Michigan at a Crossroads

Potential for Economic Regulation of Michigan's Water Sector

Policy Brief for the Incoming 2019 Gubernatorial Administration

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Economic Regulatory Jurisdiction for Water Utilities

This policy brief considers the potential role for economic regulation of water utilities in Michigan, particularly given considerable pressure on infrastructure costs and prices and subsequent concerns about efficiency and equity, brought to light by widespread service disconnections in Detroit and the Flint Water Crisis.

Economic regulation by state public utility or public service commissions (PSCs) is widely accepted for privately (investor) owned utilities in the United States. The Michigan PSC regulates electricity and natural gas utilities (pursuant to PA 3 of 1939). The commission's stated mission is "to protect the public by ensuring safe, reliable, and accessible energy and telecommunications services at reasonable rates for Michigan's residents" (www.michigan.gov/mpsc/).

Michigan is one of only six jurisdictions that do not regulate water utilities (along with the District of Columbia, Georgia, Minnesota, North Dakota, and South Dakota). The state regulated a limited number of water utilities in the past, but effectively "deregulated" the sector in 1995. Under Michigan law, municipally owned utilities are exempt from economic regulation by the state.

For federal and state public health and environmental regulation, which focuses on water quality, the regulatory unit for oversight and enforcement is an individual water "system." Utilities may own or operate multiple systems. Today, while all of Michigan's 1,385 water systems are subject to environmental regulation, none are subject to economic regulation, including rate review. The regulatory structure is comparable for the state's more than 1,000 wastewater collection and treatment systems. A structural profile of the state's water systems is provided in Table 1 and a system map is provided in Figure 1. Michigan is typical in terms of the industry's fragmentation, with a mix of some larger and many smaller water systems that arose from development patterns.

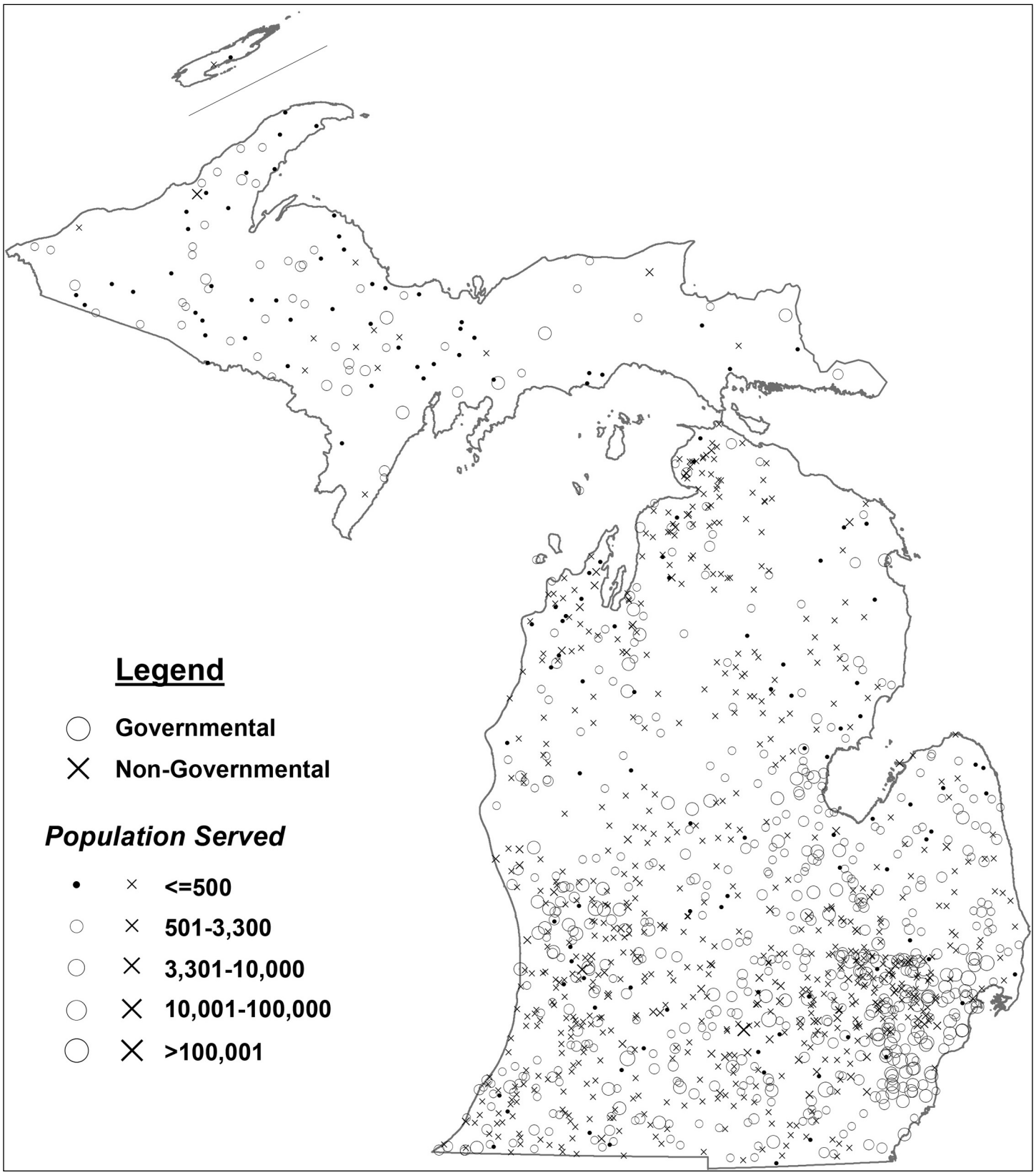
Table 1. Community Water Systems in Michigan

