

PWSA

Attachment 1

Compliance Plan



Pennsylvania Public Utility Commission

Compliance Plan

for

Pittsburgh Water & Sewer Authority

Docket Number: M-2018-2640802 (water)

Docket Number: M-2018-2640803 (wastewater)



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PURPOSE OF THE DOCUMENT

1. PURPOSE OF THE DOCUMENT

a. Introduction

On December 21, 2017, pursuant to Act 65 of 2017, the Pennsylvania Public Utility Commission (Commission or PUC) was granted jurisdiction over the provision of water, wastewater, and stormwater utility service by entities created by Pennsylvania cities of the second class under the Municipal Authorities Act. At present, Pittsburgh is Pennsylvania's only city of the second class. In accordance with Act 65, the Pennsylvania Public Utility Code Pa. Consolidated Statutes, (Title 66) was amended to establish regulatory deadlines, requirements, and obligations for subject entities, which are now codified in Chapter 32 of Title 66. Chapter 32 has prescribed a process for the regulation of the rates and service of subject utilities, including the Pittsburgh Water and Sewer Authority (PWSA or the Authority), and a process to transition to Commission jurisdiction. Chapter 32 also addresses the replacement and improvement of aging infrastructure and environmental compliance for those entities.¹

The Commission formally initiated jurisdiction over PWSA on January 18, 2018, when it issued a Tentative Implementation Order (TIO) for comment, which included methods by which the Commission and affected entities may carry out the tariff approval, ratemaking, compliance plan and assessment provision of Act 65. As part of the tariff approval process, the Authority was required to submit a Compliance Plan to the Commission, which addresses how it will achieve full regulatory compliance, including provisions to bring the Authority's existing information technology, accounting, billing, collection and other operating systems and procedures into compliance with the requirements applicable to jurisdictional water and wastewater utilities. The Commission received comments on the TIO, including extensive comments from the Authority and stakeholders, and considered them before issuing a Final

Implementation Order (FIO) on March 15, 2018, wherein the conclusions of the TIO were adopted or modified.

On April 1, 2018, the Commission formally began regulating functions of the Authority, which triggered the Authority's tariff filing deadline of 90 days, or July 2, 2018, and the Compliance Plan filing deadline of 180 days after the effective date of the Commission taking jurisdiction or September 28, 2018.

This document is being filed in compliance with the directives of Act 65 and the FIO. As directed, the Plan includes proposals to bring the Authority's existing information technology, accounting, billing, collection, and other operating systems and procedures into compliance with the requirements of the Public Utility Code and the applicable rules, regulations, and orders of the Commission.

The Compliance Plan also requires a long-term infrastructure improvement plan (LTIIP) to be filed, in accordance with Chapter 13, Subchapter B. The Authority is submitting an LTIIP in accordance with Commission requirements as a separate filing and with a copy attached as Appendix C to this Compliance Plan. The LTIIP includes information on how PWSA intends to replace and/or upgrade targeted eligible property to improve system reliability and safety, and it includes metrics that PWSA uses to track and evaluate the effectiveness of infrastructure improvements. The LTIIP also provides the rationale used to select and target eligible programs and property for LTIIP consideration, and a projection of annual capital expenses to ensure that the LTIIP is cost-effective. As prescribed in the FIO, the Commission left to the discretion of the Authority the ability to file an individual or unified LTIIP, and if the latter, the FIO required that the Authority segregate its discrete services and operations (e.g. water and sewer conveyance) as they exist at the time of the LTIIP filing. The submitted LTIIP reflects asset and project data for

water system distribution services and sewer conveyance services. In the next few years, PWSA intends to file an LTIIP that includes stormwater projects.

b. Focusing on the Future

The City of Pittsburgh has reinvented itself many times over the years, most recently transitioning from a gritty former center of heavy manufacturing to a renowned technology and medical services hub. The water and sewer systems in Pittsburgh have echoed the fortunes of their parent City. They fell from glistening symbols of gilded age and post WWII expansion with stunning neoclassical and art deco facilities to decrepit shells of their former selves. The Authority's frequent management turnovers, decades of inadequate funding, and politically motivated investment decisions prevented proper operation and maintenance, system replacement and upgrade, the hiring of strategic professional staff to operate the utility. In addition, about \$300 million was transferred to fund the City's primary operating budgets. In fact, PWSA has incurred more than \$300 million indebtedness from compensation provided to the city during the last 20 years. Two partial privatization efforts – one in the 2001-2002 era and another in the 2012 to 2015 period-- failed to achieve the desired stabilization and utility improvements.

Slowly, and declining renewed calls for other private sector radical solutions like privatization or receivership, the Authority has started turning things around. A new PWSA Board and leadership team has raised rates by nearly 50% in recent years and has tripled planned capital expenditures to address past deficiencies. In fact, actual capital investment has roughly doubled from about \$30 million per year in 2016 to more than \$60 million projected in 2018. PWSA plans to increase capital investment to approximately \$155 million in 2019, \$256 million in 2020, and \$327 million in 2021 to address decades of deferred investment.

The Authority has also moved under the jurisdiction of the PUC at the insistence of the state legislature, with the intent to resolve many of the longstanding inconsistencies with established service levels and practices. Perhaps most importantly, a new culture is taking root. It's a culture of "Get Stuff Done" and finding innovative solutions to establish the best in class rating for a municipally funded and operated utility.

As part of an on-going effort to "Get Stuff Done" for PWSA's customers and stakeholders, the Authority has put forth an Organizational and Compliance Plan, called *Focusing on the Future*. *Focusing on the Future* articulates PWSA's desired future state, which is to be a highly responsive and trusted public utility, recognized for excellence and valued by its community (Appendix A) This desired future state will be achieved with PWSA supporting community vitality by protecting public health and the environment through safe, reliable, and cost-effective delivery of drinking water, wastewater, and stormwater services.

Focusing on the Future establishes five primary goal areas for PWSA:

- > Protect Public Health and the Environment – to protect and support the long-term health of our community and environment.
- > Ensure Customer and Stakeholder Satisfaction – to enhance customer and stakeholder confidence by communicating effectively and transparently engaging our community.
- > Improve Infrastructure Reliability – to ensure a high level of service reliability through responsible infrastructure investment and proactive maintenance.
- > Maintain a High-Performing Workforce – to recruit, develop, and retain a motivated and well-qualified workforce.

- > Be an Efficient and Effective Organization – to optimize the use of PWSA’s resources through innovative technology, effective processes, and continuous improvement.

The goals included in *Focusing on the Future* build on the organization’s strengths, articulate clear targets, and set forth clear actions that will be taken to move the organization forward. The goals included in *Focusing on the Future* are reflected in both the Compliance Plan and in the LTIP and becoming fully “PUC-Compliant” is now one of PWSA’s key goals. Strategic measures associated with all three documents (i.e., the Organizational and Compliance Plan, the PUC Compliance Plan and the LTIP) will be contained in an upcoming public release of the so-called “Headwaters Performance Dashboard,” which is currently being used for internal performance tracking at the Authority.

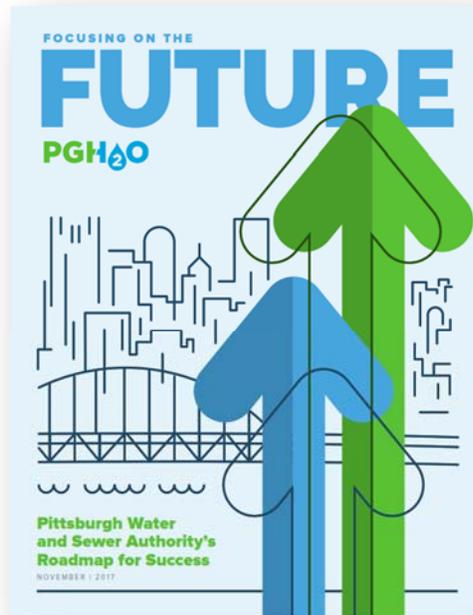
Figure 1: Headwaters Performance Management Dashboard



While achieving PWSA’s desired future state will require the cooperation and support of all its varied stakeholder groups including the PUC and intervening parties, the plan is achievable, and will lead to a stronger, more capable, more resilient utility organization. Making progress on the initiatives contained within *Focusing on the Future*, undergoing and implementing the recommendations of regulatory audits to optimize treatment operations, continuing to attract and retain qualified employees for key positions, moving toward revenue

sufficiency, reorganizing to support continuous improvement, and achieving PUC compliance will be vital for PWSA to achieve its ultimate goal: to be a highly responsive and trusted public utility, recognized for excellence and valued by its community.

