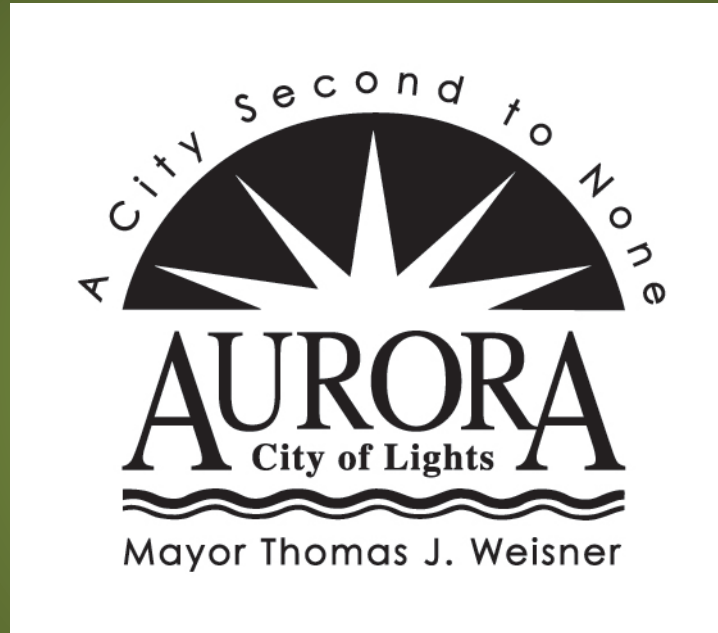


# CITY OF AURORA



## Storm Water Management Program



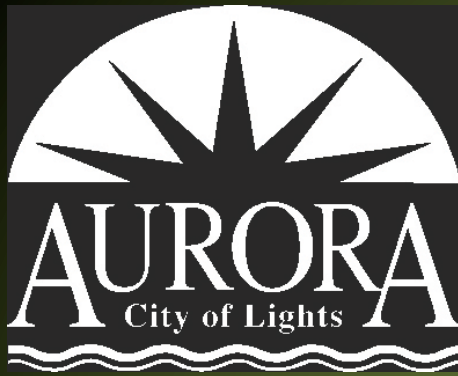
# Aurora, Illinois

*2nd most populous city in Illinois*

**POPULATION: 200,000**

- Approx. 46 square miles in 4 counties (Kane, DuPage, Kendall, Will)
- Aurora's sewage is treated by the Fox Metro Water Reclamation District
- About 11 square miles are served by Combined Sewers





# City of Aurora's Stormwater Program

- Floodplain Management
- New Development/Redevelopment
- MS4 Program
- CSO Long Term Control Plan
- Funding





# Kane County Stormwater Ordinance

- Modified and Adopted by Aurora in 2001
- Peak Flow Attenuation— 1% Annual Chance Storm
- Construction Site Runoff Control
- Post Development Stormwater Runoff Standards
- BMP Technical Manual
- Protection of Special Management Areas
  - Floodplain/Floodway
  - Wetlands



# My House Can't Flood – It's Not in a Floodplain

City of Aurora, Illinois

CITY OF AURORA, ILLINOIS  
RESOLUTION NO. 23-47  
DATE OF PASSAGE MARCH 10, 1998

A RESOLUTION ADOPTING THE CONSOER, TOWNSEND,  
ENVIRONDDYNE, ENGINEERS, INC. STUDY OF THE CHAIN  
OF LAKES WATERSHED, DEFINING THE ONE HUNDRED YEAR  
SPECIAL FLOOD HAZARD AREA

WHEREAS, the City of Aurora has a population of more than 25,000 persons and is, therefore, a home rule unit under subsection (a) of Section 6 of Article VII of the Illinois Constitution of 1970; and

WHEREAS, subject to said Section, a home rule unit may exercise any power and perform any function pertaining to its government and affairs for the protection of the public health, safety, morals and welfare; and

WHEREAS, the current Flood Insurance Rate Maps do not include the Chain of Lakes watershed; and

WHEREAS, repeated flooding has occurred in the Chain of Lakes watershed; and

WHEREAS, accurate mapping is needed, to regulate development within the watershed; and

WHEREAS, the Consoer, Townsend, Environddyne, Engineers, Inc. (CTE) study has been reviewed and deemed reasonable by the City of Aurora;