	Number	% of total	Pop. served	% of total	Min. pop.	Max. pop.
Total community water systems*	1,385	100.0%	7,361,397	100.0%		
Governmental systems	720	52.0%	7,180,713	97.5%		
Local governments	696	50.4%	7,167,057	97.4%		
Municipalities (cities, towns, villages)	441	31.8%	5,158,210	70.1%	40	713,777
Townships (subdivision of county)	221	16.0%	1,659,049	22.5%	25	97,513
Counties	11	0.9%	131,602	1.8%	50	71,500
Water authorities and districts	23	1.7%	218,196	3.0%	46	92,400
Wholesale-only authorities	10	0.7%	na	na	na	na
Public housing authorities	4	0.3%	186	0.0%	36	50
Law enforcement centers	1	0.1%	75	0.0%	75	75
Tribal (Native American)	0	0.0%	0	0.0%	na	na
Federal military bases	0	0.0%	0	0.0%	na	na
Federal correctional and medical	0	0.0%	0	0.0%	na	na
State correctional and medical	9	0.6%	13,395	0.2%	40	7,950
Nongovernmental systems	665	48.0%	180,684	2.5%		
Private companies	12	0.9%	9,427	0.1%	55	5,535
Not-for-profit systems	36	2.6%	8,434	0.1%		
Homeowners' associations	36	2.6%	8,434	0.1%	22	1,287
Cooperatives and mutual companies	0	0.0%	0	0.0%	na	na
Other not-for-profit	0	0.0%	0	0.0%	na	na
Ancillary systems	617	44.5%	162,823	2.2%		
Mobile home developments	342	24.7%	96,199	1.3%	18	2,268
Multifamily housing	117	8.4%	14,859	0.2%	16	3,200
Housing developments NEC	91	6.6%	23,967	0.3%	20	3,444
Heath-care facilities	34	2.5%	2,629	0.0%	25	190
Resorts and recreational	20	1.4%	5,959	0.1%	40	1,365
Schools, colleges, and universities	10	0.7%	18,825	0.3%	25	13,900
Religious facilities	3	0.2%	385	0.0%	35	250
Converged systems (included in local)						
Water and wastewater (sewer)	6	0.4%	34,520	0.5%	1,004	12,860
Water and electricity	5	0.4%	205,193	2.8%	1,759	166,000

Source: Data U.S. Environmental Protection Agency State Drinking Water Information System as verified and cleaned by the Institute of Public Utilities at Michigan State University. Data are preliminary as of September 2018.

*About 2.2 million people in Michigan are not served by community water systems and rely instead on domestic wells.

Figure 1. Community Water Systems in Michigan



Source: Based on an analysis by the Institute of Public Utilities based on data provided in the Safe Drinking Water Information System (SDWIS) of the U.S. Environmental Protection Agency for the first quarter of 2018, verified as feasible.

For water utilities, like other utilities, monopoly is accepted as a reasonable structure due to the distinctive economic character of these services, which includes capital intensity and other limits to market entry and competition, as well as their essential nature to people, economies, and societies. Economic regulation acts as a proxy for competitive forces to help ensure prudent investment and operational performance. Regulation "in the public interest" considers not only efficiency but also equity in cost allocation and rate design.

The water sector is not subject to federal economic regulation as implemented in the energy sector (i.e., the Federal Energy Regulatory Commission). Water quality regulation is overseen by the U.S. Environmental Protection Agency pursuant to the federal Safe Drinking Water Act (SDWA). States have primacy for implementing various facets of water regulation. State economic regulation typically centers on utilities that are privately owned, but some states extend regulation to utilities that are publicly owned or operated on a not-for-profit basis. Regulators deploy a comprehensive set of tools based on long-established and generally accepted practices in accounting, financing, and ratemaking.

Pressure on Costs and Rates

The water sector nationally and in Michigan faces a number of economic challenges that in turn call for governance solutions. These challenges center on the problems of aging and suboptimal infrastructure and the need for substantial capital investment. Even among utilities, water utilities are particularly capital-intensive.

For Michigan, infrastructure needs were documented in a report of the 21st Century Infrastructure Commission (2017). According to the commission, Michigan currently "has an $800 million annual gap in water and sewer infrastructure needs, compiled from decades of deferred maintenance and a lack of knowledge on the condition of our water-related assets" (p. 96). The state's newly formed Infrastructure Council and Water Asset Management Council are charged with following through on the commission's analysis and recommendations.

Rising costs and declining usage, both of which are partly driven by standards, are pressuring the rates charged for water services. Systems also increasingly rely on user charges and fees, as compared to funding from taxes or grants, to cover their revenue requirements. As costs and prices rise, so does tension about their allocation between wholesale and retail water providers, within and across customer groups (residential, commercial, industrial, irrigation, and public authorities) and over time (intergenerational equity).

