

Comfort Lake-Forest Lake Watershed District



2016 Annual Report
2017 Work Plan & Budget



Table of Contents

| | | |
|--------|--|----|
| I. | Introduction..... | 3 |
| II. | 2016 Board of Managers..... | 3 |
| III. | 2016 Citizen Advisory Committee Members | 4 |
| IV. | 2016 Technical Advisory Committee | 4 |
| V. | 2016 Staff and Consultants | 5 |
| VI. | Background..... | 6 |
| VII. | History of Significant Events..... | 8 |
| VIII. | Financial Report..... | 9 |
| IX. | 2016 Financial Audit..... | 10 |
| X. | District Rules and Permitting Program | 10 |
| XI. | Water Monitoring and Data Assessment Program..... | 11 |
| XII. | Cost-Share Program (Non-Point Source Pollution Abatement) | 13 |
| XIII. | Education and Outreach Program | 14 |
| XIV. | Technical Resource Sharing and Interagency Communication Program | 15 |
| XV. | Research Program | 17 |
| XVI. | Measurement of Progress Program..... | 18 |
| XVII. | Grant Research and Preparation Program..... | 18 |
| XVIII. | Operations & Maintenance Program | 18 |
| XIX. | Aquatic Invasive Species Prevention and Management Program | 19 |
| XX. | Capital Improvement Projects..... | 21 |
| XXI. | 2017 Work Plan and Budget | 24 |

I. Introduction

Pursuant to Minnesota Statutes Section 103D.351 and Minnesota Rules Section 8410.0150, the Board of Managers of the Comfort Lake–Forest Lake Watershed District (CLFLWD or District) submits its 2016 Annual Report. The District was established by petition order of the State of Minnesota in 1999. This report is intended to inform readers of the District's 2016 activities, plans, goals, and objectives, and describe its projected work plan and budget for 2017. The District invites comments and suggestions on the report.

The District submits its Annual Activity Report to the Board of Water and Soil Resources, the Commissioner of the Department of Natural Resources, and the Director of the Division of Waters. Copies are available from the District Administrator or the District Board of Managers.

This report provides background information on the District; summarizes budgets, levies, and the 2016 audit; and summarizes the District's programs and activities completed in 2016 as well as presents a work plan for 2017.

II. 2016 Board of Managers

Jackie A. Anderson, President
25484 E Comfort Dr
Forest Lake, MN 55025
Appointed County: Chisago
Term Expires: November 2018

Jon W. Spence, Vice President
25582 Comfort Dr
Chisago City, MN 55013
Appointed County: Chisago
Term Expires: January 2018

Wayne S. Moe, Secretary
22877 Mallard Ave N
Scandia, MN 55073
Appointed County: Washington
Term Expires: September 2018

Stephen Schmaltz, Treasurer
22735 Hayward Ave N
Forest Lake, MN 55025
Appointed County: Washington
Term Expires: September 2017

Jackie McNamara, Assistant Treasurer
22855 Hayward Ave N
Forest Lake, MN 55025
Appointed County: Washington
Term Expires: September 2018

III. 2016 Citizen Advisory Committee Members

Jerry Grundtner, Chair
 9444 Jewel Lane
 Forest Lake, MN 55025

Nicole Meis
 26004 Hunter Ave
 Wyoming, MN 55069

Sam Hathaway
 12103 238th St N
 Scandia, MN 55073

Bruce Anderson
 25484 E Comfort Dr
 Forest Lake, MN 55025

Chris Mann
 7660 Hilo Lane N
 Forest Lake, MN 55025

Curt Sparks
 20930 Keewahtin Ave N
 Scandia, MN 55073

Jack MacKenzie
 10050 204th St N
 Forest Lake, MN 55025

IV. 2016 Technical Advisory Committee

Representatives from each of the District’s cities and counties, state agencies, neighboring watershed districts, and the Metropolitan Council comprise the District’s Technical Advisory Committee (TAC). The TAC assists with the development of the District’s watershed management and capital improvement plans, rules and specific projects, as well as support for the CAC. Members of the TAC are:

| Name | Organization |
|---------------------------|---|
| Phil Belfiori | Rice Creek Watershed District |
| Mark Erichson | City of Wyoming |
| Dan Fabian | Board of Water and Soil Resources |
| Ryan Goodman | City of Forest Lake |
| Stephanie Grayzeck Souter | Washington County |
| Tara Guy | Chisago County Dept. of Environmental Services and Zoning |
| James Landini | Washington Conservation District |
| Craig Mattson | City of Wyoming |
| Craig Mell | Chisago SWCD |
| Aaron Parrish | City of Forest Lake |
| John Pechman | Chisago City |
| Jay Riggs | Washington Conservation District |
| Jim Shaver | Carnelian-Marine-St. Croix Watershed District |
| Neil Soltis | City of Scandia |
| Jen Sorensen | MN Department of Natural Resources |

2016 Annual Report & 2017 Work Plan and Budget

| Name | Organization |
|----------------|------------------------------------|
| Jerry Spetzman | Chisago County |
| Judy Sventek | Metropolitan Council |
| Nick Tiedeken | MN Department of Transportation |
| Fred Weck | City of Wyoming |
| Craig Wills | MN Department of Natural Resources |
| Chris Zadak | MN Pollution Control Agency |

V. 2016 Staff and Consultants

In 2016, the District employed four full-time staff members. This was up from two full-time staff members in 2015. In addition, numerous independent contractor consultants provided all of the necessary accounting, legal, public information and other services to fulfill its obligations, goals, and objectives within budget. The following staff and consultants served the District in 2016:

| Staff | Position | Address | Telephone | E-mail |
|---|------------------------|---|----------------|--|
| Michael Kinney | District Administrator | 44 Lake Street South Suite A Forest Lake, MN 55025 | (651) 395-5855 | Michael.kinney@clflwd.org |
| Emily Heinz | Watershed Technician | | (651) 395-5856 | Emily.heinz@clflwd.org |
| Mike Sorensen | Program Assistant | | (651) 395-5857 | Mike.sorensen@clflwd.org |
| Jessica Lindemyer | Watershed Assistant | | (651) 395-5858 | Jessica.lindemyer@clflwd.org |
| Consultants | Services | Address | Telephone | E-mail |
| Nancy Martinson Redpath and Company | Accountant | 4810 White Bear Pkwy, White Bear Lake, MN 55110 | (651) 407-5844 | nmartinson@redpathcpas.com |
| Greg Graske Emmons and Olivier Resources | Engineer | 651 Hale Ave N Oakdale, MN 55128 | (651) 770-8448 | ggraske@eorinc.com |
| Kevin Knopik Abdo, Eick & Meyers, LLP | Auditor | 4810 White Bear Pkwy White Bear Lake, MN 55110 | (651) 426-7000 | kevin.knopik@aemcpas.com |
| Ken Carlson Bearence Management Group | Insurance | 2010 Centre Pointe Blvd. Mendota Heights, MN 55120 | (651) 379-7909 | KCarlson@bearence.com |
| Chuck Holtman/ Louis Smith Smith Partners, PLLP | Attorney | 400 Second Ave. S. #1200 Minneapolis, MN 55401 | (612) 344-1400 | holtman@smithpartners.com smith@smithpartners.com |

