

Briefing Paper

State Commission Regulation of Wastewater

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EXECUTIVE SUMMARY

While regulating wastewater utilities probably is not, for obvious reasons, the most glamorous area of work that state regulators do, it is among the most important because of its direct tie to public health. As with water supply, wastewater treatment is a capital intensive endeavor with significant amounts of deteriorating infrastructure in need of careful attention. The impact on health and the high costs of infrastructure are among the reasons why some state commissions are beginning to regulate wastewater utilities and other commissions are updating and refining their methods.

NARUC's Committee on Water expanded its mission in 2004 to explicitly include wastewater utilities. At the Committee's request and in response to the interests of those 32 state commissions that are engaged in the regulation of wastewater, this briefing paper describes typical regulatory techniques and practices to certify new utilities, oversee abandonment and bankruptcies, quicken cost recovery, and address other current and emerging wastewater issues. Such issues include, among others, the need for better asset management and capital planning, controlling the proliferation of decentralized wastewater systems, and utilization of water reclaimed from wastewater.

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INTRODUCTION

Regulation of wastewater or sewerage utilities from start to finish typically includes:

- Environmental and economic approval to operate
- Setting rates adequate to cover operating costs, provide money for needed replacements, upgrades, and security-related investments, and enable a fair rate of return
- Establishing and enforcing customer service and environmental standards
- Providing for the takeover or transfer of a failing or abandoned wastewater utility
- Oversight of utility capital planning and asset management activities

State regulation of wastewater takes place in a national context. The first section of this briefing paper describes national issues of wastewater infrastructure, labor force needs, decentralized wastewater systems, and features of the federal Clean Water Act (the Act or CWA). On the public health/ environmental side of the regulatory equation, wastewater utilities are governed by the CWA, which regulates the level of pollutants and treated sewage permitted to flow into our nation's rivers, bays, and other bodies of water. Most states operate their own clean water programs, but a few are handled by the U.S. Environmental Protection Agency (EPA). These jurisdictions include Idaho, Massachusetts, and the District of Columbia.

As with the provision of drinking water in this country, wastewater services are mostly provided through local public entities such as municipalities or municipal utility districts. However, the private sector also plays a role. Approximately 20 percent of wastewater systems are privately owned and likely

to fall under the jurisdiction of state utilities commissions. Most privately owned systems serve fewer than 10,000 customers.¹ Some municipally owned and operated wastewater providers are also regulated by state commissions. The bulk of this paper is devoted to issues faced by state regulators.

NATIONAL WASTEWATER PROBLEMS AND APPROACHES

Infrastructure Replacement

Wastewater collection and treatment facilities are critical elements in the nation's infrastructure. Wastewater utilities have invested billions of dollars over the past century in facilities to transport and treat waste, with most of it funded by local ratepayers. In fact, the water and wastewater industries are among the most capital intensive per customer, requiring extremely large investments in fixed assets. Thus, the ability to raise capital is essential to successful utility operations. Utilities usually obtain capital funding from a mix of external and internal sources. External sources consist of common stock, preferred stock, long term debt, and short-term debt. Internal sources of funds are depreciation and retained earnings.

Infrastructure deteriorates over time. Despite this, many wastewater utilities have not regularly assessed and maintained their systems. One reason for this, according to the U.S. General Accountability Office (GAO), is that wastewater funds obtained from user charges and other local sources of revenue were less than the full cost of providing service for more than four out of ten wastewater utilities (with more than 10,000 customers) in their last fiscal year.²

About 20 percent of wastewater systems are privately owned and likely to fall under the jurisdiction of state utilities commissions.

Some wastewater utilities simply are not charging rates adequate to both cover their cost of service and fund infrastructure replacements and upgrades. In the case of small utilities, their ability to generate funds internally is constrained as is their ability to acquire external funding. They are not large enough to sell stocks or bonds or to get loans at reasonable rates, and their rate base is too small, too old, or the amount of contributed plant too great to generate enough funds internally using depreciation methods best suited to large utilities. That is why some states have established or are considering special regulatory treatment for small systems.

In addition, many utilities that GAO surveyed lacked plans for managing capital assets. Among those that had plans in place, more than half had not accounted for all of their assets or had left out important plan elements such as an assessment of an asset's physical condition. Concerning the condition of pipelines, GAO's survey showed that more than one third of utilities had 20 percent or more of their pipelines nearing the end of their useful lives. Even so, roughly half of the utilities actually rehabilitated or replaced one percent or less of their pipelines annually. And 89 percent of drinking water utilities and 76 percent of wastewater utilities reported that a higher level of rehabilitation and replacement should be taking place.³

Clean Water Act Compliance

Aging and too often ignored infrastructure is one major feature of our nation's current state of affairs as it pertains to wastewater. In addition, wastewater utilities must comply with the CWA which governs regulation of discharges of pollutants into the waters of the United States. Under the CWA, the EPA has the authority to implement pollution control programs including setting standards for

industry and water quality standards for all contaminants in surface waters. The Act makes it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit is obtained.

Discharges from sewage treatment plants are a leading source of water quality impairment in the nation's rivers and streams, lakes, estuaries, and coastal waters. Pollutants found in discharges include nutrients which can cause algae to grow that deplete dissolved oxygen which is essential for aquatic ecosystems. Most fish, for example, "breathe" oxygen dissolved in the water. Bacteria and other pathogens (which may harm drinking water supplies and recreation uses) and metals and toxic chemicals from industrial and commercial activities and households are also associated with waste discharges from sewage treatment plants.

Not all sewer systems are the same. Modern systems generally handle rainwater (storm water runoff) and sewage from homes and businesses in different pipes. Older cities have "combined" sewers that carry both flows together. During normal conditions the flows can generally be delivered to treatment plants. During heavy rains, when flows can double or even triple, these systems become overloaded. Built-in overflows (called combined sewer overflows or CSOs) must then provide relief by letting excess flows leave the system upstream of sewage treatment plants, into the nearest body of water. Across the nation, there are 40,000 CSOs each year.⁴ Fortunately, CSOs prevent sewage backups into homes and onto streets, but they harm local water quality. Also of concern are sanitary sewer overflows or SSOs. SSOs occur when sanitary sewer collection pipes are blocked, restricted, or broken, causing wastewater to back up in the pipe and flow out through manholes or

Revenues total less than the full cost of service for four out of ten wastewater facilities.

Wastewater utilities must meet requirements of the Clean Water Act.

pipe breaks to the surface of the ground, creeks or lakes.

The CWA mandates performance levels to be attained by sewage treatment plants in order to prevent the discharge of harmful quantities of waste into surface waters and to ensure that residual sewage sludge meets environmental quality standards. It requires secondary treatment of sewage (equal to removing 85 percent of raw wastes), or more stringent treatment if needed to achieve water quality standards and desired use of a river, stream, or lake. Wastewater treatment facilities may be adversely impacted by toxins discharged from industries and households causing water quality impairments, operational upsets, and contamination of sewage sludge. The EPA reported in 1997 that industrial and commercial firms lawfully discharged 240 million pounds of wastes with hazardous constituents to municipal treatment plants.⁵

In order to construct and operate a wastewater treatment plant, a utility must apply for and be granted permits from the state environmental or public health agency charged with administering the CWA in that state. Wastewater utilities regulated by state commissions and those operated by municipalities or sewer districts are charged with carefully collecting and treating waste and ensuring that the amount and content of wastewater effluent will not impair surface waters. In short, they must comply with provisions of the CWA.

In the American Society of Civil Engineers 2005 “Report Card for America’s Infrastructure” wastewater infrastructure earned a D- grade, down from a D when the report was last issued in 2001. According to the report, “Aging wastewater management systems discharge billions of gallons of untreated sewage into U.S. surface waters each year.

