DIVIDED WATERS: ADDRESSING THE FRAGMENTATION OF WATER GOVERNANCE IN NORTHEASTERN ILLINOIS

THE CIVIC FEDERATION

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EXECUTIVE SUMMARY

More than 5.5 million residents in northeastern Illinois rely on Lake Michigan for their drinking water needs. Yet, despite its undeniable importance, the system designed to manage this critical resource is a patchwork of competing interests and fragmented governance, resulting in inefficient delivery of this basic resource. The region that relies on the lake for its water is known as the Lake Michigan Service Area and spans 284 municipalities across seven counties, each with independent water supply arrangements, rates, and infrastructure management. These independent municipalities often have little to no coordination with each other. This lack of cohesion breeds inequities, driving up costs and making access to water for the most vulnerable communities increasingly difficult.

At the heart of this fragmentation is a pricing system where residents in neighboring municipalities often pay vastly different rates for the same resource. Some communities draw water directly from Lake Michigan, while others must rely on buying water through intermediaries, resulting in inflated and confusing costs. This disparity is not just a technical issue. It is a matter of fairness and equity, as lower-income communities are disproportionately burdened by the rising costs of a resource essential to life.

Deficits in centralized oversight have allowed this fragmented system to persist. Although the Illinois Department of Natural Resources (IDNR) has authority over water use and quality throughout the state, it does not provide a comprehensive regulatory framework for water sale and pricing. Instead, IDNR focuses its regulatory power on the issuance of permits for water use and infrastructure construction. Without a unified regulatory framework, most municipalities are left to negotiate their own water supply agreements in isolation, producing opaque pricing structures and inconsistent service delivery. While collectives of municipalities exist under joint water commissions (or comparable structures) can wield significant bargaining power to secure favorable wholesale rates from their suppliers, independent municipalities, particularly those in economically disadvantaged areas, are left to the whims of the market, resulting in higher prices.

By contrast, states like Wisconsin and Ohio and municipalities such as Indianapolis and its suburbs, have taken steps towards a more holistically integrated and equitable approach to water governance. Ohio's centralized water infrastructure funding, facilitated by the Ohio Water Development Authority (OWDA), ensures that municipalities across the state, regardless of size, have access to the resources needed to maintain and upgrade their water systems. Wisconsin's statewide rate-setting regulatory framework means that municipalities across the state must follow the same guidelines to determine rates. Indianapolis has demonstrated the power of utility consolidation through the Citizens Energy Group (CEG), where the integration of water, wastewater, and stormwater services has resulted in significant savings, improved efficiency, and more equitable service delivery.

These examples highlight the opportunity for northeastern Illinois to embrace a more coordinated approach. By centralizing funding, standardizing rate-setting practices, and fostering collaboration between municipalities, Illinois could address the systemic inefficiencies that have

long plagued water governance in the region. The path forward is not without its challenges, as political resistance, entrenched local interests, and historical acculturation to fragmentation cannot be easily overcome. However, with the right framework, Illinois can transform its fragmented system into one that serves all communities fairly and efficiently.

This report explores these challenges and opportunities, arguing that northeastern Illinois' water governance system should not continue as it is. The fragmentation of authority, the lack of a unified and holistic strategy, and the disparities in pricing are not mere inconveniences, but deep structural problems that threaten the long-term sustainability of the state's water infrastructure. The time has come for Illinois to rethink its approach to water governance, not through incremental reforms or piecemeal efforts, but through a bold, coordinated strategy that draws from the successes of other regions and responds to the pressing needs of its own residents.

OVERVIEW

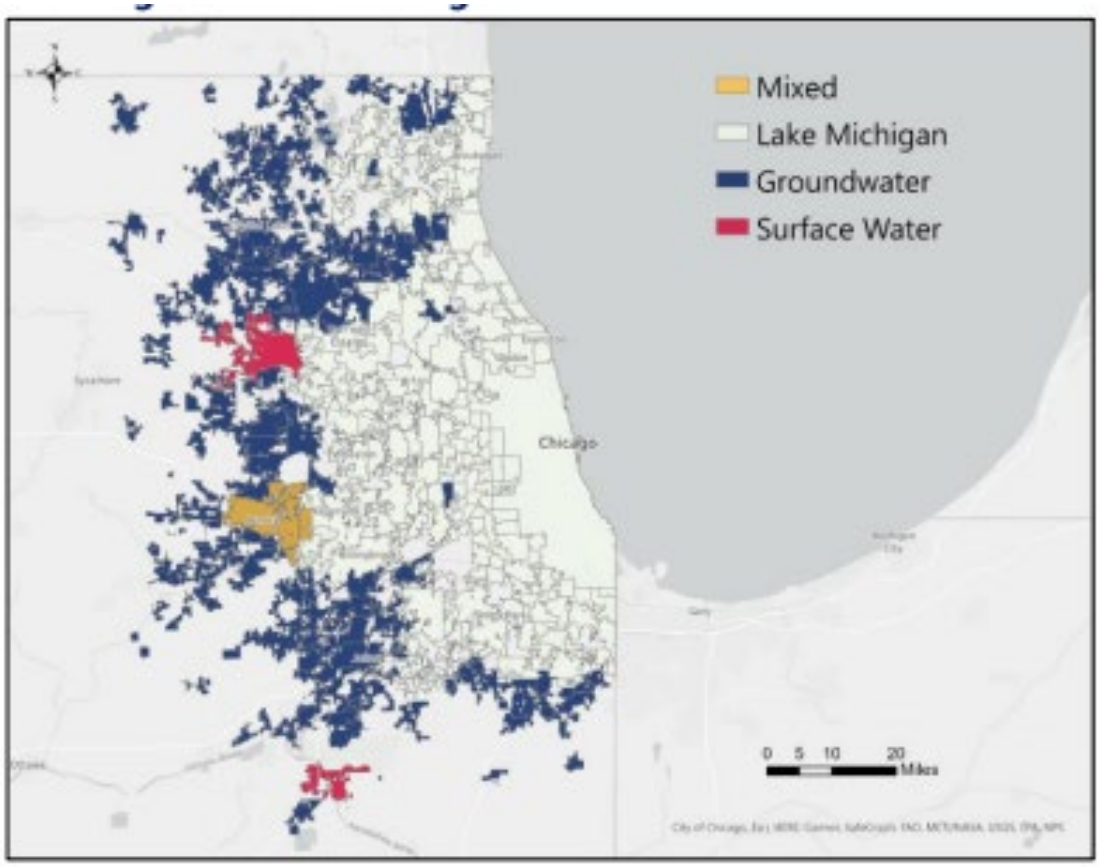
Illinois is renowned for the fragmented nature of its local governments, boasting more government entities than any other state in the union. In such an environment, efficient and transparent intergovernmental coordination is key, especially when handling shared resources such as water. Unfortunately, coordination in northeastern Illinois is anything but clear and transparent. As a result, the region suffers from flawed governance structures, excessive fragmentation, and inadequate oversight. These problems create significant inefficiencies in the delivery and pricing of water throughout the City of Chicago and its suburbs.