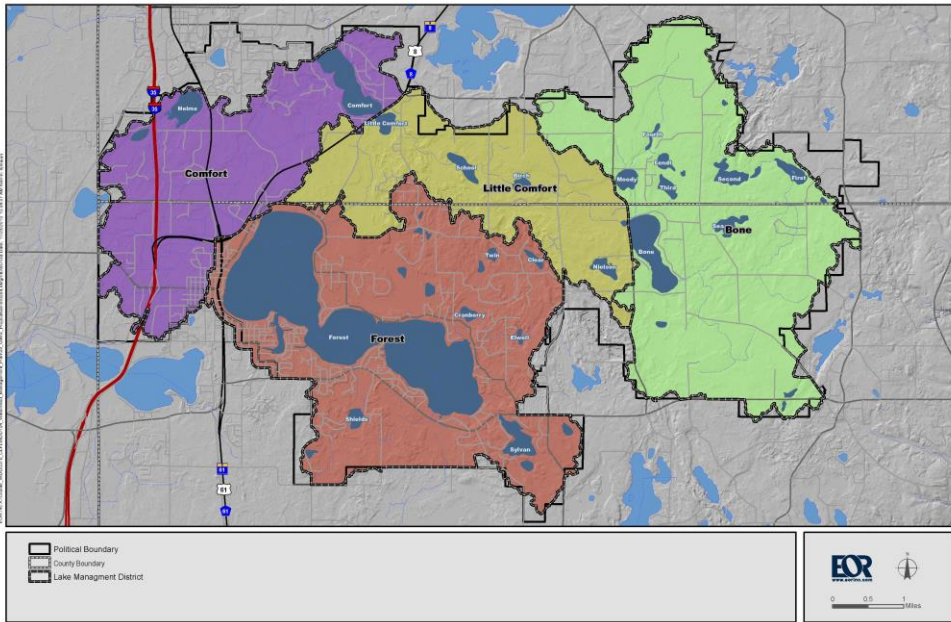
2016 Annual Report & 2017 Work Plan and Budget

| Consultants | Services | Address | Telephone | E-mail |
|--|--|---|----------------|--|
| Erik Anderson/ Tara Kline/ Bryan Pynn Washington Conservation District | Technical Advisors | 455 Hayward Ave N, Oakdale, MN 55128 | (651) 330-8220 | eanderson@mnwcd.org tkline@mnwcd.org bpynn@mnwcd.org |
| Craig Mell Chisago SWCD | Technical Advisor | 38814 3 rd Ave. North Branch, MN 55056 | (651) 674-2333 | craig.mell@mn.nacdnet.net |
| Laura Jester Keystone Waters, LLC | Communications, Grant Writing, Meeting Minutes | 16145 Hillcrest Lane Eden Prairie, MN 55346 | (952) 270-1990 | Laura.jester@keystonewaters.com |

VI. Background

The Comfort Lake–Forest Lake Watershed District (District) was established in 1999 after citizens petitioned the Board of Water and Soil Resources (BWSR) to replace the existing Forest Lake Watershed Management Organization (FLWMO) in order to address water quality and flooding issues. The petition included the area encompassed by FLWMO plus the drainage area of Comfort Lake in Chisago County (former Joint Ditch No. 1 (JD 1), drainage area).

The District encompasses roughly 48 square miles in northern Washington County and southern Chisago County, including portions of the cities of Chisago City, Forest Lake, Scandia, Wyoming and Chisago Lake Township, and Franconia Township. The District transects both metropolitan and outstate counties, with roughly 60 percent of the watershed within Washington County and 40 percent in Chisago County.





The District is managed by a five member Board, with three members appointed by Washington County and two members appointed by Chisago County. The Board of Managers includes the positions of President, Vice President, Secretary, Treasurer, and Assistant Treasurer which are elected annually. The Comfort Lake–Forest Lake Watershed District’s first Water Management Plan (WMP) was approved by the Board of Water and Soil Resources in October 2001 with the a recent WMP update completed in 2015. Toward the end of 2016 the District began another WMP amendment to encompass new projects and programs. The Board of Managers, with the help of its Citizen Advisory Committee, adopted the following mission statement:

The mission of the Comfort Lake–Forest Lake Watershed District is to protect and conserve its water resources. The District will use sound scientific water management approaches, technologies, and methods. The District will develop a uniform, integrated approach to water management within a rapidly changing and urbanizing area.



VII. History of Significant Events

- 1983 The Forest Lake Watershed Management Organization is established under the Metropolitan Surface Water Management Act.
- 1987 The original boundary is expanded to include the drainage areas of Bone Lake and Twin Lake.
- 1998 A petition is filed with State of Minnesota to establish the Comfort Lake–Forest Lake Watershed District under MS 103D (Watershed Law).
- 1999 The State of Minnesota orders the establishment of the Comfort Lake–Forest Lake Watershed District. The former Forest Lake Watershed Management Organization is dissolved.
- 2001 The first Watershed Management Plan completed and adopted.
- 2005 The first full-time administrator is hired and a local office is opened in Forest Lake.
- 2007 The Watershed and Lake Water Quality Modeling Report and Capital Improvement Plan are completed.
- 2008 The Metropolitan Surface Water Management Act authorities for the District are authorized by the Legislature, providing expanded authority to raise funds for projects.
- 2008 Comprehensive Water Management Plan amended to include the Capital Improvement Plan.
- 2010 The Six Lakes Total Maximum Daily Load (TMDL) Study is completed.
- 2011 The 10-year revision of District’s Watershed Management Plan is completed and adopted.
- 2012 The Sunrise River Water Quality and Flowage Project is ordered, and two fish barriers are installed at the inlet and outlet of Bone Lake to control carp population.
- 2013 Two Whole Farms Plans and one large agricultural project that included an iron sand filter are completed.
- 2014 Aquatic Invasive Species Action Plans for four different lakes, a Moody Lake Diagnostic Study, and the Target Retrofit Project are completed.
- 2015 The Bone Lake Diagnostic Study was completed and significant progress was made on the Hilo Lane Stormwater Retrofit Project, the Bixby Park Project, and the Moody Lake Wetland Restoration feasibility study. The Bone Lake inlet and outlet fish barriers were retrofitted to reduce flooding impacts and turtle mortality.
- 2016 The Bixby Park Water Quality Improvement project was completed, and implementation began on the Hilo Lane Stormwater Retrofit, Moody Lake Wetland Rehabilitation, and Forest Lake Wetland Treatment Basin projects. District added a Program Assistant and Watershed Assistant to staff.



2016 Annual Report & 2017 Work Plan and Budget

VIII. Financial Report

The District is funded by ad valorem taxes levied on properties within the District through statutory authority in the MN Watershed Act (M.S. 103D) and the Metropolitan Surface Water Management (M.S. 103B). These funds, along with grants, loans, bonds, and special assessments can be used to fund District projects and programs. The District's permit program is funded in part through the collection of permit fees.

At a minimum, M.S. Chapter 103D requires that watershed districts have the following programs:

- General/Administrative: conducting the business of the District
- Regulation: administering the District's rules and permits
- Planning: administering the District's watershed management plan and budgets
- Maintenance of Projects and District Owned Facilities
- Capital Projects
- Public Relations: administering the requirements of reporting to and notifying the public

The budget must be adopted and certified on or before September 15th of each year. M.S. Chapter 103D.911 requires that the managers hold a public hearing before adopting a budget.

The District's annual operational and project budgets are generally greater than the District levy as the District supplements its annual levy through its reserve fund and grants. Upon adoption of the Capital Improvement Plan (CIP) in 2012, the District adopted a level multi-year levy strategy that built reserves for future project work. The reserve fund and the annual levy are also supplemented with grant dollars. It is the District's intention to continue this practice and also to partner with its counties and cities to leverage multi-governmental funding and grant opportunities, for appropriate projects and programs, including the use of sub-watershed levies and bonding.

The figure below provides a recent history of the District's past budgets, levies, and grants.

COMFORT LAKE-FOREST LAKE WATERSHED DISTRICT Financial Report / Budget Comparison

Note that figures are taken from 2016 annual audit financial report. Revenue figures reflect actual revenue received within 2016 only. The District budgeted for almost \$900,000 in grant expenditures in 2016 with some grant funds being received in early 2017.

| | 2015 Actual | 2016 Budget | 2016 Actual |
|----------------|----------------|-------------|----------------|
| REVENUES: | | | |
| Levy | \$754,976 | \$802,429 | \$795,258 |
| Grants & Other | \$295,582 | \$1,221 | \$614,517 |
| TOTAL REVENUES | \$1,050,558 | \$803,650 | \$1,409,775 |
| | | | |

