

NORTHERN KENTUCKY WATER DISTRICT

Background

The Northern Kentucky Water District (NKWD) provides water services for roughly 300,000 people across Boone, Kenton and Campbell counties in Northern Kentucky. Drawing water from the Ohio and Licking rivers, NKWD manages three water treatment plants, 20 storage tanks, 15 pump stations and nearly 1,200 miles of water main pipes for residential customers, as well as a number of large commercial and industrial stakeholders in the greater Cincinnati metropolitan region.

Challenges

NKWD is concerned with increased extreme precipitation events, which could intensify peak flows and impact water quality. These impacts could be amplified by aging infrastructure throughout NKWD's service area and increased demand due to a rapid rate of suburban population growth throughout the three-county Northern Kentucky region.

Planning Process

NKWD is managed by a Board of Commissioners and is regulated by the Kentucky Public Service Commission. Plans for future infrastructure investments are updated every five years and are reviewed based on the following criteria:

- Regulatory compliance driven;
- Capacity from growth;
- Repair and replacement of aging infrastructure;
- Enhancements to level of service for customers; and
- Improvements to communication technology.

In addition, NKWD has coordinated closely with Sanitation District No. 1 of Northern Kentucky (SD1) and the Northern Kentucky Area Planning Commission (NKAPC) to update the Kenton County Comprehensive Plan. With the input of NKWD, SD1, the State Department of Water and other local community and agency voices, sustainability and watershed-level planning is anticipated to help establish priorities and maximize benefits of future infrastructure investments, including green infrastructure in the community.

Resilience Strategies and Priorities

In recognition of the challenges already facing NKWD's service area—a rapidly growing population and aging infrastructure—the Water District is taking action to protect its assets, assure continuity of operations and improve overall resilience. See the table below for potential resilience strategies that have been considered by NKWD.

Case Study: Water and Wastewater Utilities Planning for Resilience

TYPE	RESILIENCE STRATEGIES
Community-Focused Objectives and Goals	Improve regional water quality
	Ensure affordable water rates for residents and businesses
	Increase energy efficiency and performance
Other Potential Resilience Strategies	Utilization of green infrastructure
	Implement water conservation measures
	Instillation of high-efficiency pumps
	Shift towards increased use of decentralized water systems outside of core urban areas served by centralized systems

Contact Information

For more information regarding NKWD's resilience planning, contact Jeff Schuchter at jschuchter@nkywater.org.

Case Study Citation Information

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