



Crystal Lake Storm Water Update

City of Crystal Lake
Public Works and Engineering

What is the Crystal Lake Watershed?



What is the Crystal Lake Watershed

- The land that drains into Crystal Lake is called the Crystal Lake Watershed.
- It covers about 2,300 acres, mostly north of the lake.
- Crystal Lake is unique because it is not fed by a spring, stream, or river.
- The City has special watershed regulations to protect the lake's water quality and water levels.
- Because of this, the lake is sensitive to changes in stormwater quality and volume.



How Do We Keep the Lake Clean?

- Keeping the lakes clean is the responsibility of not one person but everyone!
- Crystal Lake is fed by groundwater so what you put on your lawn can affect the lake.
- What you put in the storm drains in front of your house ends up in creeks, lakes or detention basins.
- It is all interrelated and we all need to do our part to keep the water clean.

Homeowner Actions

- Pick-up dog waste
- Keep your storm drains clear of leaves and debris
- Don't run water without a purpose (for example turn off water while brushing your teeth)
- Keep your car tuned so it doesn't drip oil
- Don't empty a pool with chlorine into a ditch or storm drain. De-chlorinate pool water before draining (check local pool vendor for options)

Homeowner Actions

- Keep your storm drains clear of leaves and debris
- Store bags of leaves and debris on the lawn rather than street to keep nutrients from getting into the storm sewer
- Avoid using chemical pesticides
- Use only phosphorus-free fertilizers
- Create a rain garden or use native plants
 - Google “How to Build a Rain Garden on a Residential Lot”



Homeowner Actions

Properly dispose of toxic chemicals (household cleaning products, automotive fluids, batteries, pesticides, paint supplies, flammable products) DO NOT DUMP IN STORM DRAINS

- Local check out www.mchenry.edu/greenguide
- Illinois EPA-approved waste drop off locations:

- Rockford: Rock River Reclamation District, 3333 Kishwaukee, Rockford, IL Phone: (815) 987-5570
- Naperville: Household Hazardous Waste Drop-Off 156 Fort Hill Drive, Naperville, IL Phone: (630) 420-6095
- Gurnee: The Solid Waste Agency of Lake County (SWALCO), 1311 N. Estes Street, Gurnee, IL Phone: (847) 336-9340
- City of Chicago: Household Chemicals and Computer Recycling Facility, 1150 North Branch on Goose Island Phone: 311 or for general information: (312) 744-7672

Crystal Lake Actions

1. Street Sweeping & Storm Sewer Cleaning
2. Sensible Salting
3. GIS Inventory
4. Policies and Procedures to identify, trace and eliminate illicit discharges into the storm sewer system
5. Ordinance Requirements
6. Sampling of influent and effluent flow to various waterbodies as part of ongoing monitoring and assessment program
7. Inspections of existing facilities and projects under construction

Crystal Lake Actions

8. Newsletter Articles

9. Rain Garden and Bioswales

- a) City Hall Rain Garden
- b) Three Oaks Recreation Area Bioswales
- c) Stormwater Basins on North Shore
- d) Pine/Oriole Trail Native Area
- e) Rain Garden Along Edgewater Drive
- f) Rain Garden Along Fair Oaks Avenue