2016 Annual Report & 2017 Work Plan and Budget

| | 2015 Actual | 2016 Budget | 2016 Actual |
|-----------------------------------|--------------------|--------------------|--------------------|
| EXPENDITURES: | | | |
| Administration | \$241,928 | \$264,400 | \$299,387 |
| Programs: | | | |
| General Program Technical Support | \$86,902 | \$0 | \$1,214 |
| Rules and Rulemaking | \$20,945 | \$19,312 | \$17,762 |
| Permitting | \$30,150 | \$64,080 | \$87,079 |
| Monitoring and Assessment | \$138,409 | \$119,113 | \$107,567 |
| NPS Abatement (Cost-Share) | \$27,616 | \$177,867 | \$51,325 |
| Education & Outreach | \$99,872 | \$99,500 | \$87,173 |
| Tech. Resource Sharing | \$8,919 | \$56,140 | \$19,932 |
| Research | \$0 | \$18,200 | \$6,718 |
| Measurement of Progress (WMP) | \$4,235 | \$7,248 | \$3,664 |
| Grant Research & Prep | \$15,252 | \$18,160 | \$36,934 |
| Operations & Maintenance | \$3,805 | \$56,160 | \$28,668 |
| Projects: | | | |
| General Project Technical Support | \$40,694 | \$0 | \$21,326 |
| Floodplain | \$2,162 | \$0 | \$0 |
| Lakes - District-Wide | \$49,933 | \$37,115 | \$64,594 |
| Lakes - Individual Lake Projects | \$421,685 | \$923,841 | \$764,782 |
| Streams | \$29,337 | \$18,012 | \$4,124 |
| Wetlands | \$33,973 | \$183,547 | \$116,956 |
| Upland Resources | \$0 | \$870 | \$1,169 |
| Interagency Communication | \$0 | \$19,862 | \$9,892 |
| Land Acquisition and Management | \$0 | \$156,693 | \$20,773 |
| TOTAL EXPENDITURES | \$1,255,817 | \$2,240,120 | \$1,751,039 |
| Revenues over expenditures | (\$205,259) | (\$1,436,470) | (\$341,264) |
| Fund balance - January 1 | \$1,636,257 | | \$1,430,998 |
| Fund balance - December 31 | \$1,430,998 | | \$1,089,734 |

IX. 2016 Financial Audit

The 2016 financial audit was completed by Abdo, Eick and Meyers, LLP, and includes the District's Annual Financial Report and the Independent Auditor's Report on Compliance with Minnesota Legal Compliance Guide of Local Governments for the year ended December 31, 2016. A complete copy of the 2016 financial audit is available by contacting the District Office or visiting the District's website at <http://www.cflwd.org/AnnualReportsandAudits.php>.

X. District Rules and Permitting Program

In order to fulfill requirements mandated by the State, as well as provide guidance to local

2016 Annual Report & 2017 Work Plan and Budget

communities, the CLFLWD adopted Rules on December 18, 2008. The District rules and information on its permit program and materials can be found on its website at www.clflwd.org/permitting.php.

In 2016 the District began the process of reviewing rule effectiveness and exploring potential rule revisions. One of the driving forces for this review process is to incorporate Minimal Impact Design Standards in order to improve rule review efficiency and maintain consistency across other regulatory agencies within the state. Specifically, the following components of the rules are being reviewed: Definitions, 1.0 Procedural Requirements, 2.0 Stormwater Management, 3.0 Erosion Control, 5.0 Shoreline & Streambank Alterations, 7.0 Floodplain & Drainage Alterations, and 12.0 Enforcement. A technical advisory committee meeting was held on December 5, 2016 to gain input from other local organizations. The rule revision process will continue into 2017.



In 2016 there were 26 permit applications; up from 14 in 2015. All applications were reviewed by the District Engineer, Emmons & Olivier Resources, Inc. Over the course of the year, 34 permits were active at various times and 97 site inspections occurred. Compliance rates of these inspections were evaluated in the 2016 Progress Report and determined to be at 83.6% compliant, which is measured as “Good” by the District’s progress evaluation metric provided in the WMP. It is anticipated that the increasing trend of permit activity will continue in 2017.

XI. Water Monitoring and Data Assessment Program

Baseline monitoring continued in 2016 with a multi-partnership approach. The District contracts with the Washington Conservation District (WCD) for technical services associated with the majority of the monitoring program. Volunteers, through the Metropolitan Council’s [Citizen-Assisted Monitoring Program](#) (CAMP) collect water samples, take Secchi transparencies and surface water temperature, and record basic user perceptions and climate information. The samples are analyzed for total phosphorus, total Kjeldahl nitrogen, and chlorophyll-a. The use of volunteers not only results in a savings to the monitoring budget, but builds needed relationships between the District and local lake associations and stakeholders. In 2016, nine volunteers participated in CAMP, collecting data on six lakes including Moody, Bone, Little Comfort, Sylvan, Forest, and Comfort lakes.

Aside from CAMP, the District contracted with WCD to monitor water quality and flowage at 16 sites including six stream monitoring sites and ten in-lake monitoring sites. Monitored parameters for stream sites included discharge and water quality composite samples. Monitored parameters for in-lake sites varied by lake, and consisted of one or more of the following: surface water quality samples, benthic iron and orthophosphate, and elevation. Surface water quality

2016 Annual Report & 2017 Work Plan and Budget

samples include total Kjeldahl nitrogen, total phosphorus, chlorophyll-a, and secchi disk transparency. At a minimum, all lake monitoring sites had surface water quality samples taken. Monitoring reports can be found on the District's website at www.cflwd.org/data.php.

Automated lake elevation gauges were installed on Bone Lake and Comfort Lake in 2016. Real-time lake level data was streamed from these devices and posted to the District website.

In addition to ongoing monitoring under the Monitoring and Data Assessment Program, the District performed targeted monitoring under the Forest Lake Diagnostic Study and Little Comfort Lake Phosphorus Source Assessment Study.

These monitoring efforts track the quality of the District's water resources and help assess the effectiveness of District projects, following the goal of implementing adaptive management. Adaptive management is an interactive approach of implementation, evaluation, and course correction. Future conditions and technological advances may alter the specific course of actions detailed in the District's CIP. Continued monitoring and course corrections responding to monitoring results offer the best opportunity for meeting the various management goals. Through adaptive management the success of, and in-lake response to, Best Management Practices (BMPs) and capital improvement projects can be determined.

Lake Water Quality Grades

| Lake | Acres | DNR ID | Most Recent Phosphorous Average (µg/L) | Most Recent Year of Data | Most Recent Grade | Listed by MPCA as Impaired for Phosphorous | Secchi Disk Water Quality Trend | Total Phosphorous Water Quality Trend |
|------------------|-------|----------|--|--------------------------|-------------------|--|---------------------------------|---------------------------------------|
| Bone | 221 | 82005400 | 39 | 2016 | C | X | No Trend | Improving |
| Birch | 33 | 13004200 | 60 | 2007 | C | | NA | NA |
| Comfort | 218 | 13005300 | 34 | 2016 | B- | X | Declining | Improving |
| Forest (West) | 1,086 | 82015600 | 40 | 2016 | C+ | | Declining | No Trend |
| Forest (Middle) | 364 | 82015600 | 41 | 2016 | C+ | | No Trend | Declining |
| Forest (East) | 790 | 82015600 | 44 | 2016 | C | | No Trend | No Trend |
| Fourth Lake | 8 | 13002200 | 63 | 2015 | C | | NA | NA |
| Heims | 90 | 13005600 | 33 | 2015 | B- | | NA | NA |
| Lendt Lake | 42 | 13010300 | 11 | 2015 | B+ | | NA | NA |
| Little Comfort | 36 | 13005400 | 68 | 2016 | C | X | No Trend | No Trend |
| Moody | 45 | 13002300 | 104 | 2016 | D+ | X | No Trend | Improving |
| Second | 75 | 13002500 | 54 | 2008 | C | X | NA | NA |
| School | 47 | 13005700 | 47 | 2009 | C | X | NA | NA |
| Sea | 50 | 82005300 | 54 | 2016 | C+ | | NA | NA |
| Shields | 30 | 82016200 | 194 | 2016 | D- | X | Declining | Declining |
| Sylvan/Halfbreed | 75 | 82008000 | 18 | 2016 | A | | Improving | Improving |
| Third Lake | 42 | 13002400 | 17 | 2015 | B+ | | NA | NA |

Grade

Grade is determined by averaging the three most recent individual grades for total phosphorus, chlorophyll-a, and Secchi depth (May-September). The scale used to assign grades is the same used by Metropolitan Council.

Impaired for Phosphorus

X'ed lakes are listed as impaired by the State of Minnesota for exceeding phosphorous standards. TMDL studies are required on these lakes (June-September).

Water Quality Trend

Trend was assigned by reviewing total phosphorus and Secchi depth averages where a 10 year record of monitoring exists (June-September).