Lake Michigan is our region's greatest natural resource. It sustains millions and stands at the heart of northeastern Illinois' water supply. However, the system designed to manage this vital resource is deeply fragmented. Known as the Lake Michigan Service Area (LMSA), northeastern Illinois' water system spans 284 municipalities across seven counties (Cook, DuPage, Kane, Kendall, Lake, McHenry, and Will), operating through a patchwork of competing public and private entities. Each entity acts independently to set water rates and manage infrastructure. Though some contend that decentralization preserves local control and better reflects community priorities, it creates a complex web of varying interests, which produces inefficiencies, inequities, and inflated costs.

Although this report focuses on regulatory structures governing the extraction and disbursement of water from Lake Michigan, drinking water provision in the region is not solely dependent on Lake Michigan. Municipalities tap into a range of sources, including groundwater aquifers and the Fox and Kankakee Rivers.[1] However, as of 2021, 172 or 61% of municipalities in the region rely on Lake Michigan as their primary drinking water source, while 108 municipalities, or 38%, use groundwater. The remaining 1% of municipalities draw from a combination of surface and groundwater sources.[2] The following map displays the counties that make up the LMSA and highlights the geographic region that gets its drinking water from Lake Michigan.

[1] "Coordinate and Conserve Shared Water Supply Resources," Chicago Metropolitan Agency for Planning.
[2] Deborah A. Carroll et al., *Water Rate Setting in the Lake Michigan Service Area*, Government Finance Research Center, University of Illinois at Chicago (June 2023).

Figure 1: Map of Lake Michigan coverage in Northeastern Illinois



Source: Deborah A. Carroll et al., *Water Rate Setting in the Lake Michigan Service Area*, Government Finance Research Center, University of Illinois at Chicago (June 2023).

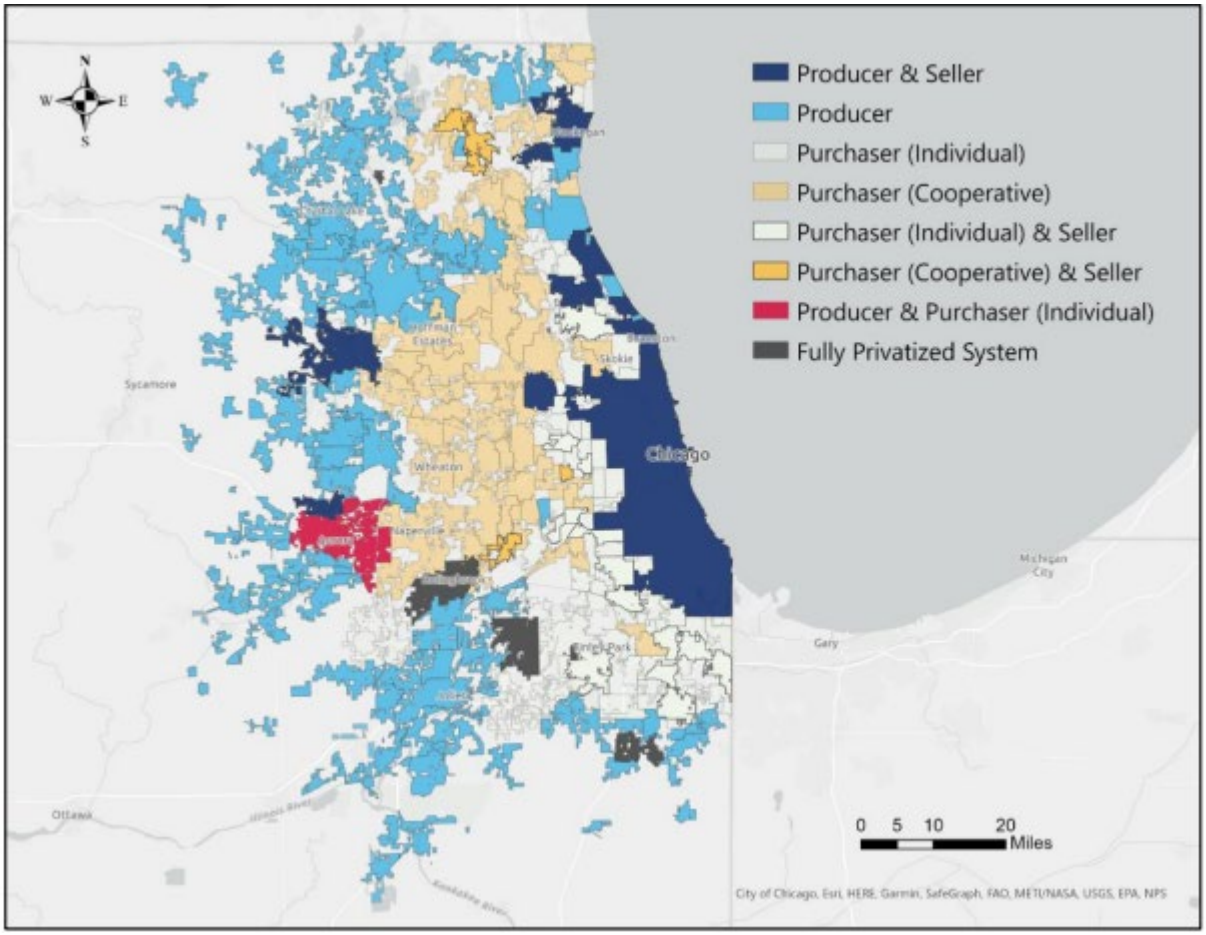
Of the municipalities relying on Lake Michigan for drinking water, only twelve (out of the fifteen along the lake's shore) have the legal right, granted by the Illinois Department of Natural Resources (IDNR), to pump water directly from the lake.[3] This authority stems from a 1967 U.S. Supreme Court decree, amended in 1980, which allows Illinois to divert up to 3,200 cubic feet per second from Lake Michigan. It also sets strict limits on total withdrawals and places oversight with the IDNR.[4] The twelve municipalities with direct withdrawal and treatment rights, or "producers" are: Waukegan, North Chicago, Lake Forest, Highwood, Highland Park, Northbrook, Glencoe, Winnetka, Kenilworth, Wilmette, Evanston, and the City of Chicago. The remaining 160 municipalities must purchase water from the twelve governments that have direct access, creating a fragmented system where water supply and distribution are mediated through a series of third parties.

[3] Jason Michnick et al., *Networked Supply Chains: Describing the Costs of Lake Michigan Drinking Water*, 2022.
[4] "Wisconsin v. Illinois, 388 U.S. 426 (1967)," Justia Law, accessed July 10, 2025.

Eight additional municipalities, Antioch, Fox Lake, Joliet, Lake Zurich, Lockport, Long Grove, Old Mill Creek, and Shorewood, have also been granted IDNR permits to switch their drinking water source. Driven by climate change, depleting groundwater aquifers, and the high cost of treating river water,[5] these municipalities are now in the process of connecting with a supplier to provide Lake Michigan water.[6]

Of the 160 municipalities that rely on Lake Michigan for water, they either 1) directly purchase from one of the twelve producers in an independent purchase agreement, or 2) they purchase from a reseller, i.e., another entity that has purchased water from a producer and is now reselling it. The map in Figure 2 offers a comprehensive overview of the system, identifying the different purchasing connections that make up the Lake Michigan drinking water network.

