

2012



[2012 ANNUAL REPORT]

The mission of the Clearwater River Watershed District is to promote, preserve, and protect water resources within the boundaries of the district in order to maintain property values and quality of life as authorized by MS 103D.

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1.0 Introduction

1.1 Purpose of Report

This report serves to satisfy the annual reporting requirements set forth in Minnesota Statutes Chapter 103.351, which requires watershed districts to file an annual report with the Minnesota Board of Water and Soil Resources. This report is a summary of the Clearwater River Watershed District's (CRWD) financial condition, the status of all projects, plans for the coming year, and other matters affecting the interests of the CRWD.

1.2 Further Information

Much of the information presented in this report stems from other documents the CRWD creates during the normal course of business. When applicable, those documents are noted in the text. The District's website, <http://www.crw.org/>, has these documents available for review online, along with other resources. For any further information, contact the District office at the information listed below.

1.3 District Office

The District's office is located at 75 Elm Street East, Annandale, MN, 55302. Normal office hours are 8:00am to 4:00pm Monday through Friday. Staff may be in the field during normal office hours.

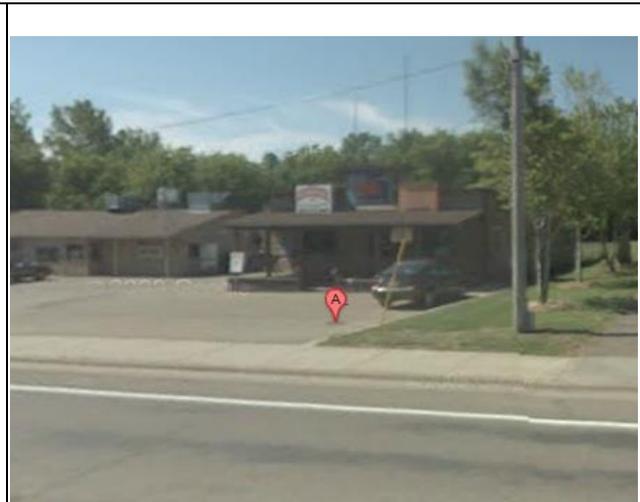
Address: 75 Elm Street East, Annandale, MN 55302

[\(Map\)](#)

Phone: (320) 398-3935

Fax: (320) 398-3975

Website: <http://www.crw.org/>



1.4 District Meetings

The Board of Managers meets the second Wednesday of the month at the Annandale Middle School in the School District's board room [\(Map\)](#) at 7pm, and the fourth Wednesday of the month at the Kimball City Hall [\(Map\)](#) at 7pm. Meetings are open to the public. Meeting notices and minutes are published in the Annandale Advocate (Annandale, MN) and the Tri-County News (Kimball, MN). Meeting minutes can also be found on the District's website at: <http://www.crw.org/>. The 2012 Budget Hearing was held on September 12th, 2012. Other special hearings were held throughout the year as needed.

1.5 Background & Beginnings

The area encompassed by the Clearwater River Watershed District (CRWD) is rich in soil and water resources. The presence of those resources has encouraged the growth of two economic mainstays in this Central Minnesota territory – farming and tourism. Around these basics have grown the communities that support their needs. As population and industry grow, those priceless resources, which we often take for granted, may deteriorate.

In the 1960s and early 1970s, those who fished and enjoyed the waters of the Clearwater Chain of Lakes began to notice a decrease in the clarity of those waters, an increase in the number of rough fish (bullheads and carp), and an increase in the growth of algae on the surface of the water. Property owners sought new tests from scientists interested in water quality. Those tests revealed that the nutrient content of the water had increased substantially since 1946 – phosphorus was coming into the lake at a rate almost double the rate considered damaging.

The lakes through which the Clearwater River flowed were aging much too quickly. That process, which is a natural phenomenon called "eutrophication," was being helped along at an alarming rate via pollution entering the river system from cities, farmland, private property, and industry.

Further reports concluded that the rate of phosphorus input could be reduced by as much as 50% if the cities of Watkins, Kimball, and Annandale, and the Modern Craftsmen's Milk Association of Watkins installed on-land waste treatment systems instead of discharging sewage and industrial effluents into the Clearwater River and Warner Creek. In addition, if the phosphorus input from all non-point sources (such as septic tanks, agricultural wastes, storm water runoff, and soil erosion) could be significantly reduced, the water quality in the watershed could be restored to an acceptable level.

After a lengthy series of meetings and legal research, those concerned came to the conclusion that only a watershed district, with its powers of enforcement and its abilities to assess and to obtain federal and state funding, could tackle the pollution problem in the Chain of Lakes. The Clearwater River Watershed District was the culmination of years of hard work and the beginning of many more years of work aimed at undoing some of the damage done over a long period of time to one of our most important resources – our lakes and streams.

The Clearwater River Watershed District was established as a unit of local government on April 9, 1975, by order of the Minnesota Water Resources Board, acting under authority of Chapter 112, MSA (the Minnesota Watershed Act). Though the original thrust of the CRWD and its five-member Board of Managers was the improvement of water quality in the Clearwater River Chain of Lakes, its scope has grown into a complete program of water management within its boundaries.

2.0 Work Plans for 2013

Most of these work plans are summarizations of more detailed plans, usually taken from engineer's reports, inspection reports, and/or grant work plans. If you would like more detail, contact the District office.

2.1 CCM Streambank Restoration Project

Another 30 crew days were awarded to the District by the Conservation Corp of Minnesota (CCM) to continue this bank and channel stabilization project in the upper reaches of the Clearwater River. Work will focus on continuing restoration above and below areas restored via this project in the last two years. The areas restored in the past two years will be inspected for loss of restoration due to the high water last year, and if needed, replacements will be made.

2.2 Cedar, Albion, Swartout, Henshaw (CASH) #06-1 Operation & Maintenance

The limestone berm at Segner Pond will need minor work, mainly involving adding limestone to low areas of the berm. Seining of rough fish in Henshaw Lake may occur during the winter of 2013-2014 depending on need and conditions. Treatment of Curly-leaf pondweed is planned for early spring 2013, depending on need. Treatment will be conducted by the Cedar Lake Conservation Club via professional applicator, with oversight provided by the Minnesota Department of Natural Resources and the CRWD.

Implementation of additional water quality improvement efforts in this sub-watershed as part of this project are likely to occur. Work will focus of project development and securing sites for implementation, with construction to likely occur in 2014-2015.

2.3 Cedar Lake AIS Project

Treatment of Eurasian Watermilfoil is planned for summer 2013, depending on need. Treatment will be conducted by the Cedar Lake Conservation Club via professional applicator, with oversight provided by the Minnesota Department of Natural Resources and the CRWD.

2.4 Clearwater Lake Eurasian Watermilfoil Treatment Project

Treatment of Eurasian Watermilfoil is planned for summer 2013, depending on need. Treatment will be conducted by the Clearwater Lake Property Owners Association, with oversight provided by the Minnesota Department of Natural Resources and the CRWD.

2.5 Clearwater River Chain of Lakes (1980) Restoration Project Operation & Maintenance

The carp trap along State Highway 55 will again be operated this year to facilitate removal of rough fish from the upper chain of lakes (i.e. Louisa and Marie). Seining of Louisa and Marie is planned the winter of 2013-2014, dependent on conditions. Minor maintenance work will be conducted on several projects, such as weed/woody vegetation control and fence repairs. Refer to current project inspections reports for more information, located at: http://crwd.org/other_publications_reports.html.

