Mission:

Restore, preserve, protect and enhance the water resources of the Chisago Lakes Chain of Lakes Watershed.
1976 first and largest LID in Minnesota – high water and flooding
- Re-established 1984 & 2015
- Center City, Chisago City, Lindstrom, 4 townships
- 19 lakes, 7,000 acres
- 14,1000 residents
- 7 member Board
- Advisory to County Board
- Ad Valorem tax
- MN Statutes 103B.501-103B.581
Authorities MN Statute 103B.551

- Dams, water levels
- Water control structures
- Acquire property
- Contracts
- Research
- Comprehensive plan
- Water improvement projects
- Sewers
- Receive funding
- Cooperative agreements
- Public beaches & docks
- Water surface use
Programs & Projects

- Land use practices
- Ditch and weir system
- Water quality
- Environmental education
- Non-native aquatic invasive species
- Native shoreline
- Navigation channels
- Recreational use
Lake Classification Chart

Oligotrophic   Mesotrophic   Eutrophic   Hypereutrophic   Chlorophyll-a   Total Phosphorus   Secchi Disk

Trophic State Index

Lake Names: Mattson, Spider-West, Fish, Spider-East, School, Bloom, Little Green, Goose-South, Swamp, South Lindstrom, Chisago-North, Horseshoe, Chisago-South, South Center, Goose-North, North Center-North, North Center-South, Little, Little Green, Goose-South, Chisago-North, Horseshoe, Chisago-South, South Center, Goose-North, North Center-North, North Center-South, Little, Rush-West, Rush-East, Mandall, Ogrens, Rabour, Pioneer, Wallmark, Linn, Emily.
LID Impaired Lakes
Trophic State Index Trend
Channel & Weir Maintenance

- Updated Operation & Maintenance Plan
  - Infrastructure, maintenance and operating rules
- Seasonal Inspections
- System well maintained and functioning properly
Lake Level Monitoring

- 15 lake gauges monitored weekly during open water season
Lake Level Monitoring

2017 Little Green/Green/Ellen Lake Levels

OHW 892.5 Feet

Trend Line
Groundwater Observation Wells

- Established in 2015 at South Center public water access
- Assess groundwater resources
- Determine long term trends
- Interpret impacts of pumping and climate
- Plan for water conservation
- Evaluate water conflicts

Schematic cross-section of aquifers in the Chisago Chain of Lakes area

Hydrograph

Quick range:  
Displayed Range: 2017-1-1 to 2018-1-1

Graph showing water level over time from July 2015 to January 2018.
Stormwater
Best Management Practices

- City of Lindström
  - Enhanced Street Sweeping
Stormwater Best Management Practices

- David Thompson
- Water & Sediment Control Basin/Lined Waterway
Stormwater Best Management Practices

- Maple Street
- Gully Stabilization
Handicap Accessible Fishing Pier

- Little Green public water access
  - Reconstructed in 2014
- Near multiple assisted living facilities
Parks Adjacent to Lakes

- Ki-Chi-Saga Park
- Allmansrätt Park
North Center/North Lindstrom Channel

- 2018 County Road 20 bridge construction
- Channel maintenance & widening may be considered
Stormwater
Best Management Practices

- Cost Share Program
  - Shoreline Stabilization
  - Rain Garden
  - Hillside Erosion Control
Children’s Water Festival

15 Years Strong ~ Thank You for Your Efforts!
Public Outreach and Awareness

- Partnership with Lake Associations
- Community Events:
  - Chisago Lakes Home & Business Expo
  - Harmony in the Park Water Festival
  - Karl Oskar Days
  - Ki-Chi-Saga Days
- Community Presentations:
  - Chisago- Lindstrom Lakes Association
  - Chisago Lakes Rotary Club
Aquatic Plant Point-Interceptor Surveys

- Methodology
  - Frequency of occurrence
  - Track trends over time
  - Compare areas within lakes
- Florisitic Quality Index

- Six lakes Surveyed
  - Fish, Horseshoe, Kroon (DNR), Little, North Center, Spider
Aquatic Invasive Species Treatment

- Eurasian Water Milfoil
- Curly-leaf Pondweed
- Improve Navigation
- Lakes Treated
  - Chisago, Green, Kroon, Little Green, North Center, South Center, South Lindstrom
Aquatic Invasive Species Prevention

- Watercraft Inspections
- Chisago & Northern Washington Counties
- 24 Accesses
Aquatic Invasive Species Prevention

- Watercraft Inspections
  - Map of AIS in Previous Lake or River
  - Spiny Waterflea, Starry Stonewort, Zebra Mussels
Zebra Mussel Prevention, Early Detection, Rapid Response

- Inspection and prevention most important
Zebra Mussel Veliger Monitoring

- Microscopic, free living larvae
- Form shells
- Lakes & rivers monitored
  - Comfort, Fish, Kroon, Little, North Center, North Goose, South Lindstrom, Sunrise Kost Dam, St. Croix Interstate Park
Carp Management

- Aquatic Invasive Species
- Primary breeding areas include
  - Lake Ellen
  - Linn Lake
  - North Center/North Lindstrom channel
- Carp Festival
  - Collected age, length and weight
Thank you

Copies of reports are available at:

http://www.chisagocounty.us/364/Annual-Reports

We look forward to 2019!