Figure 2: Map of drinking water production and wholesale purchasing in northeastern Illinois



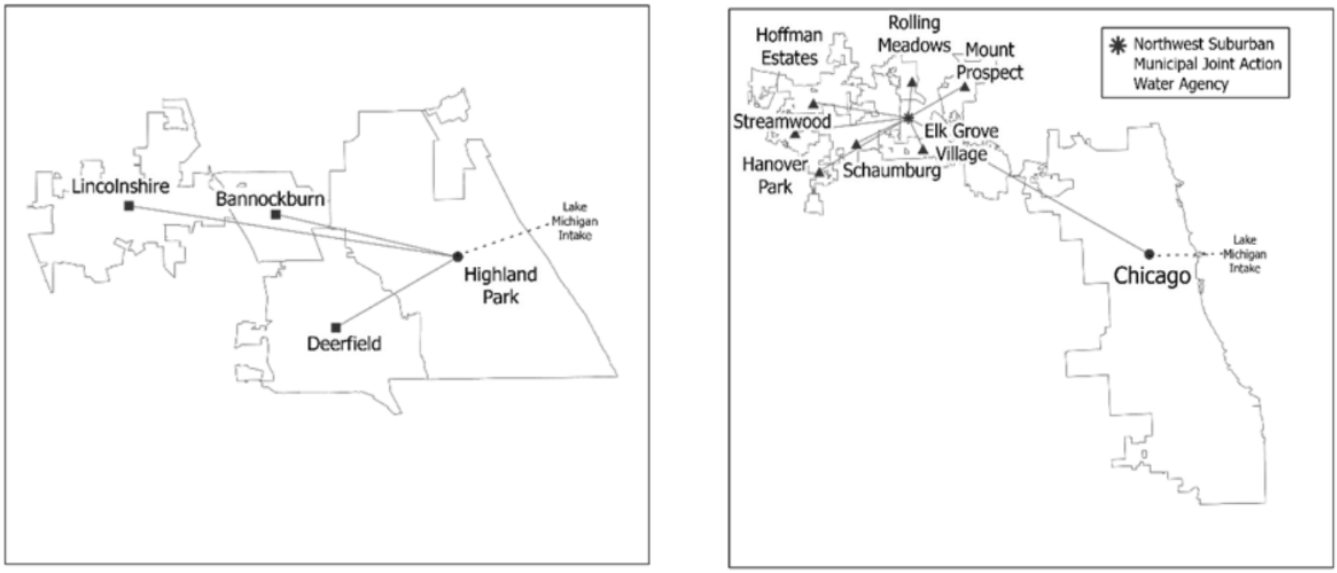
Source: Deborah A. Carroll et al., *Water Rate Setting in the Lake Michigan Service Area*, Government Finance Research Center, University of Illinois at Chicago (June 2023).

[5] *Based on conversations with representatives of the Department of Water Management (DWM), City of Chicago.*
[6] Michnick et al., *Networked Supply Chains: Describing the Costs of Lake Michigan Drinking Water*.

A reseller can be an individual municipality, or a coalition of municipalities pooling resources to purchase and manage water—an entity known as a joint action water agency (JAWA). Private utilities (commonly known as an independently owned utilities or IOUs) such as Aqua Illinois can also be resellers. The relationships between water producers and purchasers, including resellers, create a network of supply chains that span across the region. As of 2019, in northeastern Illinois, 93 municipalities purchase water through bilateral seller-purchaser agreements and 67 other municipalities are part of some joint arrangement representing a series of agreements to get water from the lake to the final users of a municipality.[7]

Figure 3 provides an example of each type of these agreements. Lincolnshire, for example, has an individual agreement with Highland Park, which directly draws from Lake Michigan. In the case of JAWA-organized purchasing, the Northwest Suburban Municipal JAWA purchases water from the City of Chicago and resells it to its seven municipalities.

Figure 3: Examples of water agreements with single entities versus with joint commissions



Source: Deborah A. Carroll et al., *Water Rate Setting in the Lake Michigan Service Area*, Government Finance Research Center, University of Illinois at Chicago (June 2023).

As the primary water supplier in the region, Chicago is the water provider for 126 suburban municipalities and private utilities. In other words, more than 70% of municipalities that are reliant on Lake Michigan water buy from Chicago, with 45 direct wholesale customers and 81 indirect or downstream purchasers.[8] Chicago, like any other non-private player in the water system, is governed by the City's local municipal code and ordinance. Although the City is legally bound by court rulings on water pricing, and regulatory power over water rates rests with IDNR, Illinois still lacks any state-wide oversight over operations or rate-setting.

[7] Michnick et al., *Networked Supply Chains: Describing the Costs of Lake Michigan Drinking Water*.
[8] *Data from the Department of Water Management (DWM), City of Chicago.*

VARIATION IN WATER PRICING: A CONSEQUENCE OF FRAGMENTATION

The fragmentation of water governance in northeastern Illinois results in varied water rates. Consumers in neighboring municipalities often pay significantly different water rates for the same resource. These water bills, or the retail rates paid by end-users, are determined by a combination of the wholesale rates municipalities pay to purchase water and the operational and capital expenses tied to maintaining local water infrastructure. Since each municipality (except for those that are integrated into a JAWA) operates its own independent system, these infrastructure costs differ and further magnify differences in retail water rate-setting.[9]

This variation primarily arises from municipalities' limited and varied influence over the negotiation of wholesale rates, i.e., the rates municipalities pay when purchasing water from suppliers like Chicago. The real problem, however, is the opaque rate-setting methodologies of how costs are constituted, calculated, and allocated. There are no legally mandated or formalized cost-of-service (COS) studies to ensure that wholesale rates reflect actual water service costs. Without such a safeguard, municipalities question whether they are subsidizing the infrastructure costs of their wholesale suppliers, further eroding trust. For decades, this lack of transparency in this process has led to distrust and inequity, with many municipalities feeling excluded from the rate-setting process.

Recognizing the need to rebuild trust and improve transparency in rate-setting, Chicago has committed to transitioning all wholesale customers to a cost-of-service model by 2030 in line with American Water Works Association (AWWA) methodology.[10] This aims to replace negotiated pricing with a standardized methodology that ties rates directly to the actual costs of delivery for each customer. In 2022, the city also established the Chicago Water Partners Advisory Council (CWPAC) as a forum for dialogue and input between Chicago and its wholesale customers.[11] For this pivot, the City is to be commended. Yet, as only one supplier in a wide network, its reforms will not necessarily address the concerns of downstream municipalities that remain dependent on multiple layers of intermediaries.

To add to this opacity, some municipalities appear to draw heavily on funds designated for water service to fund their general operations. Municipalities finance water systems through water enterprise funds, which are designed as self-sustaining, single-purpose accounts meant solely to utilize revenue from water rates to cover the costs of water service and provision. While these funds are not intended to subsidize general operations, in practice, some municipalities transfer significant amounts from their water enterprise funds to their general funds.

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[9] Deborah A. Carroll et al., *Water Rate Setting in the Lake Michigan Service Area*, Government Finance Research Center, University of Illinois at Chicago (June 2023).
[10] City of Country Club Hills, "City Council Minutes," July 9, 2025.
[11] "Suburban Customers & Regional Partnerships," accessed June 25, 2025.