2.6 Kimball Stormwater Phase II

The District received \$738,750 from the MN Board of Water and Soil Resources as part of the Clean Water, Land, and Legacy Amendment. The project focuses on the installation of infiltration basins on the west side of the City of Kimball to allow stormwater treatment of another 108 acres while increasing the effectiveness of phase I by allowing it to treat a higher volume from a smaller drainage area. Work will be done concurrently and in cooperation with the City of Kimball while they upgrade their street design using green street principles where possible. Construction is slated to begin near the end of 2013.

2.7 Kingston Wetland Feasibility Study & Restoration Project

Construction should be complete by the beginning of spring 2013. The remainder of the year will focus on operating & maintaining the project, along with post-construction monitoring. As part of this project, civic education components will be developed to inform the public on the project, with delivery to begin in 2014.

2.8 Lake Augusta Eurasian Watermilfoil Treatment Project

Treatment of Eurasian Watermilfoil is planned for summer 2013, depending on need. Treatment will be conducted by the Lake Augusta Association, with oversight provided by the Minnesota Department of Natural Resources and the CRWD.

The association is discussing the possibility of petitioning the CRWD to amend this project to change it to Aquatic Invasive Species (AIS) treatment.

2.9 Lakes Louisa & Marie AIS Project

Treatment of Curly-leaf pondweed will be conducted early spring 2013, depending on need. Treatment will be conducted by the Chain of Lakes Association via professional applicator, with oversight provided by the Minnesota Department of Natural Resources and the CRWD.

2.10 Targeted Fertilizer Application Reduction Project

With an executed contract, the District will continue project coordination with partnering agricultural cooperatives. Gridded soil-testing and GPS-aided fertilizer application will continue throughout the project period. This project also has a civic education element which has already begun to inform both the public and targeted agricultural producers on the project and its goals.

2.11 Other Work Plans

2.11.1 Education Program

As part of the District's ongoing efforts to engage the local citizenry in the activities of the District, the CRWD has established an education program to provide the mechanisms for this engagement. The District's education program is oftentimes aligned with project-specific education components to capitalize on similar activities. This year, the district expects to perform several different educational activities, such as:

- Attendance at civic groups and local government meetings
- Capitalizing on the recently revamped CRWD website

- Publishing a new brochure focusing on recent District work
- Conducting a watershed tour in the summer to introduce citizens to their watershed
- Sending staff to local school events for outreach activities
- Increase contact with local schools to provide materials and speakers as needed

2.11.2 District Efficiency

As a tax-funded unit of government, the District is expected to always operate in the most efficient manner possible. The work plan to achieve this expectation is as follows:

1. Identify inefficiencies
2. Analyze identified inefficiencies
3. Review options to address inefficiencies
4. Address inefficiencies
5. Monitor results and adapt as needed.

2.11.3 Grant Opportunities

The District wants to capitalize on its recent grant successes by continuing its successful work plan for grant opportunities. The plan has four steps:

1. Determine which projects the District is seeking to undertake are eligible for the various grant opportunities. Prioritize project based on need, readiness, and fit in CRWD Watershed Management Plan. As new opportunities present themselves, adapt projects or create new projects to meet these opportunities.
2. Create a grant proposal tailored to the project & grant type. Communicate early in the process with the granting entity to make sure proposal meets the entity's expectations.
3. Submit proposal, keeping in close contact with the granting entity throughout the review process for clarification and answering of questions.
4. Once grant is awarded, follow all requirements and complete the project, keeping the granting entity informed of the progress.

As part of the Minnesota Board of Water and Soil Resources' (BWSR) new biennial budget review process, the District will be asked to present to the BWSR high priority tasks every two years.

2.11.4 Mississippi River (St. Cloud) Watershed Project

The District remains a partner in this MPCA project, which focuses on completing intensive water quality assessments in the 8-digit Hydrological Unit Code area. The District's involvement is covered by funding provided by the MPCA as part of this project, and will likely consist of attendance at various meetings, serving as a member of the project's Civic Engagement committee, assisting with water quality monitoring and review efforts, and reviewing various documents created for the project.

In return, the District receives free training in Civic Engagement methods, extra and/or improved water quality data, a Total Maximum Daily Load establishment for the lower reach of the Clearwater River (Grass Lake to Mississippi River), and assistance with future implementation efforts.

2.11.5 Project Inspections

Projects that the District has the responsibility for ongoing operation & maintenance are inspected yearly, normally in the early spring. The District conducts ongoing maintenance of these projects based

on a triage approach, where inspections reveal which maintenance actions are to be completed first, and the necessary timeframe for those actions. A maintenance plan for the year is created based on these inspections. Once the Board approves the plan, the maintenance actions are completed based on their timeframes. The Annual Inspection Report and maintenance plan is available on the District's website at: http://crwd.org/other_publications_reports.html.

2.11.6 Special Projects

New opportunities may arise that call for the District to begin the process of implementing a special project. The District follows the applicable rules as defined by MN Statutes 103D regarding the creation of new projects. A general work plan follows. Please note that petitioned projects have their own unique rules in MN Statutes 103D, and as such will deviate from this work plan.

1. The Board determines whether the proposed project benefits the District, fulfills the District mission, fits in the District's Watershed Management Plan, and is feasible.
2. If necessary, the District's Attorney and Engineer are consulted.
3. Staff seeks out partnerships and grant opportunities to assist in bringing the project to fruition.
4. Project design is completed (if applicable). Reports are written as needed.
5. After approval from board, the project is implemented. Reports and operation & maintenance plans are written as needed.

3.0 Water Quality Monitoring Report (2012) Summary

Note: What follows is the executive summary from the 2012 Water Quality Monitoring Report. This report is available at the CRWD's office, or online at:

http://www.crw.org/water_quality_monitoring_reports.html.

Executive Summary

This report was prepared by Wenck Associates, Inc. (Wenck) for the Clearwater River Watershed District (CRWD) to provide a description of the District's monitoring program, summarize and analyze 2012 monitoring data, and provide a progress report of TMDL Implementation activities in the District.

Significant findings in this report include the following:

1. Annual precipitation was near normal overall at monitored locations for the year in 2012, with the exception of May and June, which were far above normal, and August through November, which were far below normal.
2. Runoff over the District was near normal overall, but started the year lower than normal following a winter with very little snowfall. Runoff was higher than normal during a period following well above average precipitation in May and June. Runoff was below normal from August through November, when very little precipitation fell and many stream channels stopped flowing or dried up entirely.
3. Phosphorus loads from the Clearwater River were lower than those observed in recent years due to decreased runoff in 2012. The phosphorus load from the Clearwater River was estimated at 3,009 lbs. at CR 10.5 (Grass Lake Dam). The upper watershed load measured at CR28.2 was 13,440 lbs. While this was a reduction from previous year's loads, it was still much higher than the goal established for downstream Lake Betsy (2,280 lbs.) and Clearwater Lake (4,000 lbs.).
4. Flow-weighted average phosphorus concentrations were 24 µg/L and 335 µg/L at CR 10.5 and CR28.2, respectively. The concentration at CR10.5 was similar to concentrations seen in recent years, which demonstrates the good water quality in Clearwater Lake. The concentration observed at CR28.2 was higher than recent years and indicates the potential export of phosphorus from the Kingston Wetland during low flow conditions.
5. Phosphorus loading at Warner Creek station WR0.2 was 818 lbs. in 2012, which was far lower than recent phosphorus loads at the site, which had been increasing since 2009. Expanded monitoring was performed at two upstream locations on Warner Creek in 2012 to determine potential sources of phosphorus in the watershed.
6. Soluble phosphorus made up a large percentage of total phosphorus at monitoring stations downstream of wetland complexes in 2012, except at Warner Creek. This indicates that the export of soluble phosphorus from the wetlands contributes a significant portion of the phosphorus load at these locations during periods of normal or lower than normal runoff, as experienced in 2012. Projects implemented to reduce phosphorus in the District should include components to reduce soluble phosphorus, as did the Clear Lake project constructed in 2012.
7. With the exception of the 11 lakes that are impaired in the District, the water quality of CRWD lakes is generally good. Water quality has generally improved or remained stable in the majority