Figure 2: Focusing on the Future: Pittsburgh Water and Sewer Authority's Roadmap for Success



¹ 66 Pa. C.S. § 3205.



OVERVIEW OF THE PITTSBURGH WATER AND SEWER AUTHORITY

2. OVERVIEW OF THE PITTSBURGH WATER AND SEWER AUTHORITY

a. History of Water and Sewer Infrastructure Development in Pittsburgh

The history of the water and sewer systems dates to the 1850s, when steel manufacturing and heavy industry was developing in the Pittsburgh area. The early water system was sized to meet the industrial water demands, as well as to provide basic water service to the surrounding population. Using the Allegheny River as its supply, several water companies independently served the region. The first water treatment plant was built in Aspinwall in 1907 as a slow sand filter plant, which was in and around the current Aspinwall water treatment plant site and the property now housing the Waterworks Mall.

The water supply and distribution system (the water system) now consists of a 117 million gallon per day (MGD) conventional flocculation, sedimentation and rapid filtration plant which was placed in service in 1969; one 26 MGD microfiltration water treatment plant; 964 miles of water mains; approximately 81,000 service lines to residential, commercial and industrial customers; 24,900 valves; 7,450 public fire hydrants; one raw water pump station located along the Allegheny River; two finished water pump stations; eight distribution pump stations; two covered finished water reservoirs; one uncovered source water reservoir; and ten distribution storage tanks/reservoirs. The average age of the water system is between 70 and 85 years old, with some water mains over 130 years in age. The total storage capacity of the reservoirs and tanks is approximately 455 million gallons. With consideration given to the pressure requirements of the distribution system, and storage capacities in each of the 15 pressure zones, the Authority stores enough finished water to provide a one- to two-day

uninterrupted supply to all customers (with water use restrictions) should the Authority temporarily be unable to treat additional water from the Allegheny River.

The sole source of water for the Authority's water system is the Allegheny River, for which the Authority and its predecessors have held withdrawal permits since 1943. In March 1989, the then Pennsylvania Department of Environmental Resources (now the Pennsylvania Department of Environmental Protection or PADEP) issued the Authority a 50-year Water Allocation Permit under the 1939 Water Rights Act. This permit authorizes the withdrawal of up to 100 MGD. PWSA's current average withdrawal of water from the Allegheny River is approximately 70 MGD. Frequent testing and analysis confirm the Authority's belief that the Allegheny River's water is of good quality, and that there is ample quantity to meet foreseeable demands given current allocation permit conditions and foreseeable river flow conditions.

PWSA's wastewater collection and conveyance system (the sewer system) is part of a regional system that provides service to about 550,000 people, of whom nearly 325,000 live within the City. The total drainage area served by the regional system is approximately 80 square miles, of which the City comprises about 55 square miles, or nearly 70 percent of the total. The outlying sewer drainage area is comprised of 24 communities that utilize the Authority's trunk sewers to convey their wastewater to the Allegheny County Sanitary Authority (ALCOSAN) regional sewage treatment facility.

PWSA's sewer system is primarily comprised of combined sewers, which were designed to carry both storm and sanitary flows. About 75% of the system is combined sewers and the remaining 25% are separate sewage and stormwater piped systems. The sewer system is comprised of a network of approximately 1,213 miles of sanitary, storm, and combined sewers and four wastewater-pumping stations. The average age of the sewer lines is between 60 and 70

years old, with some portions reaching nearly 150 years in age. Before the ALCOSAN regional treatment facility was built beginning in the 1950s, all PWSA's combined sewers discharged directly into the local rivers through several hundred outfalls. While the Authority and ALCOSAN have significantly reduced the volume of discharges into the local rivers, discharges during wet weather events still occur. The Authority and ALCOSAN are actively working with the PADEP to reduce these overflows, which is a major cost driver in the sewer system.

b. Authority Charter and Organization

The Authority is a body politic and corporate, organized and existing under the Pennsylvania Municipality Authorities Act. The Authority was established by the City in 1984, and it originally functioned as a financing authority. Since 1995, PWSA has functioned as an operating authority under the City. As an operating authority, PWSA assumed responsibility from the City for day-to-day management, operation, maintenance, and improvement of virtually the entire City water supply, distribution, and wastewater collection systems. In 2009, the Authority acquired the water system of the Borough of Millvale. Although the City has a major role in the creation (and continued existence) of PWSA, including appointment of PWSA Board members, PWSA is not a department of the City. PWSA is a separate legal entity with power to incur debt, own property and finance its activities.

In 2017, PWSA prepared responses to the US EPA Municipal Separate Storm Sewer Systems stormwater permit. During the process, it was determined that it would be best for PWSA to undertake complete responsibility for the stormwater activities in Pittsburgh. A formal plan to document all stormwater assets and conditions was established in the 2017 compliance agreement with the US EPA. PWSA has undertaken these activities and has negotiated the technical terms for a memorandum of understanding (MOU) between the City and PWSA for

operation, maintenance, repair, and capital improvements related to stormwater and the City of Pittsburgh. The MOU will require activities by both parties to ensure full compliance with the regulatory requirements.

PWSA and the City provide various services to and undertake various responsibilities for one another. These services are provided pursuant to a "Cooperation Agreement," first executed in 1995, pursuant to which PWSA is expected to pay the City \$7.15 million in 2019. Discussions are underway, which are expanded upon in Section 6 of this Plan, between the City and the Authority to renegotiate the Agreement to ensure equity and fairness for both parties.

The mission of PWSA is to provide high-quality drinking water, and to convey sewage and stormwater at a reasonable price for its customers. Customer satisfaction is PWSA's highest priority, and the Authority strives to work with customers to resolve any issues they may encounter.

c. Operating History

For a very long period, stretching from their beginnings in the mid-1800s until the post WWII period, the water and sewer systems in Pittsburgh functioned largely as intended under the jurisdiction of the City. During a majority of this period, there were few environmental and water quality regulations and the long-lived assets such as water mains operated as intended. Operation and maintenance activities were basic, mostly consisting of making certain that the water was flowing and leaks/failures were fixed promptly. There were adequate union labor resources staffing the systems, which was a byproduct of the success of the regions healthy manufacturing sector. As the systems aged through the 1960s and 1970s, maintenance and renewal did not keep pace. Failures increased dramatically. The passage of the Safe Drinking Water Act and Clean

Water Acts in the 1970s also contributed to the burden on the City operators of the water and wastewater systems.

Continued aging of the systems' assets in the 1970s and 1980s coincided with large scale reductions in the manufacturing sector in Pittsburgh and surrounding areas. This brought political instability and an accompanying shortage of financial resources. The continued lack of funding for utility upgrades caused further degradation in the systems. The only solution to address the continued decline of the systems was an investment of cash to replace infrastructure and labor resources for improved operations and maintenance. Instead, in the mid-1980s around the time of the last major steel mills closing in the area, the City began pulling money out of the utility by reducing staff and through the leasing arrangements with the newly created Authority.

Until 2017, the Authority has been operating on an inadequate budget with minimal investments in new assets. There has also been a lack of leadership at the Authority with more than 20 Executive Directors leading the Authority since the mid-1980s, including a brief period of contract management operation by Veolia corporation from 2012 to 2015, which resulted in mediated \$5 million settlement to PWSA and Veolia agreeing to pay \$500,000 to a fund aiding designed to address utility affordability for the Authority's most vulnerable customers. The Authority's management and operations staff have also declined significantly since the 1970s, providing fewer skilled workers to address the growing needs of the water and sewer systems.

d. Recent Developments

Over the last 3-5 years, redevelopment within the City has begun to change the fortunes of PWSA and the City of Pittsburgh. Pittsburgh has become a hub for technology, education, and medical services, replacing tax revenue lost decades ago with the departure of many heavy manufacturing industries and bringing needed high paying jobs. Construction is also booming in

the area, and there is an influx of young people. Pennsylvania Governor Tom Wolf recently joined Pittsburgh Mayor Bill Peduto to formally announce the City's release from Act 47, the state's financially distressed municipality's act, after more than 14 years.

