

# Clearwater River Watershed District

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25 Years of  
Partnering with  
You  
to  
Protect and Preserve  
Our  
Water Resources

Clearwater River Watershed District

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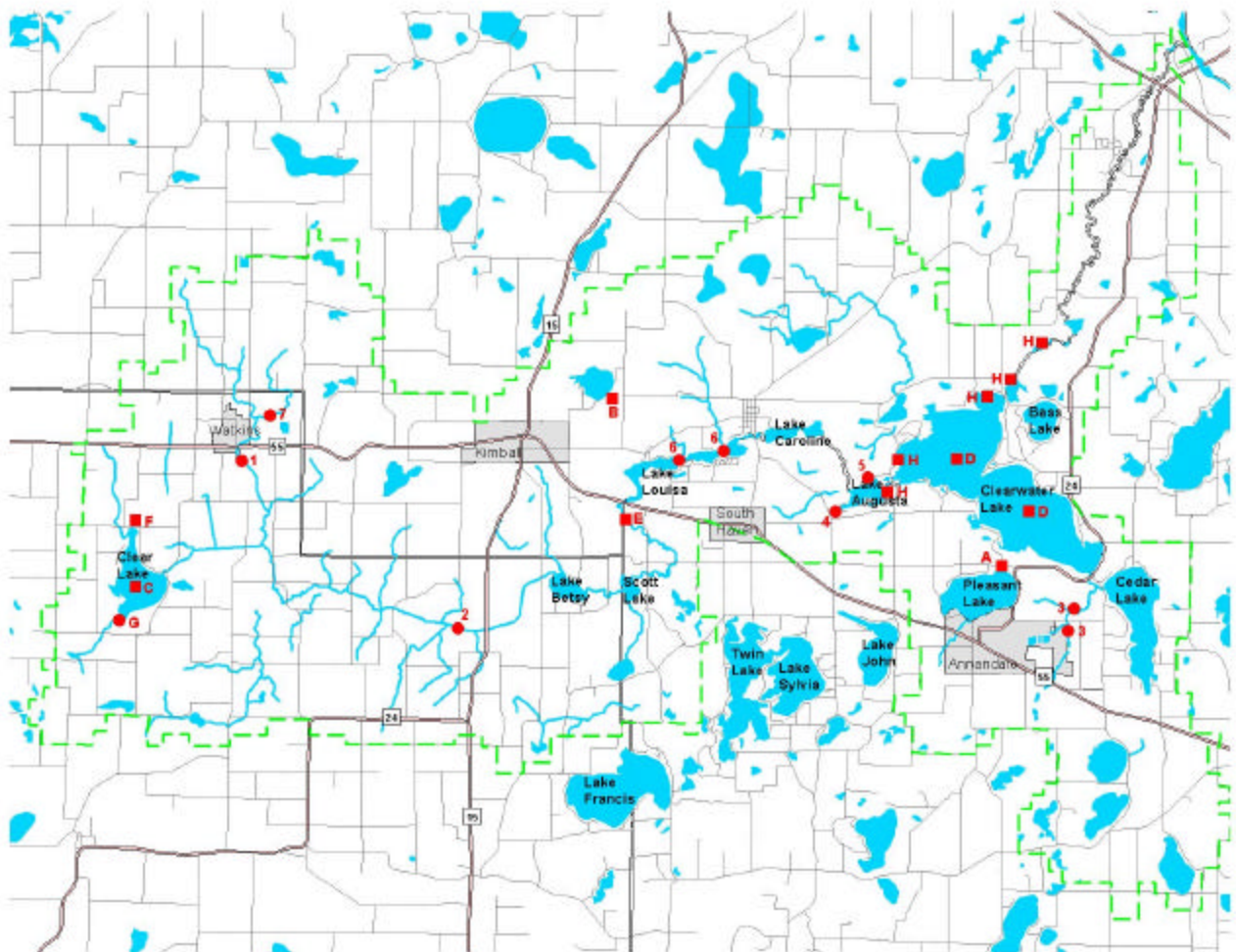
Web Site Address: <http://www.crawd.org>

Electronic-mail: [admin@crawd.org](mailto:admin@crawd.org)

CRWD

# CRWD Location & Boundary

Since its inception in 1975, the Clearwater River Watershed District (CRWD) has worked to protect our lakes and streams and in turn, our economic mainstays, farming and tourism. By completing projects to systematically reduce nutrient and sediment input to the lakes and streams within the CRWD, we have improved the water quality within our lakes. The figure below shows the CRWD boundary and the location of projects completed.