While concerns about water infrastructure and affordability are not unique to the state, they are made more acute by conditions of poverty and fiscal distress. The Flint Water Crisis is multidimensional in causation, including regulatory failures. Contributing factors, however, were controversial wholesale and retail rate structures and a water pipeline project; neither was subject to the scrutiny of economic regulation. In theory, in this context, effective.

Constraints on Funding

Although methods of financing vary, funding for water and other infrastructure comes from one of two sources: taxpayers or ratepayers. In terms of cost recovery by water utilities, Michigan public policy presents two apparent hard constraints. One is found in the Headlee Amendment to the state constitution, passed by voters in 1978 (Article IX, Sections 24 to 34) to place limits on raising local tax revenues without voter approval (Wolcott, 2016). In particular:

> Sec. 26. "There is hereby established a limit on the total amount of taxes which may be imposed by the legislature in any fiscal year on the taxpayers of this state. This limit shall not be changed without approval of the majority of the qualified electors voting thereon…"
>
> Sec. 31. "Units of Local Government are hereby prohibited from levying any tax not authorized by law or charter when this section is ratified or from increasing the rate of an existing tax above that rate authorized by law or charter when this section is ratified, without the approval of a majority of the qualified electors of that unit of Local Government voting thereon…"

Another constraint materialized with the decision by the state supreme court in Bolt v. City of Lansing (1998), which invalidated Lansing's stormwater management service charge on the basis that it failed to meet the first two of three criteria for the imposition of a user fee:

- It must serve a regulatory purpose rather than a (general) revenue raising purpose;
- It must be proportionate to the necessary cost of the service; and
- It must be voluntary in that users can refuse or limit their use of the commodity or service

The court's majority found that in this case, the fee was an essentially a "disguised tax." First, enterprise fund revenues from fees replaced general fund revenues from taxes. Second, a majority of unaffected customers would have to pay for the minority of affected customers. Third, the ability to place a lien for nonpayment is also suggestive of a tax (for counterarguments, see the dissenting opinion by Justice Boyle).

Codifying the long-held conception of water as a priceable commodity, the court concluded that the storm water charge was not a valid user fee but a tax:

> To conclude otherwise would permit municipalities to supplement existing revenues by redefining various government activities as "services" and enacting a myriad of "fees" for those services. To permit such a course of action would effectively abrogate the constitutional limitations on taxation and public spending imposed by the Headlee Amendment… In fact, the imposition of mandatory "user fees" by local units of government has been characterized as one of the most frequent abridgments "of the spirit, if not the letter," of the amendment.

The reasoning behind Bolt may be generally sound, but the precedent brings Michigan cities back to the challenge of raising taxes for certain forms of public infrastructure, less they also "abrogate" the responsibility of governments to provide essential services, protect public health and welfare, and enable economic prosperity.

The degree to which Headlee and Bolt constitute "settled law" via challenges and clear precedents is not entirely clear and debated among experts. Together, however, they seem to place local funding for infrastructure between the "rock" of raising taxes and the "hard place" of raising user fees. While taxes can be made more progressive, user fees and utility rates tend to have more regressive impacts on households; that is, they take a greater share of household income for lower income ratepayers.

A well-conceived economic regulatory framework would not make raising rates any easier, but it would clarify ratemaking policy and perhaps provide some political and legal coverage for communities as they find ways to fund public utilities while protecting utility ratepayers.

Regulation of Non-private Utilities

The economic regulation of privately owned utility monopolies is well grounded in theory and practice. Economic regulation makes use of standards, incentives, and accountability that should matter to utility performance regardless of the ownership structure (Beecher, 2016). However, the details of regulation vary by system type and extending regulation to non-private utilities raises a distinct set of issues and challenges.

Privately (or investor) owned utilities devote private capital (along with debt) to infrastructure for public use and, like other private firms, are motivated by profits. Regulators authorize investments and returns thereon for the utility's equity shareholders. Regulators can also disallow imprudent expenditure from rates, which effectively reduces their returns. Under both traditional and emerging methods of regulation, returns can be tied to performance in the form of financial incentives and penalties.

Non-private water systems have various ownership structures (as seen in Table 1). They finance capital projects through debt instruments (including bonds). Non-private systems include both not-for-profit utilities (such as cooperatives and associations) as well as the various forms of government ownership (cities and towns, counties, districts, and authorities). The dominant form nationally and in Michigan in terms of population served is government ownership; municipalities and townships serve more than 90% of the population covered by community water systems in the state. In Michigan, about 2.6 million people (a quarter of the state's population) are not served by community water systems and rely instead on domestic wells.

Some systems are operated as city departments and finances may be intertwined with those of the municipality. Others are operated as "enterprise" systems, which are characterized by a financial sustainability as well as a relatively high degree of managerial autonomy.

The enterprise model is encouraged, when feasible, because it limits opportunities to transfer water funds raised from ratepayers to other municipal purposes (such as coverage of general debt or pension obligations). The flipside is that the enterprise model also tends to limit provision of some tax support for utility infrastructure, despite potential rationales for doing so. Regional enterprises (including larger cities, counties, townships, districts, or authorities) have additional advantages of scale economies and diversified customer bases over which to spread system costs.