PWSA has recently undergone a series of management audits, including those by the City Comptroller, a City-sponsored assessment by Infrastructure Management Group (IMG), PADEP, the US EPA, and the State of Pennsylvania Department of the Auditor General. These reports and other investigations, supported investments in new water and sewer infrastructure and governance changes to stabilize the Authority. Seizing this momentum, Robert Weimar, P.E., the recently PWSA Board-appointed Executive Director (who formerly served as Interim Executive Director, as well as Interim Director of Engineering and Construction), and recruited senior staff have brought stability to the leadership of the Authority. PWSA has also recently hired several new experienced staff in numerous disciplines of water quality, regulatory compliance, water treatment, and operations management. As operations improved and the extent of critical infrastructure needs was acknowledged, the PWSA Board of Directors increased rates by more than 41% over the last two years. The rates will largely go toward fixing system assets most in need of repair or replacement, as well as instituting more robust operation and maintenance standards.

Regulation by the Commission will help to further stabilize the Authority and provide urgency for the City to adopt governance changes that will further solidify a successful future for PWSA. While discussions are still underway, PWSA and the City have considerable common ground regarding governance, financial and operations issues such as metering public facilities, and transferring responsibility for more stormwater activities to PWSA. Each group is also looking for ways to get the strong local private sector involved, whether through partnerships

with other public agencies for private corporations, or through contracting professional consultants, technical specialists, and construction contractor services. These firms range from local minority to international firms with capabilities and engineering, construction management, project development, program management, as well as any other specific technical experts required for the performance of utility services.

i. Present Governance

PWSA is governed by a seven-member Board of Directors (Board) whose members are appointed by the Mayor of the City, and includes statutory members of City government including the City Treasurer, Finance Director, and a City Councilor. The current Board members are Paul Leger, Chairperson; Margaret Lanier, Vice Chairperson; Jim Turner, Secretary; Deb Gross, Assistant Secretary, and Chaton Turner, Esq. Two board positions remain vacant at this time; PWSA expects a full requisite board will be appointed upon completion of ongoing cooperation agreement negotiations and modifications to the current governance structure are approved by Pittsburgh City Council.



SYSTEM AND OPERATIONS ACTIVITIES

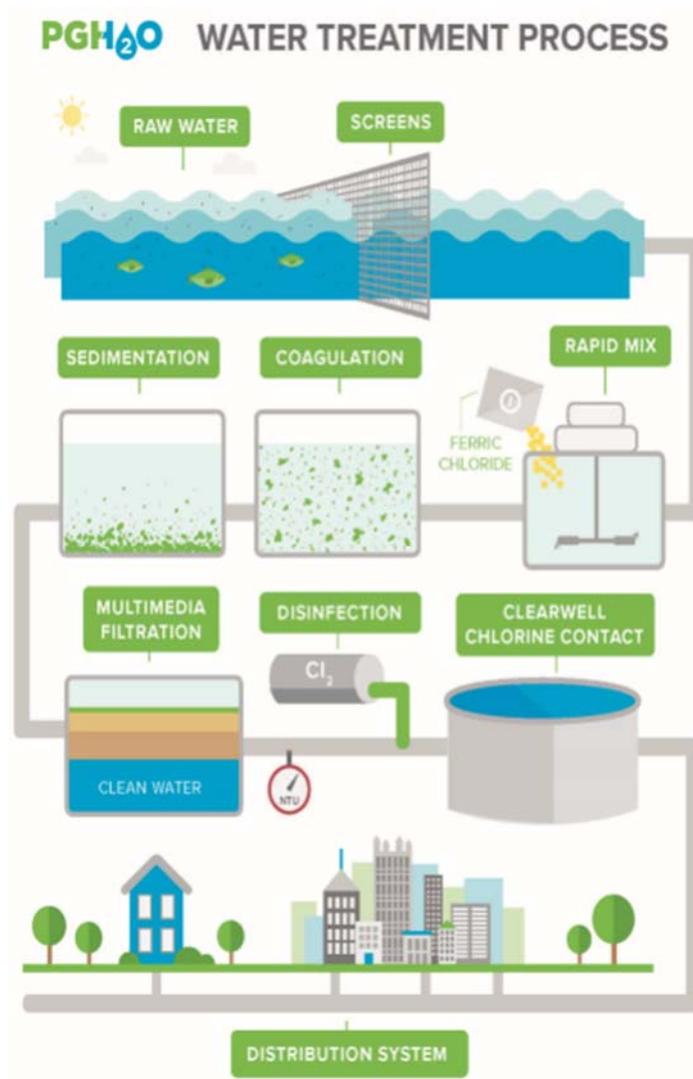
3. SYSTEM AND OPERATIONS ACTIVITIES

a. Water System

The City of Pittsburgh has a long history of innovative adaptation in its water treatment and distribution process. As the city's population and steel industry grew throughout the 19th century, the public water system evolved to meet the needs of its customer base, enhancing its treatment facilities by incorporating new technologies. By 1905, the city had begun construction on a slow-sand filtration plant, upgraded in the 1960s to include chemical treatment and high rate rapid sand filters.²

Today, PWSA treats an average of 70 MGD³ from the Allegheny River.⁴ PWSA's main water treatment facility is the 117 MGD conventional filtration plant at Aspinwall.⁵ The 26 MGD Highland Microfiltration Plant, which uses membrane treatment technology,⁶ is located at the Highland No. 1 Reservoir—the system's only uncovered reservoir.⁷ Besides the Ross pump station, which supplies raw water to the Aspinwall plant, PWSA maintains 10 finished water pumping stations.⁸ Ten chlorine booster stations disinfect the treated water prior to distribution,⁹ and this finished water is transported to approximately 81,000 customers within the City¹⁰ through more than 964 miles¹¹ of water lines. The water treatment process at the Aspinwall Water Treatment is illustrated in the following figure, as provided in PWSA's annual drinking water quality report.¹²

Figure 3: PWSA's Water Treatment Process



The 2012 estimated cost of replacing all water infrastructure with new facilities was \$1.247 billion,¹³ but further study has revealed that the 40-Year Plan significantly underestimated some costs, particularly regarding pipe replacement. Due to the age of the facilities, with most water mains exceeding 70 years of age (the oldest pipes and valves date the mid-1800s¹⁴), and lack of infrastructure spending, the water system has degraded significantly. The 2012 book value of assets in the water system was only \$486.67 million.¹⁵ A 2012 capital planning report commissioned by PWSA recommended a water main replacement cost of

approximately \$14.8 million per year to adequately mitigate risk due to aging pipes,¹⁶ and PWSA's most recent capital improvement plan (as of July 2018) has estimated a water main replacement cost of approximately \$78.4 million over the next several years.¹⁷ The 2012 report also estimated substantial costs, to be incurred over a 40-year time horizon, for upgrading other water infrastructure—\$1.41 billion for distribution, \$35.02 million and \$150.65 million, respectively, for pumping and storage, and \$401.61 million for treatment facilities.¹⁸

To maintain an updated, safe and reliable water system, PWSA is complying with an Administrative Order from PADEP, issued in 2017 to ensure that the most urgent water supply projects are achieved. These improvements include a new cover for the Lanpher Reservoir, upgrades to the Bruecken Pump Station, installation of security and treatment upgrades for the Highland No. 1 Reservoir and associated Microfiltration Plant, and a monitoring system to ensure that service lines maintain consistent pressure within the water distribution.¹⁹ PWSA's most recent capital improvement program (CIP)—a far more ambitious plan than that of previous years²⁰—emphasizes upgrading, renewal, and replacement of chemical feed, outdated mechanical equipment, and aged structures of the Aspinwall Treatment Plant, as well as significant improvements to the rising Main system.²¹ Following proposed Administrative Orders, PWSA has incorporated other key system upgrades into its CIP, including measures to improve system reliability and resilience to natural disasters and infrastructure failures.²²

One of the most significant of these required upgrades is the replacement of lead service lines throughout the service area. After PWSA's required monitoring revealed lead concentrations exceeding the US EPA and PADEP Lead Action Level in 2016, a Consent Order and Agreement (COA) from DEP required PWSA to replace at least 7% of its lead service lines (1,341) lead service lines by June 30, 2018.²³ PWSA surpassed the requirement on June 29,

2018.²⁴ After it was determined that partial lead line replacement (e.g. replacing only the publicly-owned portion of a lead service line) could actually increase lead levels for a few months, state law was amended to allow PWSA to replace lines on private property; PWSA has replaced over 400 private lead service lines as of June 30, 2018.²⁵ Lead service line replacements are ongoing, but will take years to complete, and PWSA is awaiting PADEP approval to add a corrosion inhibitor (orthophosphate) to reduce leaching of lead in existing plumbing fixtures and service lines.²⁶ PWSA has posted an interactive map to their website showing historical lead service lines and areas of planned or completed lead service line replacement,²⁷ with the goal of informing affected residents. The lead service line investigations and lead service line map will be completed by late 2020.

