



# Crystal Lake Stormwater Update

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City of Crystal Lake  
Public Works and Engineering

# How Do We Keep the Lake Clean?

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**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.**

# Crystal Lake Actions

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- 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**

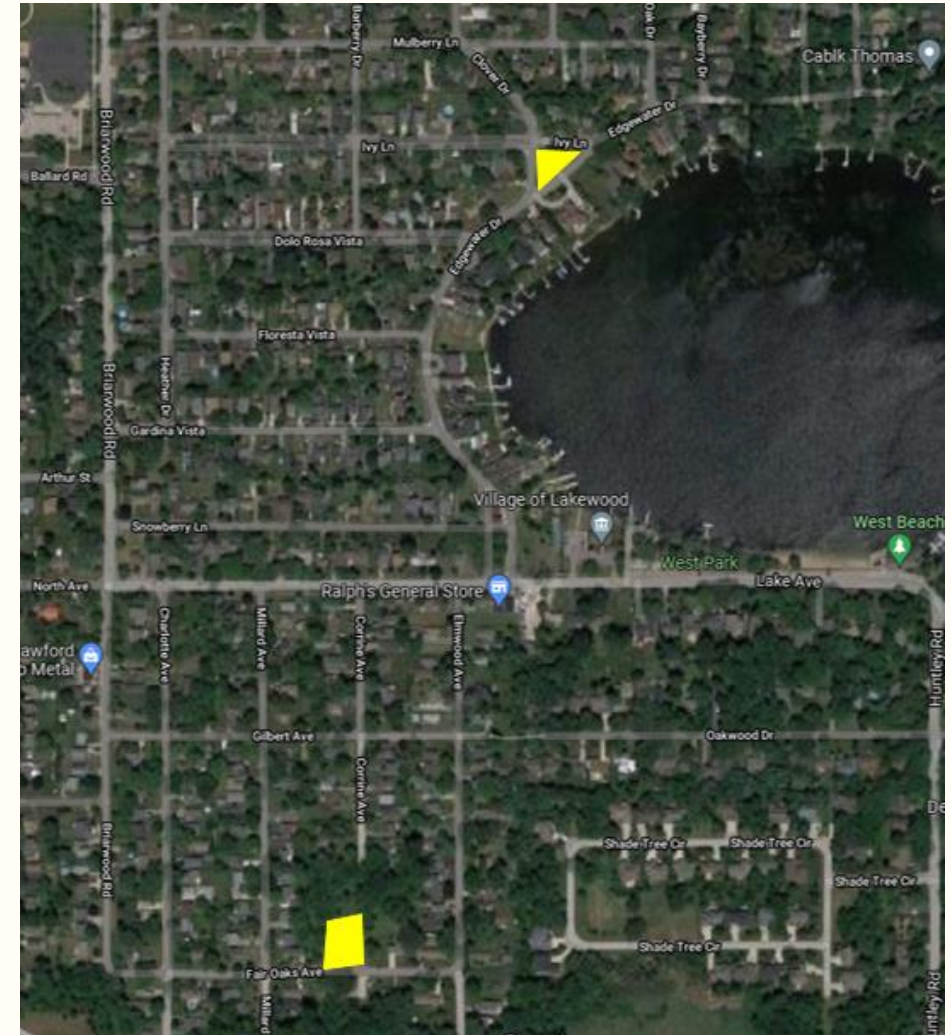