The EPA estimates that the nation must invest \$390 billion over the next 20 years to replace existing systems and build new ones to meet increasing demands.”

Decentralized Systems

In a 1997 report to Congress, the EPA asserted that there would never be enough money to provide *central* sewer services to all in need of service across the country and that decentralized wastewater systems were a way to meet the demand.⁶ In that same document, the EPA highlighted lack of management as a major barrier to implementing decentralized systems and concluded that “adequately managed decentralized wastewater systems are a cost-effective and long-term option for meeting public health and water quality goals, particularly in less densely populated areas.”⁷

As their name implies, decentralized wastewater facilities are small, septic systems serving a single or small number of customers. The smallest of these are regulated at the state and local levels. Facilities that accept industrial or commercial wastes and/or have the capacity to serve more than 20 customers are regulated by the EPA. Septic systems treat and disperse relatively small volumes or “flows” of wastewater. Yet, such systems are essential to the public health of the families and commercial enterprises they serve and add to the operating costs of new housing.

In January 2005, the EPA published a Memorandum of Understanding (MOU) in which the EPA and eight partner organizations agreed to work cooperatively to address environmental problems resulting from failures of decentralized wastewater treatment systems. The agreement formalized the collaboration between the EPA and its partners to help community governments

The American Society for Civil Engineers gave wastewater infrastructure a “D minus” grade in 2005.

Centralized sewer services across the United States would be way too expensive, but decentralized systems have many problems.

improve their wastewater programs. The agreement focuses on better planning, septic system design, and long-term operation and maintenance of septic systems. The EPA partners include:

- National Onsite Wastewater Recycling Association
- National Environmental Services Center
- National Environmental Health Association
- Rural Community Assistance Partnership
- National Association of Towns and Townships
- National Association of Wastewater Transporters, Inc.
- Water Environment Federation
- Consortium of Institutes for Decentralized Wastewater Treatment⁸

In 2003, the EPA released guidelines designed to assist communities in establishing comprehensive management programs to ensure that all septic systems function properly. Proper management of decentralized systems involves implementation of a comprehensive group of elements and activities, such as public education and participation, planning, operation and maintenance, and financial assistance and funding.⁹ To facilitate implementation of the guidelines, a handbook is also being developed.¹⁰

Clean Water State Revolving Fund

Congress created the EPA's Clean Water State Revolving Fund (CWSRF) program in 1987 to serve as a long-term funding source for projects that clean and protect the nation's waters. With over \$50 billion in funds available for loan to both large and small communities, it is the country's largest federal funding program for wastewater infrastructure projects. The CWSRF, which operates

in all 50 states and Puerto Rico, has provided \$47.9 billion to nearly 15,300 projects since its inception. In 2004, the CWSRF funded \$4.6 billion in high priority projects including wastewater systems. Funding is typically directed to state-identified high priority projects based on several factors, including: public health protection; condition of impacted waters; and communities' regulatory compliance status. In 2004, the EPA and state partners began a new performance assessment for the CWSRF. Starting in 2005, 28 states will begin using a pilot set of environmental indicators to show how their projects impact water quality and public health.¹¹ To date, CWSRF funds remain unavailable to privately-owned wastewater utilities. CWSRF funding levels were threatened in 2005, prompting the National Governors Association and others to lobby Congress to maintain funding at historic levels.¹²

Some states have created their own programs to fund wastewater infrastructure improvements. New Jersey's Environmental Infrastructure Financing Program (EIFP) is one of these. It provides loans to local governments and to private water and wastewater utilities for construction of infrastructure. Wastewater projects eligible for funding include:

- Secondary and advanced wastewater treatment facilities
- Infiltration and inflow correction
- Interceptors, pumping stations, force mains and collection systems
- Sewer system rehabilitation
- Correction of combined sewer overflows
- Solutions for malfunctioning septic systems

EIFP borrowers receive two loans: a zero percent interest loan from the Department of Environmental Protection and a market

Some federal and state money is available to fund wastewater improvements.

The wastewater and water industries are growing rapidly.

rate loan from the sale of AAA-rated tax exempt bonds from the New Jersey Environmental Infrastructure Trust.¹³

As is true for water utilities, environmental compliance is one of the drivers that increases wastewater costs and places upward pressure on rates. Environmental compliance requirements will also influence the extent to which smaller utilities can stay in business in the long-run. Some state commissions are finding it beneficial to communicate and share information with environmental and public health agencies at the state level in order to streamline permitting and certificating processes, work with and/or discipline problem utilities, and oversee closures.

Labor Force Issues

The wastewater and water industries, according to the Bureau of Labor Statistics, will grow at a rate of 45 percent between 2000 and 2010. Spurring this growth are three factors:

- Stricter environmental compliance standards
- New responsibilities to protect infrastructure from bio-terrorism and sabotage
- Population growth especially where that growth is associated with new housing developments

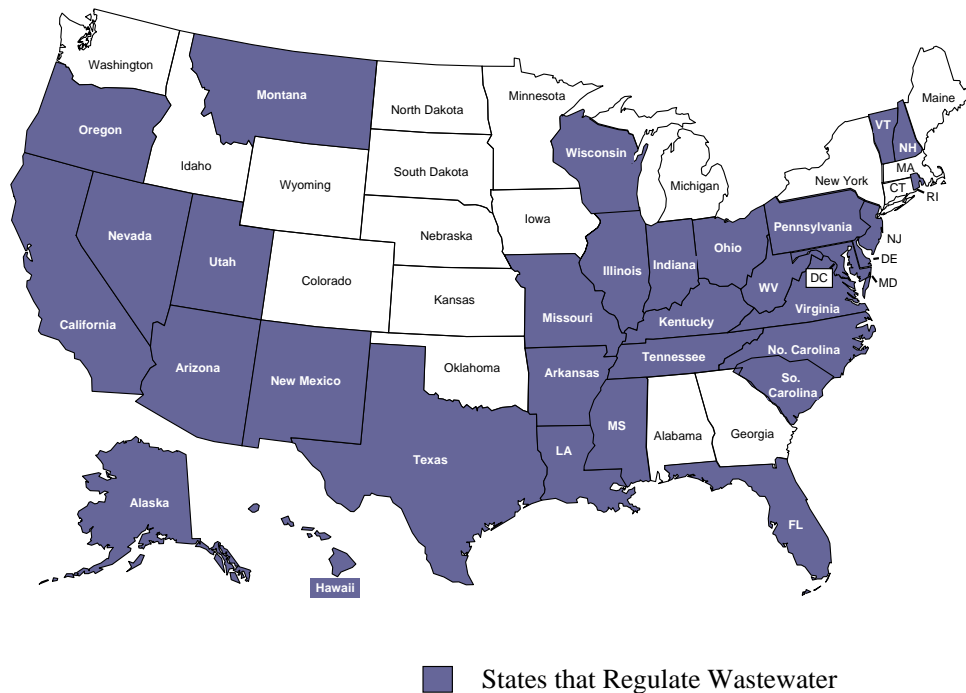
At the same time, as the “baby boom” generation nears retirement, among them experienced, knowledgeable wastewater engineers, operators, and managers, workforce shortages are anticipated.¹⁴ Significant personnel losses and the undocumented “tacit” knowledge that departs with them can have detrimental impacts on a utility’s overall performance and the satisfaction of its customers, state regulators and other stakeholders. Demographics show us that, in general,

the United States workforce is shrinking, getting older, and more frequently female. These generic trends, in combination with the water and wastewater industry attributes described above, will require new policies and practices in several areas. These include, hiring, contracting, scheduling, training, compensation, job assignments, and workplace organization. Earlier enrichment of the jobs of future leaders, scheduling changes to accommodate the needs and desires of older workers and novel approaches to job content may all be a part of the labor shortage solution set. Careful succession planning and creative knowledge retention programs will likely become hallmarks of forward-looking organizations and bestow on them a competitive advantage over those who don’t pay attention to these well-publicized trends and prepare for a different future.