b. Wastewater System

With a collection system covering approximately 80 square miles, PWSA provides sewage collection and conveyance for approximately 550,000 people in total, including 325,000 people within the Pittsburgh city limits.²⁸ PWSA collects and conveys sewage to ALCOSAN for treatment, and PWSA customers are billed for ALCOSAN waste treatment through a “pass-through” charge on their water bills.²⁹

About 75% of the PWSA sewage collection system is combined with the city’s stormwater system (the latter is discussed below).³⁰ Prior to PWSA’s partnership with ALCOSAN, which began in the 1950s following state pressure to improve water quality in city waterways and passage of the Clean Water Act in the 1970s,³¹ all sewage and stormwater was discharged, untreated, into Pittsburgh’s rivers and streams.³² The majority of the City’s sewage and some stormwater is currently treated at ALCOSAN prior to discharge. However, during

significant storm events combined sewage overflows continue to be diverted into surface waters.³³

To address the water quality problems resulting from combined sewer overflows, PWSA and 82 other systems served by ALCOSAN signed a COA in 2004 to bring surface water quality into compliance with state law and the Clean Water Act.³⁴ Four years later, ALCOSAN signed a Consent Decree with the federal government and the state to create a Wet Weather Plan in 2013. Later in 2013, PWSA released their “Wet Weather Feasibility Study” summarizing future plans for improving water quality.³⁵ Wastewater compliance activities are ongoing. ALCOSAN is required to construct facilities to eliminate sanitary sewer overflows by 2036,³⁶ while a Long-Term Wet Weather Control Plan must address sewage infrastructure improvements through 2046.³⁷

As of the publication of PWSA’s 2012 40-Year Plan, the collection system included four wastewater pumping stations supplying 1,211 miles of sewer lines greater than 3-inches in diameter.³⁸ PWSA’s sewer facilities have depreciated substantially since they were first installed. The 2012 estimated cost of replacing existing sewer collection facilities with new facilities was \$1,264,877,000³⁹ with a depreciated value of \$287,266,671.⁴⁰ The average age of PWSA’s sewer lines is between 60 and 70 years old, and some lines are nearly 150 years old.⁴¹

c. Stormwater System

PWSA maintains more than 25,000 catch basins, which collect stormwater.⁴² Stormwater is diverted through two types of sewers: dedicated stormwater sewers and combined sewers (stormwater and sanitary). Therefore, stormwater management in Pittsburgh is closely related to wastewater flow management through ALCOSAN. To better manage water quality and mitigate pollution caused by combined sewer overflows (CSOs), PWSA and the City of Pittsburgh have a

pending Consent Order with the U.S. EPA that is similar to ALCOSAN's existing EPA-mandated abatement program.⁴³

In addition to a source water protection plan approved by the PADEP,⁴⁴ PWSA has adopted a “green first approach” to stormwater management, formalized through the draft Citywide “Green First Plan.”⁴⁵ The plan highlights the need for the combined use of green infrastructure (GI) and grey infrastructure—the latter term referring to man-made pipes and detention basins—to prevent stormwater from causing floods and CSOs during rain events or periods of rapid snowmelt. Another major component of the strategy is the deployment of these storm water management systems throughout neighborhoods which allows the existing combined systems to operate more effectively during storm events. By detaining and storing peak flows during storm events, these distributed systems can reduce local flooding and basement backups.

A key component of grey infrastructure improvement has been the segregation of stormwater from sewage flows, which helps prevent CSOs. Although only about 25% of the stormwater collection system is comprised of separate sewers,⁴⁶ all new development is required to use separate sewers (called Municipal Separate Storm Sewer Systems, or MS4s).⁴⁷ In addition to encouraging improved sewer designs for new construction, Pittsburgh plans to expand its use of GI for both new and existing development.

A major component of the region's combined sewer overflows is directly related to the past direct connection of streams to the sewer system. As a result, hundreds of millions of gallons of stormwater are directed to the ALCOSAN regional system. These streams directly cause combined sewer overflows during storm events. Therefore, removal of the streams and reconnection to the area surface rivers will have a significant benefit to combined sewer overflow impacts, as well as provide an opportunity to daylight streams and provide an improved

environment for the public. At present, PWSA is sponsoring, with the US Corps of Engineers, the Pittsburgh Parks Conservancy, the City of Pittsburgh Department of Mobility and Infrastructure, and Phipps Conservatory, implement of a number of major stream removal projects: The Negley Run project, the 4-Mile Run project and Woods Run streams. Each is intended to remove existing combined sewer pipe flow and restore, to the greatest extent possible, a day lighted natural stream, including sufficient capacity to deal with larger than 1- to 2-year frequency storm events. These projects will focus on the use of major stormwater detention systems and day lighted conveyance to manage stormwater flows to reduce the region's combined sewer overflows.

An example of GI is vegetated roof technology. Like traditional rain gutters, vegetated roofs include a drainage channel (beneath the growth medium) designed to collect and transport excess rainwater directly to sewers, but they are also designed to slow stormwater flows by capturing and retaining rainfall in a top layer of vegetations and a growth medium.⁴⁸ Although Pittsburgh has not constructed green roofs on a large scale, PWSA has included similar GI technologies (e.g. bio-swale and other bioretention projects) in its most recent CIP.⁴⁹ PWSA's Green First Plan has documented extensive feasibility studies and modelling efforts to understand the impact of green technologies for the future.⁵⁰ The Plan calls for a combination of increased GI implementation and increased wet weather treatment capacity at ALCOSAN, with the goal of reaching 85% combined sewage capture—both within each CSO event, and within each of the City's highest priority sewer drainage areas.⁵¹

To help fund the Green First program, PWSA plans to establish a PUC-approved stormwater tariff. The stormwater tariff will help to assign costs to the cost-causer and recognize the proportional impact of the urban landscapes that generate the most stormwater runoff. This

new tariff system will require substantial accurate and detailed spatial data, so PWSA has invested in a robust Geographic Information System (GIS) program⁵² and plans to continue to grow their GIS mapping capabilities. The current CIP has budgeted \$1.32 million to invest in stormwater system mapping in 2018.⁵³

Overall, PWSA's current CIP is designed to prioritize the most important infrastructure improvements for water, sewer, and stormwater, recognizing that all three systems are interrelated. PWSA plans to spend approximately \$155 million on capital improvements in 2019 alone, and will continue to heavily invest in infrastructure and operational excellence in the following years.⁵⁴ The proposed CIP increases capital spending for all activities from less than \$40 million per year in 2017 to \$300 million per year by 2020.⁵⁵ As of July 2018, PWSA had already made significant progress on their ambitious CIP, with at least six major stormwater projects over 90% complete as of July 2018.⁵⁶

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- ² PWSA, “PGH2O History,” n.d., <http://pgh2o.com/history>.
- ³ Robert Weimar, “Pittsburgh Water & Sewer Authority Initial Tariff Filings and Rate Requests: Testimony Before the Pennsylvania Public Utility Commission, Volume II,” Pub. L. No. R-2018-3002645, R-2018-3002647 (2018).
- ⁴ PWSA, “PWSA Annual Drinking Water Quality Report 2017,” 2017, <http://www.pgh2o.com/files/2017CCR.pdf>.
- ⁵ Chester Engineers, Inc., “The Pittsburgh Water and Sewer Authority 40-Year Plan” (Allegheny County, Pennsylvania, September 2012), http://apps.pittsburghpa.gov/pwsa/PWSA_40-year_Plan.pdf.
- ⁶ Chester Engineers, Inc.
- ⁷ PWSA, “PGH2O History.”
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PUC COMPLIANCE REQUIREMENTS AND REPORTING – OVERVIEW

4. PUC COMPLIANCE REQUIREMENTS AND REPORTING – OVERVIEW

The Commission manages several customer service, billing, accounting, reporting and management standards contained in Chapter 52 of the Pa. Code. While PWSA has always been a customer-focused utility, its practices have varied from those regulated by the PUC. It has strived to adopt common industry practices, such as those recommended by the American Water Works Association (AWWA), the Water Environment Federation (WEF) and the Government Accounting Standards Board (GASB). Inadequate funding and lack of resources has often resulted in falling short on meeting many non-compulsory standards of regulatory and industry bodies. This Compliance Plan explains where PWSA meets or exceeds PUC regulatory standards, describes areas of deficiency and outlines a plan and timeframe to address any gaps.