Municipalities and municipal utilities vary in terms of their conditions and capacities. For municipal utilities that meet all applicable standards and have technical, managerial, and financial capacity (as defined by the federal SDWA), economic regulation may not be necessary. Some water systems operate as autonomous enterprises with sufficient capacities and independent governing boards. A good case can be made for leaving high-performing and highly accountable local utilities in local hands. In other words, it is possible for water utilities to be well "regulated" at the local level.

For some systems, financial oversight may be lacking, and even for well-managed utilities, state economic regulation adds a layer of accountability for operational and economic performance. The core purpose of economic regulation is to ensure the financial sustainability of the utility monopoly (in terms of reasonable returns) while protecting ratepayers from abuse of monopoly power (in terms of reasonable rates); these concerns are universal due to the essential nature of utility services. Regulatory review can add to the legitimacy as well as the political and legal defensibility of spending (capital, operating, and maintenance), financing, and rate decisions. Ideally, independent regulation would help depoliticize decision processes, while still respecting local interests and values.

In the context of federalism and shared responsibilities, the regulation of non-private water systems raises the specter of government overseeing government, which is a sensitive area of public policy (Berg, 2013). For private entities, profit-based incentives and enforcement can take advantage of fines and penalties ("sticks") that are borne by shareholders. For publicly owned systems, other incentive instruments ("carrots") are generally needed. These many include access to grants and loans. As necessary, however, a state could bring penalties against individual managers (such as a license suspension or revocation) or utility systems (such as a consent decree or forced takeover).

For local governmental units experience a financial emergency, Michigan law also allows the state to install a temporary fiscal manager with substantial authority over operations (which may include the local utilities).

Economic regulation is conceptually consistent with the goals of capacity development under the SDWA and the long-term sustainability of systems. Moreover, building the state's capacity to regulate the non-private sector also builds capacity to regulate the private sector. Jurisdiction and authority would also prepare the state for reviewing any proposals for privatization that would treat Michigan's water utilities comparable to its regulated energy utilities.

Regulation of non-private systems can be a light-hand form and oriented less to enforcement and more to assistance and improvement in terms of utility asset management, operational performance, and service quality. However, regulation can also compel utilities to follow accepted principles and practices, which requires effort but should serve them well in the long run.

Michigan has some relevant precedents for economic regulation of both the water sector and non-private systems. As mentioned, the state regulated water utilities until 1995. The PSC also has jurisdiction for cooperative electric utilities. With respect to the concept of appeals authority, discussed below, an analogue can be found in the State Tax Commission (Department of Treasury) with regard to property tax appeals and dispute resolution. An economic regulatory framework for non-private water systems in Michigan can be modeled on the state's jurisdictional experience as well as those of other states.

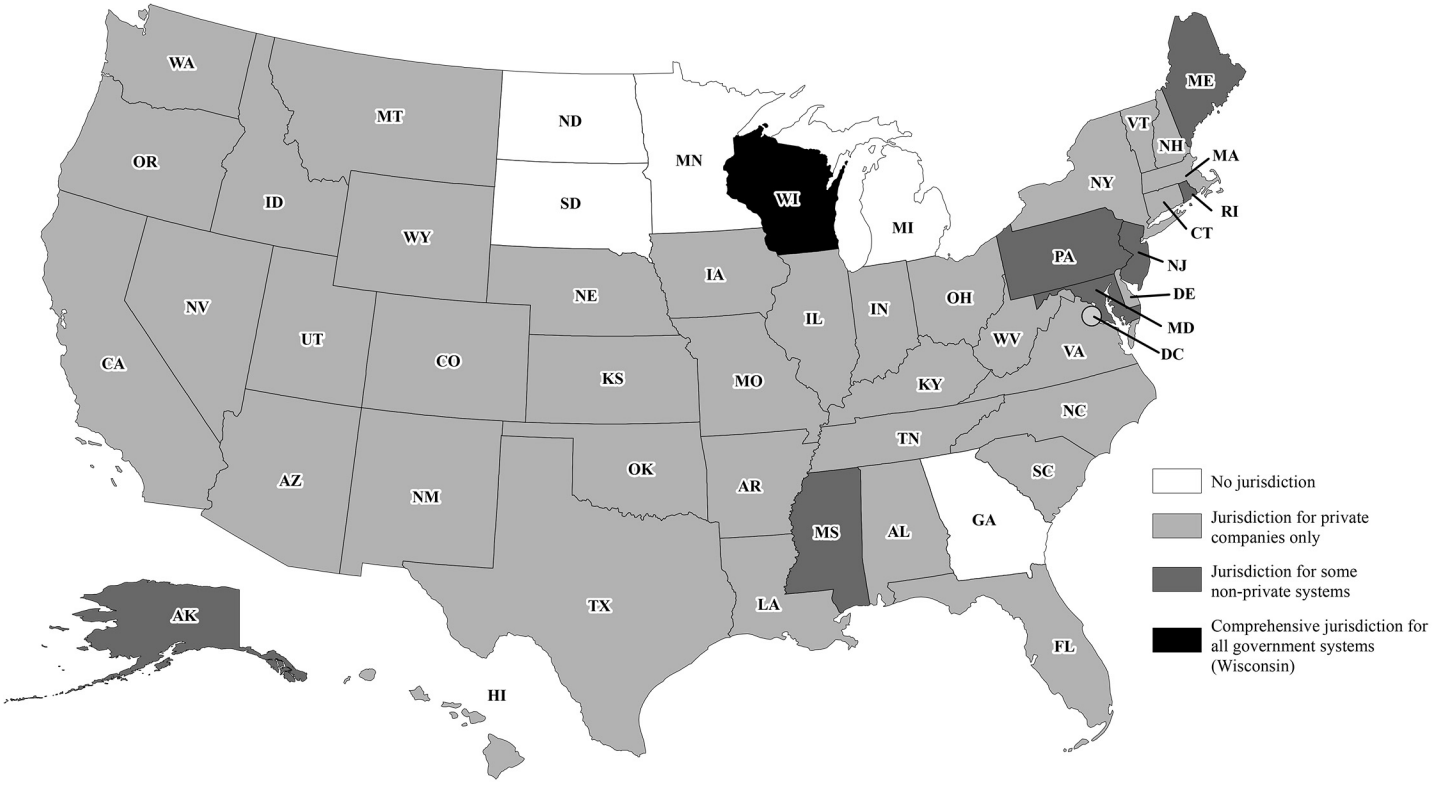
Jurisdiction for Non-Private Water Utilities in Other States