STATE REGULATION OF WASTEWATER

Thirty-two state commissions regulate wastewater utilities (see Figure 1). Some regulate several jurisdictional wastewater and combination water and sewer companies; others a scant few. In some states the number of small wastewater systems is increasing and becoming a growing concern. The Wisconsin Public Service Commission, for example, regulates 19 combination water and wastewater utilities and as with their water supply utilities, many are municipal systems. Some states face the problem of jurisdictional wastewater utilities either knowingly or unwittingly failing to reveal their existence to regulators or reorganizing into a water district or other entity in order to escape state regulation.

Many state commissions are beginning to work more closely with state environmental regulators through informal processes or formal memoranda of



Thirty-two state utility commissions regulate water.

understanding. Missouri, Pennsylvania, Florida, Ohio, and other commissions are party to MOUs and/or participate in interagency groups with environmental regulators and other stakeholders to coordinate efforts that pertain to both public health and safety and ensuring that costs to customers are kept as low as possible. Tennessee’s recent agreement is but one example of an ongoing trend toward greater inter-agency cooperation. In some cases, formal agreements make extant working relationships among various groups official. In other cases, they are harbingers of new efforts to coordinate for the benefit of regulated companies, regulators, and other stakeholders. MOUs are vehicles for regular, organized collaboration that may not otherwise occur, despite good intentions. A weakness of such arrangements is that they do not usually bestow real authority, responsibility or accountability for joint action. That capability is typically reserved to the respective parties (individual agencies) involved in the MOU. In at least

one state, Texas, the Commission on Environmental Quality is responsible for *both* environmental and economic regulation of wastewater utilities. This briefing paper contains selected examples of programs and regulatory techniques used by some state utilities commissions that may be applicable to others.

The following sections of the briefing paper review important facets of state regulation of wastewater utilities, including certification and licensing; capital planning and asset management; surcharges; consolidation and other tools to encourage sustainability; billing and collections; utility abandonment, bankruptcy and estate planning; and finally the use of reclaimed water.

Certification and Licensing

A key regulatory authority for state commissions is the power to approve or deny proposed new wastewater utilities authority to operate. This often occurs via the issuance of a Certificate of Public

This briefing paper contains selected examples of regulatory techniques used by some states.

**TABLE 1
REGULATORY COMMISSION OF ALASKA TIERED
CERTIFICATION REGULATIONS**

Eligible for Exemption from Regulation	Eligible for Provisional Certification	Eligible for Traditional Certification
<ul style="list-style-type: none"> • Entities that only operate as water or sewage haulers • Systems that only serve mobile home communities • Systems with fewer than 15 service connections • A water or sewer utility that receives bulk service from a certificated utility • An entity that provides bulk water exclusively to water haulers 	<ul style="list-style-type: none"> • All utilities owned and operated by cities, boroughs, villages, co-operatives, and homeowner associations • All privately owned and operated utilities with gross annual revenues less than \$50,000 • Any utility eligible for exemption that seeks a higher level of regulation 	<ul style="list-style-type: none"> • Any utility that is eligible for exemption or provisional certification that seeks a higher level of regulation • All privately owned and operated utilities with gross annual revenues greater than \$50,000

Source: The Regulatory Commission of Alaska.

Detailed, thorough certification requirements force potential wastewater utility owners to plan.

Convenience and Necessity (CPCN) to the requesting utility.

Using thorough certification requirements forces potential wastewater utility owners to carefully consider what is involved in building, owning, and operating a wastewater treatment plant and whether he or she has what it takes to do it, do it right, and keep it going over the long haul.

Regulatory staff on both the environmental and economic sides process and approve certification of new wastewater utilities or recertification of existing ones. These staffers and the statutes that govern their work are the first line of defense against the formation of sewerage companies that do not have the financial, technical/operational, and managerial capabilities to not only commence service but to sustain operations in the long-run.

Utilities seeking approval to operate must provide information and comply with other requirements mandated by state laws and regulatory rules. Although the nature and extent of certification requirements varies from state to state, most state commissions require

prospective wastewater providers to show that there is a need for their services, to disclose whether other entities have an interest in serving, and that they have the financial and intellectual capital, plans, permits, and experience to operate a facility successfully over time.

Some examples of CPCN requirements are listed alphabetically below.

Alaska

The Regulatory Commission of Alaska (RCA) recently adopted new regulations for small water and sewer utilities. The RCA’s tiered certification regulations became effective in July 2004. The Commission exempted some classes of water and sewer utilities from regulation and created a new class for small water and sewer utilities. They can approve a provisional CPCN , which has a streamlined application process with quick RCA review, to eligible utilities. See Table 1 for how different utilities are regulated by the RCA.

According to Alaska Statute (AS) 42.05.221, a public utility may not operate and receive compensation for providing

service to its customers without having a Certificate from the RCA. With the new regulations in place, the RCA hopes that all qualifying water and sewer utilities will be willing to work with the RCA to come into compliance. The RCA and other state commissions provide tangible assistance to small, struggling water and wastewater utilities. The RCA provides help resolving disputes or complaints with customers that can not be resolved by the utility and provides assistance in developing a comprehensive utility tariff/ordinance that governs the rules and rates under which the utility provides service to its customers. The RCA also coordinates assistance to the utility from other state and federal agencies, as well as trade organizations, during a time of utility duress or failure.

Delaware

The Delaware Public Service Commission was authorized to regulate wastewater utilities with more than 50 customers in July 2004. They went about that work by ordering all (new and existing) wastewater utilities to come in for rate review. PSC staff assist newly regulated wastewater utilities with required filings and financial statements. CPCN requirements include: corporate history, affiliates information, financial statements, disclosure of past compliance problems, and proof of liability insurance.

Florida

Florida Public Service Commission's CPCN requirements include (among others) compelling wastewater utilities to:

- Project rates out to 80 percent capacity

- Consider alternative options for serving the intended customers

Florida's staff (and staff at other commissions), also spend time engaging prospective wastewater service suppliers in discussions around a fundamental question: "Do you really want to be in the wastewater business?" The commission staff uses these informal meetings to educate applicants about the practical considerations and difficulties of successfully operating a wastewater company over the long-run. The commission staff accounts of failed operations go a long way to assure that prospective wastewater providers know what they are getting into and the constraints they are likely to encounter.¹⁵ The commission is party to interagency cooperative agreements or MOUs with water allocation agencies, the Dept. of Community Affairs, and the Department of Environmental Protection. County governments are the wastewater providers of last resort by law in the case of an abandoned utility. On the other hand, troubled municipal systems may be turned over to the commission to regulate which adds to their regulatory burden.

Missouri

The Missouri Public Service Commission relies on financial, technical, and managerial indicators and an assessment of the prospective wastewater owner's reputation and personal commitment to determine whether a proposed wastewater utility should be certified to operate in the "show me" state. As Jim Merciel from the commission conveyed, informal exchanges give staff an opportunity to become acquainted with prospective owners and managers and gain a personal sense of their motivation to succeed, their tenaciousness, and their integrity: all important attributes, among others, needed to shepherd a business imbued

"Do you really want to be in the wastewater business?" Florida staff ask prospective suppliers.