## CRWD HISTORY

- 1975, Clearwater River Watershed District Formed
- 1980-1993, Clearwater River Chain of Lakes Restoration Project
- 1980-1985 Annandale, Watkins, and Kimball Begin On-Land Treatment of Sanitary Sewer Waste
- 1994-Present Clearwater River Lake Restoration Project Operation and Maintenance
- 2000-Present Master Sewer Project Planning

CRWD

CRWD completed the following projects in response to community needs and citizen input.

Project Locations are shown in the Map on Page 2:

- A Pleasant Lake Outlet
  - B School Section Lake Outlet
  - C Clear Lake Project
  - D Eurasian Water Milfoil Control Project
  - E Rough Fish Removal Structure
  - F Clear Lake Wetland Outlet Control Structure
  - G Clear Lake Sedimentation Basin
  - H Bog Control occurred at various locations.
  - I Hidden River Sewer and Wastewater Treatment
- Clearwater River Chain of Lakes Restoration Project:
    - 1 Co. Ditch 20
    - 2 Kingston
    - 3 Annandale
    - 4 Lake Augusta Erosion Control
    - 5 Lake Augusta Hypolimnetic Aeration
    - 6 Upper Lakes Aeration & Fish Removal
    - 7 Upper Watkins Wetland Isolation
  - Non- point source pollution abatement occurred at various locations not shown on this map.

### Bog Removal, Grass Lake



## CRWD: Responsive to the Needs of Our Community

The CRWD has worked with state and local officials and residents to reduce or eliminate the sources of nutrients like phosphorus and nitrogen from urban runoff, private septic systems, farmland, and industry. Below is a list of projects completed. Their locations are shown on the map on Page 2.