# Crystal Lake Actions

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## 8. Newsletter Articles

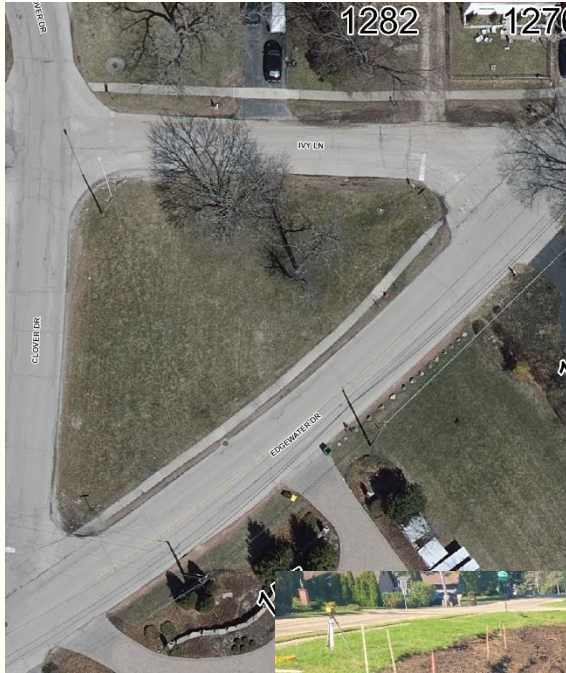
## 9. Rain Garden and Bioswales

- 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 (NEW)
- f) Rain Garden Along Fair Oaks Avenue (NEW)



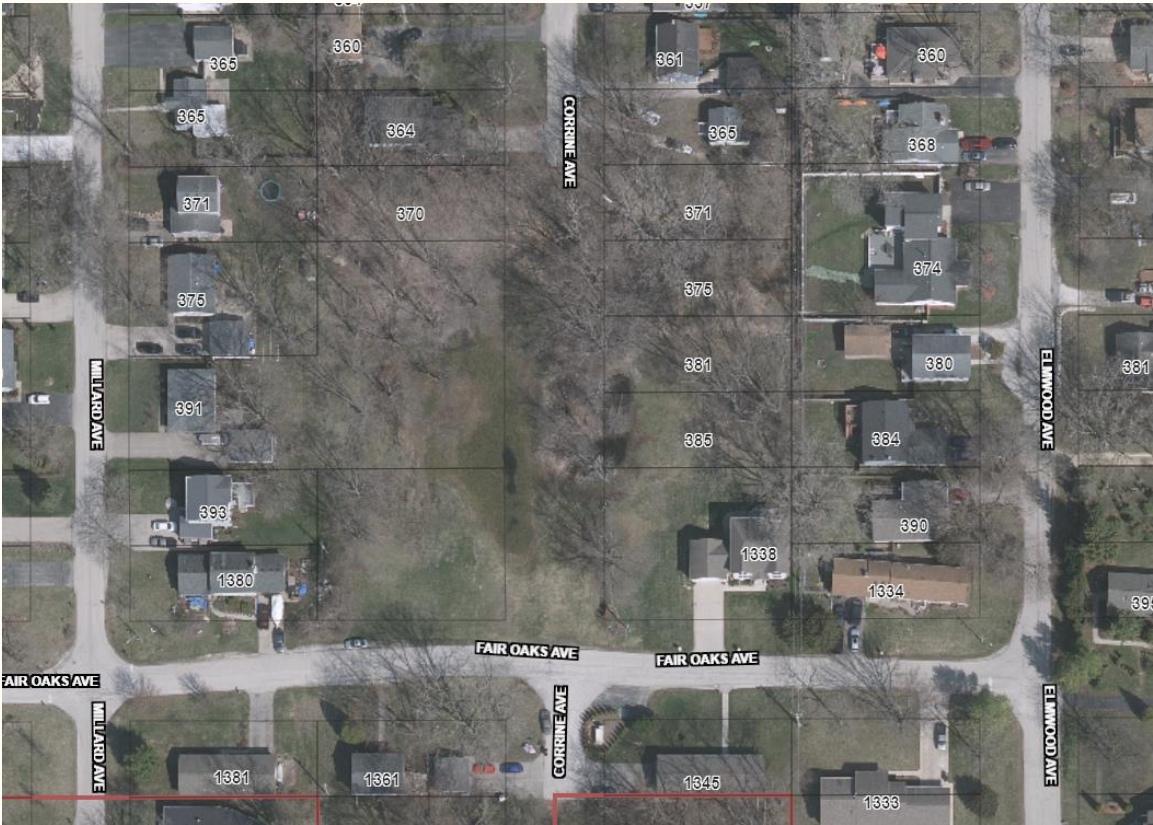
# NEW Rain Gardens – Edgewater Drive

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# NEW Rain Gardens – Fair Oaks Drive