**TABLE 2
NORTH CAROLINA UTILITIES COMMISSION BOND REQUIREMENTS**

No franchise may be granted to any water or sewer utility company until the applicant furnishes a bond, secured with sufficient surety as approved by the Commission, in an amount not less than ten thousand dollars (\$10,000) with the amount based upon:

- Whether the applicant holds other water or sewer franchises in this state, and if so its record of operation
- The number of customers the applicant now serves and proposes to serve
- The likelihood of future expansion needs
- If the applicant is acquiring an existing company, the age, condition, and type of the equipment
- Any other relevant factors, including the design of the system. Any interest earned on a bond shall be payable to the water or sewer company that posted the bond.

Source: North Carolina § 62-110.3.

The North Carolina commission requires companies to post bonds.

with the public trust. Merciel added that the commission's ability to oversee and prevent detrimental ownership changes could be improved with statutory authority to be involved in ownership changes taking place via stock sales. Some state commissions do have such authority. Missouri staffers work closely with state environmental regulators. A formal MOU formalized the ongoing dialogue and cooperative spirit that exists between the two regulatory agencies.

North Carolina

The North Carolina Utilities Commission is one of only a few state commissions that require prospective wastewater companies to post a bond. Applicants must also supply information concerning:

- Corporate structure
 - proposed service areas
 - proposed rates
 - number of customers
- Financial statements
 - capital structure

Once a completed application is filed, the public staff investigates and makes a recommendation as to whether the request should be approved and recommends

the appropriate bond amount for the particular franchise request. See Table 2 for an excerpt from the North Carolina statute.

New Mexico

CPCN requirements in New Mexico include indicators of financial feasibility and conformance with:

- Minimum standards of design, construction, operation
- Provisional customer service rules and regulations

The New Mexico Public Regulation Commission also requires new utilities to develop initial rates based upon a fully developed system methodology, acting as if 90 percent of the customers that the system could support were actually taking service. This means that the owner must be financially capable of subsidizing the system until enough customers are on board to fully support the operation.

Texas

Persons seeking to build and operate a wastewater system in the Lone Star state are urged, among other requirements:

- First request service from all existing wastewater providers within two miles of the proposed facility
- Explicitly consider the feasibility of regionalization versus a stand-alone system
- Evaluate the affordability of rates for service provided through a regional approach as compared to the stand-alone operation

Texas policy guidance presumes that regionalization is feasible unless the applicant can prove that they deserve an exemption due to the lack of nearby and willing providers, affordability and other financial considerations show a stand-alone system to be the most economic option or that the existing system or the existing system's technical and managerial capabilities are inadequate. The policy is designed to reduce per customer costs by spreading them over a larger number of customers and minimize the number of utilities who get into the wastewater business but cannot ultimately sustain their operations.¹⁶

Decentralized Wastewater Systems

Tennessee

The Tennessee Regulatory Authority (TRA) is involved in a joint effort with the Tennessee Department of Environment and Conservation (TDEC) to address the growing number of decentralized systems seeking to operate there and ensure that they are technically, managerially and financially capable to provide safe, reliable sewer service over time. Launched with a day-long wastewater workshop in December 2004, the TRA and TDEC have signed a MOU and along with other stakeholders have worked together to get legislation passed and rules in place to provide for a thorough and efficient process for certification of new systems and guard against system failures.

A MOU signed in 2005 and to remain in place for three years sets forth the individual and joint responsibilities of the state's environmental and economic regulators. Sharing information around requests for a new or amended Certificate of Public Convenience and Necessity (Certificate) is a feature of the MOU as is the TRA's agreement to consider initiating a formal complaint against a jurisdictional wastewater utility that is under an administrative or court order due to environmental compliance failures. In cases of chronic non-compliance with relevant environmental statutes, the TRA may request revocation of the utility's Certificate. Environmental and economic regulators also agreed to:

1. Work to enhance the overall viability of TRA-regulated wastewater utilities. This may include rate structure analysis, managerial analysis, and operational technical assistance.
2. Keep each other informed of actions taken to obtain compliance with both agencies' statutes and regulations by the TRA-regulated wastewater utilities.
3. Meet at least semiannually, and at other times as necessary, to discuss the status of the actions that each is undertaking and if necessary to review and modify this MOU.
4. Provide training sessions to each other's respective staffs regarding what authority their respective agencies have and how that authority is carried out in the oversight of the TRA-regulated wastewater utilities.
5. Work towards maximizing inter-agency cooperation, coordination and communication; agencies will identify points of contact for communication between the agencies.

Texas policy presumes a regional approach is feasible until proven otherwise.

Legislation effective January 2006 gives the TRA new authority to:

“direct the posting of a bond or other security by a public utility providing wastewater service or for a particular project ...in order to ensure the proper operation and maintenance of the public utility or project...”

TRA’s draft rules require that all public wastewater utilities either holding or seeking to hold a Certificate for Public Convenience and Necessity furnish an acceptable security to the RCA. The rules also set forth requirements to be followed when the TRA mandates an escrow account by the public wastewater utility. The escrow account may be used for non-routine operation and maintenance expenses. In addition, provisions for the appointment of a receiver or other actions to address a failing or abandoned utility are included.

Texas

One out of every three new homes built in suburban and once-rural areas of Texas uses an On-Site Sewage Facility (OSSF), commonly called a “septic system.” OSSFs must be designed on the basis of a site evaluation that takes into account local conditions. Site-specific soil analyses frequently preclude use of conventional systems in which liquids are separated from solids in the septic tank and then dispersed throughout the drainfield via underground pipes. Pollutants are then treated as the liquids percolate through the soil. Since most soils in Texas can’t properly absorb pollutants, additional treatment is a must. Most OSSFs must have a permit prior to any construction, installation, repair, extension, or alteration. And the work must be handled by a licensed installer or directly by the homeowner. Local

authorities often serve as “authorized agents” of the Texas Commission on Environmental Quality for purposes of administering the OSSF Program. Agents review construction, alteration, extension and repair plans; issue permits; and inspect system installation. Agents also respond to complaints. If problems are found, the owner normally has 30 days in which to make substantial progress on remediation. After that, the agent can file a criminal complaint with the local justice of the peace. A limitation of OSSFs is that they are only functional for domestic sewage. Industrial or hazardous wastes destroy bacteria that break down the bio-solids.¹⁷

Capital Planning and Asset Management

For water, wastewater, and combination utilities, the need for more money is clear from the results of the GAO report and American Society of Civil Engineers report discussed previously. State and federal regulators are taking steps to encourage utilities to focus on aging assets and utilities are requesting and getting regulatory treatments that facilitate infrastructure replacement cost recovery. All sectors are seeking to increase their knowledge of asset management techniques and benefits.

However, to ensure that dollars are spent where they are needed most, it is imperative that wastewater (and drinking water) utilities learn more about their assets, better manage those assets and plan ahead for their repair and replacement. Commissions could play an important oversight role by reviewing plans, encouraging better planning based on industry standards and providing expeditious cost recovery for prudently incurred infrastructure investments.

Draft rules in Tennessee would require wastewater utilities to post a bond or other security.

Basic components of wastewater or clean water infrastructure include collection systems and treatment works with pipe networks being the primary feature of a clean water system. Installation of much of this network of pipes took place after World War II and is now, in many cases, reaching the end of its useful life. However, it is important for wastewater utilities and those who regulate them to consider the variety and multitude of factors that can contribute to the longevity of a collection system. These include: the effectiveness and longevity of the material from which the pipe is made, manufacturer quality control or defects, conditions of the soil (corrosiveness) in which pipes are buried, the character of the sewage flowing through the system and the extent to which the system has been maintained, repaired and rehabilitated. Pipeline life is also impacted by climatic conditions. Mechanical and electrical components need more frequent replacement but they are a much smaller piece of the capital needs picture than are collection systems. Sewage basins and lagoons, which if not properly maintained also create pollution, are another important part of wastewater infrastructure with associated costs.

