

# Information Item: Citizen-Assisted Monitoring Program for Lakes

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# Why Regional Lake Monitoring?

- Thrive MSP 2040
  - Sustainability & Stewardship Outcomes
  - Prosperity & Livability Outcomes
  - Accountability Principle
- 2040 Water Resources Policy Plan
  - Assessing and protecting the region's water resources
  - Regional comprehensive lake water quality database
  - Fill gaps in lake water quality monitoring and assessment

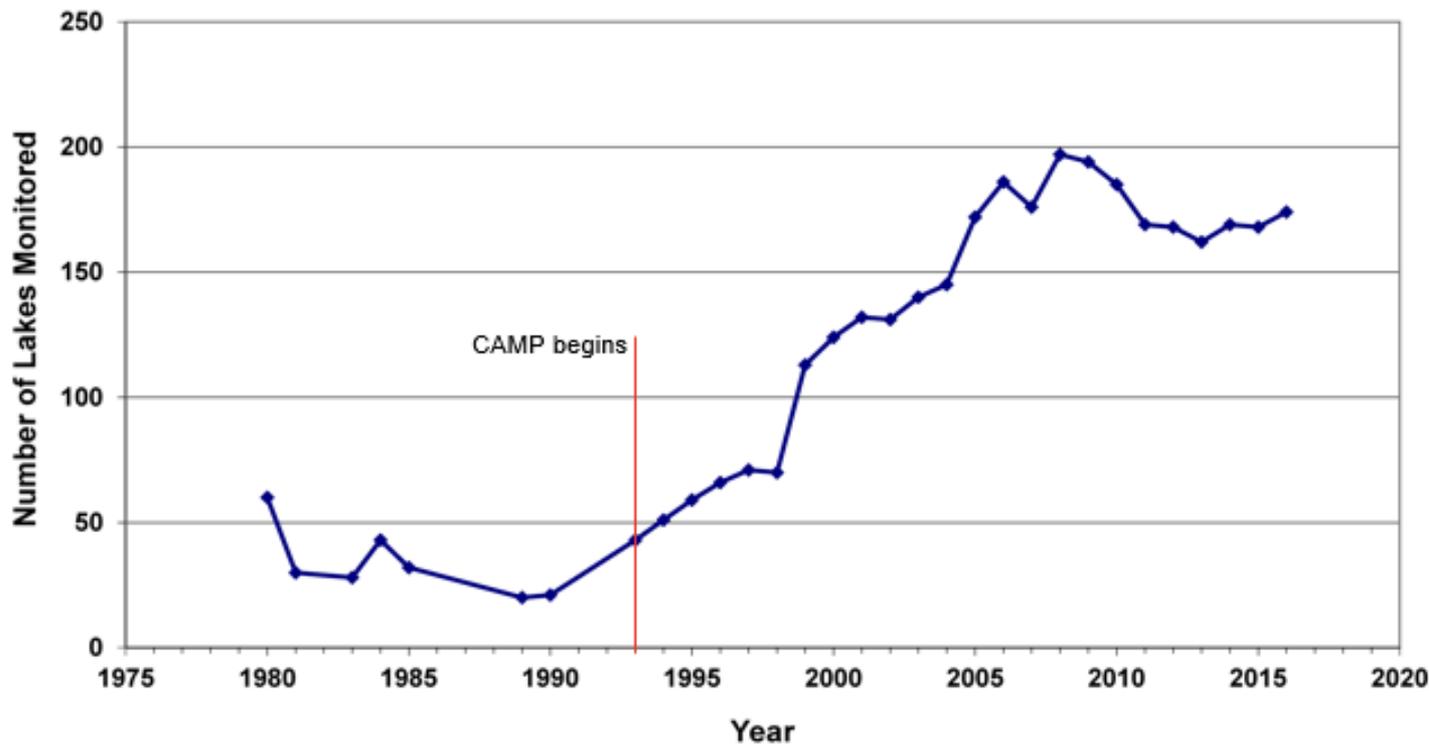
# Why the Citizen-Assisted Monitoring Program (CAMP)

- CAMP provides scientifically valid data
- The Council has regional lake information to further its regional mission
- Citizen Volunteers
  - Develop awareness of water resources issues
  - Advocates for lake improvement
  - Some serve directly in governmental positions

