

Optimizing Water Resources for a Sustainable Future

Greenleaf Communities, Resources for the Future, and Jacobs Engineering propose an initiative to optimize sustainable and inclusive access to water in Northeast Illinois. More efficient use of Illinois' Lake Michigan water allocation and improvements to governance and infrastructure could expand access to safe drinking water, address social inequities, and generate billions of dollars in revenue, while conserving water, and reducing pressure on ecosystems.

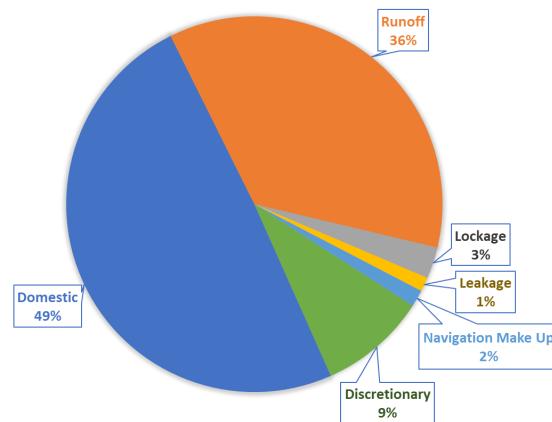
NORTHERN ILLINOIS WATER

Communities in Northeast Illinois are located by one of the world's great economic and social engines – Lake Michigan. Access to its water offers sizeable opportunities as well as responsibilities for ecological, economic, and social improvement; especially as groundwater-dependent communities face resource depletion and diminished water quality.

LAKE MICHIGAN DIVERSION

Our challenges with water resources are shaped by variability in demographics, commercial demands and climate, as well as fragmented supply systems and rigid allocation processes. A US Supreme Court decree allows Illinois an allocation of Lake Michigan water which as of the most recent analysis, 70% was allocated. Further, domestic water suppliers are using less than half of their allocation, leaving substantial resources available for unmet demand. We need a more flexible and coordinated water governance system to assess urgent needs.

ILLINOIS USE OF LAKE MICHIGAN DIVERSION, 2015



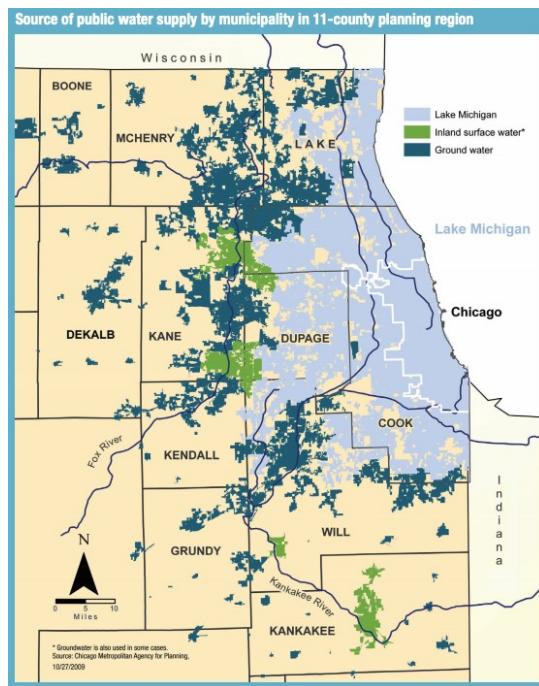
Droughts are forecast to become more frequent; and when combined with groundwater extraction, can lead to depletion of water sources. Adapting to these risks requires regional coordination, especially given the region's 400+ community water suppliers. This fragmentation leads to higher costs, gaps in oversight, social inequities, and uncertainty for water purchasers.

ADOPTING A ONE WATER APPROACH

Building a sustainable, One Water vision for Illinois with a coalition of diverse and innovative leaders is a long-term goal of this effort and will help ensure measures are compatible with the protection of the Great Lakes. We will quantify the remaining availability and value of the State's water allocation and the potential for a shared governance and infrastructure framework to unlock benefits for Illinois' communities, businesses, and freshwater systems.

This project is a key step within a larger effort to build a sustainable water vision for Illinois. It draws upon regional-scale financial, engineering and governance analysis to advance environmental and social aims.

The Chicago area has a remarkable history of forward-looking urban and environmental planning. With its dynamism – its human capital, transportation infrastructure, financial markets, and technology resources – and regional coordination, the State could set a global standard for sustainable water management.



Source of public water supply in NE Illinois. Source: CMAP

For more information, contact Francine van den Brandeler at Greenleaf Communities, fbrandeler@greenleafcommunities.org.



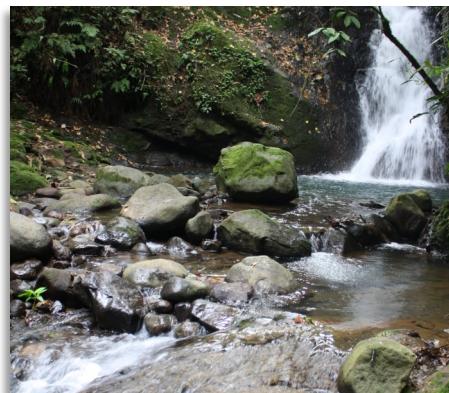
Greenleaf
Communities

Applied Research for a Healthy and Sustainable World

About Greenleaf Communities

Greenleaf Communities was established as a nonprofit 501(c)(3) organization to advance a healthy and sustainable world by recruiting and organizing multi-disciplinary teams of scientists and practitioners to investigate environmental influences on health and inform business practices and the policies that support them. We design and support sound scientific research led by some of the country's leading experts on the environment in order to provide solutions concerning the health and well-being of society.

Our programs support our most important resources: the climate that drives the natural systems upon which we depend, safe and available supplies of fresh water, and agricultural soils that support the food we eat.



Healthy Soils

Our healthy soils program focuses on agricultural management practices to improve soil health, sequester carbon, reduce nutrient runoff, conserve water, and improve crop quality. We collaborate with industry, research centers, agencies, and environmental organizations to advance management practices.

Sustainable Water

Our water work focuses on protecting water quality and quantity both in the urban and rural/agricultural landscapes by influencing coordinated regional water management and water conservation practices, and by engaging innovative technologies, industry and research centers.

Healthy Climate

Our climate and atmospheric resources are under threat from rising greenhouse gas emissions and unsustainable land use changes. We are bringing leading climate science and economic analysis to the U.S. policy debates on carbon pricing.

For more information, or to discuss potential projects or collaborations, please contact Katie DeMuro at
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