Regardless, according to the EPA, the best way to determine the useful life of a wastewater system is to conduct periodic condition assessments.¹⁸ An EPA-sponsored work session held in May 2005 and attended by more than 140 water and wastewater utilities resulted in ten asset management action items including, among others, developing, standardizing, and dispersing information on best practices for condition assessments. The “Utility Sector” representatives in attendance ranked transferring knowledge on best practices in asset management number 1 of 10 action items during breakout sessions organized by sectors.¹⁹

Explained simply, asset management is a process that includes taking an asset inventory, prioritizing assets for replacement or rehabilitation and developing an asset management plan. This includes estimating dollars needed annually to maintain operating systems and budgeting for planned improvements. Asset management helps utilities, their customers and regulators by:

- Increasing knowledge of the system and informing financial decisions
- Reducing system “down-time” and the number of emergency repairs
- Prioritizing rehabilitation and replacement needs
- Making it transparent to regulators, customers and other stakeholders that the utility is investing dollars collected in rates effectively and efficiently
- Making it easier to acquire financial assistance; applicants with an asset management or capital improvement plan in place may be considered more credit-worthy²⁰

Wastewater (and water) utilities are, in many cases, just beginning to get a handle on what assets they have, where they are located, their condition and which options for correcting problems make the most sense for the near and long-term. As they go about this work, requests for rate increases to support rehabilitation and replacement are expected to become more frequent.

In some states, utilities are requesting and state commissions are approving special surcharges to cover the cost of qualifying infrastructure projects. Other states have statutory authority to order acquisitions or encourage them with rate premiums such as positive acquisition adjustments. Some of these measures are examined below.

Asset management can reduce system “down-time” and improve credit-worthiness.

Transferring knowledge on best practices in asset management was ranked first among 10 action items in a recent EPA workshop.

Wastewater Ratemaking, Consolidation, and Other Sustainability Tools

In addition to conventional rate of return ratemaking, there are newer state laws that enable some state utilities commissions to provide quick cost recovery for qualifying infrastructure investments and the discretion to approve acquisition adjustments to utilities that acquire smaller, struggling systems (and in doing so take an incremental step toward regionalization). An acquisition adjustment is accomplished by the books of the utility being revised or adjusted to reflect changes in the valuation of the rate base. These valuation changes occur when the purchase price departs from the original cost of the rate base. This enables the acquiring utility to earn a return on the rate base valued at the higher level.

Positive acquisition adjustments enable an acquiring utility to earn a return on a higher rate base.

Acquisition Incentives

Examples of state utilities commission acquisition adjustment policies from Florida, Oregon, and Pennsylvania are shown below. All take into account benefits to acquired customers.

Florida

Florida PSC criteria for determining whether a positive acquisition adjustment should be approved are based upon answers to these questions:

- Did the purchaser pay more than the original cost?
- Was the transaction at arms length?
- Did the purchased assets remain in use?
- Does the purchased system provide a needed expansion of the old system?
- Was the purchase price below replacement cost?
- Was the sale approved by the proper authority?

- Did the purchase benefit customers?²¹

According to the commissions Division of Policy Analysis and Intergovernmental Liaison, it is the last question that receives the most analytical effort and weight in the decision-making process.²²

Oregon

The Oregon Public Utility Commission has the authority to approve acquisition adjustments based upon benefits to the customers being acquired and the overall public interest. Determinations are made on a case-by-case basis at the commission's discretion.²³

Pennsylvania

The Pennsylvania Public Utility Commission may consider acquisition incentives within a rate case proceeding if the acquisition is in the public interest and the acquiring utility can maintain the managerial, technical and financial capabilities to safely and adequately operate the acquired system. The burden of proof rests with the acquiring utility. Acquisition adjustments only apply to utilities with fewer than 3,300 connections. Other criteria are that the system to be acquired is not viable, is in violation of statutory or regulatory standards and has failed to comply with any order of the Department of Environmental Protection or the commission. The acquired system's ratepayers should receive improved service and necessary plant improvements be completed within a reasonable period of time. Purchase price must be fair and reasonable and the acquisition negotiated at arm's length. If possible, single tariff pricing should be applied to the rates of the acquired system. According to Pennsylvania's policy, if the rate differential is great

and/or there are affordability concerns, consideration should be given to a phase-in of the rate difference.

The commission may permit the acquiring utility additional rate of return basis points for certain acquisitions. When acquisition costs are greater than the depreciated original cost, that excess may be included in the rate base of the acquiring utility as an acquisition adjustment and amortized as an expense over a ten-year period. The Pennsylvania statute also permits deferral of acquisition improvement costs and for those deferred costs to be recovered in phases.

Plant improvement surcharges may be implemented, with acquisition incentives, to temporarily offset extraordinary improvement costs. In cases when the improvement benefits only those customers who are newly acquired, the added costs may be allocated on a greater than average level – but less than 100 percent to the new customers.²⁴

Special Rate Surcharges

Some states utilize special surcharges via enabling legislation to get monies to utilities quickly to cover costs and in some cases provide a return on qualifying projects. Typically, an infrastructure improvement surcharge or collection system improvement charge is added to rates to collect a targeted amount of revenue to solve documented sewage disposal problems, relining, replacements, main extensions, etc. The amount of the surcharge is capped at a set percentage of the requesting utility's current rates (in the range of 3 to 5 percent) and lasts for a specified period of time. Such surcharges enable utilities to recover the costs of qualifying projects more rapidly than in a full rate case proceeding.

NARUC Position

NARUC has endorsed Distribution System Improvement Charges (DSICs) for drinking water infrastructure investments. By various names, they are in use in some jurisdictions including those listed below.

- Collection System Improvement Charge (PA)
- Qualifying Infrastructure Improvement Projects (IL)
- System Improvement Charge (OH)
- Infrastructure Replacement Component (RI)

According to NARUC's 1999 resolution, DSICs provide benefits to customers; among those benefits more time between rate cases. Utilities say such surcharges provide a necessary incentive for them to pursue projects that are of too short duration to qualify for recovery as an Allowance for Funds Used During Construction.

Illinois

The Qualifying Infrastructure Plant (QIP) Surcharge (or rider) may be applied to wastewater (or water) customers within the rate zone where improvements have been made. The purpose of the QIP Surcharge is to recover a return on and depreciation expense related to the utility's investment in qualifying projects. The amount of the surcharge is capped at 5 percent of the QIP base rate revenues billed to customers. The QIP Surcharge percentage is reset to zero when new base rates take effect that provide for the recovery of the costs previously covered by the rider. The QIP Surcharge, which must be presented as a separate line item on customer bills, may be used for non-revenue producing eligible plant that is not included in the rate base. Examples of eligible projects include replacement of

Some states use surcharges to cover qualifying infrastructure improvements.

NARUC has endorsed distribution system improvement charges for water utilities.