of the lakes in the District in recent years. The exception is Scott Lake, Lake Louisa, Lake Marie, and Lake Caroline where an increasing phosphorus trend has been observed over the last four years. The increased phosphorus concentrations are likely due to increased loads in the Clearwater River due to a combination of higher runoff and higher phosphorus concentrations in most recent years. Due to their flow-through nature, water quality in these lakes is driven by the hydrology of the Clearwater River. During wet years, phosphorus concentrations approach concentrations observed in the Clearwater River. During dry years, phosphorus concentrations are impacted more heavily by internal loading in the lakes.

8. Lake monitoring efforts conducted in 2012 confirm the impact of internal loading of nutrients in some District lakes, as evidenced by monitoring data showing high bottom phosphorus concentrations that typically increase steadily throughout the summer, and periods of anoxia (dissolved oxygen concentrations < 2.0 mg/L) in some lakes. Monitoring data indicates that lakes especially susceptible to internal nutrient loading include Albion, Swartout, Henshaw, Augusta, Caroline, Louisa, Marie, Betsy, Scott, and Union. CRWD will continue to evaluate potential actions identified in the Watershed Restoration and Protection Plan (TMDL Implementation Plan) that address internal loading in future years.
9. Dissolved oxygen (DO) monitoring conducted in the District identified and confirmed sites with DO impairments. As observed in past years, most DO impairments were observed at sites downstream of large wetland complexes. This confirms conclusions drawn in previous years, that wetland sediment oxygen demand is the cause of low DO at these locations.
10. Continued diagnostic and effectiveness monitoring as part of Cedar Lake Project #06-1 showed that the watershed phosphorus load in 2012 to Cedar Lake of approximately 2,543 lbs. remains above the project goal of 1,000 lbs. The majority of the load to Cedar Lake was received during a period of high flow in early June caused by a combination of heavy precipitation and the removal of stoplogs in the Swartout Lake outlet by vandals which allowed a pulse of high-phosphorus water out of Swartout and into Cedar Lake. Summer average phosphorus and chlorophyll-*a* concentrations in Cedar Lake decreased in 2012 and are meeting minimum water quality standards established by the Minnesota Pollution Control Agency (MPCA). However, summer average phosphorus concentrations remain above the goal of 20 µg/L established through Project #06-01, indicating that additional load reductions, additional actions, and time are necessary to meet lake water quality goals. Water clarity was similar to previous years in 2012 and was good overall except for a period in June following an algae bloom.
11. The CRWD conducted rough fish removal in Segner Pond in 2012, removing approximately 12,000 lbs. of carp in May. Rough fish removal efforts will continue in the District in 2013. No winter seining was conducted in 2012 due to poor ice conditions. In past years, winter seining has yielded significant reductions in carp populations. Field observations made in 2012 indicate that the fish population in Henshaw Lake is once again dominated by rough fish of multiple year classes indicating that seining would benefit the lake.
12. The fish trap upstream of Lake Louisa was not operated in 2012. Winter seining in the upper watershed has typically yielded far higher removal rates for rough fish than operation of the fish trap. High rough fish populations have been documented in the Upper Clearwater River and Upper Lakes. For example, 80,000 lbs. of rough fish were removed from Lake Betsy in 2011. The

area between Kingston Wetland and Lake Louisa provides some habitat that is potentially ideal for rough fish spawning.

13. The results of water quality monitoring and aquatic vegetation surveys conducted in Swartout, Albion, and Henshaw Lakes in 2012 continue to support the connection of lake water quality to the status of fish communities in these lakes. The aggressive management of rough fish leads to clear state shallow lakes in this system, as observed in Swartout Lake in recent years. Shallow lakes in the clear state foster rooted aquatic plant growth which, coupled with lower rough fish populations, stabilize bottom sediments which can reduce internal loading and improve in lake water quality and reduce nutrient export to downstream lakes.
14. In 2012, the CRWD made progress towards water quality goals established in the Watershed Restoration and Protection Plan (WRPP/ TMDL Implementation Plan) by:
 - ❖ implementing additional monitoring tasks to fill data gaps identified in the TMDL. Collection of these data assist in achieving grants, final design of capital improvement projects and improved targeting of BMPs;
 - ❖ applying for and securing grant dollars for two projects to protect and improve water quality in the Cedar Lake sub-watershed;
 - ❖ completing design and permitting for Kingston Wetland Restoration project;
 - ❖ construction of a notched weir and iron-sand filter water quality improvement project on a tributary stream south of Clear Lake targeting particulate and soluble phosphorus load reductions in Clear Lake.
 - ❖ continuing work on three projects implemented in 2010 and 2011, including:
 - completing seeding and planting on a stormwater reclamation and reuse project in the City of Kimball,
 - executing the contract for the targeted fertilizer application reduction project in the upper watershed and enrolling participants in the program which is funded in part by a federal 319 grant,
 - conducting streambank restoration and stabilization project on the Clearwater River with the Minnesota Conservation Corps
 - ❖ continuing project development towards securing grant funding to implement projects identified in the WRPP:
 - Watkins impoundment, and
 - Lake Betsy Hypolimnetic withdrawal
15. In 2013, the CRWD plans to continue progress towards TMDL goals by:
 - ❖ continuing monitoring water quality, hydrology and hydraulics to track water quality trends, project effectiveness and improve efficiencies of implementation projects,
 - ❖ conducting rough fish removal and migration management
 - ❖ continuing to implement the Soil Testing and GPS Fertilizer Application Project by enrolling landowners and conducting follow-up monitoring
 - ❖ constructing the Kingston Wetland Restoration Project,
 - ❖ finalizing a design for the Kimball Phase II project at let bids,
 - ❖ continued development of the Cedar Lake Improvement Project,

- ❖ identifying additional projects and continuing to apply for grant dollars to fund other CRWD projects, and
- ❖ continuing education and outreach efforts, focusing on social media and schools

4.0 Status of all District Projects and Programs

This information is compiled on a yearly basis as part of the District's Inspection Program. Projects are inspected at various times throughout the year, with all District projects undergoing inspection annually in the spring, dependent on weather conditions. The 2012 Project Inspection Report is available for review on the District's website at: http://crwd.org/other_publications_reports.html. Projects listed below cover

4.1 TMDL Implementation Projects

The Clearwater River Watershed District was one of the first Watershed Districts in the state to complete its Total Maximum Daily Load (TMDL) Implementation Plan. The CRWD has undertaken several water quality projects that were listed as part of this plan to reduce pollution loads to the impaired waters of the District. An explanation of each project and its current status is listed below.

Please note each project is partially funded by grants from state agencies, and as such also undergoes state and/or federal reporting requirements.