While regulation of privately owned (investor-owned) utilities is common across the sectors, including the water sector, regulation of non-private water systems is less common and variable across the ten states with jurisdiction and authority in this area.

Figure 2 summarizes state economic regulation of water utilities in the United States. Wisconsin is the only state with comprehensive jurisdiction for municipal water utilities. Nine other states (Alaska, Indiana, Maine, Maryland, Mississippi, New Jersey, Pennsylvania, Rhode Island, and West Virginia) have conditional jurisdiction for municipal or other non-private systems.

These nine states and 36 others regulate privately or investor owned water utilities that vary widely in scale and structure. Six jurisdictions (the District of Columbia, Georgia, Michigan, Minnesota, North Dakota, and South Dakota) have no economic regulatory jurisdiction for the water sector.

Figure 2. Economic Regulatory Jurisdiction for the Water Sector



Source: Based on surveys by the Institute of Public Utilities (MSU) and the staff of the Wisconsin Public Service Commission.

Here we highlight the prominent jurisdictional models in a few of the states that regulate both private and non-private water utilities. Links to commission websites from which information was gathered are provided in the References.

Indiana Utility Regulatory Commission:
"Opt-out Provision"

- The commission regulates investor-owned, municipal, not-for-profit, and cooperative utilities – except those that opt out of regulation, as enabled by statute.
- The commission does not regulate municipal wastewater utilities.

Pennsylvania Public Utility Commission:
"Outside Customers"

- The commission regulates investor-owned utilities and the rates and service to customers served by municipal (or other) utilities providing service outside of their corporate boundaries (or areas).
- The commission does not regulate municipal authorities, cooperatives (not-for-profit), mobile home park systems, or wholesale activity between municipalities.

West Virginia Public Service Commission:
"Small Water Districts"

- The commission regulates investor owned water and wastewater facilities.
- The commission also regulates smaller public service district water and sewer facilities providing separate or combined services (fewer than 4,500 customers and annual gross revenue of less than $3 million).

Wisconsin Public Service Commission:
"Comprehensive Municipal Regulation"

- The commission imposes economic regulation on all of the state's municipal water utilities plus a small number of privately owned water utilities and a few wastewater utilities.
- The commission may also be involved in customer complaints or rate disputes for wastewater and stormwater utilities.

In Indiana, economic regulation is a choice by the municipality. Noteworthy is the fact that while many of state's cities have opted out of regulation, most of the larger municipal utilities have opted to stay under the jurisdiction of the state commission, suggesting that they perceive benefits relative to the costs of economic regulation, including political and legal considerations.

The Wisconsin PSC is unique in its comprehensive regulation of about 577 municipal water utilities in the state, plus the state's five privately owned water utilities and only a few of the state's 600 wastewater utilities, although it may become involved in customer complaints or rate disputes for wastewater and stormwater utilities. Wisconsin water utilities are regulated in accordance with the "utility basis" for ratemaking, which generally parallels ratemaking for privately owned utilities.

Regulated utilities in Wisconsin are subject to the commission's rules and requirements for accounting, financing, and reporting, and must file rate cases that follow a formal process. Regulators review capital and operating expenditures as well as cost allocation and rate design. The staff also publishes reports, including statistical benchmarks related to utility finances and operational performance. An overview of the staff's functional roles is provided in Table 2.

Arguments For and Against Extending State Economic Regulation

Valid arguments can be advanced for regulating publicly owned or not-for-profit (that is, non-private) water utilities at the local level. In today's context, arguments in favor of extending a state economic regulatory role into the water sector may be as compelling.