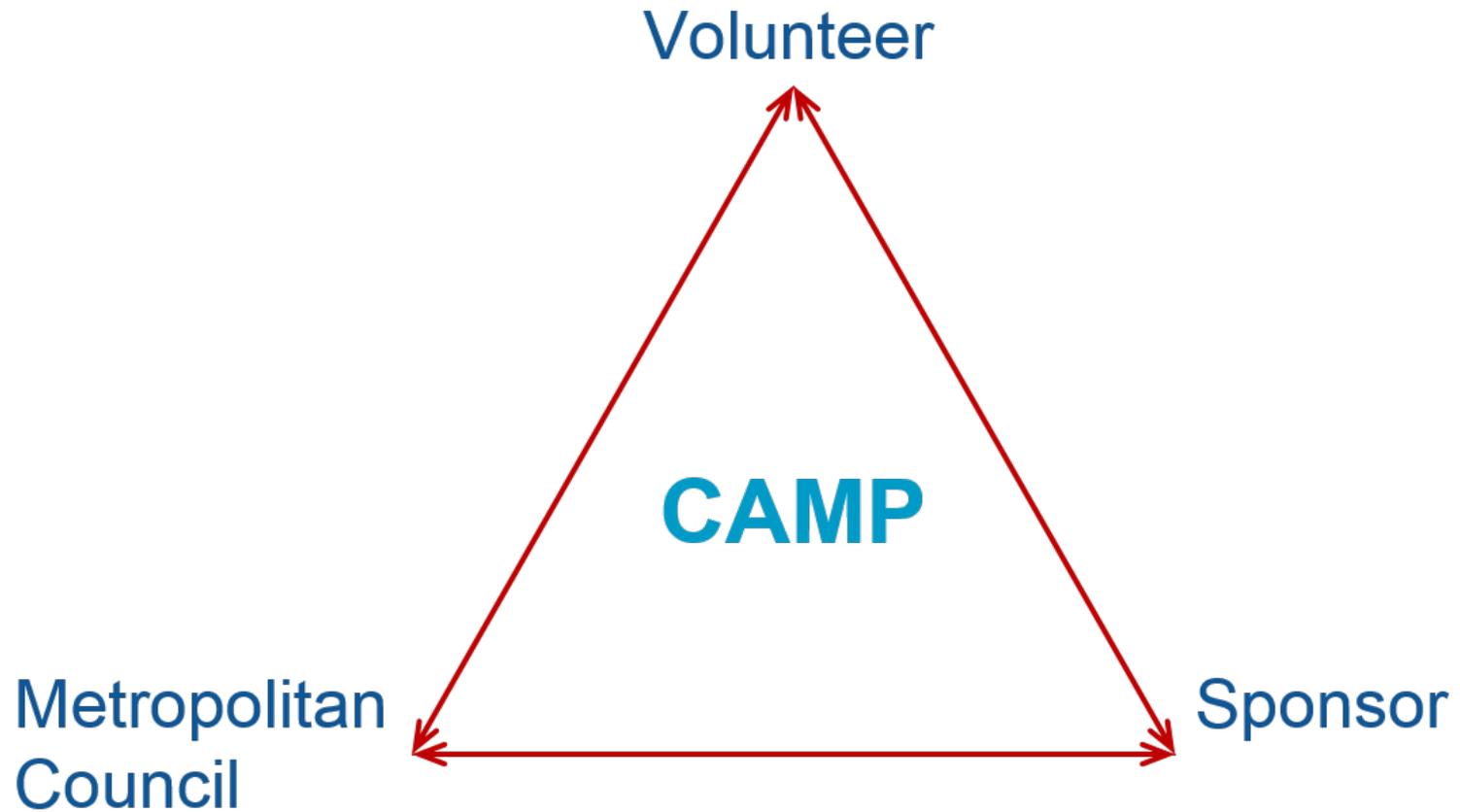
# CAMP History

- 24 years of monitoring
- 332 lakes monitored since the start of the program
- 168 lakes monitored in 2016

MCES Lake Monitoring Program



# CAMP Relationships



# CAMP's Focus

- Eutrophication: the natural process of nutrient enrichment
- Cultural Eutrophication: acceleration of the delivery of nutrients beyond which would occur naturally
- CAMP measures Trophic State
  - A means to monitor eutrophication

Fish Lake  
Photo by PLSLWD staff

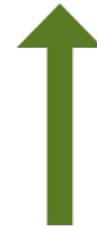
# Trophic State Variables



5/3/11: Secchi disk @ 20 cm depth



8/11/11: Secchi disk @ 20 cm depth  
Chub Lake, site 1



Phosphorus



Algal  
Chlorophyll



Secchi  
Transparency

# Reporting

**2014 Study of the Water  
Quality of 169 Metropolitan  
Area Lakes**



December 2015

- Annual Lake Report
- Annual Lake Water Quality Summary Report
- Available on the Council's Environmental Information Management System (EIMS)

# Improving Lakes

## Current & Future Actions

- Multiple requests for lake data on an annual basis
  - cities, watersheds, counties, consultants, citizens
- The MPCA uses CAMP data in their lake assessments
- CAMP Kaizen – in progress
  - Recommendations to improve the efficiency and the services of the CAMP
  - A team effort across business units
- Lake trends and regional lake assessments

# Questions

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  - <https://metro council.org/Wastewater-Water/Services/Water-Quality-Management/Lake-Monitoring-Analysis.aspx>