2016 Annual Report & 2017 Work Plan and Budget

Stream Discharge and Loading Summary

| Site | Subwatershed (acres) | Yearly Discharge (cf) | Yearly Discharge (ac-ft.) | Peak Discharge (cfs) | Yearly Total Phosphorus Load (lbs.) | Yearly Total Suspended Solids Load (lbs.) | Monitored Rainfall (in.) |
|---------------------------|----------------------|-----------------------|---------------------------|----------------------|-------------------------------------|---|--------------------------|
| Bone Lake North Inlet | 2,479 | 47,505,660 | 1,091 | 13.050 | 398 | 10,536 | NA |
| Bone Lake Outlet | 5,495 | 189,663,763 | 4,356 | 24.290 | 652 | 78,053 | NA |
| Little Comfort Lake Inlet | 10,513 | 131,549,232 | 3,022 | 12.069 | 430 | 50,151 | NA |
| Forest Lake Outlet | 8,719 | 256,472,342 | 5,891 | 23.245 | 630 | 123,495 | NA |
| Comfort Lake Inlet | 13,732 | 482,492,133 | 11,082 | 36.398 | 2,176 | 305,188 | NA |
| Comfort Lake Outlet | 24,558 | 479,203,290 | 11,007 | 37.660 | 1,124 | 156,594 | NA |

XII. Cost-Share Program (Non-Point Source Pollution Abatement)

Residential Program – Technical and financial assistance was made available to residential property owners in the District who wished to implement BMPs or restoration projects including the installation of native plants in shoreline restorations and raingardens to provide wildlife habitat, control erosion, and protect water quality. The District partners with Washington Conservation District (WCD) to implement this program.

The District began a new program in 2016 that provided 100% cost-share grants to homeowners in an amount up to \$500 for the purchase of native plants. The new “plant grant” program was very popular with 99% of site visits in 2016 being geared toward it. CLFLWD and WCD staff performed 22 site visits in order to establish contact with interested homeowners. As a result of those site visits, five practices were completed in 2016, with several more slated for completion in 2017. Below is a summary table tracking site visits and project implementation over the years.

| Year | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | Totals |
|--|------|------|-------|------|--------|--------|--------|------|------|-------|------|----------|
| Total Number of Site Visits | 1 | | 2 | 2 | 21 | 7 | 12 | 23 | 17 | 26 | 22 | 133 |
| | | | | | | | | | | | | 0 |
| Completed Practices: | | | | | | | | | | | | |
| Total Number of Practices Started and Completed This Year | 1 | | 2 | 2 | 13 | 6 | 3 | 1 | 2 | 1 | 5 | 36 |
| Applications Approved: | | | | | | | | | | | | |
| Total Number of Practices Approved This Year But Have Not Progressed Further | | | | | | | 2 | 0 | 4 | 0 | 12 | 18 |
| Completed in the Future: | | | | | | | | | | | | |
| Total Number Of Site Visits In This Year That Will Result In A Completed Practice In a Future Year | | | | | 5 | | 2 | 0 | 0 | | 7 | 14 |
| Installation Phase: | | | | | | | | | | | | |
| Total Number of Practices Started This Year Now In The Installation Phase | | | | | | | 1 | 13 | 0 | 1 | 7 | 22 |
| TA Only: | | | | | | | | | | | | |
| Total Number of Practices Only Receiving Technical Assistance This Year | | | | | | | | 7 | 0 | 1 | 0 | 8 |
| Total Number of Projects With Follow-Through by Landowner | 1 | | 2 | 2 | 18 | 6 | 8 | 21 | 6 | | | 64 |
| Total Percent of Project Follow-Through by Landowner, Post Initial Contact | 100 | | 100 | 100 | 86 | 86 | 79 | 91 | 35 | | | 677 |
| | | | | | | | | | | | | 0 |
| Past Practices Completed: | | | | | | | | | | | | |
| Total Number of Practices With Site Visits in Previous Years That Were Installed This Year | | | | | | 4 | | 3 | 1 | 0 | 0 | 8 |
| | | | | | | | | | | | | 0 |
| Total Load Reduction P, lbs/yr | 1.4 | | 0.16 | NA | 4.25 | 7.42 | 1.61 | 0.5 | 0.37 | 0.17 | 0.5 | 16.38 |
| Total Load Reduction TSS, lbs/yr | 3300 | | 50.18 | NA | 474.03 | 6866.2 | 143.46 | 28 | 61 | 16.84 | 0 | 10939.71 |

Agricultural & Rural Land Program – Using information from the 2015 Bone Lake Diagnostic Study and field transect surveys of all existing cropland within the Bone Lake drainage area, the District has been working to reduce the highest loads through a variety of programs, best management practices, and projects. One of the sites identified in the report was a cropland field in the northeast part of the Bone Lake subwatershed. The map in Appendix E from the diagnostic report shows the field with a circle around it. Additional field visits to this site provided further evidence that the best option for reducing the annual loading from this field was to change the cropping system from continuous row crops to a cropping system that established permanent grass cover. The District reached out to the landowner in 2016, and came to a land rental agreement in early 2017. Overall, reducing the current load by 75% would result in an annual cost of roughly \$100/lb. of P prevented from leaving the field.

APPENDIX E. SWMM MODEL SCENARIO RESULTS

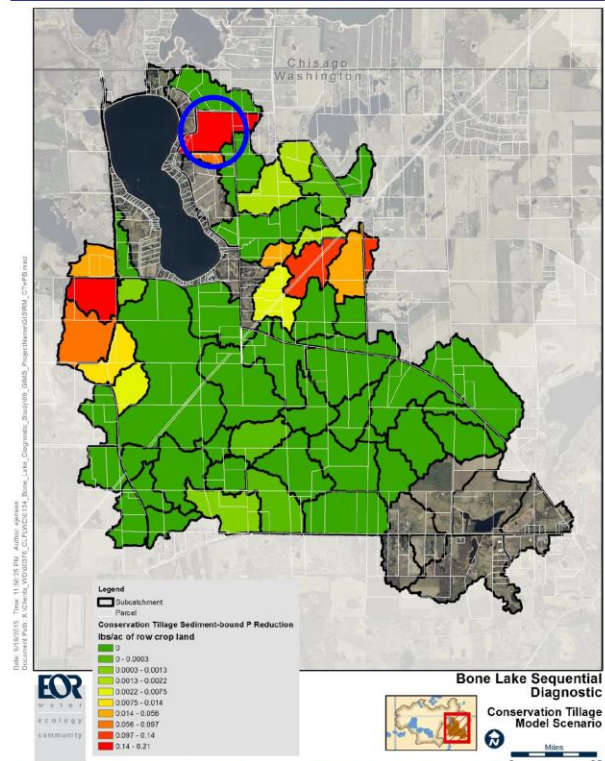


Figure 35. Conservation tillage model scenario sediment-bound P reductions per row crop land

XIII. Education and Outreach Program

In 2016, the District continued to expand its outreach and education program with the addition of two new staff members and through the following activities:

- Provided financial and staff support for the East Metro Water Resource Educational Program (EMWREP) (EMWREP 2016 Activity Report can be found at: www.mnwcd.org/emwrep/)
- Provided financial and staff support for the Chisago County Children’s Water Festival.
- Participated in the Forest Lake Lakefest event in Lakeside Park on June 4th. Staff distributed informational materials and used displays to facilitate educational discussion with event-goers.
- Provided programming at three local schools, including Forest Lake High School, Chisago Lakes High School, and Lakes International Language Academy
- Regularly attended and presented at local lake association meetings (Bone Lake, Forest Lake, Comfort Lake)
- Increased Citizen Advisory Committee (CAC) involvement in education and outreach activities

2016 Annual Report & 2017 Work Plan and Budget

- Increased social media presence (Facebook, Instagram, Twitter)
- Co-hosted a booth with Washington Conservation District at the Washington County Fair in August
- Hosted a booth at Forest Lake High School Agriculture Open House in May
- Increased “in-house” informational material and mailer development
- Re-designed District website to improve information accessibility and ease of use

Other Communications:

- The District’s Citizen Advisory Committee (CAC) met on a monthly basis and provided regular updates at District board meetings. Updates included input on District programs such as aquatic invasive species management, cost-share grant program, and education/outreach opportunities.
- CAC members worked with the District’s Program Assistant to facilitate a field trip for Forest Lake High School Students to learn about water quality and monitoring on September 27, 2016.