Arguments in Favor of Local Oversight

Some of the key arguments in favor of *local* oversight of water utilities are that:

- Water services are essentially local, drawing upon local resources and serving local needs.
- Local communities should be free to manage their utility services according to their values and goals.
- Water services are related to local economic development and communities should have discretion in this area.
- The cost of water services may be supported in part by local property or other tax revenues over which communities should have control.
- Community or member boards are capable of self-regulating essential public services and many are very effective in their oversight role.
- Publicly and cooperatively owned utilities are subject to democratic processes that are closer to the service population and more sensitive to local interests and values.
- Economic regulation can be somewhat rigid in the interpretation of full-cost recovery, cost allocation, and pricing.

Table 2. Wisconsin Public Service Commission: Functions of the Water Team

1. Set Water Utility Rates

- Process conventional rate cases (CRC)
- Process simplified rate cases (SRC)
- Establish terms of service (Tariffs)
- Process tariff amendments
- Process purchased water adjustment clauses
- Maintain rate case tool and application
- Process amortization requests

2. Review Utility Construction Projects

- Review applications
- Ensure compliance
- Coordinate with DNR, DOA, etc. to identify projects proactively

3. Review Utility Organizational Transactions

- Review mergers and acquisitions
- Review abandonments
- Review extra-territorial service extensions
- Process river tolls

4. Investigate Sewer and Water Complaints

- Conduct formal complaint process
- Provide technical support to resolve customer complaints

5. Promote Utility Effectiveness and Viability

- Identify financial concerns
- Promote compliance through annual report reviews and "audits"
- Assist utilities with planning
- Promote conservation and efficiency
- Approve rebate and incentive programs
- Provide support to "troubled" utilities
- Provide training and outreach
- Monitor non-revenue water

6. Manage Data and Information

- Collect annual reports
- Ensure data quality
- Identify best practices
- Manage rates dashboard
- Public newsletter articles
- Manage databases and records

7. Provide Utility and Ratepayer Support

- Answer inquiries
- Provide guidance

Source: Wisconsin Public Service Commission, Water Team Core Functions (available at https://psc.wi.gov).

- Profit motives and the potential abuse of monopoly power are nonissues for publicly and cooperatively owned utilities.
- Regulation can be bureaucratic, duplicative, time consuming, and administratively burdensome to regulated entities.
- State oversight adds regulatory expense to the utility's cost of service, which must be recovered from ratepayers.
- Regulation cedes political power and control from local public officials to state officials who may not be well informed and coordinated or sufficiently responsive to local priorities.
- Weak economic regulation, sometimes related to regulatory capture by special interests, is not effective in improving water utility performance, regardless of the form of utility ownership.

Arguments in Favor of State Oversight

Some of the key arguments in favor of *state* oversight of water utilities are that:

- The problem of market failure in the form of monopoly and the need for consumer protection exists regardless of the type of ownership.
- Economic regulation can substitute for public ownership as well as market competition, but also compliment local governance in terms of accountability.
- State commissions have greater technical capacity and expertise, particularly in the areas of economics, accounting, finance, and ratemaking.
- Rising costs and rates for essential services suggest the need for transparent process and additional oversight to validate decisions and build public confidence.

- States can impose uniform systems of accounting, reporting, and auditing that are generally consistent with the requirements of the Governmental Accounting Standards Board (GASB) and the state (Department of Treasury).
- Financial capacity and sustainability can be assured through policies in such areas as asset depreciation and reserve accounts.
- Cost allocation and rate design may be less arbitrary and more consistent across systems in the state.
- Fiscal autonomy, financial sustainability, and the need to overcome barriers to both the "willingness to charge" and the "willingness to pay" for water infrastructure and services are understood.
- Financial subsidies to or transfers from enterprise water funds potentially affecting taxpayers and ratepayers will be well justified and more transparent.
- Payments in lieu of taxes and returns to municipalities based on debt risk or other criteria would be subject to review and a test of reasonableness.
- Checks and balances provided by economic regulation can complement and reinforce environmental and public health regulation as well as policies for security, reliability, and resilience.
- Standards can be developed for system level planning and forecasting as well as resource and asset management, operational performance, and service quality.
- Financial oversight can ensure that systems have access to available public funding sources (grants and loans).
- Decisions about capital investment and cost recovery may be more deliberative and less politicized.
- Systems would be expected to more accurately account for trends in sales, revenues, and expenditures.
- Capital and operating expenditures would be expected to ensure compliance with all applicable environmental, public health, and other standards and the provision of adequate service levels.
- With sufficient legislative and judicial support for appeal authority grounded in regulatory jurisprudence, frivolous lawsuits and their expense could be avoided.
- Opportunities for political corruption, including in the deployment of public funds, would be reduced.
- Capital financing instruments and terms could be evaluated, as well as the debt capacity of the utility and the local governmental unit.
- The general public and investors (bondholders) would have more confidence in financing and ratemaking processes.
- A stable environment is viewed positively by credit rating agencies and may lower the cost of capital.
- Payments in lieu of taxes and returns to municipalities based on debt risk or other criteria would be subject to review and a test of reasonableness.
- The playing field among alternative types providers (public, private, and not-for profit) would be levelized, perhaps allowing for institutional contestability.
- Ratepayers would be protected when publicly owned systems are privately operated (partnerships).
- Common oversight can promote and facilitate optimal system operations, including economically beneficial variations of regionalization or consolidation.
- Community values related to such issues as economic development and affordability can be incorporated into ratemaking, subject to review for reasonableness.
- Ratepayers and other stakeholders would have access to open records and open public forums for expressing their views and preferences.
- Rates for utility services would be evaluated in terms of established standards for both efficiency and equity, and reasonableness.
- Ratepayers and other stakeholders would have access to consumer protection and dispute resolution services (avoiding the cost of litigation).
- Disputes between wholesale and retail service providers (or among classes or groups of retail ratepayers) could be resolved more efficiently by regulatory than by judicial means.
- Regulatory proceedings may incorporate alternative dispute resolution methods (such as stipulations and settlements).
- Utilities can be provided with some rate-case assistance to reduce regulatory expense.
- Cost allocation and rate design by wholesale water systems would be subject to external review with regard to impacts on retail system operations and costs.
- Permitting for major capital projects could be subject to a coordinated state review of environmental impacts and economic viability.
- Major capital projects would require certification of public convenience and necessity, including an evaluation of usefulness, prudence, and ratepayer impacts, with consideration of opportunities for optimization and cost avoidance.
- Transfers of substantial utility assets, including from one ownership form to another (such as privatization), would be subject to review and approval based on public and ratepayer benefits.