### Rough Fish Trap



### Clear Lake Wetland Outlet Structure



CRWD

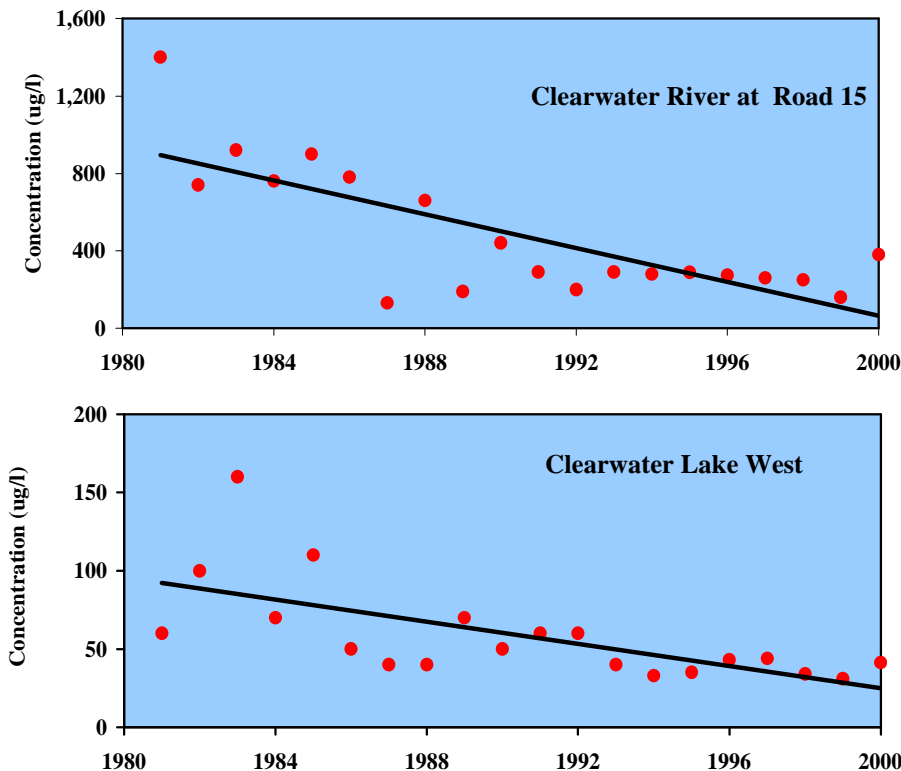


✓ To monitor the effectiveness of CRWD projects, surface water samples are collected throughout the watershed. Results are published annually, and are available at:

[www.CRWD.org](http://www.CRWD.org)

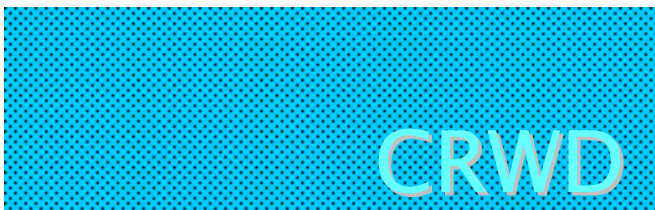


**Monitoring shows a reduction in total phosphorus concentrations in the lakes and streams of the watershed:**



### Citizens Track Water Quality!

Secchi depth, a measure of water clarity, generally correlates with phosphorus concentrations. Thanks to citizens who measure secchi depth at 15 locations throughout the watershed district, the CRWD is able to track water clarity.



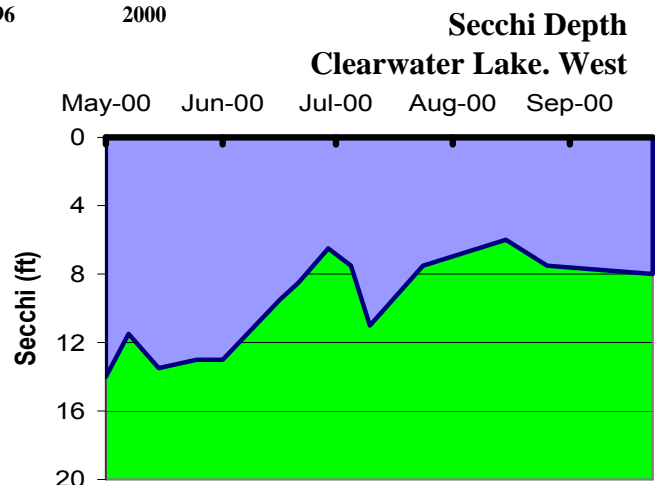
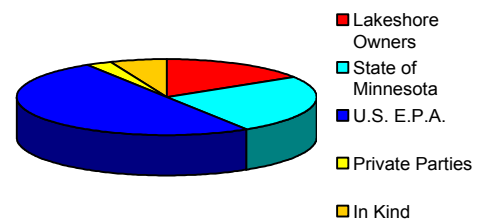
# Results of Clearwater Lake Restoration Project