Left: Young Forest Lake residents learn about native and invasive plants at Lakefest 2016. **Right:** Program Assistant Mike Sorensen teaches students from Forest Lake High School about zebra mussel sampling and monitoring in Forest Lake.

XIV. Technical Resource Sharing and Interagency Communication Program

The District coordinates with other agencies on a regular basis in order to implement the majority of its programs and projects. It is estimated that at least 70% (likely more) of the District’s activities are coordinated with another organization or agency. Below is a list of District activities that are coordinated with other agencies.



2016 Annual Report & 2017 Work Plan and Budget

| Project/Initiative | Partnering Organization(s) | Description |
|---|--|--|
| District Rules and Rulemaking Program | Municipalities, neighboring watershed districts, counties, Department of Natural Resources, Metropolitan Council, | Technical Advisory Committee meeting for rule revisions |
| Permitting Program | City of Forest Lake, City of Wyoming, City of Scandia | Meetings and communications regarding development |
| Monitoring and Data Assessment Program | Washington Conservation District, local volunteers, Metropolitan Council | Ongoing monitoring, CAMP |
| Non-point Source Pollution Abatement (Cost-Share) Program | Washington Conservation District | Technical assistance, site inspections |
| Education and Outreach Program | East Metro Water Resources Education Program, Forest Lake High School, Lakes International Language Academy, Chisago Lakes High School | News releases, event coordination |
| Research Program | St. Croix Watershed Research Station, St. Thomas University | Deep sediment cores |
| Grant Research and Preparation Program | Washington Conservation District, Washington County, St. Croix River Association | Jointly submitted grant applications, letters of support for grant proposals |
| Watercraft Inspection Program | Chisago County | Jointly managed program |
| Public boat launch improvements | Washington Conservation District | Signage collaboration, pavement stencil coordination |
| Bixby Park Water Quality Improvement Project | City of Forest Lake | Land access, construction management input |
| Hilo Lane Stormwater Retrofit Project | City of Forest Lake | Project construction assistance |
| Forest Lake Wetland Treatment Basin Project | City of Forest Lake | Project design input |

In addition to coordinating with partners to implement District activities, District staff attend inter-agency meetings on a regular basis and participate as part of collaborative, state-wide organizations:

| | |
|---|--|
| Washington County Water Consortium | Chisago Water Policy Plan Team |
| Watershed Partners | Washington County AIS Early Detection, Rapid Response Team |
| MN Association of Watershed Districts (MAWD) Annual Meeting | DNR Watercraft Inspection yearend collaboration meeting |
| Metro MAWD Annual Conference | St. Croix Basin Planning Team |

In 2016 the District began the process of updating its Watershed Management Plan. The amendment mainly consists of the addition of three new programs: 3009 Grant Research & Preparation, 3010 Operations & Maintenance, and 3011 Aquatic Invasive Species Prevention & Management, as well as several capital improvement projects. The amendment is scheduled for completion in summer 2017.

XV. Research Program

In 2016 the District engaged in several research initiatives and provided numerous updates to the Board of Managers throughout the year. One major initiative was the collection of deep core sediment samples on Comfort Lake, Moody Lake, and Shields Lake. Studying these sediment cores will allow the District to understand how the lakes have changed over time, help determine appropriate management targets, and help prioritize future management activities. Core results will be received in 2017, and the District will plan to collect cores on Bone Lake, Forest Lake, and Little Comfort Lake next.

The District performed an in-house experiment in 2016 to confirm the viability of seeds in Forest Lake’s flowering rush population. Flowering rush is an invasive emergent plant that is known to exist in several lakes throughout the state. It has widely been accepted that all of these populations only spread in one way: through the rhizomes in their root systems. For several years it was hypothesized that Forest Lake’s population could spread in two ways: through the rhizomes like all other populations, as well as through the seeds that are located within the flowers above the water surface. The experiment performed proved that the seeds were viable and informed management activities. Starting in 2016, the District began carefully collecting and removing all flower heads from the plants in order to reduce the spread of the seeds. At the end of the growing season, fewer new patches of flowering rush were observed compared to 2015. More discussion on flowering rush management strategies and outcomes is provided in section XVIII of this report.

Additional research initiatives that the District engaged in during 2016 include research into the development of an innovative boat cleaning station to prevent the spread of invasive species (called the Clean, Drain, Dry, Dispose Station), collaboration with the MN Aquatic Invasive Species Research Center (MAISRC), and collaboration with the St. Anthony Falls Research Laboratory (SAFL) on increasing the effectiveness of iron-enhanced sand filter.



Left: Growth stages of flowering rush (*Butomus umbellatus*) from initial blooms (left) to seed dispersal (right) **Right:** Close up of flowering rush blossoms at various stages.

2016 Annual Report & 2017 Work Plan and Budget

XVI. Measurement of Progress Program

In 2016 the District began work on a comprehensive progress report to address all progress evaluation metrics identified in the 2012-2021 Watershed Management Plan, as well as additional metrics that were identified by managers and staff. Within The final report can be found on the District’s website: www.clflwd.org/AnnualReportsandAudits.php.

XVII. Grant Research and Preparation Program

The District applied for approximately \$1.4M in grant funds in fiscal year 2016. A total of 12 grant applications were submitted by the District, with an additional two applications submitted jointly between the District and partnering agencies. A total of \$719,011 in grant funds were awarded to the District in FY16. (Note that grant awards do not necessarily result in actual grant income in the same year). Grants were obtained from state and local agencies including the Board of Water and Soil Resources, MN Pollution Control Agency, MN Department of Natural Resources, and Washington County.

The District received an additional \$60,790 from partner agencies to further District activities within the Aquatic Invasive Species Prevention and Management Program. Partner agencies include Chisago County, the City of Forest Lake, and the Forest Lake Lake Association.

XVIII. Operations & Maintenance Program

The purpose of the Operations & Maintenance Program is to continue regular operational activities and address maintenance needs of District-owned projects and facilities. While this is a relatively new program for the District, several O&M activities still occurred in 2016. Below is a summary of those activities.

| BMP/Project/Asset | Operations and Maintenance Activity |
|--|---|
| Bone Lake inlet and outlet fish barriers | Updated the operations and maintenance manual for both fish barriers. Continued operation of fish barriers including stop log management and removal of debris from grates throughout 2016. |
| Bixby Park Water Quality Improvement Project | Performed preliminary testing of stop log insertion and removal for the two manually operated weirs. Normal operation of weirs will begin in 2017. |
| Bone Lake and Comfort Lake automated level loggers | Calibrated and installed two automated level loggers and coordinated the creation of a live elevation data logger for the District website. Some technical difficulties were experienced in 2016 and will be worked out for the 2017 open water season. |

2016 Annual Report & 2017 Work Plan and Budget

| | |
|--|--|
| <p>Shields Lake electric fish barrier operation and retrofit</p> | <p>In 2015 ownership of the electric fish barrier between Shields Lake and Forest Lake was transferred from the City of Forest Lake to the District. The District has continued operations of the barrier since then. In 2016, the District obtained a grant to remove the electric barrier and replace it with a passive barrier similar to those located at Bone Lake. This is expected to result in long-term cost savings. Construction is slated for fall 2017.</p> |
|--|--|



Manually operated weir at Bixby Park.

XIX. Aquatic Invasive Species Prevention and Management Program

In 2016 the District continued its increasing trend of involvement in the prevention and management of aquatic invasive species (AIS). Regular updates were provided at monthly board meetings throughout the growing season. The latest report can always be found on the District's website: www.clflwd.org/AISUpdates.php.