4.1.1 Clearwater River Channel Stabilization (CCM Riparian) Project



This project began in 2010 and is located in the upper reaches of the Clearwater River near Meeker County Highway 17. The purpose of the project is to provide vegetated slopes and ground cover, as well as stream bank toe and head cutting protection, to targeted sections (private land) of the Clearwater River where the stream banks are eroding. To combat this erosion problem, three different stages of the project are performed along the target sections.

1. Trees along the streambank are thinned to allow sunlight to reach the ground. The felled trees and the corresponding brush were reused as slope breaks, toe protection, and grade controls. The brush was formed into bundles and staked in place to act as toe protection along the water's edge.
2. Willows on-site are harvested and planted into the streambank to create root systems that will anchor the streambank and help prevent erosion.
3. The project is re-evaluated after a set time to see if more thinning and placing of breaks and bundles, as well as more plantings, are needed.

This project is a grant-funded project with the Conservation Corps of Minnesota (CCM) through the Minnesota Board of Water & Soil Resources (BWSR). The District provides materials and guidance, the CCM provides work crews, and landowners agree to allow work to be completed on their property. Contact the District if you are interested on have this type of work done on your property.

4.1.2 Targeted Fertilizer Application Project (expansion of the Fertilizer Field Trial Project)

HISTORY: The Nonpoint Source Pollution Abatement Project was added to the District's Chain of Lakes Restoration Project in 1985 and later extended to 1993. This project aimed to institute farming practices that would protect the public from water quality degradation while at the same time reducing soil loss, lowering farm operating costs, and increasing profits. The infrastructure developed to implement this was the Tri-County Conservation Project (TCCP), composed of the Stearns, Meeker, and Wright Soil and Water Conservation Districts, along with CRWD. To demonstrate conservation tillage practices, a no-till drill was purchased. Also, tillage demonstration plots were used. A local farmer group was formed to provide grass roots input on implementing conservation practices through the project. Critical erosion and nutrient export areas were identified using a computer model. Runoff and groundwater monitoring, including pesticide impacts, was conducted. The project, with a budget of some \$1.5 million, worked through cooperation among individual farms, the agri-business community, the TCCP member soil and water conservation districts, Minnesota Pollution Control Agency, Board of Water and Soil Resources, Agricultural Extension Service, U.S. Soil Conservation Service, Environmental Protection Agency, and others.

NOW: Agricultural runoff remains a significant source of polluting nutrients to waters of the CRWD. In response to this, the CRWD began a pilot project aimed at demonstrating the feasibility of a large-scale targeted fertilizer application project. Known as the Fertilizer Field Trail, the focus was on demonstrating the benefits received by participating farmers and the District's surface waters by assisting farmers in changing from standard fertilizer application technology to variable fertilizer application technology.

Many farmers apply fertilizers to their fields at standard rates, even though field fertilizer requirements vary significantly throughout a given field. By testing the soil throughout a given field to determine fertilizer requirements, the farmer can apply the fertilizer at variable rates throughout a field. This results in a tested field receiving the correct amount of fertilizer needed. Benefits achieved are a significant monetary savings for the farmer, due to increased yields and decreased purchase of fertilizer, and a decrease in phosphorous entering the District's waters, since no excessive fertilizer is applied and washed out of the field during rain events.

Based on the success of the pilot project, the District applied for and received a large EPA Section 319 grant (through the Minnesota Pollution Control Agency, MPCA) to increase this project over a large area. Now known as the Targeted Fertilizer Application Reduction Project, this project is focused on enrolling up to 16,000 acres into this systematic soil testing program from the upper watersheds of Lake Betsy. The result of this project is estimated to be about 17% of the required load reduction for Clear Lake from agricultural sources. This project will have a trickle-down effect for all the waters downstream of Clear Lake.

4.1.3 Kingston Wetland Feasibility Study and Restoration

HISTORY: The Kingston Wetland Treatment System is the major facility of the Chain of Lakes Restoration Project and contains nearly 300 acres of wetland. Over 19,000 feet of diversion channels were constructed, with more than 150 distribution pipes installed along the length of the channel. The

construction cost of this project was approximately \$394,000 and it was completed in 1985. The system removes approximately 5,600 pounds of phosphorus annually.

NOW: The District was awarded a EPA Section 319 grant (through the MPCA) in 2010 for the Kingston Wetland Feasibility Study and Restoration Project. This project seeks to improve dissolved oxygen (DO) concentrations in a DO impaired reach of the Clearwater River, to reduce the seasonal export of soluble phosphorus to downstream impaired lakes, and to improve stream and wetland habitat, as well as an annual 1,970 pounds reduction of soluble phosphorus being exported downstream. The project was slated to begin in early 2011, but was postponed due to contracting issues. Water quality sampling began in spring 2011 for this project and continued through this year. Project development continued throughout most of this year.

Major construction is slated to be completed in early 2013, with follow up water quality sampling thereafter.

4.1.4 Kimball Stormwater Phase II Project

The District applied for and received a large Clean Water Legacy grant through BWSR to finish the retrofit of stormwater treatment in the city of Kimball this year. Currently the District is in the project development stages, and has formed partnerships with the City of Kimball, Stearns Soil & Water Conservation District, Canadian Pacific Railway, and other regulating authorities to ensure this project's successful completion.

It is hoped major construction will begin at the end of 2013.

4.2 Cedar, Albion, Swartout, Henshaw (CASH) Project #06-1

The Cedar #06-1 project was implemented in 2006 to mitigate the effects of nutrient-rich waters in the Cedar Lake sub-watershed. This watershed is made up of four lakes: Henshaw and Albion lakes flow into Swartout Lake, and Swartout flows into Cedar Lake. From Cedar Lake, water flows into Clearwater Lake and down the Clearwater River into the Mississippi River. The project is made up of three separate parts, listed below.

The CRWD is in the process of evaluating this project to determine if other components should be implemented to achieve the desired outcomes as part of this project.

4.2.1 Rough Fish Migration Barriers

Rough fish mitigation barriers are placed at three separate points on the streams connecting the four lakes. One is located at the outlet of Henshaw Lake, another at the inlet of Swartout Lake from the Swartout WMA, another at the outlet of Swartout Lake, and the final one below the wetlands between Swartout Lake and Cedar Lake. The fish barrier stops the movement of rough fish, which cause nutrient release in the bottom sediments of the lakes. By



placing the barrier in these locations, the rough fish are forced into shallow wetlands, where winter kill occurs nearly every year.

These fish barriers continue to prove quite effective at controlling the rough fish population. The barriers were inspected and found to be in good condition.

4.2.2 Rough Fish Removal

Rough fish removal occurs on Henshaw and Swartout lakes. Carp cause a great deal of phosphorous



movement within the sub-watershed due to their stirring up of bottom sediments rich in phosphorous. Carp can also cause a lake's ecological balance to tip due to their interruption of the food chain and their foraging method causing a loss of beneficial aquatic vegetative plants. By removing the carp, the bottom sediments are not disturbed and the phosphorous remains trapped in the sediments instead of the water column, leading to increased water quality. This has been especially beneficial in Swartout Lake, which has seen dramatic

improvements in water clarity due to the removal of carp from the lake.

Carp seining continues on an as-needed basis, with seining being done during the winter months being the preferred method. Open water seining may be conducted if winter conditions are not favorable. There was no seining conducted in 2012.