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# Rain Garden Maintenance

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## 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

# Pine Street/Oriole Trail Study Area

- *Problem*: Repetitive garage, basement and significant rear yard flooding (several feet)



- Repetitive flooding of multiple homes





# Pine Street/Oriole Trail Study Area

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- **Voluntary** acquisition (no condemnation)
- City worked **cooperatively** with property owners to meeting their needs for closing dates.



# Pine Street/Oriole Trail Photos

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December 21, 2021

December 29, 2021



# Pine Street/Oriole Trail Photos

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January 13, 2022

September 14, 2022



# Pine Street/Oriole Trail Items to Note

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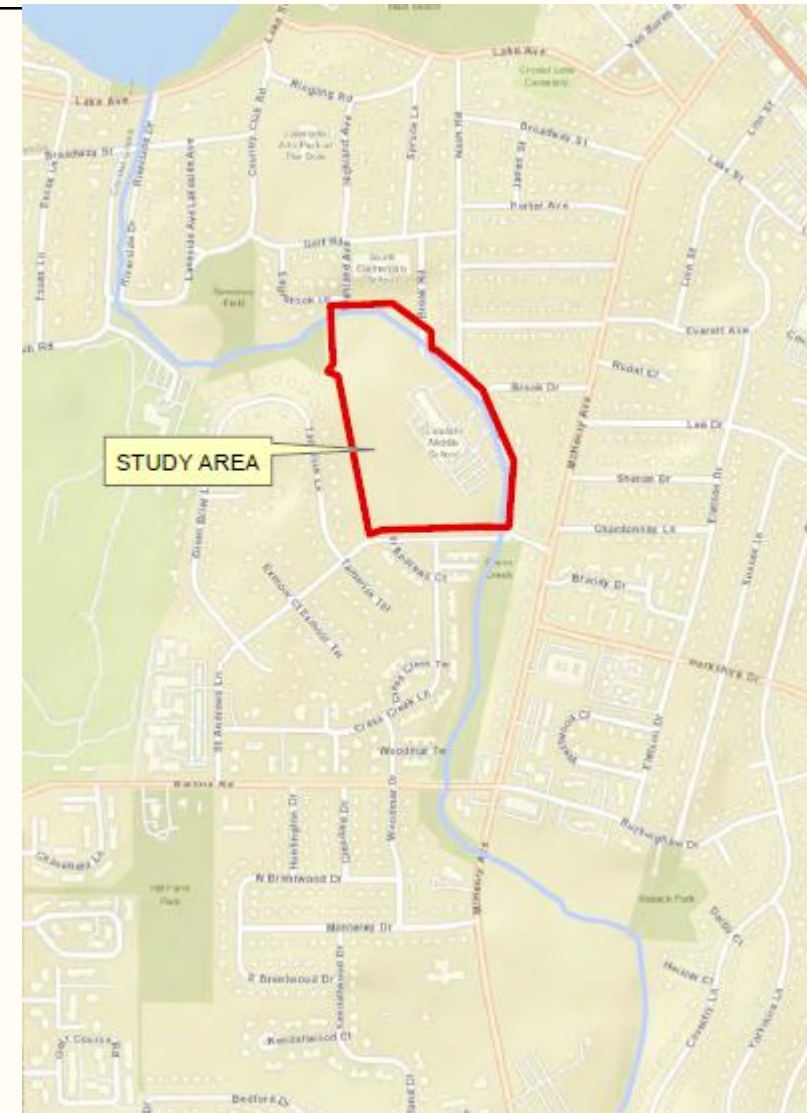
- Area will flood during large storm events
- Native plantings will be managed by ecological contractor for 3-5 years