a. Financial and Accounting Practices

PWSA generally follows Generally Accepted Accounting Principles (GAAP) and GASB guidance. It also has a yearly financial audit that complies with applicable requirements. It currently differs from PUC regulatory standards in several ways, most notably in its use of a cash-based accounting system. The PWSA set of accounts is more closely aligned with City of Pittsburgh accounting practices than PUC practices. Tracking of assets, revenue and expenditures will need to be adjusted to align with PUC standards. A timeline for compliance, including converting to a USOA system of accounts, is laid out in this Compliance Plan.

b. Customer Service Practices

PWSA's customer service practices are almost entirely in compliance with provisions contained in 52 Pa. Code § 56. PWSA's Proposed Tariff filed at R-2018-3002645, 47 on July 2,

2018 proposed rules and regulations that PWSA intended to fully comply with the billing, collection, complaint, and termination rules of Chapter 14 of the Public Utility Code and Chapter 56 of the Commission’s regulations (except where waivers are requested). The few areas of current non-compliance are discussed in the Compliance Plan.

c. Registration of Securities (66 Pa. C.S. §1901-1904)

Chapter 32 of the Public Utility Code (66 Pa.C. S. §§ 3201 to 3209) does not exempt [1] PWSA from compliance with the requirements of Chapter 19 of the Public Utility Code[2], 66 Pa. C.S. § 1901-1904 (Chapter 19). See Implementation of Chapter 32 of the Public Utility Code; RE: Pittsburgh Water And Sewer Authority, Docket Nos. M-2018-2640802 and M-2018-2640803, Tentative Implementation Order entered January 18, 2018, at p. 29.

Chapter 19 provides that the “securities” of public utilities must be registered with the Commission prior to issuance or assumption by the public utility. The issuance and assumption of securities certificates is defined at 66 Pa. C.S. §§ 1901(b), (c). The required contents of securities certificates are set forth in the Public Utility Code. 66 Pa. C.S. § 1902; 52 Pa.Code § 3.601(b), (c), (d).

PWSA intends to fully comply with Chapter 19. In fact, PWSA recently requested the registration of a new revolving credit agreement (which will replace the prior “grandfathered” revolving credit agreement). Docket No. S-2018-3003524. In addition, the PWSA also sought a waiver from the Commission to clarify that certain interest rates changes under bonds - issued by PWSA prior to the effective date of Chapter 32 – would not require registration under Chapter 19. Docket No. P-2018-3003636. That waiver was granted on August 23, 2018.



**COMPLIANCE
BY TITLE 52
CHAPTER**

5. COMPLIANCE BY TITLE 52 CHAPTER

As a public water and wastewater utility regulated by the PAPUC, PWSA is subject to the relevant portions of Title 52, including:

- > Chapter 56 – Standards and Billing Practices for Residential Utility Service
- > Chapter 65 – Water Service
- > Chapter 67 – Service Outages
- > Chapter 69 – General Orders, Policy Statements, and Guidelines
- > Chapter 71 – Financial Reports
- > Chapter 73 – Annual Depreciation, Service Life Studies and Capital Investment Plans
- > Chapter 101 – Public Utility Preparedness through Self Certification
- > Chapter 102 – Confidential Security Information
- > Chapter 121 – Long-term Infrastructure Improvement Plan

Table 1 presents the relevant sections of the aforementioned Chapters where PWSA believes that it is currently in compliance with the Commission’s requirements.

Table 1: Title 52 Sections where PWSA believes it is currently in compliance

| Section | Subchapter | Currently in Compliance |
|------------------------|--|--------------------------------|
| 56.1 | Preliminary Provisions for Utilities and Customers Subject to Chapter 14 of the Public Utility Code | X |
| 56.31 – 56.58 | Credit and Deposits Standards Policy (Water) | X |
| 56.71 – 56.72 | Interruption and Discontinuance of Service (Water) | X |
| 56.14 – 56.174 | Disputes; Termination Disputes; Informal and Formal Complaints (Water) | X |
| 56.191 | Restoration of Service (Water) | X |
| 56.251 – 56.252 | Provisions for Wastewater, Steam Heat and Small Natural Gas Distribution Utilities and Victims of Domestic Violence with a Protection from Abuse Order | X |
| 56.281 – 56.307 | Credit and Deposits Standards Policy (Wastewater) | X |
| 56.311 – 56.312 | Interruption and Discontinuance of Service (Wastewater) | X |
| 56.371 – 56.411 | Disputes; Termination Disputes; Informal and Formal Complaints (Wastewater) | X |
| 56.421 – 56.422 | Restoration of Service (Wastewater) | X |

| | | |
|------------------------|--|---|
| 56.441 | Informal Complaints (Wastewater) | X |
| 65.3. | Complaints. | X |
| 65.5. | Interruptions of service. | X |
| 65.9. | Adjustment of bills for meter error. | X |
| 65.10. | Disputed bills. | X |
| 65.12. | Notice of desire to have service discontinued. | X |
| 65.13. | Temporary service. | X |
| 65.15. | Refusal to serve applicants. | X |
| 69.51 – 69.85 | Inclusion of State Taxes and Gross Receipts Taxes in Base Rates | X |
| 69.169 | Policy Statement Interpreting Terms Included In 66 Pa. C.S. § 1326 | X |
| 69.261 – 69.267 | Policy Statement on Customer Assistance Programs | X |
| 69.351 | Implementation of SFAS 106 | X |
| 73.7. | Capital investment plan report | X |
| 121.3. | LTIP. | X |
| 121.4. | Filing and Commission review procedures. | X |

Table 2 highlights the Sections where PWSA believes that it will be in compliance with the Commission’s requirements within the next six months.

Table 2: Title 52 Sections where PWSA believes will be in compliance within six months

| Section | Subchapter | 6 Months or Less to Compliance |
|--------------------------|---|---------------------------------------|
| 65.2. | Accidents. | X |
| 65.11. | Mandatory conservation measures. | X |
| 65.14 | Measurement. | X |
| 67.1 | Service Outages. | X |
| 69.87 | Tariff Provisions that Limit the Liability of Utilities for Injury or Damage as A Result of Negligence or Intentional Torts—Statement of Policy | X |
| 69.801 – 69.809 | Diversity at Major Jurisdictional Utility Companies—Statement of Policy | X |
| 69.1601 – 69.1603 | Unscheduled Water Service Interruptions and Associated Actions | X |
| 101.3. | Plan Requirements. | X |

Finally, Table 3 shows the Sections where PWSA believes that it will take longer than six months to comply with the Commission’s requirements.

Table 3: Title 52 Sections where PWSA believes that compliance will take longer than six months

| Section | Subchapter | More than 6 Months to Compliance |
|----------------------|---------------------------------------|---|
| 56.11 – 56.25 | Billing and Payment Standards (Water) | X |

| | | |
|------------------------|--|---|
| 56.81 – 56.118 | Termination of Service (Water) | X |
| 56.201 – 56.202 | Public Information Procedures; Record Maintenance (Water) | X |
| 56.261 – 56.275 | Billing and Payment Standards (Wastewater) | X |
| 56.321 – 56.358 | Termination of Service (Wastewater) | X |
| 56.431 – 56.432 | Public Information Procedures; Record Maintenance (Wastewater) | X |
| 65.8. | Meters. | X |
| 65.16. | System of accounts. | X |
| 65.17 | Standards of design. | X |
| 65.18 | Standards of construction. | X |
| 65.19 | Filing of annual financial reports. | X |
| 65.20 | Water conservation measures – statement of policy. | X |
| 69.251 | Policy Statement on Plain Language Guidelines | X |
| 71.3. | Filing requirements. | X |
| 71.4. | Time of filing. | X |
| 71.5. | Format for filing financial reports. | X |
| 71.6. | Permitted adjustments to financial reports. | X |
| 71.7. | Filing procedures. | X |
| 71.9. | Financial reports as public documents. | X |
| 73.3. | Annual depreciation reports | X |
| 73.4. | Format for filing the annual depreciation report | X |
| 73.5. | Service life study report | X |
| 73.6. | Format for filing the service life study report | X |
| 73.8. | Format for filing the capital investment plan report | X |
| 101.4. | Reporting Requirements. | X |
| 102.3. | Filing procedures. | X |
| 121.5. | Modifications to and expiration of an LTIP | X |
| 121.6. | AAO plan filings. | X |
| 121.7. | Periodic review of an LTIP. | X |
| 121.8. | Enforcement of LTIP implementation. | X |

The next several sections of this document detail the Commission’s requirements, PWSA’s compliance status, and, in areas where PWSA does not currently meet the Commission’s requirements, a plan for achieving compliance.

a. Chapter 56. Standards and Billing Practices for Residential Utility Service

Chapter 56 of Title 52, Pennsylvania Code was created to establish and enforce “uniform, fair, and equitable residential public utility service standards.” Specifically, Chapter 56 deals with eligibility criteria; credit and deposit practices; and account billing, termination, and customer complaint procedures, thereby ensuring adequate provision of service, restricting unreasonable termination of or refusal to provide that service, and eliminating opportunities for customers capable of paying for service to avoid doing so. PWSA believes that it is currently in compliance with most of 17 subchapters of Chapter 56, partially as a result of policy changes made in March 2018 to PWSA’s Rules and Regulations, as well as additional changes reflected in the July 2, 2018 Tariff Filing (Table 4).