4.2.3 Segner Pond

The Segner Pond treatment system uses a large sediment basin and a limestone berm to remove incoming sediment and phosphorous from the flows of Henshaw, Albion, and Swartout lakes before entering Cedar Lake. The system also has a fish barrier at the inlet to the pond to halt the movement of rough fish, such as carp.



A temporary fish trap was operated at this site, and approximately 10,000 lbs. of rough fish (primarily carp) were removed. Limestone was added to the berm to repair breaches/low spots. Both activities will continue on an as-needed basis.

4.2.4 Curly-leaf Pondweed Treatment

The treatment of Curly-leaf Pondweed in Cedar Lake falls under this project. Treatment is conducted annually by the Cedar Lake Conservation Club, who develops a treatment program and undergoes permitting with and through the Minnesota Department of Natural Resources. The District provides fiscal oversight and offers other assistance when necessary, but seeks to minimize involvement to keep costs low.

The project also has ongoing water quality monitoring conducted to assess its effectiveness and make adjustments as necessary. Go to [this page](#) for a summary of the District's 2012 Water Quality Monitoring Report.

4.3 Clearwater River Chain of Lakes (1980) Restoration Project

The Clearwater River Chain of Lakes Restoration Project is a series of eight lakes and watershed restoration measures undertaken in the 1980s to improve the water quality of the Clearwater River Chain of Lakes. The Chain of Lakes Restoration Project was a \$4.4 million project spanning the 1980s-1990s designed to significantly improve water quality on Clearwater Lake and several smaller lakes that make up the chain. The bodies of water benefitted from the overall project include: the Clearwater River, Grass Lake, Clearwater Lake, Lake Augusta, Lake Caroline, Lake Marie, Lake Louisa, Scott Lake, and Lake Betsy. Six of the eight original projects continue operation today. The eight original projects are described briefly below, along with their status.

4.3.1 County Ditch Twenty Wetland Treatment System (Watkins)

Wetland Treatment Systems serve as the backbone of the restoration project. Wetlands excel at removing pollutants from our waters. The County Ditch 20 Wetland Treatment System contains approximately 40 acres of wetlands, which are served by a diversion structure and two channels. A total of approximately 7,000 feet of diversion channels distributes the contaminated runoff over the wetland. The approximate expense of this project was \$200,000 and it was completed in late 1984. This wetland system removes approximately 1,000 pounds of phosphorus annually.

This system was inspected and its components were found to be working properly.

4.3.2 Kingston Wetland Treatment System

The Kingston Wetland Treatment System is the major facility of the project and contains nearly 300 acres of wetland. Over 19,000 feet of diversion channels were constructed, with more than 150 distribution pipes installed along the length of the channel. The construction cost of this project was approximately \$394,000 and it was completed in 1985. The system removes approximately 5,600 pounds of phosphorus annually.

This system was inspected and its components were found to be working properly.

4.3.2.1 Kingston Wetland Feasibility Study and Restoration Project

As part of the ongoing operation and maintenance of the Kingston Wetland Treatment System, the District is undertaking this major feasibility study and restoration project. For more information on this TMDL Implementation Project, go to [this page](#).

4.3.3 Annandale Wetland Treatment System

The Annandale Wetland Treatment System consists of approximately 40 acres of wetland in two locations, with 4,600 feet of diversion channels. The approximate construction expense of this project was \$120,000 and it was completed in late 1984, with an approximate phosphorus removal capacity of 750 pounds per year.

This system was inspected and its components were found to be working properly.

4.3.4 Upper Lakes Aeration and Mechanical Fish Removal (Discontinued)

The Upper Lakes Aeration and Mechanical Fish Removal Project included the hypolimnetic aeration of Lakes Louisa and Marie. These aerators were installed in 1985-1986. In addition, mechanical removal of rough fish (carp, bullhead, etc.) was performed on Lake Betsy, Scott Lake, Union Lake, Lake Louisa, Mill Pond, and Lake Marie during the fall of 1984 and the spring and fall of 1985-1988. Being bottom feeders, rough fish mix large amounts of nutrients into the water from the sediments. The estimated cost of this project was \$285,000, and it removes an estimated 1,800 pounds of phosphorus annually. The aerators were removed in the 1990s due to operation costs. Other projects were implemented to take the place of the aerators.

4.3.5 Lake Augusta Erosion Control Project

This project consisted of building a sedimentation basin along with riprap and energy dissipaters. The goal of the project was to alleviate a serious erosion problem leading to sediment entering Lake Augusta along the southwestern portion of the lake. The original estimated phosphorus removal capacity was 50 pounds per year.



This project was inspected and its components were found to be working properly.

4.3.6 Monitoring Program

From 1981 through 1992, a monitoring program including lake and stream water quality, stream flows, and precipitation (beginning in 1983) was a part of the Clearwater Chain of Lakes Restoration Project. The monitoring program helped bring about important modifications, including the addition of the Upper Watkins Wetland isolation and the Nonpoint Source Pollution Abatement Projects.

This monitoring continues as part of the District's yearly Water Quality Monitoring program. Go to [this page](#) for a summary of the District's 2012 Water Quality Monitoring Report.

4.3.7 Upper Watkins Wetland Isolation Project

The Upper Watkins Wetland Isolation Project was added to the project in 1983. Formerly, untreated wastewater from a cheese plant discharged into the Upper Watkins Wetland. This transformed the wetland from a nutrient trap (its natural state) into a nutrient source – in fact, the largest nutrient source in the entire watershed. The project diverts runoff and channel flow around the edge of the wetland and includes more than 11,000 feet of isolation dikes and channels plus overflow structures and ditch crossings. The estimated expense of this project was \$460,000 and it was completed in late 1984. It has resulted in a phosphorus load reduction of approximately 30,000 pounds annually.

This system was inspected and its components were found to be working properly.

4.3.8 Non-point Source Pollution Abatement Project

The Nonpoint Source Pollution Abatement Project was added to the project in 1985 and later extended to 1993. This project aimed to institute farming practices that will protect the public from water quality

degradation while at the same time reducing soil loss, lowering farm operating costs, and increasing profits. The infrastructure developed to implement this was the Tri-County Conservation Project (TCCP), composed of the Stearns, Meeker, and Wright Soil and Water Conservation Districts, along with CRWD. To demonstrate conservation tillage practices, a no-till drill was purchased. Also, tillage demonstration plots were used. A local farmer group was formed to provide grass roots input on implementing conservation practices through the project. Critical erosion and nutrient export areas were identified using a computer model. Runoff and groundwater monitoring, including pesticide impacts, was conducted. The project, with a budget of some \$1.5 million, worked through cooperation among individual farms, the agri-business community, the TCCP member soil and water conservation districts, Minnesota Pollution Control Agency, Board of Water and Soil Resources, Agricultural Extension Service, U.S. Soil Conservation Service, Environmental Protection Agency, and others.

4.3.8.1 Fertilizer Field Trial, now the Targeted Fertilizer Application Project

The ideas and methods of this project continue today with the District's Targeted Fertilizer Application Reduction Project. For more information on this TMDL Implementation Project, go to [this page](#).

4.4 Outlet Control Projects

In response to the high water experienced in the early 1980s, the District was petitioned by property owners on Pleasant Lake in Wright County and School Section Lake in Stearns County to create two outlet control structure to help control the water levels of Pleasant and School Section Lake. The outlets are permitted by the Minnesota Department of Natural Resources and operation of the outlets follow strict DNR guidelines to protect the waters and properties downstream as well as Pleasant and School Section Lakes.