Several reports and summaries have been compiled in order to provide information of various aspects of the program. Below is a list of such documents. Each item is hyperlinked to the full text and can be found online on our website www.clflwd.org

- [2016 AIS Yearend Review \(CLFLWD\)](#)
- [Watercraft Inspection Season Results Summary \(CLFLWD\)](#)
- [AIS Prevention Annual Report \(Chisago County\)](#)

The District continued to contract with Blue Water Science to perform delineation and assessment surveys of invasive species. District staff performed additional surveys as well, including shoreland assessment surveys (some with the help of Wenck & Associates). Though shoreland inventory assessments do not focus directly on AIS, they serve to assess the health of the shoreline and shoreland area, which contributes to the holistic lake management strategy the District has adopted. The following is a list of the surveys performed in 2016 and associated reports, full texts are available online:

2016 Annual Report & 2017 Work Plan and Budget

| Lake | Survey/Report Description | Survey Performed by |
|---------------------|--|------------------------|
| Sea Lake | Fish Population Survey | Blue Water Science |
| Sea Lake | Aquatic Plant Point-Intercept Survey | Blue Water Science |
| Sea Lake | Sediment Survey | Blue Water Science |
| Sea Lake | Shoreland Inventory | Blue Water Science |
| Bone Lake | Curly-leaf Pondweed Delineation and Assessment | Blue Water Science |
| Bone Lake | Eurasian Watermilfoil Delineation and Assessment | Blue Water Science |
| Bone Lake | Shoreland Inventory | CLFLWD, Wenck & Assoc. |
| Little Comfort Lake | Curly-leaf Pondweed Delineation and Assessment | Blue Water Science |
| Little Comfort Lake | Sediment Survey | Blue Water Science |
| Little Comfort Lake | Fish Population Survey | Blue Water Science |
| Sylvan Lake | Shoreland Inventory | CLFLWD |
| Sylvan Lake | Purple Loosestrife Assessment | CLFLWD |
| Forest Lake | Curly-leaf Pondweed Delineation and Assessment | Blue Water Science |
| Forest Lake | Eurasian Watermilfoil Delineation and Assessment | Blue Water Science |
| Forest Lake | Flowering Rush Delineation and Assessment | Blue Water Science |
| Comfort Lake | Curly-leaf Pondweed Delineation and Assessment | Blue Water Science |
| Comfort Lake | Eurasian Watermilfoil Delineation and Assessment | Blue Water Science |
| Comfort Lake | Shoreland Inventory | CLFLWD, Wenck & Assoc. |

Color Key

| | |
|--|---|
| Bone Lake Management District | Forest Lake Management District |
| Little Comfort Lake Management District | Comfort Lake Management District |

Using information from the surveys, the District coordinated a total of seven AIS herbicide treatments on three different lakes. Thirteen rounds of mechanical treatment (i.e. hand cutting) were performed on flowering rush in Forest Lake. Biological control of purple loosestrife using herbivorous insects was initiated on Sylvan Lake. Management of curly-leaf pondweed, Eurasian watermilfoil and flowering rush in Forest Lake was a joint effort between the District, the Forest Lake Lake Association and the City of Forest Lake. Communication with the lake associations on Bone, Comfort and Forest lakes were a key component of AIS management in 2016, and will continue in 2016.

The following table lists the 2016 AIS management activities.

| Lake | AIS | Number of Herbicide Treatments | Herbicide Acreage | Rounds of Mechanical Cutting | Biological Control Release |
|-------------|-----------------------|--------------------------------|-------------------|------------------------------|----------------------------|
| Bone Lake | Eurasian watermilfoil | 1 | 0.69 | | |
| Sylvan Lake | Purple loosestrife | | | | 1 |
| Forest Lake | Curlyleaf pondweed | 1 | 113.7 | | |

2016 Annual Report & 2017 Work Plan and Budget

| | | | | | |
|---|-----------------------|----|--------|------|--|
| Forest Lake | Eurasian watermilfoil | 2 | 13.9 | | |
| Forest Lake | Flowering rush | 2* | 36, 36 | 13** | |
| Comfort Lake | Eurasian watermilfoil | 1 | 7.5 | | |
| *plus spot herbicide spraying in small patches | | | | | |
| ** CLFLWD staff conducted experimental mechanical cutting below the waterline on a small patch so as to document the effectiveness and cost of this option. | | | | | |

The District also continued watercraft inspections at public access points on Forest, Bone and Comfort lakes through a Joint Powers Agreement between the District and Chisago County, with funding through the District, a Washington County grant, Forest Lake Lake Association, the City of Forest Lake and the Chisago County Lake Improvement District. This year, 3,077 hours of inspections were completed between mid-May and mid-October. During this time period, 4,033 inspections with accompanying survey were performed; this is up from 3,877 inspections in 2015.

XX. Capital Improvement Projects

Sunrise River Water Quality and Flowage Management Project (Bixby Park Project)

This project, among other recommended projects, was identified as a result of the Sunrise River Water Quality and Flowage Study. This project improved the function of an existing ditched wetland complex located in Bixby Park in the City of Forest Lake. Bixby Park is located at the southeast corner of the intersection of Highway 35 and Highway 8. The City of Forest Lake partnered with the CLFLWD on this project by providing access to the land on which the project is located. Project construction was completed in early 2016. The project enhanced wetland habitat and will improve the water quality of the Sunrise River, Comfort Lake, and ultimately the St. Croix River. The project increases the interaction between the natural floodplain and wetland, increased storage capacity (i.e. the amount of water that the wetland can hold), and improved habitats by restoring disturbed wetland areas with native vegetation. In addition, a permeable filter berm was added to the outlet of the wetland to remove additional dissolved phosphorus from the water. This project is predicted to result in removal of 206 of phosphorus per year. The CLFLWD applied for and received a \$360,750 Clean Water Fund (CWF) grant from the Board of Water and Soil Resources (BWSR) for this project. Final reporting and reimbursement for the grant was approved in early 2017.

Hilo Lane Stormwater Retrofit Project

Phase 1 of project construction was completed in early 2016 including tree work, drainage swale stabilization, and installation of rock check dams. Phase 2, including installation of the iron-enhanced sand filter, was completed in early 2017. The project includes excavation of an existing stormwater treatment pond located on Hilo Lane, incorporation of an iron-enhanced sand filter bench around the perimeter of the pond, stabilization of the drainage channel to the south of the pond, and stabilization of the lake shoreline at the storm sewer outlet. The project will treat runoff from a 14-acre drainage area and reduce phosphorus loading to Forest Lake by 12.0 lbs/yr. The District signed a cooperative agreement with the City of Forest Lake for the Hilo Lane project

2016 Annual Report & 2017 Work Plan and Budget

in 2014. The District received a Clean Water Partnership grant from the MN Pollution Control Agency (MPCA) in the amount of \$41,615 for this project.

Forest Lake Wetland Treatment Basin (aka 3rd Lake Pond Project)

The 2015 monitoring by the District identified a degraded wetland on the east side of Forest Lake's east basin (aka 3rd Lake) that was contributing phosphorus to the lake. A wetland treatment basin was designed to convert the wetland basin from a phosphorus source to a phosphorus sink, removing an estimated 56 lbs/yr from that tributary. A Board of Water and Soil Resources (BWSR) Clean Water Fund grant for this project was approved in 2015 for a total of \$162,000. Project design and bidding was completed in 2016. Construction was largely completed in early 2017, with final site restoration slated for spring 2017.

Moody Lake Wetland Restoration Project

The wetland restoration project is an adaptive management, multi-phase approach with sequential implementation of projects that will systematically reduce phosphorus exported from three degraded wetlands in the Moody Lake Watershed. The project will remove a phosphorus-rich layer of accumulated sediment in the wetlands, restore wetland hydrology and manage livestock access to the wetland area. It's estimated that rehabilitating the degraded wetlands will achieve approximately 445 lb/yr, or 80%,



Characterizing sediment extracted from wetland project site July 7, 2016.

of the watershed phosphorus load reductions needed for Moody Lake to meet the water quality standard of a growing season average in-lake phosphorus concentration of 40 ug/L. In 2014, the Moody Lake Diagnostic Study identified phosphorus sources and potential best management practices to reduce loading from the subwatershed. In 2015, the District completed a feasibility scoping document for a series of wetland rehabilitation projects in the northwest corner of the subwatershed and obtained a BWSR Clean Water Fund grant for the project for a total of \$429,284. The District obtained an additional grant from the Clean Water Act Section 319 in the amount of \$78,028 in 2016. Project design and bidding was completed in 2016, and Phase 1 of construction was largely completed in early 2017 with final site restoration slated for spring 2017. Project effectiveness monitoring will take place throughout the growing season in 2017 in order to inform subsequent phases of construction.