10. Re-establishment of Crystal Creek (NEW)

Rain Garden Maintenance

North Shore Rain Gardens

Constructed in 2019 to filter water before it reaches the lake

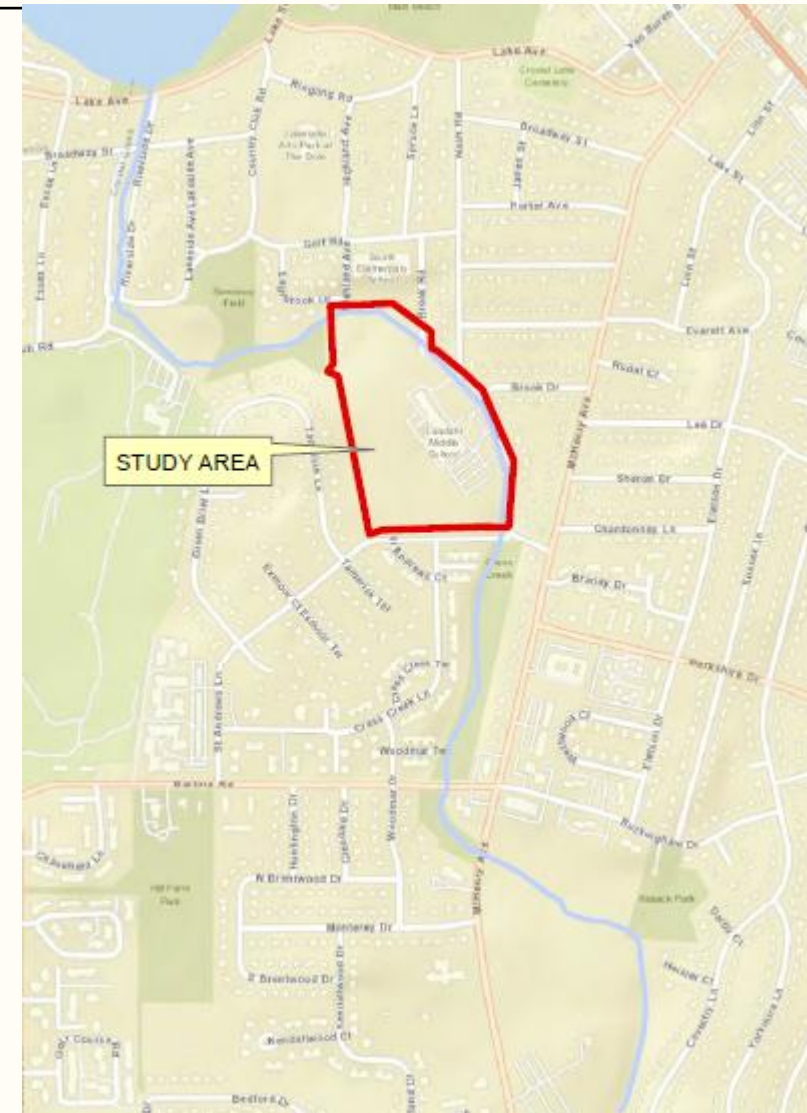


Takes 3-5 years to establish a rain garden

City hired a maintenance and monitoring consultant

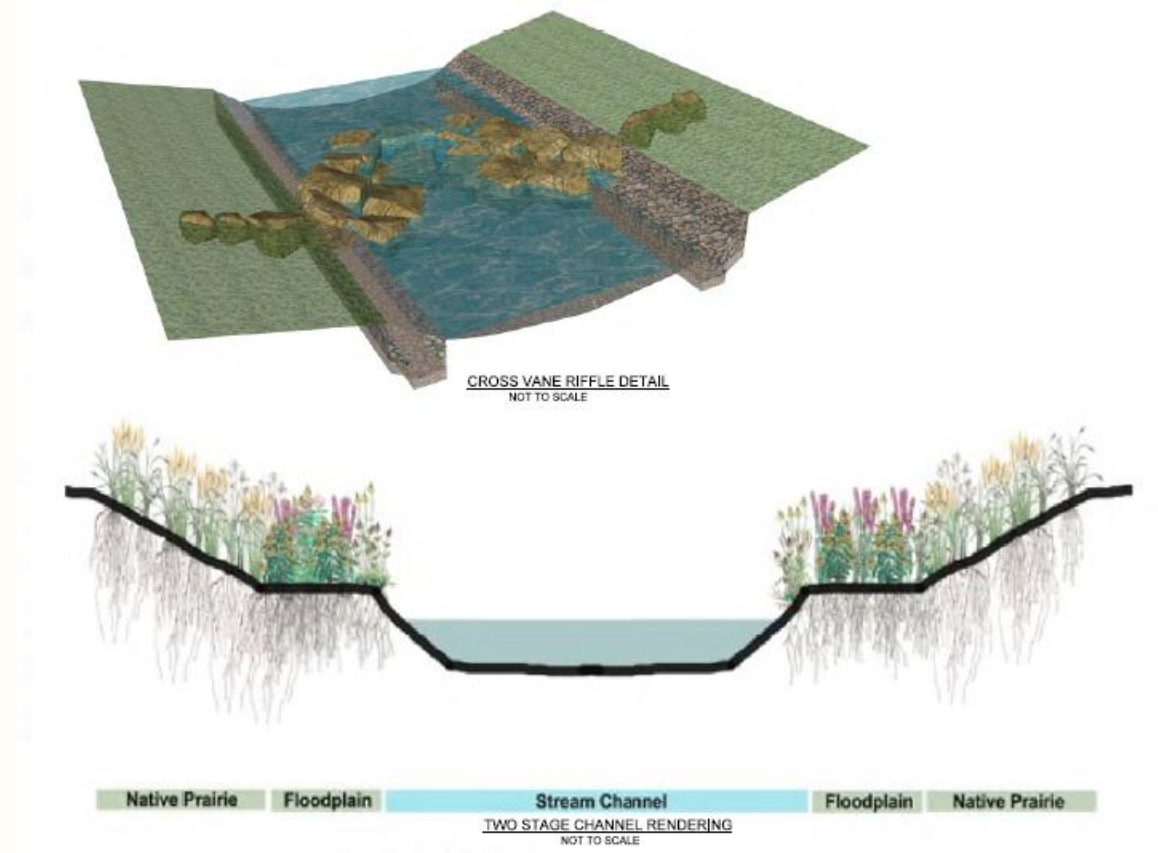
Re-Establish Crystal Creek

- Portion of Crystal Creek was buried into storm sewer (1950's)
- Causes a pinch point and flooding upstream
- Re-establish where the old creek was to match upstream and downstream



Re-Establish Crystal Creek

- Detailed Coordination with the school district
- Removes the old pipes and puts the creek back
- Reduces flooding on school property while restoring ecology of the creek



Re-Establish of Crystal Creek

- Construction
 - May 2026 to August 2026
 - Upsized culverts at St. Andrews and Highland Avenues
 - Water main, sanitary relocations
 - May 2027 to August 2027
 - Driveway culverts
 - Grading of creek and native plantings
- Grant Funding Totaling \$2,061,644.00
 - USEPA, IEPA, FEMA



Re-Establish Crystal Creek



11/30/22

QUESTIONS?