Potential Regulatory Models

Three key dimensions define the U.S. economic regulatory framework with respect to public utilities:

- Jurisdiction: what types of utilities are regulated (e.g., privately or publicly owned systems).
- Authority: what utility functions are regulated (e.g., planning, tariffs, or customer complaints).
- Methods: what means of regulation are applied (e.g., rate- of-return regulation or price caps).

Substantial variation can be found across the states and the utility sectors in terms of these regulatory dimensions, illustrating a range of possibilities.

Nonetheless, utilities of different ownership structures share common fundamentals. The core regulatory principles and methodologies applicable to privately owned utilities are mostly transferable non-private systems. This includes the "utility basis" for cost accounting and ratemaking. Key differences, of course are found in the financing of capital projects through debt (bonds) and equity (stocks) and in taxation. Some municipal utilities, however, pay tax and return equivalents and these can be accounted for in the ratemaking process.

Alternative Oversight Models

In terms of introducing economic regulation to non-private water systems, several distinct options are available. Most are not mutually exclusive, meaning that jurisdiction, authority, and methods can be customized to meet the state's policy priorities.

Accounting and Reporting Requirements

A rudimentary form of regulation would be to require all municipal (or other) utilities to follow a uniform system of accounts and file financial reports and tariffs (pricing schedules) annually with the PSC, which would facilitate transparency and comparison by creating an accessible repository. Accounting systems are readily available and adaptable for this purpose. This type of authority emphasizes documentation and explanation of utility finances, including subsidies and transfers.

Financial Auditing

Along with financial reporting, the PSC could also be given audit authority, which might be especially relevant to utilities operating in the context of local fiscal distress. In addition to financial audits, some commissions have additional authority to conduct or order management audits. Regulatory auditors can employ a variety of investigatory and analytical tools to assess utility financial and managerial performance.

Prudence Review

The PSC could assess the prudence of major, long-life capital expenditures by water utilities, such as treatment plants and pipelines, to ensure both public necessity and investment prudence. The review could cover financing arrangements (debt issuance and depreciation schedules) as well as the ratemaking methods for recovering costs from ratepayers over time.

Comparative Benchmarking

In addition to making financial reports transparent and available to the public, the PSC could provide an annual comparative report using standard statistical metrics. Performance benchmarking is a recognized tool for informing regulators and motivating improvement. Utilities could be given an opportunity to provide explanations for deviations from norms and peers.

Exemptions

A priori criteria (such as a size threshold based on population served or utility revenues) could be used to exempt some systems (smaller or larger) from jurisdiction or specific areas of authority. For example, accounting and reporting standards might be required of all utilities, while ratemaking might apply only to some. A downside of thresholds, however, is the potential for strategic behavior (or "gaming") to avoid regulation.

Opt-in

An opt-in would allow municipal (or other) utilities to choose to be regulated. In other words, they would voluntary submit to PSC oversight and associated rules, including fees for the cost of regulation. This option would limit jurisdictional utilities to those that perceive benefits relative to costs. Chief benefits identified by utilities that choose regulation are the built-in audit function and the depoliticization of ratemaking.

Opt-out

Under this approach, all municipal (or other utilities) would be placed under PSC regulation and allowed to opt out, either conditionally or un-conditionally. Conditions might include compliance with specified standards or practices, or the presence of an effective local oversight board. In some areas of public policy, opting out (vs. opting in) yields a higher rate of participation.

Safe Harbor

A safe harbor approach exempts systems from economic regulation in the absence of a documented problem. As in opting out, conditions might include compliance with standards or practices. Structural or financial criteria might also apply. This approach could involve flags and triggers, such as substantial changes to rate levels or rate design, high volumes of customer complaints or a petition by ratepayers, as established by the PSC. State oversight could be stepped up or down based on regulatory assessments of operational performance, service quality, and customer satisfaction.

Outside Service

Regulatory jurisdiction might be triggered when a municipality extends service outside of its corporate boundaries and charges higher rates for "outside" than for "inside" water customers. Regulation would ensure that differential rates reflect a cost-of-service rationale, including differences related to debt risk.