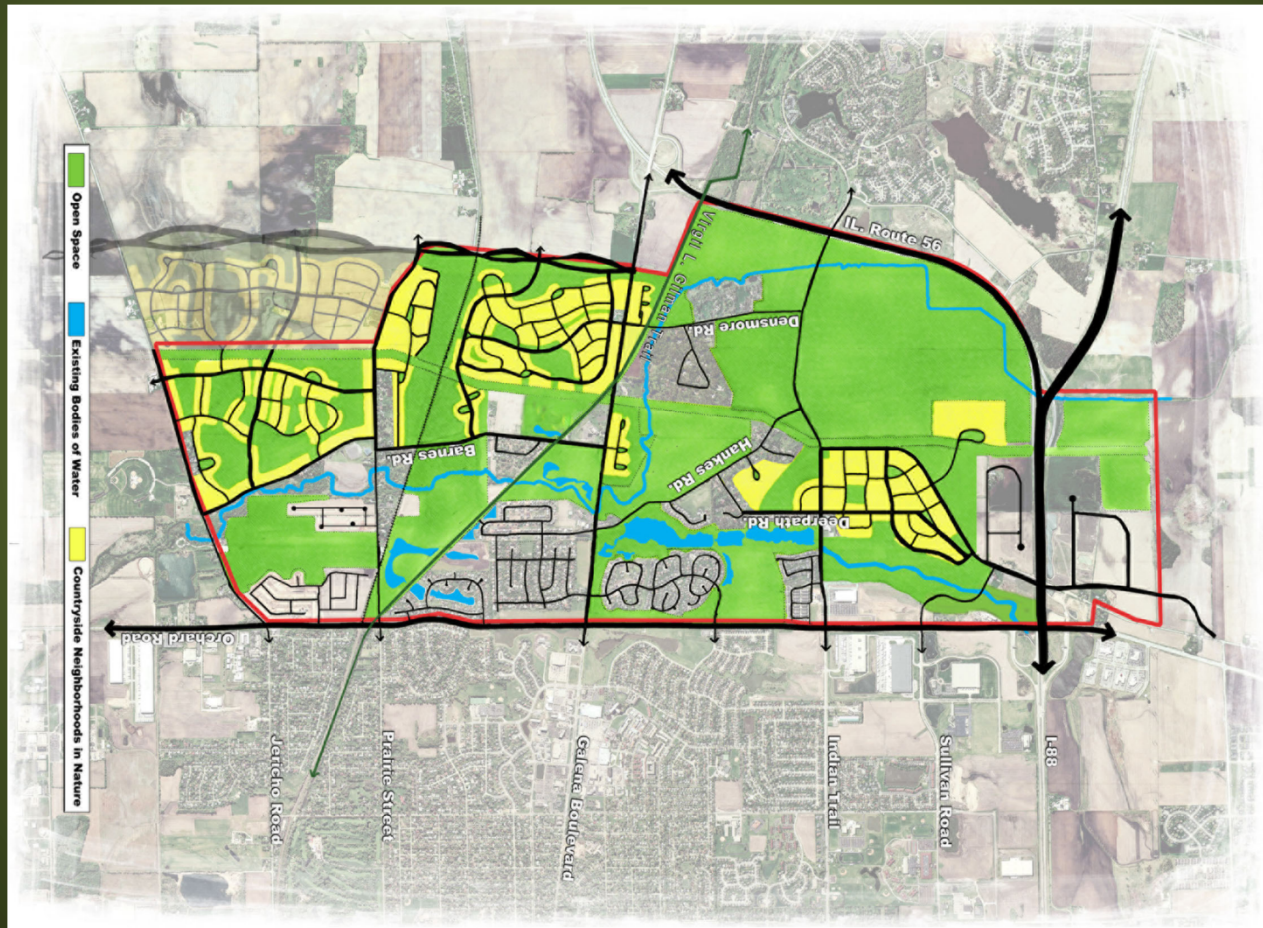
NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Aurora, Illinois, that the Consoer, Townsend, Environddyne, Engineers, Inc. Chain of Lake Study shall be adopted and used as the best available data until FEMA or the State of Illinois supersedes the study. All City ordinances governing building and land uses in the floodplain on the Flood Insurance Rate Maps shall apply to the floodplain mapped in the CTE Chain of Lakes Study.