Table 4: PWSA Compliance with Chapter 56

| Section | Subchapter | Currently in Compliance | 6 Months or Less to Compliance | More than 6 Months to Compliance |
|------------------------|--|--------------------------------|---------------------------------------|---|
| 56.1 | Preliminary Provisions for Utilities and Customers Subject to Chapter 14 of the Public Utility Code | X | | |
| 56.11 – 56.25 | Billing and Payment Standards (Water) | X | | X |
| 56.31 – 56.58 | Credit and Deposits Standards Policy (Water) | X | | |
| 56.71 – 56.72 | Interruption and Discontinuance of Service (Water) | X | | |
| 56.81 – 56.118 | Termination of Service (Water) | | | X |
| 56.14 – 56.174 | Disputes; Termination Disputes; Informal and Formal Complaints (Water) | X | | |
| 56.191 | Restoration of Service (Water) | X | | |
| 56.201 – 56.202 | Public Information Procedures; Record Maintenance (Water) | | | X |
| 56.251 – 56.252 | Provisions for Wastewater, Steam Heat and Small Natural Gas Distribution Utilities and Victims of Domestic Violence with a Protection from Abuse Order | X | | |
| 56.261 – 56.275 | Billing and Payment Standards (Wastewater) | | | X |
| 56.281 – 56.307 | Credit and Deposits Standards Policy (Wastewater) | X | | |
| 56.311 – 56.312 | Interruption and Discontinuance of Service (Wastewater) | X | | |

| | | | |
|------------------------|---|---|---|
| 56.321 – 56.358 | Termination of Service (Wastewater) | | X |
| 56.371 – 56.411 | Disputes; Termination Disputes; Informal and Formal Complaints (Wastewater) | X | |
| 56.421 – 56.422 | Restoration of Service (Wastewater) | X | |
| 56.431 – 56.432 | Public Information Procedures; Record Maintenance (Wastewater) | | X |
| 56.441 | Informal Complaints (Wastewater) | X | |

56.1: Preliminary Provisions for Utilities and Customers Subject to Chapter 14 of the Public Utility Code

Section 56.1 establishes the purpose and policy for Chapter 56 and specifies that Subchapters A-K of Chapter 56 apply to electric distribution utilities, natural gas distribution utilities, and water utilities, and that subchapters L-V apply to wastewater utilities, steam heat utilities, small gas natural utilities, and to all customers who have been granted protection from abuse orders from courts of competent jurisdiction. As a water and wastewater utility, PWSA is subject to subchapters A-V, and is currently in compliance with the preliminary provisions for utility customers, under Chapter 14 of the Public Utility Code.

56.11 – 56.25: Billing and Payment Standards

Sections 56.11 through 56.17 relate to billing frequency; meter reading, estimated billing, and customer readings; billings for merchandise; previously unbilled service; billing information; transfer of accounts; and advance payments. Sections 56.21 through 56.25 concern payment; accrual of overdue payment charges; application of partial payments between public utility and other services; application of partial payments among several bills for public utility service; and electronic bill payment.

PWSA Compliance Status

PWSA believes that it is currently in compliance with all standards included in these sections, except for 56.15, which addresses the information to be included in a customer’s bill.

PWSA Compliance Plan

PWSA is planning to have completed a bill redesign project by the end of 2019. The Authority is currently waiting on a statement of work from its print and mail vendors.

56.31 – 56.58: Credit and Deposit Standards Policy (Water)

Sections 56.31 through 56.38 highlight the need for credit and deposit policies to be equitable and nondiscriminatory, with policies related to security and cash deposits, third-party guarantors; deposits for temporary service; payments of outstanding balances; written procedures; general rules; and payment periods for deposits by applicants. Sections 56.41 and 56.42 relate to procedures for existing customers, including the payment periods for deposits by customers. Finally, Sections 56.51 through 56.58 reference policies for cash deposits, including the amount of the cash deposit; the deposit hold period and refund; the refund statement; the interest rate; and the application of interest.

PWSA Compliance Status

PWSA believes that it is currently in compliance with the policies detailed in Sections 56.31 through 56.58.

56.71 and 56.72: Interruption and Discontinuance of Service (Water)

Section 56.71 relates to the interruption of water service, which can occur when it is necessary for a utility to effect repairs or maintenance; eliminate an imminent threat to life, health, safety, or substantial property damage; or for reasons of local, State, or National emergency. PWSA is in compliance with the notification procedures cited for interruption of service and takes reasonable steps to notify affected customers and occupants of the cause and expected duration of the interruption. The policies established in Section 56.72 lay out the requirements for services to be discontinued for customers' residences or other premises or dwellings.

PWSA Compliance Status

PWSA believes that it complies with these requirements for discontinuance of service.

56.81 – 56.118: Termination of Service

According to Section 56.81, authorized termination of service may occur after notice has been provided in the following circumstances: nonpayment of an undisputed delinquent account; failure to complete payment of a deposit or provide a guarantee of payment or establish credit; failure to permit access to meters, service connections, or other property of the public utility for purposes of replacement, maintenance, repair, or meter reading; or failure to comply with the material terms of a payment agreement. PWSA currently uses these circumstances as grounds for authorized service termination.

Sections 56.91 through 56.1 lay out the notice procedures required prior to termination, including general notice provisions and what information must be included in a termination notice, procedures to follow immediately prior to termination, immediate termination policies, and winter termination procedures.

PWSA Compliance Status

PWSA believes that it is in compliance with most of the notice procedures for service termination and is continuing to work on achieving the plain language requirement for shut off notices. The only exception is 56.91 (17), which stipulates that information in Spanish directing Spanish-speaking customers to the numbers to call for translation assistance should be included. Additionally, Sections 56.111 through 56.118 highlight the emergency provisions for terminating, postponing termination, and restoring service to customers, with which PWSA currently complies.

PWSA Compliance Plan

PWSA is investigating piggybacking on a translation services contract that the City of Pittsburgh 311 entered into recently. If this is impermissible due to procurement rules and a standard RFP process is necessary, the contract would take at least six months to award. Adding implementation time, PWSA should be in full compliance with Section 56.91 by March 2019.

56.14 – 56.174: Disputes; Termination Disputes; Informal and Formal Complaints

Sections 56.14 through 56.143 detail the general provisions associated with disputes and complaints, including follow-up responses, dispute procedures, timeline for filing an informal complaint, and the effect of failure to file a timely informal complaint, while Sections 56.151 and 56.152 summarize the Public Utility Company Dispute Procedures. PWSA complies with the policies and procedures included in these Sections.

Sections 56.161 through 56.166 and Sections 56.171 through 56.174 include the informal and formal complaint procedures, respectively. For informal complaints, the procedures include filing, the Commission's procedures, termination of service pending the resolution of the dispute, conference procedures and informal complaints. For formal complaints, the procedures include general rules, filing, review from the formal complaint decisions of the Bureau of Consumer Services, and the ability to pay proceedings.

PWSA Compliance Status

PWSA believes that it complies with these procedures to manage the informal and formal complaint processes. Finally, Section 56.181 highlights the duties of parties, the disputing party's duty to pay undisputed portions of bills, and the utility's duty to pay interest in cases of overpayment. PWSA believes that it complies with the policies included in this section.

