



OTTER LAKE

PUBLIC WATER SUPPLY SOURCE WATER PROTECTION PROGRAM

PROBLEMS

Excessive sedimentation and pollutant loading from the watershed and eroding shoreline

- Regulatory water quality impairment for manganese
- Increasing water treatment costs
- Loss in reservoir storage capacity, increased vulnerability to drought
- Degrading recreational value and lake health due to excessive algae growth, increasing concentrations of phosphorus, and reduced dissolved oxygen

GOALS

Develop a roadmap and implement a comprehensive program to improve lake health, enhance recreational opportunities, reduce water treatment costs, manage reservoir capacity loss, and improve drought resiliency through long-term watershed and lake management.

SOLUTIONS

Applied a unique and synthesized blend of passionate project management, multi-disciplinary technical excellence, and an unwavering personal commitment to our client and Otter Lake.

Facilitated and established productive long-term partnerships with diverse stakeholders and watershed residents.

Effectively evaluated funding options and facilitated the water commission in securing financial resources for implementation.

Otter Lake Water
Commission
Macoupin County, Illinois
USEPA Region 5



Size

770 acre lake
with a 13,000
acre watershed



Daily Output

1.8 million gallons



Serves

17,000 people
8 towns
2 water districts
in 3 counties

PROGRAM SERVICES:

- Project Management
- Lake & Watershed Assessment
- Water Quality Modeling & Monitoring
- Landowner Outreach & Coordination
- Survey, Engineering, Design & Permits
- Construction Oversight
- Lake Shoreline Mapping & Stabilization
- EPA & Regulatory Coordination
- Grant Application & Administration

RESULTS

Sediment

Reduced by
4,500+ tons/year,
or

20% ↓

Nutrients

Nitrogen:
Reduced
15,000+
lbs/year or

Phosphorus:
Reduced
4,500+ lbs/year
or

18% ↓ 20%

Reservoir

Increased life expectancy
by 12 years
or

17% ↓

Achieved full support regulatory determination for a public and food processing water supply

Regulatory delisting of aquatic algae and manganese as impairments

Value –costly treatment upgrades avoided, improved water tariff stability, improved relationships with water customers, recreational stakeholders and watershed residents. Total Maximum Daily Load (TMDL) no longer required for Otter Lake, saving taxpayer dollars.

American Water Works Association
Illinois Section

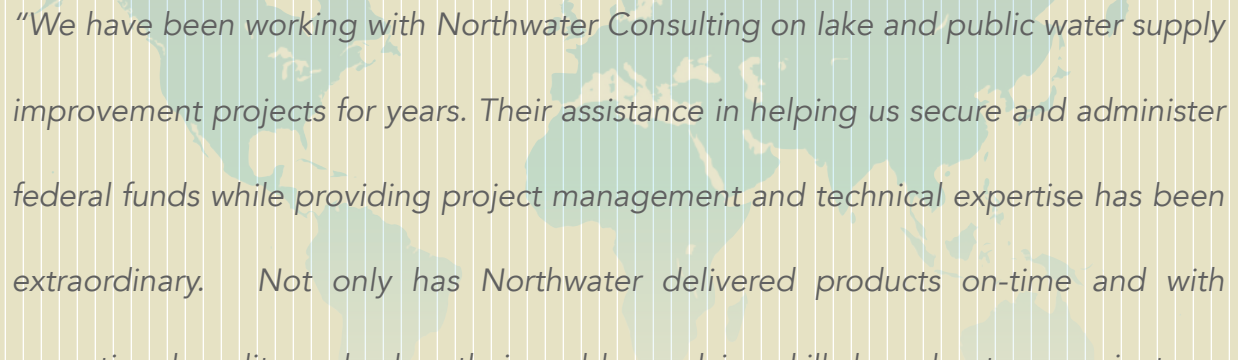
The project was awarded the prestigious
Source Water Protection Award by the
American Water Works Association (AWWA)



NORTHWATER
CONSULTING

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HEAR FROM OUR PARTNER



"We have been working with Northwater Consulting on lake and public water supply improvement projects for years. Their assistance in helping us secure and administer federal funds while providing project management and technical expertise has been extraordinary. Not only has Northwater delivered products on-time and with exceptional quality and value, their problem solving skills have kept our projects on time and within budget.....Northwater provides a personal level of service that is rare in the industry today. I look forward to working with them on future projects and would have no reservations recommending Northwater."

Dennis Ross Otter Lake Water Commission

○ Water | ○ Geosciences | ○ Mapping

Springfield, Illinois | Ann Arbor, Michigan | Chapel Hill, North Carolina

Corporate Address

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