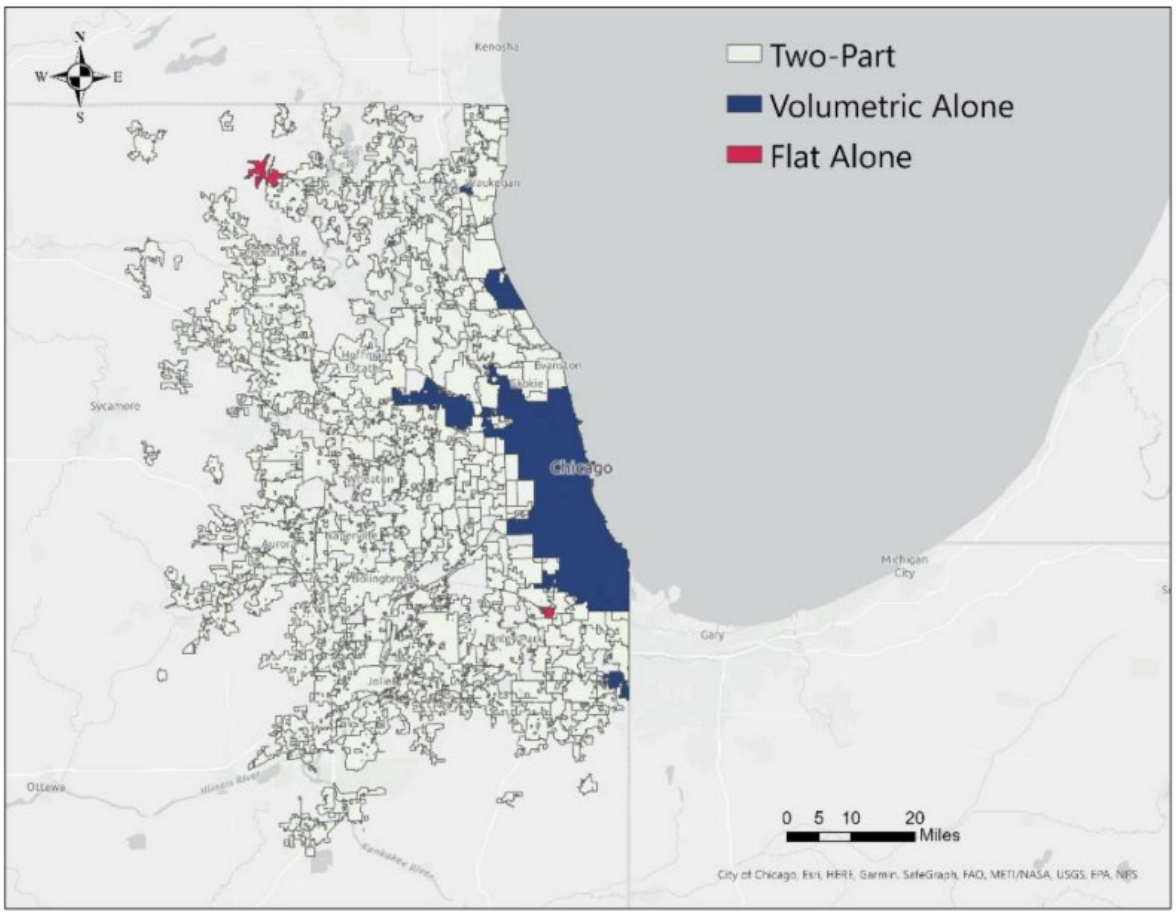
For example, in 2024, the Village of Stickney derived 25% of its revenue, or $4 million,[12] from water bills and transferred that same amount from its water enterprise fund to the general fund.[13] Similarly, the Village of Dolton, a financially constrained south suburban municipality, relies heavily on water revenue to support its non-water operations.[14] Likewise, the Village of Skokie derives 8.75% of its revenue from water rates, making water sales the fifth-largest source of income for the village.[15] As municipalities like Stickney, Dolton, and Skokie rely on water revenue to balance budgets, the resulting rates can contribute to disparities in water pricing across the region, exacerbating inequities in water access and affordability.

TYPES OF WATER PRICING STRUCTURES

Water utilities in northeastern Illinois employ different methods to distribute administrative costs and recover fixed capital expenses. They do so by charging their residents water bills under one of three different rate-setting systems: flat-rate pricing, volumetric-rate pricing, and combined-rate pricing.[16] Each has different impacts on efficiency, cost-recovery, and equity.

[12] Village of Stickney, "Stickney AFR 23," April 30, 2023.
[13] *Based on conversation with a former Commissioner of the MWRD.*
[14] *Based on conversation with a former Commissioner of the MWRD.*
[15] *Based on conversation with a former Commissioner of the MWRD.*
[16] Deborah A. Carroll et al., *Water Rate Setting in the Lake Michigan Service Area*, Government Finance Research Center, University of Illinois at Chicago (June 2023).

Figure 4: Rate structures of municipalities in the Lake Michigan Service Area (LMSA)



Source: Deborah A. Carroll et al., *Water Rate Setting in the Lake Michigan Service Area*, Government Finance Research Center, University of Illinois at Chicago (June 2023).

The flat-rate system, used by just two municipalities in the LMSA, charges all customers the same fee regardless of their actual consumption. While designed to help recover anticipated operational and infrastructure expenses, this system proves inefficient. It fails to incentivize residents to align water usage with its associated costs, as everyone pays the same amount regardless of how much they use. Moreover, it is inequitable, with low-usage households effectively subsidizing the higher consumption of larger homes or businesses.

In contrast, volumetric pricing, used by six LMSA municipalities, charges a per-unit amount based on the level of water consumption. The City of Chicago, for example, applies a uniform volumetric pricing model, charging $4.89 per 1,000 gallons[17] to all customers, including Chicago residents and its direct suburban wholesale customers.[18] Due to state regulation, Chicago is barred from charging its suburban customers more for water than it charges its own residents. However, once these suburbs purchase water from Chicago, they can pass along higher rates to their residents or other municipalities to compensate for their own infrastructure costs. While the volumetric

[17] "Water and Sewer Rates," City of Chicago, June 2025.

[18] *Based on conversations with representatives of the Department of Water Management (DWM), City of Chicago.*

pricing system is more equitable than flat-rate pricing because it ties costs to actual consumption, it introduces inefficiencies when used to recover fixed costs. This is because it operates on an average cost pricing rationale, where the retail price is set to cover the average cost of providing water to all customers.[19] While this approach can help avoid immediate losses by ensuring the municipality or water utility covers overall costs, it can also distort pricing by setting it too high or too low. If the price is set too high, it could lead to underconsumption of water. On the other hand, if the price is set too low, the utility may operate at a loss, as the price does not reflect the actual marginal cost of supplying water.

The final, and dominant, model across the region is the combined-rate or two-part pricing system, which is employed by 240 municipalities. This two-part rate comprises a fixed base charge, typically designed to cover the utility's fixed costs, alongside a volumetric charge that varies according to consumption. This structure facilitates cost recovery for utilities while providing consumers with incentives to use water more efficiently. The fixed fee addresses the utility's predictable, non-variable costs, while the per-unit charge, grounded in marginal cost pricing, ensures that the rates charged more accurately reflect the actual cost of delivering water to residents.

Within the volumetric pricing model lies a further variation, known as the block rate or variable rate system. This model introduces pricing tiers that adjust depending on consumption levels. In the case of increasing block rates, higher prices are applied as consumption rises, typically serving as a tool for promoting water conservation. On the other hand, decreasing block rates charge progressively lower prices as usage increases, often used to attract high-volume consumers, such as large-scale manufacturers.