These projects were inspected and its components were found to be working properly.

4.5 Wastewater Treatment Systems



The Clearwater River Watershed District owns and operates four communal sanitary sewer systems. Their names are: Clearwater Harbor Sanitary Sewer System, Hidden River Sanitary Sewer System, Rest-A-While Sanitary Sewer System, and Wandering Pond Sanitary Sewer System. Clearwater Harbor is located along Grass Lake and Beachwood Road along Clearwater Lake in Stearns County. Hidden River is located adjacent to the northern end of Clearwater Harbor along the Clearwater River in Stearns County. Rest-A-

While is located on Lake Louisa on Aspenwood Road in Stearns County. Wandering Pond is above Lake Louisa on the north end of Reed Court in Stearns County.

Both Clearwater Harbor and Hidden River are permitted by the Minnesota Pollution Control Agency. Both systems were petitioned by Stearns County to be constructed, owned, and maintained by the District. Rest-A-While and Wandering Pond are permitted by Stearns County Environmental Services. Both systems were petitioned by two separate developers to be constructed, owned, and maintained by the District. The systems treat wastewater from serviced properties in a manner that protects the groundwater as well as the nearby surface waters from sewage pollution.

As of the writing of this report, all four systems were in compliance of their permits. A listing of the contracted operators of the systems is listed below.

Septic Check, Clearwater Harbor, Hidden River, and Rest-A-While Sewer Systems Operator

Address: 6074 Keystone Rd, Milaca, MN 56353

Phone: (320)983-2447

Fax: (320) 983-2151

E-mail: info@septic-check.com

Website: <http://www.septiccheck.com>

Miller's Sewage Treatment (WRM Service), Wandering Pond Sewer System Operator

Address: 9075 155th Street, Kimball, MN 55353

Phone: (320) 398-2705

Fax: (320) 398-2705

Website: <http://www.millerssewage.com>

4.6 Other Projects

4.6.1 Lake Augusta West Channel Clean Out Project

The District was petitioned by property owners along the Lake Augusta West Channel in 2011 to clean out the channel to allow access to Lake Augusta for owners along the channel, as well as remove sediment entering the lake from the channel. Around 560 feet of channel were cleaned out, with the benefitted property owners being assessed for the work. This project was inspected and its components were found to be working properly.

4.6.2 Clearwater River State Highway 55 Fish Trap

The fish trap on the Clearwater River along State Highway 55 cost \$30,000 and is estimated to remove 200 pounds of phosphorous per year from Clearwater Lake. The fish trap allows for the control of rough fish in the upper chain of lakes by trapping rough fish from harvesting and mitigating their annual spawning.

The District is discussing the option of seining from Lakes Louisa and Marie in the hopes of being able to remove this fish trap from operation.

4.6.3 Nistler-Geislinger Basin

The Nistler-Geislinger Basin was constructed south of the southern inlet to Clear Lake along 355th Street (Meeker County) to provide a place for sediment to settle out before entering Clear Lake. The basin cost \$28,000 to complete and is estimated to remove 27 pounds of phosphorous per year from Clearwater Lake. This project was inspected and its components were found to be working properly.

4.6.4 Ostmark Basin



The Ostmark Basin was completed in 2004 to correct a developing erosion problem in conjunction with Meeker County Soil and Water Conservation District. Before the basin was installed, runoff was causing a gully to form along 360th Street (Meeker County), and the sediment from this gully was being deposited in Clear Lake. The basin slows the runoff, effectively stopping the creation of the gully, and keeping sediment from entering Clear Lake. This project was

inspected and its components were found to be working properly.

4.6.5 Norton Avenue Basin



This basin, located above Lake Augusta near Norton Ave on 100th Street NW (Wright County), serves to slow the flow of water downhill to Lake Augusta. This basin was constructed to correct a developing erosion problem that was sending a large amount of sediment into Lake Augusta. By allowing runoff to pond in the basin during rain events rather than gouging the hillside, sediment is kept on the land instead of in the lake.

This project was inspected and its components were found to be working properly.

4.6.6 Clear Lake North V-Notch Weir



At the upper end of the Watershed District, Clear Lake is the first lake the Clearwater River flows through. As part of the District's efforts to increase the water quality in this lake, a V-Notch Weir was installed on the northern tributary to the lake, near the public access. The purpose of this weir is to temporarily impound water during rain events over a 24-36 hour period. By doing so, this allows any water-borne sediment a chance to settle out of the water column before entering Clear Lake.

The \$52,000 V-Notch Weir at the north end of Clear Lake does provide an estimated 236 pounds of phosphorous removed from Clearwater Lake per year. This project was inspected and its components were found to be working properly.

4.6.7 Clear Lake South Notch Weir



At the upper end of the Watershed District, Clear Lake is the first lake the Clearwater River flows through. As part of the District's efforts to increase the water quality in this lake, a Notch Weir was installed on the southern tributary (County Ditch No. 44) to the lake, along 355th Street. The purpose of this weir is to temporarily impound water during rain events over a 24-48 hour period. By doing so, this allows any water-borne sediment a chance to settle out of the water column before

entering Clear Lake. In conjunction with this weir, a sand/iron filter was constructed. The sand/iron filter provides a filter media to remove soluble phosphorus from the water column before entering Clear Lake. This project was installed at the end of 2012.

4.7 Programmatic Projects/Programs

Also listed below are projects that were not included on the project inspection report due to these projects being programmatic in nature.

4.7.1 Aquatic Invasive Species Projects

The CRWD currently has four projects aimed at controlling aquatic invasive species on several district lakes. Each project is financed by a special assessment against riparian properties of the particular lake. The projects are listed below.

4.7.1.1 Cedar Lake Aquatic Invasive Species (AIS) Project

The District was petitioned by the Cedar Lake Conservation Club to institute an aquatic invasive species (AIS) project for Cedar Lake. Currently, Cedar Lake is infested with two invasive species, Eurasian Watermilfoil, and Curly-leaf Pondweed. The project provides a funding mechanism to combat present and future AIS, and is funded by a special assessment of properties riparian to Cedar Lake. Treatment is conducted annually by the Cedar Lake Conservation Club, who develops a treatment program and undergoes permitting with and through the Minnesota Department of Natural Resources. The District provides fiscal oversight and offers other assistance when necessary, but seeks to minimize involvement to keep costs low.

4.7.1.2 Clearwater Lake Eurasian Watermilfoil Control Project

As part of the Clearwater Chain of Lakes Restoration Project, the District is required to maintain the quality of the lakes benefit by the project. Therefore, when Eurasian Watermilfoil was discovered in Clearwater Lake, the District undertook a treatment program in. The program is funded by a special assessment of properties benefitted by Clearwater Lake. Treatment is carried out annually by the Clearwater Lake Property Owners Association, which develops a treatment program and undergoes permitting with and through the Minnesota Department of Natural Resources. The District provides fiscal oversight and offers other assistance when necessary, but seeks to minimize involvement to keep costs low.

It is expected that a petition will eventually be submitted by residents of Clearwater Lake to change this project from Eurasian Watermilfoil to all Aquatic Invasive Species.