November 14, 2022

# Future Project- Re-Establish Crystal Creek

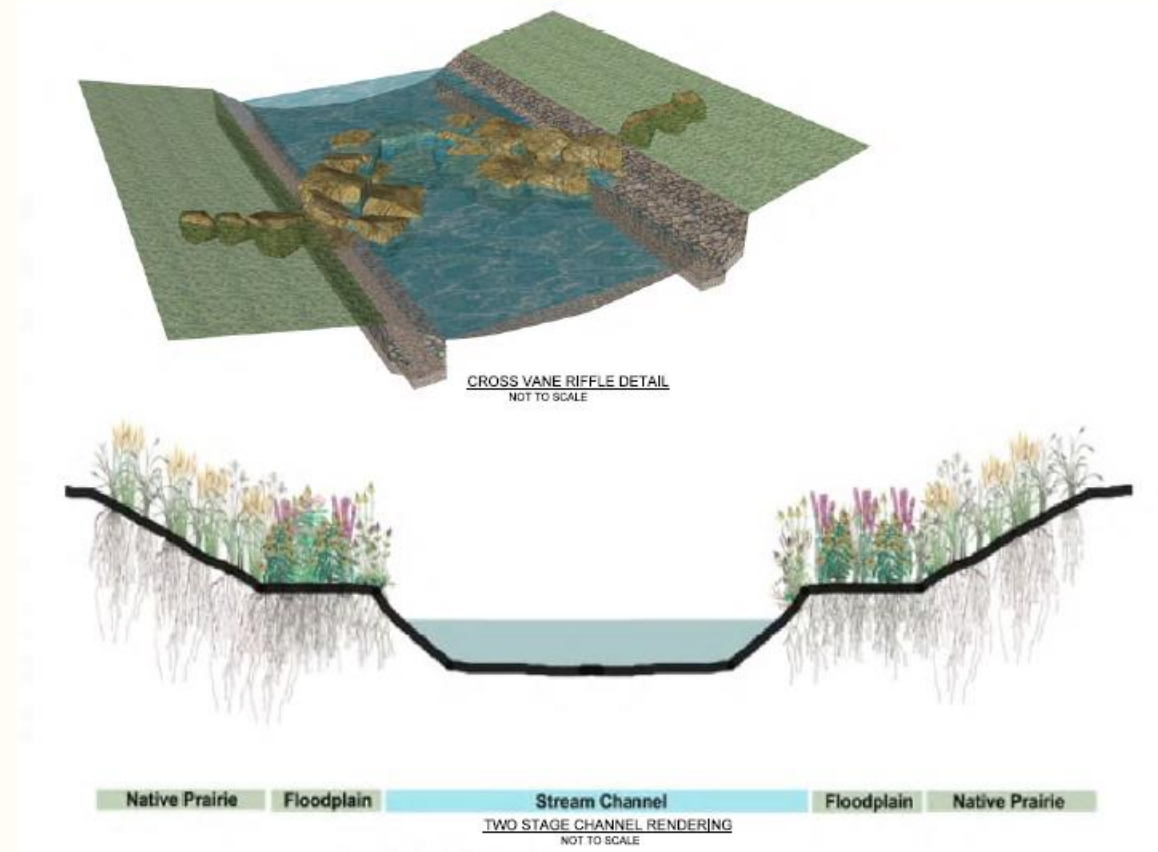
- Portion of Crystal Creek was buried into storm sewer (1950's?)
- Causes a pinch point and flooding upstream
- Re-establish where the old creek was to match upstream and downstream



# Re-Establish Crystal Creek

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- Detailed Coordination with the school district
- Applying for grant funding through IEPA 319 funding and FEMA BRIC (Building Resilient Infrastructure and Communities)
- Construction anticipated for 2024/2025



# Homeowner Actions

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- **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

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- **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

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**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](http://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

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**QUESTIONS?**