**Q: Why is it important to reduce phosphorus in our lakes and streams?**

**A: To keep our lakes and our economy healthy!**

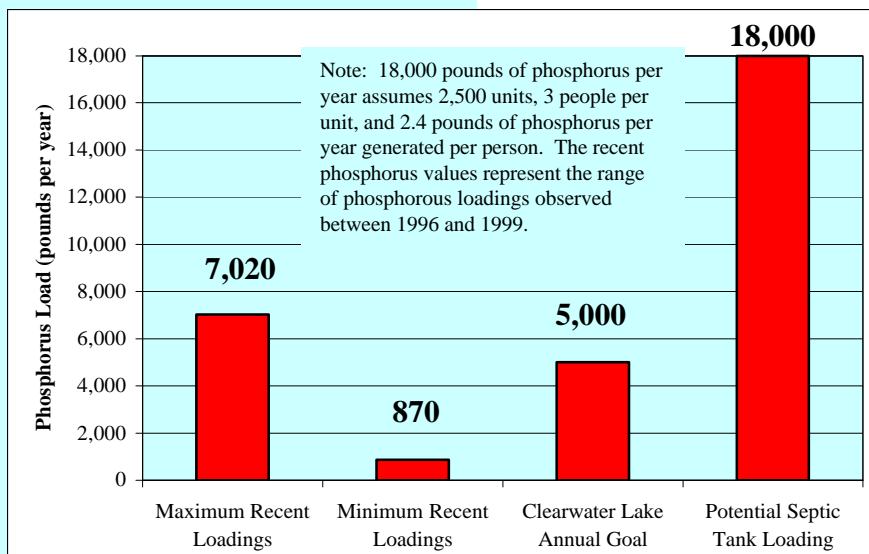
Total phosphorus measurements show the maximum potential for algae growth and can be used to classify the status of water bodies. Through watershed projects aimed at reduction of total phosphorus sources near area lakes and streams, concentrations have steadily decreased since 1981.

**Final Budget: \$4,400,000**



Despite the strides we have made in reducing phosphorus sources, there remains the potential for additional contamination through private septic systems.

The graph below shows the potential phosphorus loads to surface water from septic tanks. Stearns and Wright Counties have recognized this threat and now require approved septic systems in any property sold or remodeled.



### SOLUTION:

Eliminate septic sources of phosphorus through installation of a sanitary sewer. The Clearwater River Chain of Lakes Master Sanitary Sewer Plan evaluated alternatives for sanitary sewer installation. The report conceptualizes a framework in which to provide sanitary sewer service to the lake areas within the watershed district boundaries.

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# Master Sanitary Sewer Plan: A Plan for Our Future

## Why do we Need a Sanitary Sewer?

- Installation of a sanitary sewer will reduce existing nutrient sources by replacing failing private septic systems and providing sanitary sewers for those whose waste currently enters the lake untreated, a major source of harmful nutrients to our lakes and streams.
- It will allow our communities to develop without further degradation of our water resources.
- Through municipal projects, costs can be defrayed over a period of several years instead of forcing homeowners to shoulder the entire cost of installing new septic systems at once should they need to sell or remodel.

## Project Sequence:

- Identify Need✓
- Determine Potential Funding ✓
- Develop Alternatives ✓
- Select Plan
- Apply for Funding
- Assess Environmental Issues
- Develop Design
- Advertise Project
- Construct Improvements
- Initiate Operations
- Maintain Facilities

(✓ indicates in progress)

The Master Sanitary Sewer Plan lays out the following alternatives:

**OPTION 1: Install Cluster Wastewater Treatment Systems.** Each home would maintain a septic tank on site and an area of land near the service area would provide additional treatment.

**Challenges:** Some areas may remained un-sewered.

**Advantages:** This system can be installed in stages, and provides future flexibility for integration with other types of systems.

**OPTION 2: Sewer System with Connection to Existing or Planned Municipal Wastewater Systems in Annandale, Kimball, and South Haven.**

**Challenges:** This option requires that all areas reach an agreement with the cities, it also means limited capacity for future development.

**Advantages:** This alternative can be installed in stages.

**OPTION 3: Sewer System and Build a Regional Stand Alone Wastewater Treatment System**

**Challenges:** System construction would need to happen at once. No staging of installation would be allowed.

**Advantages:** Treatment capacity could easily be expanded

**OPTION 4: Sewer System with Connection to Existing Municipal Wastewater Treatment System in St. Cloud.**

**Challenges:** This option requires that all areas reach an agreement with St. Cloud. The cost of pumping the wastewater to St. Cloud is high.

