

<table>
<thead>
<tr>
<th>Structural stormwater BMPs</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outfalls</td>
<td>35</td>
</tr>
<tr>
<td>Ponds</td>
<td>0</td>
</tr>
</tbody>
</table>

Q62  Have you developed an alternative inspection frequency for any structural stormwater BMPs, as allowed in Part III.D.6.e.(1) of the Permit?

☐ Yes
☐ No

Q63  Based on inspection findings, did you conduct any maintenance on any structural stormwater BMPs? [Part III.D.6.e.(1)]

☐ Yes
☐ No

Q65  Do you own or operate any stockpiles, and/or storage and material handling areas? [Part III.D.6.e.(3)]

☐ Yes
☐ No

Q69  Between January 1, 2016 and December 31, 2016, did you modify your BMPs, measurable goals, or future plans for your pollution prevention/good housekeeping for municipal operations program? [Part IV.B.]
Partnerships

Q78 Did you rely on any other regulated MS4s to satisfy one or more Permit requirements?

☐ Yes
☐ No

Additional Information

If you would like to provide any additional files to accompany your annual report, use the space below to upload those files. For each space, you may attach one file. You may provide additional explanation and/or information in an email with the subject YourMS4NameHere_2016AR to ms4permitprogram.pca@state.mn.us.

Q80 Click the "up arrow" icon below to upload a file. When it has uploaded successfully, a unique ID will appear in the box. Only files less than 10 MB in size will upload.

Q81 Click the "up arrow" icon below to upload a file. When it has uploaded successfully, a unique ID will appear in the box. Only files less than 10 MB in size will upload.

Q82 Click the "up arrow" icon below to upload a file. When it has uploaded successfully, a unique ID will appear in the box. Only files less than 10 MB in size will upload.

Q83 Optional, describe the file(s) uploaded:

Owner or Operator Certification

The person with overall administrative responsibility for SWPPP implementation and Permit compliance must certify this MS4 Annual Report. This person must be
duly authorized and should be either a principal executive (i.e., Director of Public Works, City Administrator) or ranking elected official (i.e., Mayor, Township Supervisor).

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete (Minn. R. 7001.0070). I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment (Minn. R. 7001.0540).

☑ Yes

By typing my name in the following box, I certify the above statements to be true and correct, to the best of my knowledge, and that information can be used for the purpose of processing my MS4 Annual Report.

Name: Diane Lynch
Title: District Administrator
Date: 06/26/2017

When you are ready to submit, you must click the 'Submit' button at the bottom of this page.

Provide the email(s) of the individual(s) you would like to receive the MS4 Annual Report for 2016 submittal confirmation email from the MPCA. After you click the Submit button below, please allow up to three business days to receive this email.

Email (1) dlynch@plslwd.org
Email (2)
Email (3)

Print or save a copy of your completed MS4 Annual Report for 2016 for your records. The MPCA will email a PDF of your MS4 Annual Report for 2016 information in a confirmation email within three business days after you submit this form to the email(s) you provided above.

You may print a copy of the MS4 Annual Report for 2016 for your records by pressing the 'Print' button at the bottom of the page.
Additionally, it is possible to save a PDF copy of the MS4 Annual Report for 2016 if you are working on a computer with OneNote (a program often included in Microsoft Office packages). Detailed saving instructions are available at stormwater.pca.state.mn.us/index.php/Guidance_for_saving_MS4_annual_reports.

If you have any questions, contact MPCA staff Cole Landgraf (cole.landgraf@state.mn.us, 651-757-2880) or Megan Handt (megan.handt@state.mn.us, 651-757-2843).
Managers will consider approving this claims list - Staff payroll and Manager per diems have already been paid via ADP. After the managers vote, two Managers will sign checks within three days of the meeting for approve claims. Then, staff will US mail checks (written on the Klein Bank) to the claims list parties.

Staff will request that all vendors provide information on their invoices to fit into the categories below

### 1. Watershed District Projects (excluding staff payroll)

<table>
<thead>
<tr>
<th>Vendor</th>
<th>Invoice</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Ecological Services, Inc.</td>
<td>35386</td>
<td>CR 12/17 Wetland Vegetation Establishment</td>
<td>767.41</td>
</tr>
<tr>
<td>EOR</td>
<td>00758-0017</td>
<td>Storage &amp; Infiltration</td>
<td>442.75</td>
</tr>
<tr>
<td>EOR</td>
<td>00758-0017</td>
<td>General Engineering</td>
<td>1,568.25</td>
</tr>
<tr>
<td>EOR</td>
<td>00758-0096</td>
<td>Lower Prior Protection CWP Implementation</td>
<td>31.75</td>
</tr>
<tr>
<td>EOR</td>
<td>00758-0017</td>
<td>H &amp; H Model</td>
<td>1,641.25</td>
</tr>
<tr>
<td>EOR</td>
<td>00758-0017</td>
<td>Rule Revisions</td>
<td>40.25</td>
</tr>
<tr>
<td>EOR</td>
<td>00758-0017</td>
<td>Permitting</td>
<td>120.75</td>
</tr>
<tr>
<td>EOR</td>
<td>00758-0017</td>
<td>BMP Easements</td>
<td>238.75</td>
</tr>
<tr>
<td>EOR</td>
<td>00758-0096</td>
<td>Public Infrastructure - Fairlawn Shores</td>
<td>31.75</td>
</tr>
<tr>
<td>RMB</td>
<td>358666</td>
<td>Lab Analysis</td>
<td>438.00</td>
</tr>
<tr>
<td>RMB</td>
<td>360905</td>
<td>Lab Analysis</td>
<td>680.00</td>
</tr>
<tr>
<td>RMB</td>
<td>357885</td>
<td>Lab Analysis</td>
<td>440.00</td>
</tr>
<tr>
<td>RMB</td>
<td>358683</td>
<td>Lab Analysis</td>
<td>432.00</td>
</tr>
<tr>
<td>RMB</td>
<td>360913</td>
<td>Lab Analysis</td>
<td>355.00</td>
</tr>
<tr>
<td>WSB</td>
<td>003032-010 21</td>
<td>Carp Management</td>
<td>6,202.50</td>
</tr>
<tr>
<td>Xcel</td>
<td>June</td>
<td></td>
<td>16.90</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>13,447.31</strong></td>
</tr>
</tbody>
</table>