56.191 and 56.192: Restoration of Service

Section 56.191 provides an overview of the requirements for payment and timing necessary for utilities to restore service, and Section 56.192 details the utility's requirements to have adequate personnel available to restore service between 9 a.m. and 5 p.m. during each working day, or for a commensurate period of eight consecutive hours to restore service when required.

PWSA Compliance Status

PWSA believes that it currently complies with these requirements.

56.201 and 56.202: Public Information Procedures and Record Maintenance

Sections 56.201 and 56.202 pertain to public information procedures and records maintenance procedures, respectively. Public utilities are required to summarize the rights and responsibilities of the utility and its customers, and display this information prominently, both online and in hard copy, with which PWSA currently complies. Public utilities that serve a substantial number of Spanish-speaking customers are also required provide billing information in English and Spanish.

Public utilities are also required to preserve a minimum of four years' written or recorded disputes or complaints, according to 56.202. Additional information that must be maintained includes customer payment performance; the number of payment agreements made, as well as the terms of the agreements; the number of service terminations and reconnections; and communications to or from individual customers regarding interruptions, discontinuances, terminations, and reconnections of service.

PWSA Compliance Status

PWSA believes that it currently complies with these record maintenance policies, with the exception of providing billing information in English and Spanish.

PWSA Compliance Plan

PWSA is investigating piggybacking on a translation services contract that the City of Pittsburgh 311 entered into recently. If this is impermissible due to procurement rules and a standard RFP process is necessary, the contract would take at least six months to award. Adding implementation time, PWSA should be in full compliance with Section 56.202 by March 2019.

56.251 and 56.252: Provisions for Wastewater, Steam Heat and Small Natural Gas Distribution Utilities and Victims of Domestic Violence with a Protection from Abuse Order

Sections 56.251 and 56.252 state the purpose, policy, and definitions of Subchapters L-V, which apply to victims under a protection from abuse order, and apply to wastewater, steam heating, and natural gas distribution utilities.

PWSA Compliance Status

As a wastewater utility, PWSA is subject to subchapters L-V, and believes it is currently in compliance with the provisions for victims of domestic violence with a protection from abuse order.

56.261 – 56.275: Billing and Payment Standards

Sections 56.261 through 56.267 relate to billing frequency; meter reading, estimated billing, and customer readings; billings for merchandise; previously unbilled service; billing information; transfer of accounts; and advance payments. Sections 56.271 through 56.275 concern payment; accrual of overdue payment charges; application of partial payments between

public utility and other services; application of partial payments among several bills for public utility service; and electronic bill payment.

PWSA Compliance Status

PWSA believes that it is currently in compliance with all standards included in these sections, except for 56.265, which addresses the information to be included in a customer's bill.

PWSA Compliance Plan

PWSA is planning to have completed a bill redesign project by the end of 2019. The Authority is currently waiting on a statement of work from its print and mail vendors.

56.281 – 56.307: Credit and Deposit Standards Policy

Sections 56.281 through 56.288 highlight the need for credit and deposit policies to be equitable and nondiscriminatory, with policies related to security and cash deposits, third-party guarantors; deposits for temporary service; payments of outstanding balances; written procedures; general rules; and payment periods for deposits by applicants. Sections 56.291 and 56.292 relate to procedures for existing customers, including the payment periods for deposits by customers. Finally, Sections 56.301 through 56.307 reference policies for cash deposits, including the amount of the cash deposit; the deposit hold period and refund; the refund statement; the interest rate; and the application of interest.

PWSA Compliance Status

PWSA does not currently require customer deposits, and thus is in compliance with the policies detailed in Sections 56.281 through 56.307.

56.311 and 56.312: Interruption and Discontinuance of Service (Water)

Section 56.311 relates to the interruption of service, which can occur when it is necessary for a utility to effect repairs or maintenance; eliminate an imminent threat to life, health, safety,

or substantial property damage; or for reasons of local, State, or National emergency. PWSA is in compliance with the notification procedures cited for interruption of service and takes reasonable steps to notify affected customers and occupants of the cause and expected duration of the interruption. The policies established in Section 56.312 lay out the requirements for services to be discontinued for customers' residences or other premises or dwellings.

PWSA Compliance Status

PWSA believes that it complies with these requirements for discontinuance of service.

56.321– 56.358: Termination of Service

According to Section 56.321, authorized termination of service may occur after notice has been provided in the following circumstances: nonpayment of an undisputed delinquent account; failure to complete payment of a deposit or to provide a guarantee of payment or establish credit; failure to permit access to meters, service connections, or other property of the public utility for purposes of replacement, maintenance, repair, or meter reading; or failure to comply with the material terms of a payment agreement. Sections 56.331 through 56.340 lay out the notice procedures required prior to termination, including general notice provisions and what information must be included in a termination notice, procedures to follow immediately prior to termination, immediate termination policies, and winter termination procedures.

PWSA Compliance Status

PWSA believes that it is in compliance with most of the notice procedures for service termination and is continuing to work on achieving the plain language requirement for shut off notices. The only exception is 56.331 (13), which stipulates that information in Spanish directing Spanish-speaking customers to the numbers to call for translation assistance should be included. Additionally, Sections 56.351 through 56.358 highlight the emergency provisions for

terminating, postponing termination, and restoring service to customers, with which PWSA currently complies.

PWSA Compliance Plan

PWSA is investigating piggybacking on a translation services contract that the City of Pittsburgh 311 entered into recently. If this is impermissible due to procurement rules and a standard RFP process is necessary, the contract would take at least six months to award. Adding implementation time, PWSA should be in full compliance with Section 56.331 by March 2019.

56.371 – 56.411: Disputes; Termination Disputes; Informal and Formal Complaints

Sections 56.371 through 56.374 detail the general provisions associated with disputes and complaints, including follow-up responses, dispute procedures, timeline for filing an informal complaint, and the effect of failure to file a timely informal complaint, while Sections 56.381 and 56.382 summarize the Public Utility Company Dispute Procedures. Sections 56.391 through 56.394 and Sections 56.401 through 56.404 include the informal and formal complaint procedures, respectively. For informal complaints, the procedures include filing, the Commission's procedures, termination of service pending the resolution of the dispute, conference procedures and informal complaints. For formal complaints, the procedures include general rules, filing, review from the formal complaint decisions of the Bureau of Consumer Services, and the ability to pay proceedings. PWSA complies with these procedures to manage the informal and formal complaint processes. Finally, Section 56.411 highlights the duties of parties, the disputing party's duty to pay undisputed portions of bills, and the utility's duty to pay interest in cases of overpayment.

PWSA Compliance Status

PWSA believes that it complies with the policies and procedures included in these Sections.

56.421 and 56.422: Restoration of Service

Section 56.421 provides an overview of the requirements for payment and timing necessary for utilities to restore service, and Section 56.422 details the utility's requirements to have adequate personnel available to restore service between 9 a.m. and 5 p.m. during each working day, or for a commensurate period of eight consecutive hours to restore service when required.

PWSA Compliance Status

PWSA believes that it currently complies with these requirements.

56.431 and 56.432: Public Information Procedures and Record Maintenance

Sections 56.431 and 56.432 pertain to public information procedures and records maintenance procedures, respectively. Public utilities are required to summarize the rights and responsibilities of the utility and its customers, and display this information prominently, both online and in hard copy, with which PWSA currently complies. Public utilities that serve a substantial number of Spanish-speaking customers are also required provide billing information in English and Spanish.

Public utilities are also required to preserve a minimum of four years' written or recorded disputes or complaints, according to 56.432. Additional information that must be maintained includes customer payment performance; the number of payment agreements made, as well as the terms of the agreements; the number of service terminations and reconnections; and

communications to or from individual customers regarding interruptions, discontinuances, terminations, and reconnections of service.

PWSA Compliance Status

PWSA believes that it currently complies with these record maintenance policies, with the exception of providing billing information in English and Spanish.

PWSA Compliance Plan

PWSA is investigating piggybacking on a translation services contract that the City of Pittsburgh 311 entered into recently. If this is impermissible due to procurement rules and a standard RFP process is necessary, the contract would take at least six months to award. Adding implementation time, PWSA should be in full compliance with Section 56.431 by March 2019.

56.441: Informal Complaints

Section 56.441 delegates the Bureau of Consumer Services as the primary authority to resolve customer, applicant, or occupant complaints arising under Chapter 56.