CONSEQUENCES FOR PRICES

Because each municipality independently sets its own water-pricing structure, the region's decentralized system perpetuates a patchwork of pricing across the region. Research on Illinois water utilities done by the Government Finance Research Center at UIC in 2024 shows that purchasing arrangements play a significant role in shaping rates. Albrecht et al. found that municipalities using a cooperative purchasing strategy tend to have lower rates than those negotiating individually, since members can share the capital costs of supply infrastructure. The study also notes that *"purchasing treated water has the largest correlation with residential rates,"* [20] a finding consistent with earlier research.[21]

These findings help explain why residents who are direct customers of wholesale producers often face lower rates than retail customers further downstream, where additional intermediaries add costs. For example, Chicago charges a uniform volumetric rate of $4.89 per 1,000 gallons to both

[19] Chicago's water rates are adjusted annually based on the lower of the Consumer Price Index (CPI) or 5%.
[20] Kate Albrecht et al., "Fiscal Institutions and Racial Equity: Determining the Price of Water," *Public Budgeting & Finance* 44, no. 2 (2024): 45–68.
[21] Hughes, Jeffrey; Eskaf, Shadi; Thorsten, Rich; Franklin, Owen (2006). Multi-level financial analysis of residential water and wastewater rates and rate-setting practices in North Carolina, November 2006.

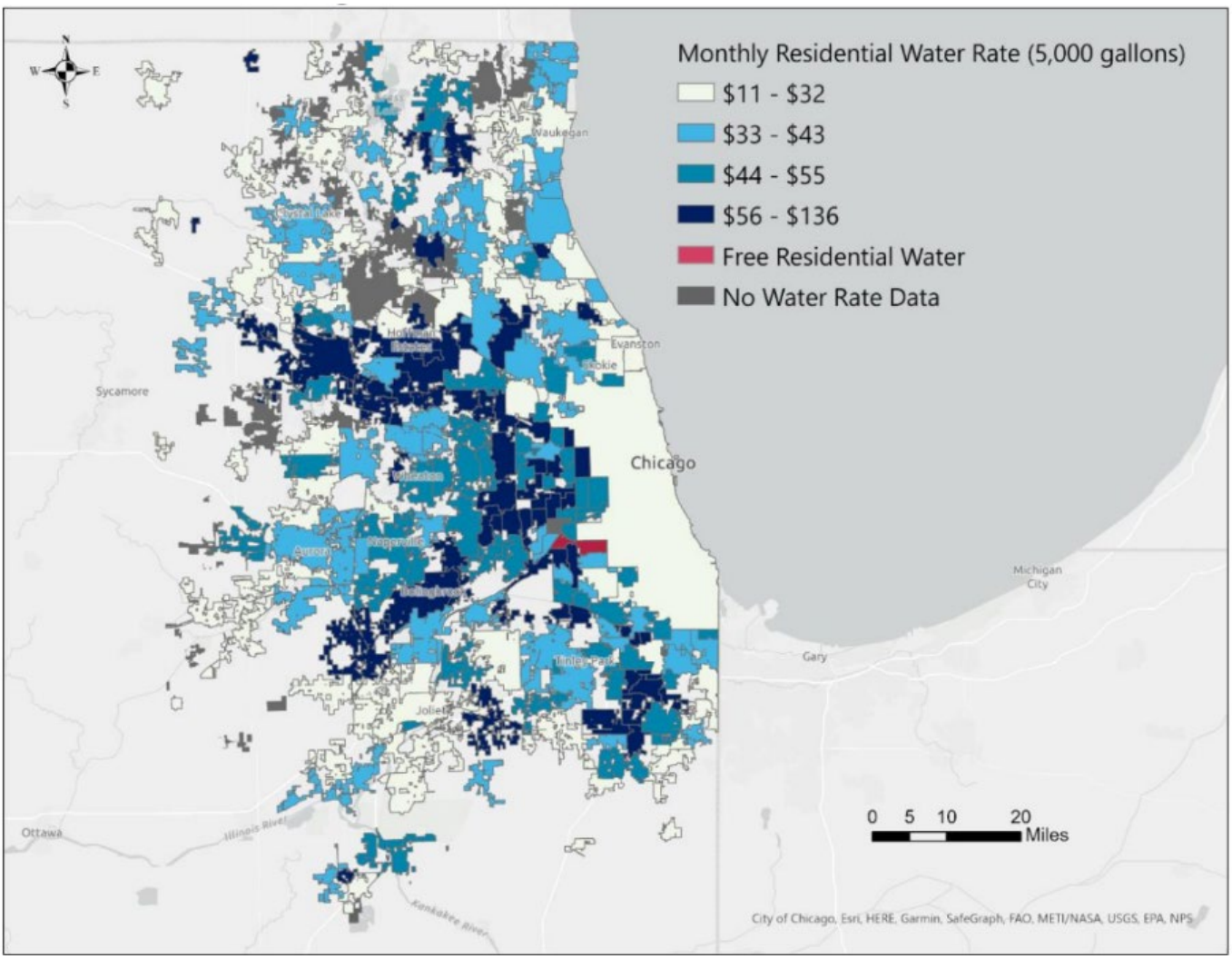
its residents and 45 direct wholesale municipal customers. However, for the 81 downstream municipalities that buy water from Chicago, through commissions, joint action water agencies (JAWAs), or other municipalities, both wholesale and retail rates are often higher because the water passes through multiple layers of intermediaries.

At the same time, the evidence is not uniform. Forthcoming research from downstate finds that wholesale purchasers can also face higher residential water rates, underscoring the need for localized analysis when evaluating the cost impacts of wholesale arrangements.[22]

As illustrated in the map in Figure 5, the final residential or retail rates vary widely across the region, with consumers in some places such as Elwood Village paying monthly prices of as little as $11 per 5,000 gallons while others like Bannockburn Village pay up to $136 per 5,000 gallons.[23]

[22] Laura Medwid et al., "The Hidden Household Water Affordability Burden: An Examination of Municipal Ordinances and Racial Equity," *The American Review of Public Administration* 55, no. 5 (2025): 456–71.
[23] Deborah A. Carroll et al., *Water Rate Setting in the Lake Michigan Service Area*, Government Finance Research Center, University of Illinois at Chicago (June 2023).

Figure 5: Standardized water bill, 2021



Source: Deborah A. Carroll et al., *Water Rate Setting in the Lake Michigan Service Area*, Government Finance Research Center, University of Illinois at Chicago (June 2023).

STRUCTURAL CHALLENGES IN THE CURRENT WATER GOVERNANCE SYSTEM

The structural challenges of this fractured system can be understood through two broad yet interrelated categories:

1. Gaps in state oversight and support.
2. Diseconomies of scale faced by smaller municipalities.

GAPS IN STATE OVERSIGHT AND SUPPORT

Lack of centralized regulatory oversight

The lack of a centralized regulatory framework further compounds the complexity of the pricing system outlined in the previous section. Municipalities are legally bound by the principles established in landmark cases like Niles I (1980)[24] and Niles II (1990),[25] which stipulate that water rates must 1) reflect the true operational and maintenance costs of service and 2) be non-discriminatory across municipalities. However, enforcement of these principles relies on litigation rather than centralized governance and oversight. Consequently, even decades after the Illinois Appellate Court's Niles I and Niles II decisions were issued, the continued lack of centralized oversight perpetuates an uneven pricing landscape, with residents in some municipalities paying considerably more than others for the same resource.