### 2. Outlet Channel - JPA/MOA (excluding staff payroll)

<table>
<thead>
<tr>
<th>Vendor</th>
<th>Invoice</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>D&amp;J Landscaping</td>
<td>6292017</td>
<td>Sand at Outlet Structure</td>
<td>351.01</td>
</tr>
<tr>
<td>EOR</td>
<td>00758-0016</td>
<td>PLOC Outlet Mgmt Policy Revisions</td>
<td>80.50</td>
</tr>
<tr>
<td>EOR</td>
<td>00758-0037</td>
<td>MOA Engineering Assistance</td>
<td>1,416.75</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>1,848.26</strong></td>
</tr>
</tbody>
</table>

### 3. Payroll, Office and Overhead

<table>
<thead>
<tr>
<th>Vendor</th>
<th>Invoice</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADP Manager Per Diems</td>
<td></td>
<td>Already Paid</td>
<td>1,371.27</td>
</tr>
<tr>
<td>ADP Staff Payroll</td>
<td></td>
<td>Already Paid</td>
<td>15,917.27</td>
</tr>
<tr>
<td>ADP Taxes &amp; Benefits</td>
<td></td>
<td>Already Paid</td>
<td>10,846.70</td>
</tr>
<tr>
<td>Blue Cross Blue Shield</td>
<td>170602174362</td>
<td>Health Insurance</td>
<td>2,358.18</td>
</tr>
<tr>
<td>Connexus Credit Union</td>
<td></td>
<td>Health Savings Account</td>
<td>115.38</td>
</tr>
<tr>
<td>H SA Bank</td>
<td></td>
<td>Health Savings Account</td>
<td>115.38</td>
</tr>
<tr>
<td>HealthPartners</td>
<td></td>
<td>Dental Insurance</td>
<td>284.29</td>
</tr>
<tr>
<td>Iceberg Web Design</td>
<td>18390</td>
<td>Website Hosting</td>
<td>29.99</td>
</tr>
<tr>
<td>League of MN Cities</td>
<td>40000547</td>
<td>Work Comp Insurance</td>
<td>1,474.00</td>
</tr>
<tr>
<td>League of MN Cities</td>
<td>1003622</td>
<td>Property &amp; Liability Insurance</td>
<td>5,009.00</td>
</tr>
<tr>
<td>Mind IT</td>
<td>3265</td>
<td>Computer Troubleshoot</td>
<td>55.00</td>
</tr>
<tr>
<td>NCPERS</td>
<td></td>
<td>Life Insurance</td>
<td>140.00</td>
</tr>
<tr>
<td>Noah &amp; Associates</td>
<td>1584</td>
<td>Compensation Consulting</td>
<td>312.50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>38,028.96</strong></td>
</tr>
</tbody>
</table>

### 4. Debt repayment and Interest

<table>
<thead>
<tr>
<th>Vendor</th>
<th>Invoice</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>53,324.53</strong></td>
</tr>
</tbody>
</table>

X___________________________ X_________________________
### Program Salaries and Benefits (not JPA/MOA)

<table>
<thead>
<tr>
<th>Category</th>
<th>Budget</th>
<th>Paid</th>
<th>Percent Spent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative Salaries and Benefits</td>
<td>108,550</td>
<td>108,550</td>
<td>100%</td>
</tr>
<tr>
<td>703 - Telephone &amp; Internet</td>
<td>12,000</td>
<td>12,000</td>
<td>100%</td>
</tr>
<tr>
<td>706 - Office Supplies</td>
<td>5,000</td>
<td>5,000</td>
<td>100%</td>
</tr>
<tr>
<td>709 - Insurance and Bonds</td>
<td>6,000</td>
<td>6,000</td>
<td>100%</td>
</tr>
<tr>
<td>670 - Accounting</td>
<td>20,000</td>
<td>20,000</td>
<td>100%</td>
</tr>
<tr>
<td>671 - Audit</td>
<td>7,500</td>
<td>7,500</td>
<td>100%</td>
</tr>
<tr>
<td>903 - Dues/Fees/Subscriptions</td>
<td>13,000</td>
<td>13,000</td>
<td>100%</td>
</tr>
<tr>
<td>660 - Legal (not for projects)</td>
<td>1,000</td>
<td>1,000</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>173,050</td>
<td>173,050</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Program Salaries and Benefits (not JPA/MOA) - Total organization budget

<table>
<thead>
<tr>
<th>Category</th>
<th>Budget</th>
<th>Paid</th>
<th>Percent Spent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total organization budget</strong></td>
<td>173,050</td>
<td>173,050</td>
<td>100%</td>
</tr>
</tbody>
</table>

No assurance is provided on these statements.