**Advantages:** Could provide future capacity

# Master Sanitary Sewer Plan: Options

## Compare the options...

Provision of sanitary sewer is a large undertaking. The planning process is long and involved. Input from several sources is necessary:

## Who attends planning meetings and provides input for the system?

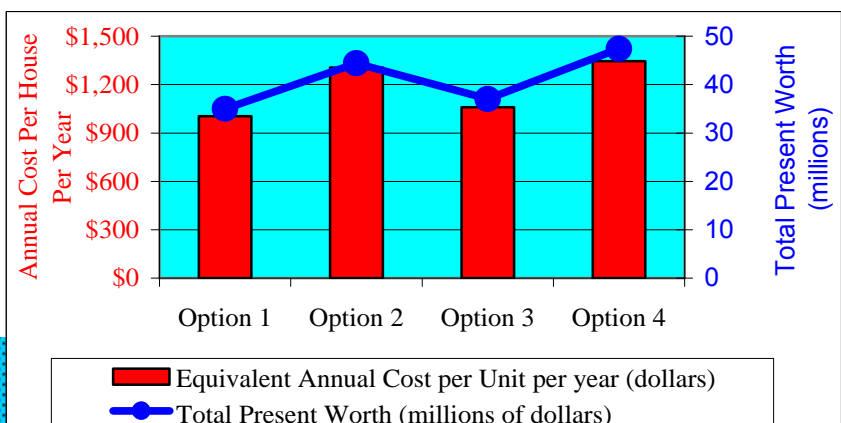
- Townships
- Cities
- Counties
- Lake Associations
- Citizens

For more information, or to provide input about this or any other CRWD project please contact the District office at:

1.320.274.3935

or e-mail us at: [admin@CRWD.org](mailto:admin@CRWD.org)

## Cost Comparison



CRWD

**A cluster wastewater treatment system as described in Option 1 works for the Hidden River Community Development:**

**Installation of the  
sanitary sewer  
collection system**

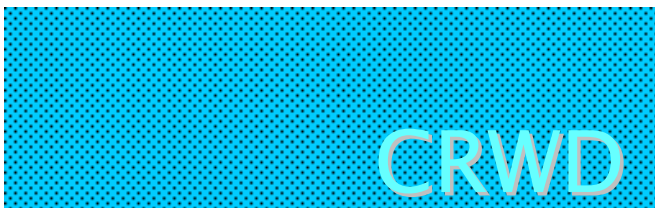


**Installation of the  
wastewater re-  
circulating sand filter**



### **Water Quality Improvements Begin with You!**

Our water resources are vitally important to our health, to our economies, and to our senses. You can help maintain and improve the quality of our lakes, streams, and groundwater.



## **An Example of Sanitary Sewer Success: Hidden River**

## **What Can You Can Do?**

Get involved with the Master Sanitary Sewer Planning Process:

- Attend CRWD Board meetings. Meetings are held the second Wednesday of each month at 7pm at the Middle School in Annandale.
- Contact your local city, township, or county officials.
- Call the District, or
- Send us a letter.
- Check out our web site at [www.crwd.org](http://www.crwd.org)

Let us know what you think!



The CRWD Board of Managers



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**Vice Chairperson**  
Stearns County  
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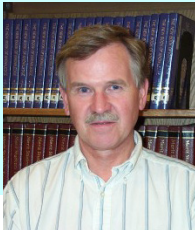


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CRWD District Staff



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Meet your  
CRWD Board  
Members  
& Staff

A five-member Board of managers governs the CRWD. The Managers serve three-year staggered terms. The Wright County Board of Commissioners appoints two managers, the Stearns County Board appoints two, and the Meeker County Board appoints one member. The powers and duties of watershed districts and their Boards are set forth in Minnesota Statute 103D.

Clearwater River Watershed District

Mailing Address:

Box 481  
Annandale, Minnesota 55302  
320.274.3935

Web Site Address: <http://www.crwd.org>  
Electronic-mail: [admin@crwd.org](mailto:admin@crwd.org)

CRWD Board Meetings

Regular meetings of the CRWD Board of Managers are held on the second Wednesday of each month at 7:00 p.m. at the Middle School in Annandale, Minnesota. The meetings are open to the public. Meeting notices and minutes are published in the Annandale, Kimball, and Watkins weekly newspapers and on-line at [www.crwd.org](http://www.crwd.org).