This issue becomes particularly evident in the differences in wholesale water rates across the region, which lack footing in the absence of a clearly defined framework. Wholesale rates are negotiated independently by municipalities, with the strength of their negotiating position, contract timing, and delivery arrangements often determining the price they pay. Take, for instance, the City of Joliet. As the groundwater became depleted, Joliet was driven to find a new source of drinking water. [26] In 2021, the city, later joined by five other communities that now make up the Grand Prairie Water Commission (GPWC), entered into a 100-year agreement to purchase treated Lake Michigan water from Chicago effective in 2030.[27] The agreement does not set a fixed rate. Instead, all of Chicago's wholesale customers, including Joliet, to using a Cost-of-Service (COS) American Water Works Association (AWWA) methodology by 2030. Under this methodology, each customer will have a unique rate based on the specific costs of delivering water to them. For Joliet, early projections estimate a rate in the range of $2.50–$3.00 per 1,000 gallons. However, these projections may change, as they depend on the amount of infrastructure that the GPWC builds, as well as the audited financial data of the Chicago's Department of Water Management (DWM).

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[24] Village of Niles v. City of Chicago, 558 N.E.2d 1324 (Appellate Court of Illinois 1990).
[25] Village of Niles v. City of Chicago, 201 III.App.3d 651 (1990).
[26] Illinois State Water Survey, "Chicago's Southwest Suburbs," accessed August 11, 2025.
[27] "Joliet Announces Historic Water Agreement with City of Chicago," Joliet.Gov, 2023.

Numerous municipal representatives have publicly expressed dissatisfaction with the lack of clarity around the allocation of costs and how wholesale rates are determined. The absence of transparency, whether stemming from negotiating strength, operational cost differences, or other factors, has fueled concerns about fairness and prompted water entities to explore costly alternatives.

While the COS methodology is expected to address some of these concerns, it was precisely this historical lack of clarity and engagement that has led some municipalities to explore their own infrastructure solutions. One large example of this is the DuPage Water Commission's plan to construct a new water treatment plant and a direct pipeline from Lake Michigan. The plan is ambitious, with construction costs and long-term debt obligations estimated at between $1.5 billion and $7 billion and a planned 30 miles[28] of new infrastructure. DWC is driven by a desire for greater control over its water supply and rates. While such an initiative may provide autonomy, it does not address the systemic problem of fragmentation. Instead, it creates high, duplicative infrastructure expenses that could otherwise be shared across systems. For example, DWC's planned investment in tunnels beneath rivers, highways, and railroad corridors will significantly increase the financial burden on participating municipalities, potentially offsetting any cost savings from bypassing Chicago.[29] The project also sends a signal to other downstream municipalities and water commissions that pursuing independent supply systems is preferable to resolving concerns through collaboration and mutual support.[30]

Despite Chicago's steps towards greater inclusivity by implementing the cost-of-service model, without centralized governance and a rate-setting framework, the region's inefficiencies, inequities, and costly duplication of infrastructure are likely to persist. Municipalities with little visibility into the factors that influence the wholesale rates they pay often contend that their higher rates may include indirect costs for maintaining aging infrastructure that is not their own.[31] While evidence of this is not conclusive, it raises the possibility that some suburban municipalities are effectively subsidizing their suppliers' infrastructure upkeep and broader water-related operating expenses. Without a strong centralized regulatory body, municipalities and water utilities must negotiate wholesale rates in isolation, often resulting in horizontal inequities in retail pricing and operational inefficiencies in cost recovery.

Limited financial and strategic state support

Likewise, the limited or lack of financial and strategic state support available to municipalities, particularly to under-resourced ones, adds another challenging layer to the absent state-regulatory landscape. While the state offers some financial support for water infrastructure projects through programs such as the Illinois Environmental Protection Agency's (IEPA) State

[28] A.D. Quig, "DuPage Extends Water Contract with Chicago but Charges Ahead on Its Own Pipeline Plans," *Chicago Tribune*, February 16, 2024.
[29] "DWC Press Release: Contract Approval with Montgomery, Oswego and Yorkville," October 17, 2024.
[30] *Based on conversation with a former Commissioner of the MWRD.*
[31] *Based on conversation with a former Commissioner of the MWRD.*

Revolving Fund (SRF), municipalities must often meet stringent application requirements and pay upfront costs for engineering assessments. This makes it particularly difficult for smaller or financially constrained towns to access infrastructure funding.

State-level policies that could support municipalities in managing water systems remain fragmented and inconsistent. While federal legislation such as the Clean Water Act (CWA) and the Safe Drinking Water Act (SDWA) have historically provided critical funding and regulatory guidance, the level of financial support has not kept pace with rising infrastructure needs.[32] Although the recent federal Infrastructure Investment and Jobs Act (IIJA) has injected more than $50 billion into water infrastructure nationally,[33] the Environmental Protection Agency (EPA) still estimates a nationwide funding need exceeding $625 billion over the next 20 years,[34] underscoring the persistence of a substantial gap. Illinois has yet to implement a unified policy framework or mandate comprehensive data collection on water bills, infrastructure conditions, or system performance.

Furthermore, the 2022 Illinois State Water Plan notes that significant data gaps persist across geographical and operational dimensions, hindering efforts to monitor and coordinate water infrastructure effectively.[35] Likewise, while the Illinois EPA's Water Monitoring Strategy provides a robust framework for assessing water quality through extensive monitoring programs, it does not include standardized tracking of municipal billing rates, financial performance, or utility operations.[36] This absence of comprehensive operational and financial oversight means that municipalities, particularly those with limited technical and fiscal capacity, are left to navigate the complex landscape of infrastructure financing and rate-setting with minimal coordinated support or guidance from the state.

This lack of centralized coordination not only hinders efficient rate-setting but also leads to inequities in pricing, disproportionately affecting low-income communities and municipalities with fewer resources.[37] Only through a combination of targeted financial support, standardized data collection and publication, and a unified regulatory framework can the state better assist municipalities in addressing these challenges and ensuring more equitable and sustainable water systems for all residents.

[32] James McBride Berman Noah, "How U.S. Water Infrastructure Works | Council on Foreign Relations," May 2, 2024.
[33] OA US EPA, "Water Infrastructure Investments," Overviews and Factsheets, November 5, 2021.
[34] Kerry O'Neill et al., *EFAB Water Affordability*, January 15, 2025.
[35] "SWP Task Force Report," December 2022.
[36] Illinois Environmental Protection Agency, "Water Monitoring Strategy."
[37] Deborah A. Carroll et al., *Water Rate Setting in the Lake Michigan Service Area*, Government Finance Research Center, University of Illinois at Chicago (June 2023).

DISECONOMIES OF SCALE AND LIMITED CAPACITY OF SMALLER MUNICIPALITIES

The other consequence of the fragmented governance system is that smaller municipalities cannot benefit from economies of scale. Unlike their larger counterparts, water providers with limited customer bases cannot spread the high costs associated with water infrastructure maintenance and operations across a wide population. As a result, the per-capita costs of water are disproportionately high, exacerbating the financial burdens placed on residents. This is especially problematic for economically disadvantaged municipalities, where the tax base is already constrained, and the capacity to invest in critical infrastructure is minimal.[38] These municipalities often fall into a cycle of underinvestment as they are unable to make necessary upgrades or maintain their systems effectively.