4.7.1.3 Lake Augusta Eurasian Watermilfoil Control Project #01-2

As part of the Clearwater Chain of Lakes Restoration Project, the District is required to maintain the quality of the lakes benefit by the project. Therefore, when Eurasian Watermilfoil was discovered in Lake Augusta, the District undertook a treatment program. The program is funded by a special assessment of properties benefitted by Lake Augusta. Treatment is carried out annually by the Clearwater Lake Property Owners Association, which develops a treatment program and undergoes permitting with and through the Minnesota Department of Natural Resources. The District provides fiscal oversight and offers other assistance when necessary, but seeks to minimize involvement to keep costs low.

It is expected that a petition will eventually be submitted by residents of Lake Augusta to change this project from Eurasian Watermifoil to all Aquatic Invasive Species.

4.7.1.4 Lakes Louisa and Marie Aquatic Invasive Species (AIS) Project

The District was petitioned by residents on Lakes Louisa & Marie institute an aquatic invasive species (AIS) project for these two lakes. Currently, Lakes Louisa & Marie are infested with one invasive species, Curly-leaf Pondweed. The project provides a funding mechanism to combat present and future AIS, and is funded by a special assessment of properties riparian to both lakes. Treatment is conducted annually by the Chain of Lakes Association, which develops a treatment program and undergoes permitting with and through the Minnesota Department of Natural Resources. The District provides fiscal oversight and offers other forms of assistance when necessary, but seeks to minimize involvement to keep costs low.

4.7.2 Bog Control Projects

In response to high water levels in the mid-1980s that caused severe floating bog problems on Augusta, Clearwater, and Grass Lakes (which lead to several emergency bog removal activities), the CRWD set up two bog control projects with the cooperation of the lake property owners involved. These projects included acquisition and improvement of access areas for bog removal, and the funding (via assessment) and process for removal of floating bogs deemed harmful. Estimated cost for the two projects was \$17,000, and they were initiated in the summer of 1985.



In 2011, the Clearwater River Watershed District experienced high water that rivaled the water levels in the mid-1980s. Currently the District has agreements with the Lake Augusta Association and the Clear Lake Property Owners Association for 50/50 cost-share to remove bogs that threaten to block river flows - thereby threatening to cause flooding on those lakes. The CRWD works in conjunction with the Minnesota Department of Natural Resources as well as other local authorities in removal of problematic bogs. The CRWD only becomes involved with bog removal when the flow of the Clearwater River is threatened. Several bogs were removed from the Grass Lake Dam as well as the road crossing over the channel between Grass and Clearwater Lakes.

Bog activity in 2012 was nominal, with only one bog control activity undertaken.

4.7.3 Incentives Program

As part of the CRWD's multi-faceted approach to water quality management, the District offers targeted incentives to its citizens to implement best management practices (BMPs). The District also seeks various opportunities to join with partners implementing water quality projects.

4.7.3.1 Agricultural Incentives

The Clearwater River Watershed District offers several incentives to agricultural producers to adopt best management practices (BMPs) in their operations. Listed below are some examples. Contact the District office with your questions and interest.

1. If you enroll and establish a buffer in the CRP (Conservation Reserve Program), the CRWD will pay you an additional one-time incentive of \$200/acre made directly to you when USDA authorizes your contract.
2. Under the seeded buffer incentive option, the producer can establish a buffer that can be harvested for hay. The one-time up-front payment from the CRWD for a three-year period is \$350/acre. This seeded buffer is intended for use along rivers, streams, and county ditches.
3. The third option is intended for the corn, soybean, or small grain rotation. The CRWD will pay you \$50/acre per year to not till a certain area after harvest. This option is intended for use where soybeans or small grain have been harvested. The following spring you simply till and plant like you always do.
4. The CRWD is willing to pay you \$50/year if you seed a 50'x50' area around your tile intakes into permanent grass. You will be paid \$100/year if the permanent grass area is 100'x100' and \$200/year if the permanent grass buffer around your intake is one-half acre in size. Some producers want to remove their open intakes and replace them with an underground rock inlet. We'll help you do that too. The one-time payment is \$400/intake replacement.
5. The CRWD provides a one-time payment for the establishment of grass waterways installed in the Cedar Lake Subwatershed. This payment will reimburse the property owner 25 percent of the cost of the construction and seeding costs, based on a plan developed and approved by the Natural Resource Conservation Service. The grass waterway must be maintained for five years.

The Clearwater River Watershed District is also involved with assisting livestock producers with adopting BMPs in their operations. The District evaluates these projects on a case-by-case basis, often times joining with the local SWCD (Soil and Water Conservation District). Please contact the District office with your questions and interest.

4.7.3.2 Residential Incentives

The Clearwater River Watershed District offers an incentive to area residents to establish shoreline buffers on their property. Why does the CRWD provide these buffer incentives? Buffers prevent sediment and nutrients from entering rivers, streams, county drainage ditches, and lakes. The less nutrients enter a water body, the cleaner the water body will be.

Lakeshore residents can buffer their lawns and we will help. The DNR (Department of Natural Resources) has grant money available, the local SWCD (Soil and Water Conservation District) has technical assistance available, and the CRWD will pay a one-time incentive of 20% the total cost (up to \$750) for you to participate in buffering your shoreline.

While there are certain requirements for the size of the lakescaping buffer (depending on who is involved in the project), once established the buffer protects the lake, provides beautiful flowers, and attracts wildlife. Ongoing maintenance is very low. Also, for those who have a nuisance geese problem,

these buffers help to keep geese off your property by limiting access. Contact the District office or your local SWCD for more details.

4.7.3.3 Partnership Incentives

The Clearwater River Watershed District will oftentimes partner with landowners and/or various entities to produce a result that furthers the District's [mission](#). Listed below are examples of activities the District has partnered in. The CRWD is always looking for various ways to partner with others who are working towards promoting, preserving, and protecting water resources, as well as assisting District residents. Please [contact](#) the District office to discuss ideas.

4.7.3.3.1 Grass Waterway above Lake Caroline

In 2010, the Clearwater River Watershed District partnered with a local landowner along with the Stearns County Soil and Water Conservation District, to install grassed waterways in an agricultural field that suffered from erosion caused by runoff from rain events. The District contributed \$5,000.00 towards the cost of installation of the grassed waterways, which serve to correct the erosion issue, keeping the sediment and nutrient-laden runoff from entering Lake Caroline. Check out the photos on the right hand side of this page to see what the grassed waterways look like.

4.7.3.3.2 Clearwater River Channel Stabilization (CCM Riparian) Project

In 2010, 2011, and 2012, the Clearwater River Watershed District pursued and won a grant with the [Conservation Corps of Minnesota](#) to provide work crews for a stream bank restoration and channel stabilization project in the upper reaches of the Clearwater River. The District sought and received landowner approval to conduct this work on private land (most of the land along the Clearwater River is privately held). To learn more about this project, click [here](#).

4.7.3.3.3 Forest Prairie Township Road Ditches 650th Ave & 350th Street

In 2012, the District was approached by the Forrest Prairie Township Board asking for assistance in making repairs and modifications to the western and northern ditches along 650th Ave and 355th Street. During large rain events, water in these two ditches would sometimes overtop the road, causing large quantities of sediment and road material to wash down into the Geislinger/Nistler Basin. This continued action would significantly decrease the life of the basin, and could potentially cause water quality issues in Clear Lake.

There were two main causes for this: one, the two ditches were full of sediment, and two, the culvert running under 650th Ave was not large enough to handle the drainage during large rain events. To rectify this issue, the District partnered with Forest Prairie by provided financial assistance to clean out the ditches and reshape them so they could handle more water. By doing so, the overall velocity of water flowing through these ditches is lessened, leading to less scouring. The township replaced the culvert with a larger model, and also placed an overflow culvert to protect the roads from washing out in large rain events. Check out the photos on the right hand side of this page.