# Countryside Vision Plan





# Countryside Vision Plan





# Countryside Vision Plan Code Modifications

1. Lot Size: Perception vs. Reality
2. Clustering
3. 24' Roadway Width
4. 12" Concrete Ribbon Strip "Curbs"
5. Decorative Street Lighting and Spacing
6. Eliminate/Minimize Storm Sewers
7. Reducing Minimum Grading from 2% to 1%
8. Creation of 'Open Space Setbacks'
9. Better Viewsheds Through Varying Setbacks
10. Reduction of Sidewalks in Favor of Trails
11. Inclusion of Natural Plantings in Landscape Standards

# Countryside Vision Plan





# Countryside Vision Plan

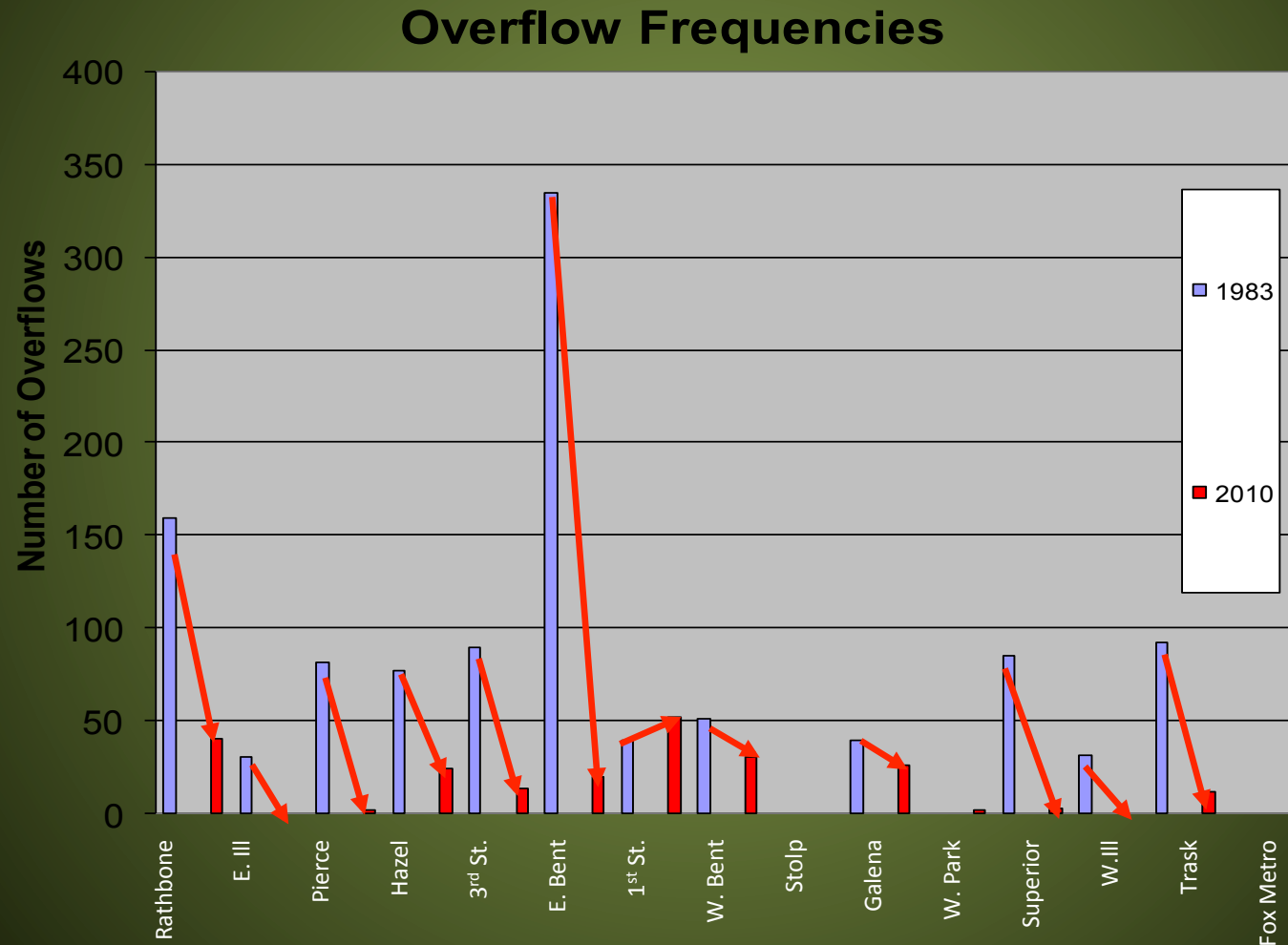




# Countryside Vision Plan



# Aurora and Fox Metro WRD have invested over \$200M improving our CSS



**Overflow Identification**