Infrastructure needs to manage water delivery are substantial. Replacing aging pipes, addressing lead contamination, and managing emerging contaminants such as PFAS (per- and polyfluoroalkyl substances) require substantial investment. Smaller municipalities often struggle to secure funding for these upgrades due to limited financial resources and administrative capacity. Even when low-cost loans are available, such as State Revolving Fund (SRF) loans, many municipalities report practical barriers such as the complexity of applications, competition for limited funds, and the technical requirements involved, which can delay or prevent critical infrastructure improvements.

The problem is worsened by the lack of a coordinated approach to securing state and federal funds. Municipalities must independently navigate multiple programs, including two State Revolving Fund (SRF) loans, the Water Pollution Control Loan Program (WPCLP) for wastewater and stormwater projects, and the Public Water Supply Loan Program (PWSLP) for drinking water projects,[39] as well as federal options such as the EPA Water Infrastructure Finance and Innovation Act (WIFIA) program.[40] While these funds are essential for infrastructure projects, the application process requires significant administrative capacity, technical expertise, and upfront costs for system assessments, which many smaller municipalities simply cannot afford. Wealthier municipalities are more likely to succeed in securing SRF funding, not only because they have the technical capacity to manage the application process, but also because they can hire consultants or lobbyists to help position their projects for earmarked federal funds. Under-resourced municipalities, sometimes with fewer than five employees, lack both the staff capacity and the political connections to compete on equal footing.[41]

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[38] "Seventh DWINSA Report to Congress," September, 2023.
[39] "Illinois State Revolving Fund Resources," *Southwest Environmental Finance Center*.
[40] Deborah A. Carroll et al., *Water Rate Setting in the Lake Michigan Service Area*, Government Finance Research Center, University of Illinois at Chicago (June 2023).
[41] Deborah A. Carroll et al., *Water Rate Setting in the Lake Michigan Service Area*, Government Finance Research Center, University of Illinois at Chicago (June 2023).

Smaller municipalities also lack collective negotiating power to secure better wholesale rate deals compared to JAWAs or larger municipalities. As a result, they are often forced to accept higher rates. The absence of a unified approach also limits the capacity of municipalities to collaborate and share resources. If municipalities could work together, they could access larger funds, share the costs of infrastructure upgrades, and achieve better rates for water procurement. Instead, the current divided system forces municipalities to compete for limited state and federal funds, further widening disparities between wealthier and under-resourced towns and cities.

Ultimately, this lack of coordination and inability to benefit from economies of scale creates an environment where smaller and financially constrained municipalities are unable to adequately address their water infrastructure needs. As a result, water rates rise and infrastructure decays, and residents in these municipalities bear the consequences.

THE PATHWAY FORWARD: STRENGTHENING WATER GOVERNANCE THROUGH REGIONAL COLLABORATION AND STATE-LEVEL OVERSIGHT

The challenges in northeastern Illinois' water governance system are multifaceted, deeply rooted in historical fragmentation, and exacerbated by a lack of centralized coordination and transparency around rate-setting. As the region struggles with rising water costs, infrastructure decay, and uneven access to resources, the need for a comprehensive, region-wide solution has never been more urgent. However, the path forward is neither simple nor linear. Multiple frameworks, including the lessons from Wisconsin, Indianapolis, and Ohio, offer valuable insights into how Illinois might address these long-standing issues while being mindful of local political realities, resource constraints, and capacity disparities.

CONSOLIDATED OVERSIGHT: THE WISCONSIN PUBLIC SERVICE COMMISSION (PSC) MODEL

One potential solution to the lack of centralized oversight lies in the centralized regulatory model employed by Wisconsin's Public Service Commission (PSC), a department of the Wisconsin state government responsible for regulating public utilities. The Wisconsin PSC oversees more than 575 drinking water utilities (and a few wastewater facilities) across the state, encompassing both municipal and private systems.[42] This consolidated body ensures consistent regulation of price-setting, performance monitoring, and accountability, facilitated through public-facing dashboards,[43] and financial management under a unified framework.

[42] "Water Regulation in Wisconsin."
[43] "WI Water Rates Dashboard," September, 2020.

The Wisconsin PSC's approach to rate-setting is grounded in a clearly defined and regulated methodology, guided by statutory principles and administrative codes that require rates to be reasonable and nondiscriminatory. Central to this process is the Cost-of-Service Study (COSS), which determines the necessary revenue for a utility to cover its operational costs, infrastructure expenses, and capital recovery. The COSS also ensures equitable allocation of costs among different customer classes, such as residential, commercial, and industrial, based on their specific usage patterns. This methodology is based on the Base-Extra Capacity model outlined by the American Water Works Association (AWWA), which accounts for both the continuous base capacity required to serve all users and the extra capacity needed to handle peak demand.[44]

A key feature of Wisconsin's rate-setting system is its use of a two-part tariff, or a combined rate structure, in 80% of its municipalities. This combines a fixed charge and a volumetric charge, with the latter largely based on an increasing/decreasing block model, as seen in northeastern Illinois.[45]

Wisconsin utilities seeking to set a certain water rate are required to file a rate-case application detailing their revenue needs, expenses, and customer water usage. The PSC reviews these applications, conducts a thorough audit of the utility's financial records, and may request additional information or adjustments. One of the PSC's critical roles is maintaining transparency throughout this process. All documents and decisions related to rate cases are made publicly available via an electronic filing system, allowing for public participation and scrutiny. This level of transparency is essential for building trust and accountability in the rate-setting process, ensuring that utilities are held to high standards and that customers are not charged unfairly.

In contrast, Illinois' water governance system lacks a centralized rate-setting process. As discussed in previous sections, municipalities in Illinois independently negotiate their water rates, often without clear visibility into the methodologies used or the fairness of the rates being set. While larger municipalities may have the bargaining power to secure more favorable terms, smaller municipalities often struggle to negotiate and are thus often left facing higher wholesale rates.

Adopting a regulatory framework similar to Wisconsin's PSC would allow Illinois to move towards more consistent, equitable, and transparent water pricing. Expanding the regulatory authority and mandate of the IDNR would be a natural place to start, as it already performs some oversight around lake water usage. A centralized rate-setting system would address the stark disparities in water pricing, ensuring that municipalities, regardless of size, pay fair rates for water services. It would also improve transparency, enabling municipalities to more easily assess the costs associated with their water systems and secure the necessary resources for maintaining and upgrading their infrastructure. By streamlining water governance and rate-setting processes in this way, Illinois could create a more efficient and equitable system, benefiting both large and small communities alike.

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[44] *Assessing the Governance of Water Utility Financial and Infrastructure Management* (RAND Corporation, 2023).
[45] *Assessing the Governance of Water Utility Financial and Infrastructure Management* (RAND Corporation, 2023).

CENTRALIZED FUNDING AND TECHNOCRATIC SUPPORT: THE OHIO MODEL

Ohio's approach to water system financing presents a compelling alternative to Illinois'. While both states maintain decentralized governance models in which municipalities independently oversee their water systems, Ohio distinguishes itself with a unified funding framework that supports both operational needs and capital infrastructure investments, ensuring equitable and consistent access to state resources. As discussed above, Illinois relies on a disjointed and often cumbersome application process, making it particularly difficult for smaller and less-resourced municipalities to secure the financing necessary to maintain and improve their systems.