Dispute Resolution

A limited form of regulatory authority would allow ratepayers (or others) to file complaints with the PSC. The advantage of this type of authority is that it provides customers with a convenient means of dispute resolution and complaints are processed by trained experts. This authority would require development of consumer protection rules, processes, and enforcement mechanisms.

Court of Appeal

In theory, the PSC could be designated as a state court of appeal for disputes over utility rates or other terms of service. The advantage of this approach would be to address ongoing concerns about disruptive and costly litigation pursuant to the Headlee amendment and the Bolt decision. The PSC could apply long-held regulatory standards to determine whether established rates are "just and reasonable," which should allow for discretion by the PSC as well as a degree of subsequent deference from courts of appeal.

Multi-year Rate Model

In this approach, the utility would propose a financial and rate plan for a multi-year period. Annual financial and tariff filings would still be made and audits conducted as needed. Rates could be set with adjustment mechanisms for efficiency and inflation. As with most price-cap and performance-based regulatory models, regulators would develop metrics for performance monitoring. The advantage of this approach is that it would lower regulatory expense while preserving oversight.

Full Jurisdiction

A full jurisdiction model for the water sector could be patterned after the model implemented in Wisconsin (see Appendix), which encompasses all municipal water and energy utilities. Under this model, utilities are subject to the full scope of economic regulation, including ratemaking. Utilities would need to secure regulatory approval for major capital investments, financial issuances (bonds), and methods of cost allocation and rate design. Drawing on experience in other sectors, regulators would have a complete set of tools to protect the interests of both utilities and their ratepayers. Utilities typically pay fees to the state to support the cost of economic regulation.

In sum, various elements of these models could be adapted and combined to frame state regulatory jurisdiction, authority, and methods.

Implementation Strategies

More than two decades have lapsed since the Michigan Public Service Commission had jurisdiction for water utilities. Toward the goal of re-implementing and reshaping regulation of the sector, the following ideas are recommended.

Stakeholder Forum

The state could convene a forum to consider the ideas presented in this policy brief. Invitees would include key stakeholders and regulatory experts. Stakeholders could include representatives of various water utilities and related entities. Experts could include commissioners and technical staff of the Michigan PSC, representatives from Wisconsin and Indiana, academic researchers, consumer advocates, and consultants. The forum could help improve understanding of the role of regulation among stakeholders and should also provide an opportunity for public input. Its work product could be a set of ideas suitable for legislative and regulatory policy development.

Legislative Task Force

Based on findings and recommendations of the workshop, a legislative task force could be formed to draft proposed legislation. This would involve reviewing past and current PSC responsibilities, as any legislation would amend Public Act 3 (1939) establishing commission regulation. Legislation would be needed to specify the both jurisdiction and authority in order to legitimize the commission's role. Legislation can be broad or specific; broader authority would allow for more commission discretion, including the development of sector-specific rules. A phased approach to regulation could be taken, based on priorities. A sunset provision would also allow for reevaluation.

Regulatory Working Group

A regulatory task force could focus on rebuilding PSC regulatory capacity for the water sector. The cost of regulation must be supported through taxes or fees. Rulemakings would be needed to specify the commission's authority and policies in particular areas. Systems for accounting, auditing, and reporting would need to be developed. The commission would need to recruit and train technical staff members and build expertise. The economic regulatory model and tools are largely transferable from one sector to another and while the commission would be entering relatively new territories (the water sector and non-private utilities), it already has a working roadmap. Again, broad legislative authority would afford the commission with the flexibility needed to adapt regulatory requirements to water utilities.

In sum, Michigan continues to face challenges with respect to the water sector. Asking stakeholders and constituents to trust in a new form of government regulation is a big ask. Regulation is not a panacea and only one of several policy options.

Nonetheless, a public-interest oriented economic regulatory approach that respects community values could potentially help repair some of the trust lost to recent water-related crises in the state.

Expanding regulation of any kind is rarely welcome, perhaps especially in political climates that favor limited government and deregulation. Many will view the idea as unnecessary, intrusive, and expensive. Nonetheless, carefully framed, regulation could be a positive force for Michigan's water sector and perhaps in other states as well. The choice of whether to impose economic regulation should not be based on ideology but on a clear conception of the public interest. As for all public policies, the benefits of regulation should outweigh the burdens. A takeaway from this analysis is that economic regulation of Michigan's water sector is worth exploring.

References

Beecher, Janice (2013). "What matters to performance? Structural and institutional dimensions of water utility governance," International Review of Applied Economics 27, 2.

Berg, Sanford (2013). "Best practices in regulating state-owned and municipal water utilities." United Nation's Economic Commission for Latin America and the Caribbean.

Indiana Utility Regulatory Commission. https://www.in.gov/iurc/

Pennsylvania Public Utility Commission. http://www.puc.state.pa.us/

West Virginia Public Service Commission. http://www.psc.state.wv.us/

Wisconsin Public Service Commission. https://psc.wi.gov/

Wolcott, Eric (2016). "What is the Headlee Amendment and how does it affect local taxes? MSU Extension. https://www.canr.msu.edu/news/what_is_the_headlee_amendment_and_how_does_it_affect_local_taxes

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