# 2010 ARRA McCarty Park Bioinfiltration Project Green Infrastructure Pilot Project





# GREEN VS. GREY CSO CONTROL COST COMPARISON



GREEN INFRASTRUCTURE  
ALTERNATIVE = \$2,470,000

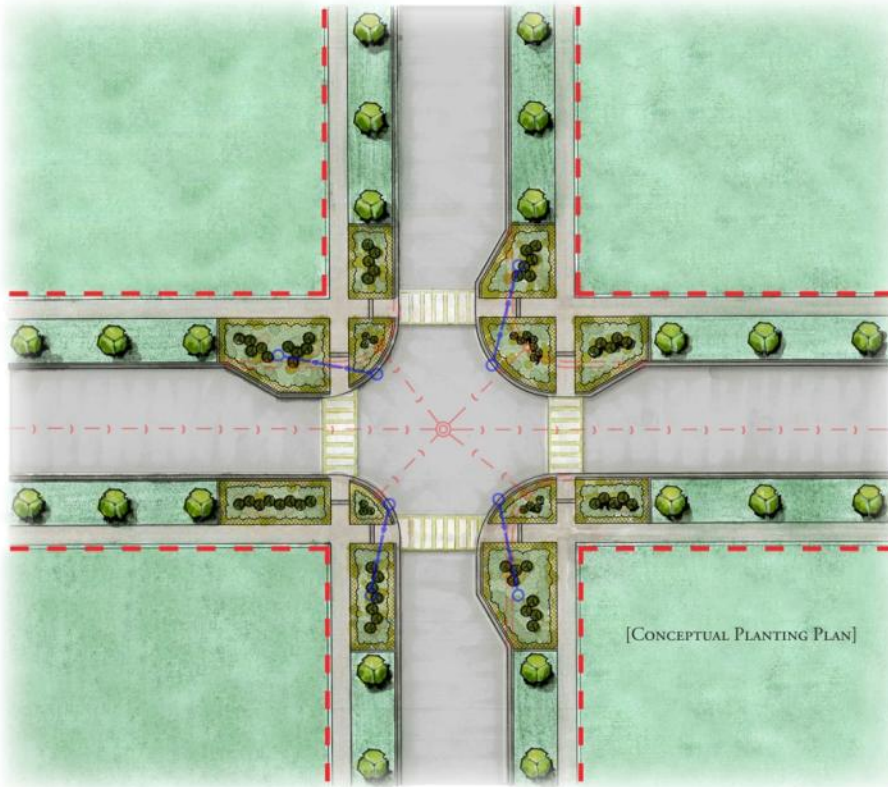
GREY INFRASTRUCTURE  
ALTERNATIVE = \$4,850,000





# GREEN INFRASTRUCTURE COMBINED SEWER OVERFLOW CONTROL PROGRAM

## TYPICAL RAIN GARDEN 4-WAY INTERSECTION IMPROVEMENTS



GRASSES & PERENNIALS



PENSTEMON DIGITALIS - BEARDTONGUE



ECHINACEA PURPUREA - PURPLE CONEFLOWER



PHYSOSTEGIA VIRGINIANA - OBEDIENT PLANT

SHRUBS & TREES



COMPTONIA PEREGRINA - SWEET FERN



QUERCUS BICOLOR - SWAMP WHITE OAK

**Hey and Associates, Inc.**

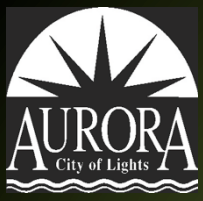
Engineering, Ecology and Landscape Architecture