Ohio's water funding system is centralized through institutions like the Ohio Water Development Authority (OWDA), which has disbursed more than $24 billion in loans for water infrastructure projects since its inception in 1968. In 2024 alone, Ohio allocated $1.7 billion to support the modernization of water infrastructure throughout the state, with a significant focus on low-income municipalities. [46] Ohio's centralized system ensures municipalities do not struggle through a competitive, opaque process. The Ohio Environmental Protection Agency (Ohio EPA), in partnership with the OWDA, facilitates targeted financial assistance for municipalities in need. For instance, in 2024, Ohio's Drinking Water Assistance Fund (DWAF) awarded over $300 million in loans to local water projects[47], and the BUILDS Water and Wastewater Infrastructure Grant Program awarded nearly $500 million to 343 local projects by July 2023.[48]This comprehensive structure ensures equitable access to funding, offering municipalities the stability they need to plan long-term water system upgrades.

In contrast, Illinois faces a substantial funding gap. Although the Illinois Environmental Protection Agency (IEPA) channels assistance through the State Revolving Fund (SRF), FY2024 state disbursements totaled about $622 million, approximately $260 million for drinking water (PWSLP)[49] and $362 million for clean water (WPCLP),[50] well below the State's $35 billion twenty-year or $1.75 billion annual capital need. [51] On that basis, the implied annual shortfall is roughly $1.13 billion before inflation ($1.3 billion[52,53] in FY2023).

Ohio offers a clear lesson for Illinois. The state's centralized approach, including its streamlined processes and robust funding programs like the BUILDS program and DWAF, ensures more equitable and efficient distribution of resources. In contrast, Illinois' fragmented system, where

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[46] Ohio Water Development Authority, "2024 OWDA Annual Report," 2024.
[47] Ohio Environmental Protection Agency, Drinking Water Assistance Fund, Program Year 2024 Annual Report, August 2024.
[48] Ohio Department of Development, "Water and Wastewater Infrastructure Grant Program."
[49] "PWSLP Funding Levels," November, 2024.
[50] "WPCLP Funding Levels," November, 2024.
[51] Kim Biggs, *Illinois Environmental Protection Agency and Illinois Finance Authority Successfully Complete Sale of Series 2025 Green Bonds*.
[52] "PWSLP Financial AR 2023," October, 2023.
[53] "WPCLP Financial AR 2023," October, 2023.

municipalities compete for limited funding, exacerbates disparities and inefficiencies, especially in less-resourced communities. By adopting elements of Ohio's centralized and coordinated funding structure, Illinois could reduce these disparities, streamline its funding processes, and reduce competition between municipalities. This shift would not only improve access to necessary resources but also ensure the long-term sustainability of Illinois' water systems, much like Ohio has achieved through its comprehensive, state-facilitated approach to water governance.

INTEGRATED GOVERNANCE: INDIANAPOLIS

A more integrated model of water governance is demonstrated by the Citizens Energy Group (CEG) in Indianapolis, which consolidated its water, wastewater, steam, and gas services under a single entity in 2011. Regulated by the Indiana Utility Regulatory Commission (IURC), CEG now serves more than 800,000 residents across nine counties, managing a vast network spanning thousands of miles of pipelines and sewer lines.[54]

The decision to integrate these services yielded significant operational and financial advantages. The consolidation of services allowed CEG to realize $40 million in annual savings, which were redirected into essential community infrastructure projects. In addition, the consolidation enabled CEG to access AAA-rated bond financing, which played a key role in funding essential infrastructure upgrades required under federally mandated consent decrees. This shift to a unified utility governance structure showcases the power of centralization in driving cost savings and increased financial flexibility. [55]

These advantages largely flow from procurement scale and a stronger credit profile. A single operator can run larger, multi-year procurements for pipes, meters, and treatment chemicals; standardize specifications; pool crews and equipment; and place billing and IT on a common platform, driving down unit costs and administrative overhead. On the financing side, consolidation typically enables steady access to below-market SRF loans and lower interest costs on revenue bonds, while infrastructure riders, i.e., small, regulator-approved surcharges on customer bills,[56] keep cash flowing and let a utility start recovering the cost of specific projects. Taken together, these features allow a capital investment program to be sequenced on more favorable terms, moderating, rather than eliminating, rate pressure while sustaining compliance and service quality to residents.

For northeastern Illinois, the Indianapolis model offers important lessons. Consolidating water and wastewater services at the regional level could generate similar economies of scale, reduce operational redundancies, and strengthen the financial sustainability of local systems. However, full consolidation would likely face political hurdles, as municipalities are often reluctant to cede operational control or rate-setting authority. However, a horizontal integration model, built on

[54] US Water Alliance, "Strengthening Utilities Through Consolidation: The Financial Impact."
[55] US Water Alliance, "Strengthening Utilities Through Consolidation: The Financial Impact."
[56] *The formal, comprehensive proceeding where the regulator resets a utility's base rates using cost-of-service principles e.g., reviewing expenses and capital needs.*

joint procurement, shared technical services, coordinated capital planning, and aligned affordability policies, could deliver many of the same benefits without dismantling local ownership. By pooling resources and leveraging combined purchasing power to secure more favorable financing from the state, northeastern Illinois could lower operating costs, improve long-term financial stability, and promote equitable service delivery across both affluent and economically disadvantaged communities, an urgent priority in a state where disparities in water access and affordability remain widespread.

CONCLUSION

The governance system for lake water use in northeastern Illinois faces mounting structural and operational challenges. For decades, it has been constrained by a complex patchwork of municipalities, commissions, and private utilities, all acting independently. This arrangement has fostered systemic dysfunction that falls most heavily on the state's most vulnerable communities. Rising infrastructure costs, disparities in water pricing, and the absence of a unified strategy for long-term sustainability can no longer be ignored.

There is no simple solution to this problem and no single reform that will immediately fix the challenge. The reality is complex, and any possible solution is not a one-size-fits-all model. However, lessons from other states offer valuable insights. Wisconsin shows how state regulation of water utility prices can improve accountability, transparency, and fairness in rate structures. Ohio demonstrates that coordinated state infrastructure funding can improve efficiency and expand the capacity of low-resource utilities to meet capital needs. Indianapolis illustrates how integrating drinking water and wastewater services under one agency can improve coordination and reduce duplication. These examples are not direct blueprints but examples that highlight the importance of coordination, planning, and the pooling of resources.

Furthermore, what these case-studies underscore is the critical need for Illinois to rethink its approach to water governance, not in terms of abstract theoretical solutions, but in terms of practical, achievable reforms that build on what has worked elsewhere. It also raises the crucial question:

> *Can Illinois, with its deeply ingrained political and government fragmentation and historic attachment to local control, overcome the political resistance that inevitably arises when consolidation is suggested?*

This question cannot be deferred any longer, as the costs of inaction will continue to fall disproportionately on the most vulnerable communities.

The next step for Illinois cannot simply be another incremental reform or piecemeal effort. It must be a systemic reevaluation of how the state approaches its water resources. While the solutions from Ohio, Wisconsin, and Indianapolis offer useful insights, the ultimate answer will lie in a model that is unique to Illinois, one that considers the state's complex political landscape and its varied municipal needs. The region's water governance system needs a radical shift, one

that moves from fragmented inefficiency to coordination, from inequity to fairness, and from short-term fixes to long-term sustainability. Only then can northeastern Illinois ensure that every community, regardless of its economic standing or geographic location, has access to clean, affordable water — a fundamental human right.