Shields Lake Diagnostic Study & Stormwater Harvest Project

In 2015 the District began work on the Shields Lake Diagnostic study which identified sources of phosphorus loading and potential best management practices to reduce loading from the subwatershed. The study was completed in 2016, identifying the Shields Lake Stormwater Harvest, Irrigation Reuse, and Alum Treatment Project. This is a multi-phase project that will greatly reduce phosphorus loads to Shields Lake, and subsequently Forest Lake. Phase 1 of the



project will entail impounding/harvesting water from a tributary to Shields Lake for irrigation reuse by Forest Hills Golf Course. The impounding of surface flow will reduce the watershed phosphorus load by 77 lbs/yr, and the irrigation reuse will reduce the amount of groundwater being used for irrigation. Phase 2 of the project will entail a whole-lake alum treatment to Shields Lake which will reduce internal sediment phosphorus loading to natural background levels. The entire project is expected to reduce phosphorus loads such that Shields Lake achieves its lake water quality goal and a clear water state, which will reduce phosphorus loads to Forest Lake by up to 250 lbs/yr. In 2016 the District applied for and received a \$824,000 Clean Water Fund (CWF) grant for the project. The District is working toward beginning construction in 2017.

Bone Lake Partially Drained Wetland Restorations

This project proposes the implementation of six wetland restorations located along the tributary identified as the single highest source of phosphorus loading to Bone Lake. These wetland restorations are estimated to reduce watershed phosphorus loads to Bone Lake by 50 lbs/yr, or 9% of the total load reductions needed for Bone Lake to achieve its in-lake water quality goal. Additionally, the restored wetlands will provide suitable habitat for a diverse assemblage of wetland plants and animals. This project was identified through a combination of the District's 2014 Drained Wetland Restoration Inventory and the 2015 Bone Lake Diagnostic Study. It was prioritized as a more feasible and potentially cost-effective project compared to the previously-proposed Bone Lake Infiltration Basin project after the siting for the infiltration basin project was compromised. In 2016 the CLFLWD applied for and received a \$88,000 CWF grant for the drained wetland restorations project.

Forest Lake Enhanced Street Sweeping Study

This project will develop an enhanced street sweeping plan for the City of Forest Lake that optimizes phosphorus removal from increasing sweeping frequency with the cost of additional sweeps. The outcome of this project will be defining a functional enhanced street sweeping plan that will be adopted by the City of Forest Lake as part of their regular street maintenance program. The goal of this project is to create the basis for a 2018 CWF grant application to fund the implementation. If awarded, this plan will include an agreement between the CLFLWD and the City of Forest Lake to implement enhanced street sweeping at an estimated cost between \$50 to \$100 per pound of phosphorus removed. This project, among other recommended projects, was identified as a result of the Forest Lake North Direct Stormwater Retrofit Analysis. In 2016 the District applied for and received a \$36,000 CWF accelerated implementation grant for the enhanced street sweeping study project.

Forest Lake Diagnostic Study

In 2015 the District began work on the Forest Lake Diagnostic study which will identify sources of phosphorus loading and potential best management practices (BMPs) to reduce loading from the subwatershed. Diagnostic monitoring continued throughout 2016. The final report, ranking potential BMPs by cost-effectiveness, will be completed in early 2017.

Little Comfort Lake Diagnostic Monitoring

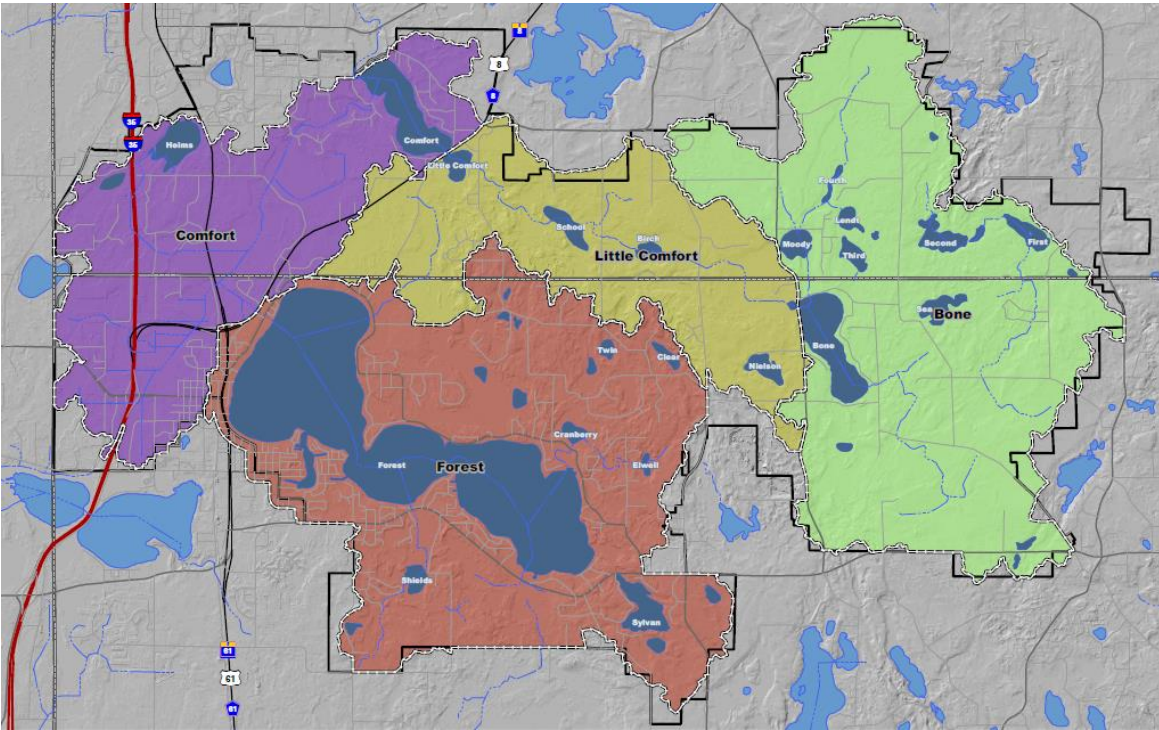
In 2015 the District began tributary stream diagnostic monitoring for Little Comfort Lake.

2016 Annual Report & 2017 Work Plan and Budget

Monitoring continued through 2016, and additional stream monitoring will occur in 2017. Watershed BMP siting and grant preparation is scheduled for late 2017.

XXI. 2017 Work Plan and Budget

The 2017 budget and levy were adopted on September 8, 2016. In 2015 the format was modified to more closely resemble the Watershed Management Plan (WMP), with detailed line items incorporating the four major lake sub-watershed numbering and color coding system identified in the WMP for easier reference for stakeholders. The same formatting was used for the 2017 budget, with one change: all aquatic invasive species prevention and management items were moved out of the 5000 Projects series and into a separate program under the 3000 series. These formatting changes will be reflected in the 2017 WMP update that was initiated in 2016. A summary of the budget and funding sources is provided below.



Map of the four major lake sub-watersheds, also known as Lake Management Districts