On top of this, the owner of the field which lies along the two ditches made modifications to his field so that drainage entering the ditches would be more controlled and less likely to contribute sediment from field runoff.

4.7.3.3.4 Installation of Rain Gardens

The CRWD provides a one-time \$2.50 per square foot incentive for installation and maintenance of a rain garden on private property where installation will provide a benefit to cleaner water. The incentive cannot exceed payment for more than an area equal to 10 percent of the impervious surface on the property. The plan must be pre-approved by the CRWD. Check out the photos on the right hand side of this page to see examples of rain gardens installed with this District incentive.

4.7.4 Education Program

The District's education program, unlike other programs, is not a stand-alone program, but rather a collection of various educational activities undertaken in conjunction with various other projects and programs. This list below, while not exhaustive, is meant to give an idea of the education activities the District undertakes.

1. Signage: The District has several signs throughout the watershed describing projects.
2. Training: The District sends staff and managers to training events throughout the year to increase knowledge and local capacity in order to improve its work.
3. Tours: The District will host tours for citizens as well as select members of groups in order to display District activities and increase involvement and knowledge in citizens.
4. Meetings: The District hosts meeting throughout the year of various purposes to increase knowledge and involvement. District staff also attends several meetings throughout the year to answer questions and increase awareness of District activities.
5. Events: The District hosts and attends many different events throughout the year to answer question, increase awareness, and offer training to interested groups.

Also, the District has an advisory committee, which met six times in 2012 at various locations within the District. The advisory committee is a great opportunity for the District to effectively offer educational elements by relying on the members of the committee to take what they are learning and pass it on to others.

The advisory committee operates under MN Statutes 103D.331. This year, the committee adopted as its objective guidelines the charges listed below:

1. Advise and assist the managers on all matters affecting the interests of the CRWD
2. Make recommendations to the managers on all proposed projects and improvements within the CRWD
3. Elect a chair and recorder from its membership
4. Establish a meeting schedule and meet at least annually
5. Consider issues pertinent to the functions and purposes of the CRWD
6. Review and comment on reports, minutes, activities and proposed CRWD projects
7. Report to the managers on the general content of the Advisory Committee meetings and recommendations made
8. Identify water resource issues
9. Assist in establishing program goals
10. Assist the managers in considering issues

11. Serve as a “sounding board” for the managers
12. Communicate between the CRWD and the community
13. Carry out District information and education activities
14. Collect information and data
15. Generate new ideas and approaches
16. Carry out any other delegated responsibilities from the managers

At the July 2th, 2012 Work Session of the Board of Managers, the board moved to endorse these guidelines. Throughout the year, the members of the Advisory Committee held discussions on several topics. Listed below is a sampling of those topics. Advisory Committee meeting minutes are posted on the District’s website at: http://www.crw.org/advisory_committee.html.

- Role of Advisory Committee in the CRWD
- Promotion of District to Citizens
- Strategic Planning
- Input on District Publications
- Input on Current and Potential District Projects
- No-Wake Zones
- Improving Education Program
- Aquatic Invasive Species
- District Cost-Saving Measures

4.7.5 Water Quality Monitoring Program

The Clearwater River Watershed District has been monitoring quality of the District's water since its inception. Water quality monitoring is the backbone of the District's water management plans, programs, and projects. The District monitors to establish trends, set goals, determine targeted implementation of programs and projects, and evaluate their effectiveness. Without the monitoring program, the District would not be able to continue its mission.

As part of the Cedar, Albion, Swartout, Henshaw Project #06-1, the District has established a water quality monitoring program specifically designed for this sub-watershed. This program's goals are similar to the larger monitoring program listed above, but is focused only on Lakes Cedar, Albion, Swartout, Henshaw, and their surrounding watersheds. Results from this monitoring are included with the District’s annual water quality monitoring reports.

For a summary of the District’s 2012 Water Quality Monitoring Program, go to [this page](#). Also, the data from the District's monitoring program are sent to the Minnesota Pollution Control Agency for inclusion in their Environment Database. Check it out at: [MPCA EDA](#).

5.0 Financial Condition for 2012

The CRWD is funded by an ad valorem tax levy based on property values. Certain projects are funded by special assessments, and those funds are only use for the specific project they were levied for. The District budget and corresponding levies and special assessments are approved after public notice and hearing, as dictated by statute. A detailed budget is available for public review at the District office.

The District also conducts an independent audit every year. CRWD audits are available for public review at the District's office during normal business hours, at the Annandale Public Library, and online at:

http://www.crw.org/audit_reports.html.

5.1 Budgeted Expenditures for 2013

NOTICE TO ALL CITIZENS OF THE CLEARWATER RIVER WATERSHED DISTRICT

Notice is hereby given that the Board of Managers will hold a public hearing on the proposed 2013 budget for the Clearwater River Watershed District as follows:

Date: September 12, 2012 Time: 7:00 p.m.

Place: Annandale Middle School, Superintendent's Conference Room, Annandale, Minnesota

All citizens of the Clearwater River Watershed District are invited to attend the public hearing. The board will vote to approve or disapprove the budget at the hearing.

GENERAL FUND	Budgeted Expenses	Budgeted Transfers
General Government total	\$145,500	
Advisory Committee	\$1,000	
Grant Applications	\$7,000	
Filter Strip Program	\$7,750	
Buffer Strip Program	\$2,650	
Education Program	\$6,400	
Other Maintenance – Special Projects	\$1,500	
Plan/Plat Review	\$700	
Web Site	\$1,500	
Transfers to Data Acquisition Fund		\$30,000
Transfers to CCM Riparian Fund		\$5,000
Transfers to Kimball Stormwater PH II		\$50,000
Total General Fund	\$174,000	\$259,000(w/ TSFs)
Other Funds		
Augusta Bog	\$100	
Clearwater/Grass Bog Control	\$2,020	
Pleasant Lake Outlet	\$450	
Data Acquisition Fund ⁺	\$36,450	
School Section Lake Outlet	\$2,020	
1980 Project Maint. Fund	\$31,130	
Transfer to Kingston Wetland Fund		\$67,000
Transfer to Fertilizer Field Trial Fund		\$88,200
Cedar #06-1 Maintenance	\$30,200	
Cedar Lake AIS Project	\$16,100	
Louisa & Marie AIS Project	\$14,600	
CCM Riparian ⁺	\$5,000	
Clearwater Lake Milfoil	\$37,100	
Lake Augusta Milfoil	\$3,555	
Kimball Stormwater PH II ⁺ *	\$328,350	
Kingston Wetland Restoration ⁺ *	\$148,110	
Fertilizer Field Trial ⁺ *	\$148,300	

Hidden River Maintenance	\$20,100	
Rest A While Maintenance	\$5,800	
Clearwater Harbor Maintenance	\$41,700	
Wandering Ponds Maintenance	\$5,250	
Total Other Funds	\$878,335	\$1,031,535(w/ TSFs)
Total All Funds	\$1,052,335	\$1,290,535(w/TSFs)

+ denotes a fund that received a transfer from another fund

* denotes a project receiving grant funding: \$295,500 for Kimball Stormwater PH II, \$86,860 for Kingston Wetland and \$60,000 for Fertilizer Field Trial

By order of the Board of Managers, Clearwater River Watershed District.