Many wastewater utilities are just beginning the detective work of finding out just what infrastructure they have in the ground.

old, worn-out or obsolete plant and main extensions.²⁵

Nevada

The Nevada Administrative Code authorizes the Nevada Public Utilities Commission (NPUC) to approve a surcharge to finance large expansions or improvements to a utility plant. In determining whether a surcharge should be authorized, the commission is to consider:

- The necessity of the additions or improvements
- The size, in terms of capital requirements, of the additions or improvements
- The availability of other methods of financing

Surcharge-funded facilities will be considered to be a contribution in aid of construction. A rate surcharge will not be authorized unless the utility provides a written statement to the commission that the value of the additions or improvements will not be used to determine the fair market value of the utility's entire facility. Money collected via a rate surcharge must be deposited in a separate trust account. Utilities requesting a surcharge must also file a detailed project plan with the NPUC.²⁶

Ohio

Ohio's System Improvement Charge law authorizes (subject to the Public Utilities Commission of Ohio approval) surcharges for replacement projects for existing waterworks facilities and sewage disposal systems, main extensions installed to resolve documented sewage disposal problems, main cleaning, inflow and infiltration elimination, and relining. Surcharges in Ohio may be no higher

than three percent of the rates in effect at the time the surcharge is requested. Proceedings to review surcharge requests, determine the amount and duration are also a part of state enabling statutes. Infrastructure – related surcharges are a regulatory mechanism (or carrot) that some commissions are using and others are contemplating in order to encourage utilities to go forward with needed repairs and replacements instead of deferring such projects until a main break or other service interruption necessitates a costlier emergency – driven solution. Ohio has a separate provision for pass-through of purchased water or sewer costs.

Effectiveness of Rate Surcharges

Many, but certainly not all, water and sewer companies have indeed fallen behind in making infrastructure improvements. This statement is true for both publicly owned and operated systems and for investor-owned systems. Many are just beginning to engage in the detective work of learning just what infrastructure they have in the ground and what condition that infrastructure is in. This is important. Utilities need to thoroughly know their own systems in order to prioritize the location and timing of infrastructure rehabilitation and replacements. Regulators need to feel confident that utilities are putting their infrastructure dollars into the right projects at the appropriate time.

What this suggests is that rate surcharges alone can't solve our nation's infrastructure problems. In a July 2000 resolution concerned with water infrastructure financing, NARUC urged state commissions to also consider the merits of full-cost rate structures, regionalization and consolidation and other innovative ratemaking techniques. I would add to this list (for both water and wastewater utilities) encouraging

Rate surcharges alone can't solve infrastructure problems.

TABLE 3
ADVANTAGES/DISADVANTAGES OF CONSOLIDATED RATE METHOD

Advantages	Disadvantages
<ul style="list-style-type: none"> • Lower administrative and regulatory costs • Improve rate and revenue stability • Increased ability to make capital expenditures • Improved viability of small systems • Meet “universal service” goal by making it cost-effective to serve remote, high-cost customers 	<ul style="list-style-type: none"> • Undermines economic efficiency • Distorted price signals to customers. Prices may not accurately reflect the cost of service. • Incentives to over-invest

Source: Author’s construct.

Besides acquisition adjustments and surcharges a number of other techniques are available to quicken cost recovery.

or perhaps even making approval of rate surcharges dependent upon a utility demonstrating that it is engaged in ongoing asset management and capital planning. This recommendation is similar to one of the top ten action recommendations voted upon during the May 2005 EPA – sponsored “Working Session Exploring Opportunities to Encourage Collaboration by Water and Wastewater Utilities in Advancing Asset Management” which said, “asset management plans be made requirements for government funding.”

NARUC’s July 2000 resolution also said federal funds should not be used to subsidize systems that should be held accountable for “deferring the appropriate levels of investment in infrastructure maintenance due to, in part, under – pricing their water service.” Some stakeholders, such as the National Association of State Utility Consumer Advocates (NASUCA), contend that surcharges implemented at the state level inappropriately reward water and wastewater utilities that – through their inattention to infrastructure – have failed to fulfill their fundamental obligation to serve. NASUCA has also argued that system improvement surcharges improperly shift risk away from stockholders and onto ratepayers.

Nevertheless, regulators and staff in states such as Pennsylvania (which has had a surcharge option available for approximately ten years) and the companies they regulate assert that improvement surcharges have enabled them to greatly reduce infrastructure replacement cycles. In Pennsylvania, rate surcharges may be used in tandem with acquisition adjustments to accomplish commission policy objectives with regard to consolidation and regionalization. Other techniques that quicken cost recovery include: automatic adjustment clauses for certain expense categories, for example, energy or chemical costs, use of a future test year, and accelerated rates of depreciation.

Single Tariff Pricing

Single tariff pricing, or enabling uniform rates throughout a company’s system, is another tool that can be used to facilitate mergers and acquisitions. Also called *Consolidated Rate Method* or *Uniform Rates*, advantages and disadvantages of the method are summarized in Table 3.

Twenty-two state commissions have approved single tariff pricing for one or more utilities.²⁷ State commissions may also find it beneficial to develop a policy

Uniform rates throughout a company’s system can be used to make mergers and acquisitions easier.

The Alaska Commission is crafting a plan to attain long-term sustainability for small wastewater, water, and electric utilities.

statement or guidance for utilities to reference as they consider the merits of merging with or acquiring another utility whether actual interconnection is feasible or not.²⁸

Broadbased Sustainability Approaches

The RCA is leading a stakeholder process to craft a consensus plan to attain long-term sustainability for small wastewater, water, and electric utilities.²⁹ The RCA is seeking to do away with small utility dependence on grant funding by ensuring that rates are adequate to cover costs of service and necessary maintenance and improvements. Under consideration is permitting alternative regulatory treatment for small, troubled utilities that truly need it. One option considered was allowing small utilities to depreciate contributed plant. The RCA wants to reach consensus on the rate levels necessary to replace grant-funded plant and agreement on what programs or rate mechanisms can be used to keep rates affordable including, for example, affordability price caps.

Other options include use of the operating ratio method to set rates or rate indexing. Rate indexing is a method for updating rates based upon an index such as the Consumer Price or Producer Price Index. The Operating Ratio alternative (available to small utilities in Florida) sets rates based on a utility's cash needs rather than the size of its rate base.

The goal of attaining long-term sustainability for small wastewater (and water and electric utilities) in Alaska (and elsewhere) is formidable. It is made even more challenging when large, financially sound utilities insist upon access to alternative ratemaking methodologies that are appropriately geared to small, financially – strapped, technically – chal-

lenged entities that serve remote, rural, impoverished customers. Commissioners must necessarily pursue solutions that are consistent with the broadly defined, overall public interest.

During a July 29, 2005 workshop, RCA staff met exclusively with small systems representatives to discuss, among other topics:

- Streamlined rate case procedures and methodologies
- Extent of RCA review
- Regulatory compliance incentives
- Designing a pilot RCA small systems assistance program
- Affordability criteria
- Identification of funding sources³⁰

Billing and Collections

Not only do some water utilities exist in combination with wastewater utilities and others have an interest in growing their operations by getting involved in the wastewater industry, water utilities are sometimes asked to do billing for investor- or municipal-owned sewer systems. Also, water utilities are sometimes requested to help with wastewater bill collections by disconnecting water service for nonpayment of wastewater bills. West Virginia Public Service Commission staff say it is essential that sewer companies have authority to disconnect water service when bills become delinquent.³¹ Arizona and California have provisions in place to enable or require water and wastewater entities to collaborate in this manner. See excerpt from California's Government Code in Table 4.

California Water Service is currently doing billing for the City of Stockton. Arizona – American Water Company had a Water Service Termination Agreement with the City of Bullhead approved by the Arizona Corporation Commission

Water utilities sometimes bill for wastewater utilities or will disconnect water service when a customer's sewer bill is delinquent.

TABLE 4
CALIFORNIA'S GOVERNMENT CODE ENABLING WATER AND WASTEWATER ENTITIES TO COLLABORATE IN BILLING AND COLLECTIONS

Article	Provision
54346.1	The local agency may enter into a written contract with a privately owned public utility rendering other than gas or electric service, that the charges for any sewer enterprise or service shall be collected together with and not separately from the charges of said privately owned public utility for any other utility service rendered by it, and that all charges shall be billed upon the same bill and collected as one item.
54346.2	If all or any part of the bill of any privately owned public utility on which any sewer enterprise or service charge is collected is not paid, the privately owned public utility may discontinue its utility service until said bill is paid.