2016 Annual Report & 2017 Work Plan and Budget

2017 BUDGET OVERVIEW:

| 2012-2021 WMP Code | Budget Item | 2017 Est. Grant Spend | 2017 Est. Other Inc. Spend | 2017 Ongoing Expenses | 2017 New Expenses | 2017 Total Expense Budget |
|-----------------------|--|--------------------------|----------------------------------|-----------------------------|----------------------|---------------------------------|
| 1000 | ADMINISTRATION | \$0 | \$0 | \$265,462 | \$17,115 | \$282,577 |
| 1001 | BOARD ADMINISTRATION | | | 32,193 | 1,055 | 33,248 |
| 1002 | GENERAL OFFICE EXPENSES | | | 57,412 | 6,060 | 63,472 |
| 1003 | GENERAL ADMINISTRATIVE | | | 67,857 | 0 | 67,857 |
| 1004 | PROFESSIONAL SERVICES | | | 108,000 | 10,000 | 118,000 |
| | | | | | | |
| 3000 | PROGRAMS | \$40,299 | \$122,500 | \$562,294 | \$170,067 | \$895,160 |
| 3001 | DISTRICT RULES AND RULEMAKING | 0 | 0 | 8,979 | 30,000 | 38,979 |
| 3002 | PERMITTING | 0 | 55,000 | 43,457 | 0 | 98,457 |
| 3003 | MONITORING & DATA ASSESSMENT | 0 | 0 | 120,528 | 18,000 | 138,528 |
| 3004 | NON-POINT SOURCE POLLUTION ABATEMENT | 0 | 0 | 67,781 | 0 | 67,781 |
| 3005 | EDUCATION AND OUTREACH | 0 | 0 | 63,234 | 7,000 | 70,234 |
| 3006 | TECH. RESOURCE SHARING/INTERAGENCY COMMUN. | 0 | 0 | 26,346 | 0 | 26,346 |
| 3007 | RESEARCH | 0 | 0 | 7,693 | 75,000 | 82,693 |
| 3008 | MEASUREMENT OF PROGRESS | 0 | 0 | 2,429 | 0 | 2,429 |
| 3009 | GRANT RESEARCH & PREPARATION | 0 | 0 | 27,816 | 0 | 27,816 |
| 3010 | OPERATION & MAINTENANCE - DISTRICT WIDE | 0 | 0 | 13,700 | 20,000 | 33,700 |
| 3011 | AQUATIC INVASIVE SPECIES (AIS) MANAGEMENT | 40,299 | 67,500 | 180,330 | 20,067 | 308,196 |
| | | | | | | |
| 5000 | PROJECTS | \$452,000 | \$0 | \$232,961 | \$35,697 | \$720,658 |
| 5100 | FLOODPLAIN | 0 | 0 | 0 | 0 | 0 |
| 5200 | LAKES | 142,000 | 0 | 160,426 | 25,697 | 328,123 |
| 5300 | STREAMS | 0 | 0 | 2,834 | 0 | 2,834 |
| 5400 | WETLANDS | 310,000 | 0 | 46,884 | 0 | 356,884 |
| 5500 | UPLAND RESOURCES | 0 | 0 | 1,080 | 0 | 1,080 |
| 5600 | GROUNDWATER | 0 | 0 | 3,779 | 0 | 3,779 |
| 5700 | PUBLIC EDUCATION | 0 | 0 | 0 | 0 | 0 |
| 5800 | INTERAGENCY COMMUNICATION | 0 | 0 | 11,884 | 0 | 11,884 |
| 5900 | LAND ACQUISITION AND MANAGEMENT | 0 | 0 | 6,074 | 10,000 | 16,074 |
| | | | | | | |
| | TOTAL BUDGET | \$492,299 | \$122,500 | \$1,060,717 | \$222,879 | \$1,898,394 |

2017 LEVIES:

| | |
|--------------------------------------|------------------|
| GENERAL FUND | 250,000 |
| INSURANCE LEVY | 6,000 |
| Projects/Programs to support WMP/CIP | 742,000 |
| TOTAL LEVIED | \$998,000 |



2016 Annual Report & 2017 Work Plan and Budget

GRANT FUNDING PROJECTION:

| 2017 Grants | | | | |
|-------------------------|------------------------------------|---|--------------|---------------------|
| Agency | Program | Description | Lake | Total Grant Award |
| BWSR | CWF - Projects & Practices | Shields Lake SW Harvest, Irrigation Reuse & Alum Treat. | Shields Lake | \$ 824,000 |
| BWSR | CWF - Accelerated Implementation | Forest Lake Enhanced Street Sweeping Plan | Forest Lake | \$ 36,000 |
| BWSR | CWF - Projects & Practices | Bone Lake Partially Drained Wetland Restorations | Bone Lake | \$ 88,000 |
| Wash. Co. | AIS Prevention RFP | Watercraft Inspections | Forest Lake | \$ 17,000 |
| Wash. Co. | AIS Prevention RFP | Flowering Rush | Forest Lake | \$ 9,000 |
| DNR | Conservation Partners Legacy (CPL) | Shields Lake fish barrier retrofits | Shields Lake | \$ 30,600 |
| DNR | AIS Control Projects | Curly-leaf pondweed treatment | Forest Lake | \$ 4,999 |
| DNR | AIS Control Projects | Eurasian watermilfoil treatment | Forest Lake | \$ 900 |
| DNR | AIS Control Projects | Flowering rush treatment | Forest Lake | \$ 1,200 |
| DNR | AIS Control Projects | Curly-leaf pondweed treatment | Bone Lake | \$ 200 |
| DNR | AIS Control Projects | Eurasian watermilfoil treatment | Bone Lake | \$ 50 |
| DNR | AIS Control Projects | Curly-leaf pondweed treatment | Comfort Lake | \$ 50 |
| DNR | AIS Control Projects | Eurasian watermilfoil treatment | Comfort Lake | \$ 375 |
| 2017 Grant Total | | | | \$ 1,012,374 |

PARTNER ORGANIZATIONS FUNDING PROJECTION:

| 2017 ESTIMATED Other Income (Donations, Permit Revenue etc.) | | | | |
|--|-------------------------|---|---------------|-------------------|
| Agency | Program | Description | Lake | Est. Total Award |
| City of FL | AIS Mgmt on Forest Lake | Flowering rush, curlyleaf pondweed, Eurasian watermilfoil | Forest Lake | \$ 35,000 |
| City of FL | Watercraft Inspections | Boat launch inspections for Forest Lake | Forest Lake | \$ 1,600 |
| FLLA | AIS Mgmt on Forest Lake | Flowering rush, Eurasian watermilfoil | Forest Lake | \$ 5,500 |
| FLLA | Watercraft Inspections | Boat launch inspections for Forest Lake | Forest Lake | \$ 4,000 |
| CLA | Watercraft Inspections | Boat launch inspections for Comfort Lake | Comfort Lake | \$ 2,000 |
| Chisago Co. | Watercraft Inspections | Boat launch inspections for Comfort Lake | Comfort Lake | \$ 5,000 |
| Permittees | Permitting | Permit Deposits | District-Wide | \$ 55,000 |
| 2017 Other Income Total | | | | \$ 108,100 |



2016 Annual Report & 2017 Work Plan and Budget

2017 WORK PLAN OVERVIEW:

| WMP Code | Work Plan Category | Total Staff Hours | Percentage of Total Work Plan |
|---------------|--|-------------------|-------------------------------|
| 1000 | ADMINISTRATION | 2,055 | 22.47% |
| 1001 | BOARD ADMINISTRATION | 670 | 7.33% |
| 1002 | GENERAL OFFICE EXPENSES | 480 | 5.25% |
| 1003 | GENERAL ADMINISTRATIVE | 701 | 7.67% |
| 1004 | PROFESSIONAL SERVICES | 204 | 2.23% |
| 3000 | PROGRAMS | 5,809 | 63.52% |
| 3001 | DISTRICT RULES AND RULEMAKING | 168 | 1.84% |
| 3002 | PERMITTING | 737 | 8.06% |
| 3003 | MONITORING & DATA ASSESSMENT | 312 | 3.41% |
| 3004 | NON-POINT SOURCE POLLUTION ABATEMENT | 339 | 3.71% |
| 3005 | EDUCATION AND OUTREACH | 1,280 | 14.00% |
| 3006 | TECH. RESOURCE SHARING/INTERAGENCY COMMUN. | 684 | 7.48% |
| 3007 | RESEARCH | 168 | 1.84% |
| 3008 | MEASUREMENT OF PROGRESS | 96 | 1.05% |
| 3009 | GRANT RESEARCH & PREPARATION | 564 | 6.17% |
| 3010 | OPERATION & MAINTENANCE - DISTRICT WIDE | 376 | 4.11% |
| 3011 | AQUATIC INVASIVE SPECIES (AIS) MANAGEMENT | 1,085 | 11.86% |
| 5000 | PROJECTS | 1,281 | 14.01% |
| 5100 | FLOODPLAIN | 0 | 0.00% |
| 5200 | LAKES | 598 | 6.54% |
| 5300 | STREAMS | 60 | 0.66% |
| 5400 | WETLANDS | 221 | 2.42% |
| 5500 | UPLAND RESOURCES | 14 | 0.15% |
| 5600 | GROUNDWATER | 88 | 0.96% |
| 5700 | PUBLIC EDUCATION | 0 | 0.00% |
| 5800 | INTERAGENCY COMMUNICATION | 204 | 2.23% |
| 5900 | LAND ACQUISITION AND MANAGEMENT | 96 | 1.05% |
| Totals | | 9,145 | 100% |