# Get The Public Involved Early In The Planning Process







# Choose Site-Appropriate Planting Plan

SIMPLE, ORGANIZED



COMPLEX, NATURAL











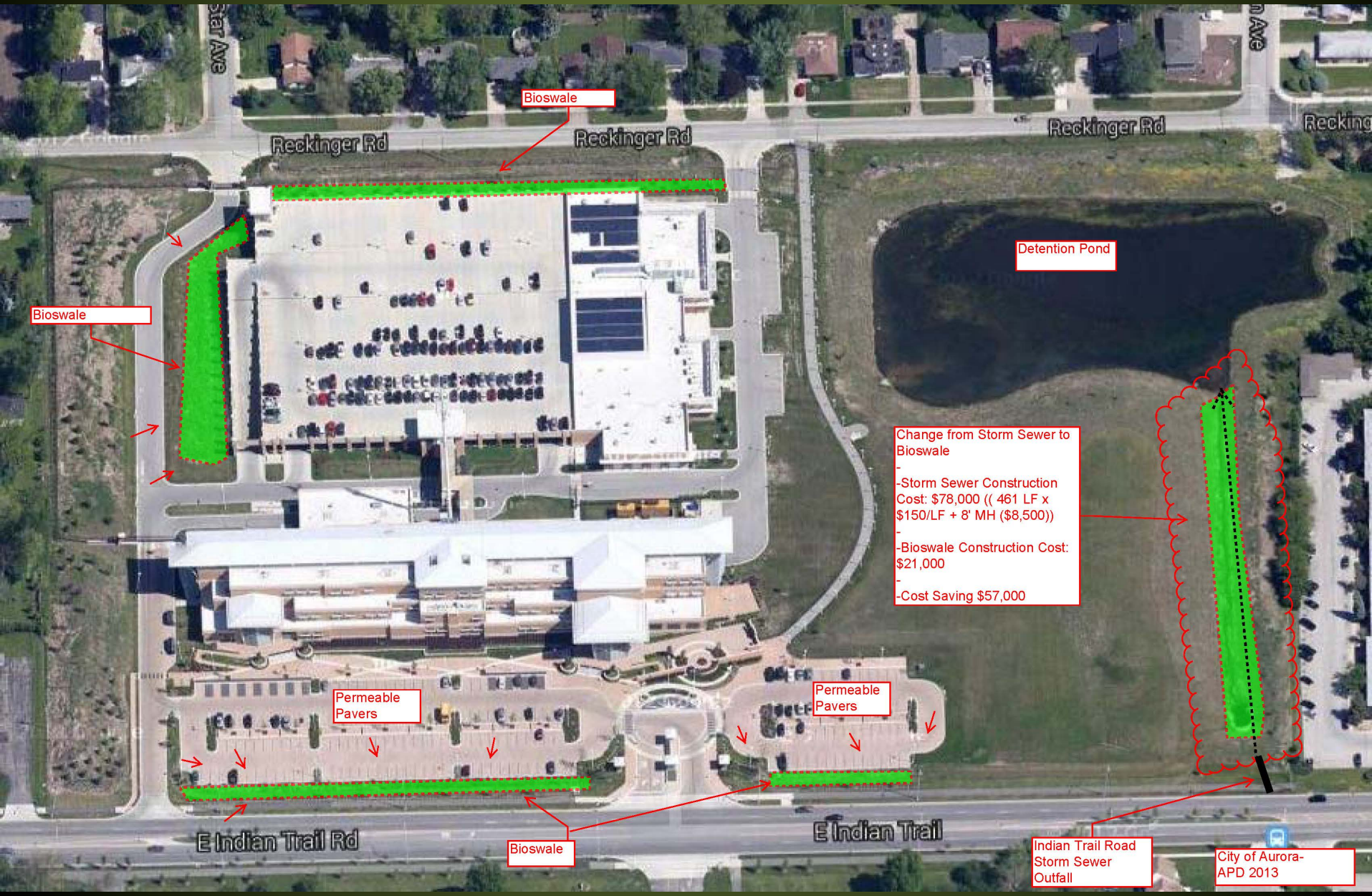


# Grey infrastructure is an important part of the solution

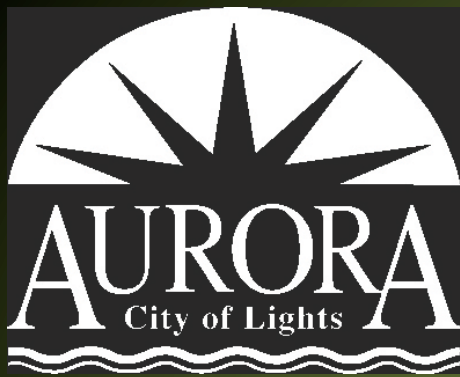




# Aurora Police Department Bioswale







# Infrastructure

## Water Treatment Plant Water source Heat Pump System



- Raw well water used as heat-source or heat-sink
  - Water then treated & used for potable supply
- Most economical alternative over life expectancy of units
- Carbon emissions reduced - no natural gas combustion
- IL Chapter ASHRAE - Excellence in Engineering Award

*Every community needs a Champion*





# The Fox River in Aurora

## The Next Generation



This has been a  
presentation of the  
Engineering Division of the  
Public Works Department for  
the  
CITY OF AURORA