Source: California legislation statute available at www.leginfo.ca.gov/statute.html.

in 2004.³² On the other hand, some wastewater providers take a dim view of disconnecting customers. Wastewater representatives at a TRA-sponsored forum stated plainly that it was their policy to not disconnect because doing so has serious health and sanitation implications for their customers.³³

According to the American Water Works Association (AWWA), most utilities bill for wastewater service based on water usage. Those wastewater utilities that do not have access to water-use data, bill a flat, set charge for service. AWWA's 2004 Rate Survey found that 57 percent of the respondents' bills were based on water use and 20 percent bills were based on water usage with a cap. (Most utilities responding to the AWWA survey are publicly owned and operated.) With respect to the billing cycle for residential customers, the most popular is monthly (63 percent) followed by quarterly (17 percent) and bimonthly (13 percent). Concerning billing adjustments to reflect outdoor water use, some utilities do not take outdoor water use into account in determining wastewater customer billable units. Other utilities bill at a percentage of water use to recognize that some water is not returning to the sewer. Still others employ more advanced measures, such as capping the amount of wastewater to

be billed at a customer's winter water use. Oregon rules contain provisions for installation of special flow measuring devices. For purposes of their survey, AWWA analysts assume that an average residential customer uses approximately 10 ccf (or 7,500 gallons) of water a month. Based on this usage, the median customer bill for the 176 respondents in the 2004 Rate Survey is \$22.23.³⁴

Abandonment, Bankruptcy, and Estate Planning

When a wastewater utility goes out of business and has not made any provision for ownership succession, it is as if a person has died without leaving behind a will. Examples of approaches to the problem of wastewater utilities going out of business from Florida, Missouri, and Oregon follow.

Florida

In 2001, the commission's Division of Policy Analysis and Intergovernmental Liaison issued a report in which they said that approximately two regulated water and wastewater utilities are abandoned by their owners each year.³⁵

When a wastewater utility goes out of business with no ownership succession, it is like someone dying without a will.

Utility abandonments in Florida (and in other states) typically demand significant remedial efforts on the part of the commission, the environmental regulators, local governments, and the courts. In Florida, receiverships almost always follow abandonments; however, receiverships may also come about as a result of a bankruptcy. Sometimes, a utility may take the step of filing bankruptcy in order to avoid a receiver being appointed as has happened in Missouri. Regardless, according to the Missouri PSC staff, receivership, although available to them, is only used as stopgap last resort.³⁶

The primary reasons smaller utilities end up in bankruptcy or receivership are the lack of adequate cash flow or inability to attract capital to fund required utility system improvements. This can be a problem even when capable managers are running the system. Small utilities also lack the economies of scale enjoyed by their larger counterparts. Isolation or distance from densely populated areas can also be a factor leading to small wastewater and water utility abandonments and bankruptcies.

Florida's Abandonment Statute, Chapter 367.165, requires wastewater companies to notify the commission if they are filing for bankruptcy, and the county in which the utility is located then has the responsibility to petition the court to appoint a receiver. It is the courts that have control over who is appointed receiver and for how long, or under what terms the receiver must perform under Chapter 367 and requirements of the Department of Environmental Protection (DEP) and the Water Management District (WMD). The receiver is afforded a temporary certificate of authorization to operate by the commission and inherits the existing rates. In many cases those rates are inadequate, and the receiver is also forced

to deal with an immediate cash flow deficit. Sometimes in Florida, a local government steps into the receivership role and in those cases the utility is no longer jurisdictional to the commission. On the other hand, local governments do have the ability to "give" utilities over to commission regulation and often do this in the case of troubled, struggling small operations.

Receivers and commission staff persons also face the problem of utilities in receivership being out of compliance with environmental laws and thereby subject to fines that they are in no financial position to pay. This circumstance constrains acquisitions that might otherwise be pursued. Some larger utilities, such as Aqua Pennsylvania, have requested regulatory restraint in such cases in the form of a grace period following acquisition to allow the acquiring utility time to make improvements and bring the operation up to speed and into compliance.³⁷

Missouri

The commission does a form of estate or succession planning with wastewater utilities to get them to anticipate and prepare a plan of action upfront for getting out of the wastewater business at some future date – whatever the reason. Similar to what individuals do in life to prepare for their death, estate planning is simply a formal approach to the acquisition, preservation and ultimate disposition of assets and liabilities.

Oregon

If a wastewater utility is unwilling, incapable or refuses to effectively operate and manage their wastewater system, the commission, after consultation with customers, may appoint a regent to operate the system pursuant to an interim

The primary reasons smaller utilities end up in bankruptcy are inadequate cash flow or inability to attract capital.

operating agreement. The Regent must be a qualified wastewater operator or a qualified wastewater utility.³⁸

Receivers or regents often inherit an angry, frustrated and vocal group of customers as a result of historically poor service and poor or nonexistent customer communication. For these reasons and more, it is useful for environmental and economic regulators to work together (as they are doing more and more) to forestall creation of new wastewater utilities incapable of providing adequate service in the long run and put policies into effect that encourage a sense of *noblesse oblige* on the part of larger utilities seeking to expand their operations.

Economic Value of Wastewater: Use of Reclaimed Water

Wastewater or wastewater influent coming into a treatment plant is typically comprised of 99 percent water by weight and one percent organic solids that are either suspended or dissolved in water. After receiving treatment, the treated “improved” wastewater becomes what is called wastewater effluent. At that point, wastewater effluent is usually released or discharged into a nearby stream. Downstream, the wastewater is withdrawn and utilized again for irrigation, industrial processes and also as a drinking water source.

Alternatively, wastewater effluent may be “reclaimed,” sold and distributed by utilities as a non-potable source of water. Reclaimed water is sometimes used to recharge groundwater and restore wetlands. There are also industrial and agricultural/landscape uses for reclaimed water which have the potential of generating additional revenues for wastewater utilities and favorably impacting their financial health. Some decentralized wastewater systems have

built-in, on-site reuse and reclamation capability. Such systems do not discharge into surface waters. Instead, system effluent is used for irrigation of farmland and golf courses. Developers of these systems say they help to preserve farmland, increase crop yields and increase plant and soil sequestration of carbon.³⁹ Use of reclaimed water for non-potable purposes such as lawn watering offsets the need for supplies treated to drinking water quality levels (potable supplies). Such considerations are magnified in areas of the country that are chronically dry and densely populated. However, no area of the country is immune from the vagaries of weather and future droughts are a certainty. Utilization of reclaimed wastewater is one tool for assuring adequate supplies during the inevitable dry spells ahead. Although a detailed discussion of reclaimed water is beyond the scope of this report, commissions can learn more about the economic and public policy implications of reclaimed water use in NRRI’s June 1997 report: *Water Reuse: Considerations for Commissions*. In addition, updated guidelines for water reuse completed in 2004 are available from the EPA.

CONCLUSIONS AND PROSPECTS

This briefing paper reviews state approaches to regulating wastewater utilities, especially in dealing with certification, decentralized systems, management, ratemaking tools, ownership transitions, billing, collections, and reclamation of wastewater.

A number of states have taken innovative paths towards certification and levels of regulation. Commissions that have experienced problems with wastewater utilities that restructure to escape unwanted regulatory requirements or those endeavoring to get a better handle

Treated wastewater may be “reclaimed” -- sold and distributed as nonpotable water.

Commissions may wish to consider varying levels or types of regulation for underperforming wastewater utilities and ones that have stayed below the regulatory radar.

Requests for rate increases will become more frequent as wastewater utilities replace and upgrade infrastructure.

on systems that have stayed beneath their regulatory radar may wish to consider varying levels or types of regulation. As many states have found, one regulatory size does not fit all. Regulatory methods suitable for large utilities may not make sense for smaller ones. That is why states such as Nevada, Ohio, Florida, Pennsylvania, and others provide direct assistance, streamlined rate case processes, emergency rate relief and other alternatives exclusively to small systems. Generic proceedings are also used in some states to establish rules or policies for an entire category of utilities at one time such as a generic rate of return. Single issue rate cases or limited proceedings may also have a place in wastewater regulation.

Prevention of non-viable systems and ensuring adequate succession or estate planning will continue to require commission staff time, effort and creativity. Requiring wastewater utilities to post a bond or other surety could become more common as states beef up certification requirements. In addition, rate hike requests will likely become more frequent as wastewater utilities replace or repair infrastructure, upgrade or add treatment capability, and invest in security. Where state statutes permitting them exist, utilities will increasingly seek quick cost recovery in the form of collection system or infrastructure improvement surcharges for non-revenue producing infrastructure projects. Trade associations and the EPA are offering training and taking other steps to encourage better asset management among wastewater and water utilities. State commissions may wish to do their part to encourage better asset management by, for example, requiring those utilities seeking to impose a system improvement surcharge to demonstrate that they are properly managing their assets.

State utilities commissions and environmental regulators are increasingly finding merit in working together.

Drinking water and combination utilities seeking to grow may find investments in small wastewater providers or combination water and wastewater utilities appealing. This is apt to be more likely when regulators reward such consolidation and acquisitions with acquisition adjustments or enable stock-holders to retain all proceeds from the sale. Single tariff pricing may serve as an impetus to desirable mergers and acquisitions, too.

State utilities commissions and state environmental regulators are increasingly finding merit in working together to regulate water and wastewater utilities in order to maximize and broaden their knowledge of the utilities they regulate and streamline the regulatory process. Benefits from working together more closely also include fostering compliance with the CWA and encouraging adherence to standards of customer service and reliability. Collaboration can be especially important in the permitting and certification of new wastewater facilities or when a utility is failing to maintain the required managerial, technical and financial ability to provide service and comply with environmental regulations. Increasingly, this collaboration will center on small, decentralized wastewater systems whose proliferation is expected to continue in tandem with population growth and new housing.

Issues addressed in this briefing paper will merit further scrutiny as existing wastewater utilities age, others come into service and state commissions strive to forestall proliferation of nonviable systems and ensure that infrastructure repair and replacement needs are timely and economically addressed. The affordability of drinking water and wastewater treatment are the subject of ongoing NRRI research.

Outcomes of that research should prove useful to commissions as they work to establish wastewater rates sufficient to:

- Cover ongoing operation and maintenance expenses
- Fund necessary capital investments
- Establish assistance programs for those customers, if any, who cannot afford to pay more

A number of the approaches discussed here are contained in a July 27, 2005 NARUC Resolution: *Supporting Consideration of Regulatory Policies deemed as “Best Practices.”* The resolution is available on the NARUC website at www.naruc.org.

In this briefing paper, examples from selected states served to illuminate current issues in wastewater regulation applicable generally. In the future, state regulators may find valuable a compilation of practices of interest from every state commission with jurisdiction over wastewater utilities.

Notes

¹ United States General Accounting Office (GAO), Report to Congressional Requesters, *Water Infrastructure: Information on Financing, Capital Planning, and Privatization*, GAO-02-764 (Washington, D.C.: August 2002). The National Association of Water Companies estimate of the extent of private ownership is lower.

² Ibid 1.

³ Melissa J. Stanford, *Replacing and Securing Water Utility Infrastructure: Selected Regulatory Approaches in a Time of Heightened Threats and Burgeoning Costs*, (Columbus, Ohio: NRRI, February 2004).

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⁵ Claudia Copeland, *Wastewater Treatment: Overview and Background*, 98-323 ENR, Congressional Research Service, Library of Congress, Jan. 20, 1999.

⁶ Charles Pinkney, Tennessee Water Systems, Tennessee Regulatory Authority Docket No. 04-00434 Report and Recommendation, Jan. 28, 2005, page 3.

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¹⁰ U.S. EPA, *Management Handbook for Management of Onsite and Clustered (Decentralized) Wastewater Treatment Systems* (EPA 832-D-03-001), 2005.

¹¹ See EPA Clean Water State Revolving Fund Annual Report at: <http://www.epa.gov/owmitnet/cwfinance/cwsrf/annreport2004.htm>

¹² “This Week in Washington” , June 3, 2005, Water Environment Federation, Alexandria, VA

¹³ Go to: http://www.state.nj.us/dep/dwq/pdf/cwf_wastewater.pdf.

¹⁴ Myron A. Olstein, *Managing the Coming Brain Drain*, Journal AWWA, June 2005.

¹⁵ John Williams, telephone interview, December 2004.

¹⁶ The Feasibility of Regionalizing Water and Wastewater Utilities: A TCEQ Policy Statement, RG-357, January 2003. Policy does not change adm. rules, see TAC, Title 30, Chap. 291.102: Criteria for Considering and Granting Certificates or Amendments.

¹⁷ Texas Commission on Environmental Quality web site: <http://www.tceq.state.tx.us>.

¹⁸ The EPA Office of Water, *The Clean Water and Drinking Water Infrastructure Gap Analysis*, EPA-816-R-02-020 (Washington D.C.: September 2002).

¹⁹ Summary of the “Working Session Exploring Opportunities to Encourage Collaboration by Water and Wastewater Utilities in Advancing Asset Management,” the EPA, Washington, D.C., May 5-6, 2005.

²⁰ Adapted from, *Asset Management: A Handbook for Small Water Systems*, the EPA Office of Water, September 2003.

²¹ Commission Orders Nos. 8206 and 9455

²² Division of Policy Analysis and Intergovernmental Liaison, *Refocusing the Commission’s Acquisition Policy Regarding Water and Wastewater Utilities*, 2001.

²³ Oregon Administrative rule No. 860-037-0517, Acquisition Adjustment.

²⁴ Pennsylvania. Pennsylvania Code Title 52, Section 69.711. Acquisition Incentives

²⁵ *Illinois Administrative Code, Title 83, Chapter 1, Subchapter e, Part 656: Qualifying Infrastructure Plant Surcharge.*

In this briefing paper, examples from selected states serve to illuminate current issues in wastewater regulation.

²⁶ NAC 704.600.

²⁷ The EPA and NARUC Joint Publication, *Consolidated Water Rates: Issues and Practices in Single Tariff Pricing*, pg. 53, September 1999.

²⁸ John Wilhelm, Commissioner Tutorials, NRRI, Columbus, Ohio.

²⁹ RCA Notice of Inquiry – R-04-04

³⁰ James Keen, e-mail communication, Aug. 3, 2005.

³¹ Amy Swann, personal communication, December 2004.

³² See Arizona Corporation Commission Docket No. WS-01303A-04-0090.

³³ Author's meeting notes, Dec. 9, 2004.

³⁴ Peiffer Brandt, e-mail communication, July 13, 2005.

³⁵ Division of Policy Analysis and Intergovernmental Liaison, *Abandonments and Receiverships in the Florida Water and Wastewater Industry*, 2001.

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³⁷ Nicholas DeBenedictis, remarks during a Workshop on Enhancing Interagency Cooperation held during the Second National Drinking Water Symposium, Colorado Springs, Oct. 15, 2003.

³⁸ OAR **860-036-0365** Compliance Enforcement by Commission Appointment of Regent(s) to Operate and Manage a Water System

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