PWSA Compliance Status

PWSA believes that it currently complies with this policy.

b. Chapter 65. Water Service

Chapter 65 of the Pennsylvania Code was created to govern the provision of water service to residential, commercial, and industrial customers. The Chapter includes requirements to meet specific service levels for water pressure and meter service/accuracy, and outlines the required procedures for public utilities to undertake regarding accidents, complaints, records, interruptions of service, disputed bills, notices of desire to have service discontinued, temporary service, measurement, and customer advance financing, refunds, and facilities on private property. Finally, the Chapter details the required policies for when issues arise relating to billing adjustments, mandatory conservation measures, refusal to serve applicants, systems of accounts, design/construction standards, and the duty of the public utility to make line extensions. PWSA believes that it is in compliance with much of Chapter 65, though it has included plans to address current challenges with Sections 65.6, Pressures, and 65.7, Meters. Table 5 highlights PWSA’s current compliance status with Chapter 65.

Table 5: PWSA Compliance with Chapter 65

| Section | Subchapter | Currently in Compliance | 6 Months or Less to Compliance | More than 6 Months to Compliance |
|----------------|--|--------------------------------|---------------------------------------|---|
| 65.2. | Accidents. | | X | |
| 65.3. | Complaints. | X | | |
| 65.4 | Records. | | | X |
| 65.5. | Interruptions of service. | X | | |
| 65.6. | Pressures. | | | X |
| 65.7 | Metered service. | | | X |
| 65.8. | Meters. | | | X |
| 65.9. | Adjustment of bills for meter error. | X | | |
| 65.10. | Disputed bills. | X | | |
| 65.11. | Mandatory conservation measures. | | X | |
| 65.12. | Notice of desire to have service discontinued. | X | | |
| 65.13. | Temporary service. | X | | |
| 65.14 | Measurement. | | X | |
| 65.15. | Refusal to serve applicants. | X | | |

| | | |
|--------|---|-----|
| 65.16. | System of accounts. | X |
| 65.17 | Standards of design. | X |
| 65.18 | Standards of construction. | X |
| 65.19 | Filing of annual financial reports. | X |
| 65.20 | Water conservation measures – statement of policy. | X |
| 65.21. | Duty of public utility to make line extensions. | N/A |
| 65.22. | Customer advance financing, refunds and facilities on private property. | N/A |
| 65.23 | Special Utility Service | N/A |

65.2: Accidents

Section 65.2 states that public utilities shall submit a report regarding each reportable accident involving the facilities or operations of the utility to the Secretary of the Commission. Reportable accidents are those that result in the following circumstances: death of a person; injury that requires immediate treatment at a hospital emergency room or in-patient admittance to a hospital; occurrences of an unusual nature that result in a prolonged and serious interruption of normal service; or occurrences of an unusual nature, including attempts at cyber security measures, that cause an interruption of service or more than \$50,000 in damages.

PWSA Compliance Status

PWSA is actively working toward compliance with Section 65.2. It is in the process of updating its Incident Investigation Policies and Procedures, and further developing and documenting standard operating procedures to meet the accident reporting requirements.

PWSA Compliance Plan

PWSA anticipates being fully in compliance with Section 65.2 by July 2019.

65.3: Complaints

Section 65.3 pertains to complaint investigations and records protocols. Public utilities are responsible for making full and prompt investigations of complaints levied by the Commission or others, including customers, relating to utility service or facilities. Written

records of these complaints, including the name and address of the complainant, the date and character of the complaint, and the final disposition of the complaint, are required to be preserved for at least five years.

PWSA Compliance Status

PWSA currently complies with the complaint investigation and records maintenance protocols detailed in Section 65.3.

65.4: Records

Section 65.4 requires public utilities to keep complete maps, plans, or records of its entire distribution system that show the size, character, and location of each main, street valve, and each company service line. The maps, plans, and records must be kept current, so that the utility is able to furnish copies of maps and information promptly and accurately, upon request by the Commission. These records shall be kept and preserved in accordance with the April 1974 edition of *Regulations to Govern the Preservation of Records of Electric, Gas, and Water Utilities*.

PWSA Compliance Status

Although PWSA keeps all records within their facilities, there currently is not a well-documented method for finding and filing these records. These records are also not adequately portrayed in the system's Geographic Information Systems (GIS).

PWSA Compliance Plan

Over the next six months, PWSA will develop a series of Standard Operating Procedure for the following:

- > Records filing
- > Records update in GIS

- > Records retrieval

PWSA also plans to update its GIS to include main installation date and material, where available. It is anticipated that these efforts will be completed by 2021. Hydrant and valve status as well as main break locations will also be updated in the GIS. Secondly, the current backlog of existing records must be organized, stored, and input into the GIS according to the developed SOPs.

65.5: Interruptions of Service

Section 65.5 states that public utilities shall keep a record of each prolonged interruption of service that affects part or all of its system. Records shall contain the time, cause, extent, and duration of the interruption, and interruptions shall be treated in accordance with the provisions of § 56.71, which relates to interruption of service and Chapter 67, which relates to service outages. Further, scheduled interruptions should be made at hours that minimize inconvenience to customers, consistent with reasonable and economical utility operating practices.

PWSA Compliance

PWSA practices regarding interruptions of service currently comply with Section 65.6.

65.6: Pressures

Section 65.6 pertains to variations in pressure, pressure gauges, telemetering, and pressure surveys. Public utilities shall maintain normal operating pressures of not less than 25 PSIG and no more than 125 PSIG at the main, except that during periods of peak seasonal loads the pressures at the time of hourly maximum demand may be not less than 20 PSIG nor more than 150 PSIG. and that during periods of hourly minimum demand the pressure may be not more than 150 PSIG. Within two years of the effective date of this section, utilities shall obtain one or more recording pressure gauges for each separately operated pressure zone, and pressure

surveys may be made either through telemetered information electronically transferred, or through recording pressure gauges. Utilities are also required to survey the pressures in their distribution systems at representative points at least annually, and to keep records of the results of the pressure surveys for at least three years.

PWSA Compliance Status

PWSA is largely in compliance with Section 65.5 but is aware of locations where system pressures are less than 25 psi and is working with PADEP to improve pressures. In accordance with Part 4 of the PA DEP October 25, 2017 Administrative Order, PWSA has installed 24 pressure monitoring stations, which monitor and record pressures every 15 minutes and report on low pressure or loss of pressure events via text and email. These monitoring stations were installed in areas of chronically low pressures. Additional monitoring stations are required such that all pressure zones are adequately monitored. As a result of the PADEP required monitoring stations, PWSA has developed a capital improvements project to address these low pressure areas.

PWSA Compliance Plan

PWSA plans to install these additional monitoring stations in 2019 as part of the “District Water and Pressure Meters” project. The Low Pressure Area Remediation program is planned in 2019 and 2020 to improve pressures to these chronically low-pressure areas. PWSA is also aware of areas where pressures exceed 150 psi. These areas will be more difficult to address due to the topography of the service area(s). However, an SOP and plan will be developed by the end of 2019 to address these areas of high pressures. Figure 4 shows locations of current continuous pressure monitors. Figure 5 shows locations where static pressures are typically less than 25 psi, and over 150 psi.

PWSA Compliance Status

PWSA is currently in compliance with most of Section 65.7; however, not all customers are currently metered.

PWSA Compliance Plan

PWSA is in the process of securing a contractor to assist with inspecting, sizing, and installing meters and associated equipment (backflow devices, etc.) for 200-400 municipal buildings within the City of Pittsburgh, as well as 500 flat rate customers. Because of the variation in sites and meter needs, PWSA does not expect to be fully in compliance with the metering requirement for approximately five years. To support this initiative, PWSA anticipates hiring outside contractors to coordinate with the City, oversee scheduling building access, design the meter facilities, and manage the contractor for the duration of the project. PWSA estimates that this project will cost approximately \$35 million over five years, but hopes to recover some of the associated costs (e.g. additional plumbing, meter pits, backflow prevention devices, etc.) from the City.

65.8: Meters

Section 65.8 stipulates that meters with registration errors of greater than 2% may not be placed into service, and that meters with registration errors of greater than 4% may not remain in service. Additionally, no public utility may allow a water meter of one inch or less, nor a water meter of greater than one inch to remain in service for a period longer than 20 years and 8 years, respectively without testing it for accuracy and readjusting it if it exceeds a 4% registration error. Whenever a water meter is tested, the original test record should be kept indicating the information necessary for identifying the meter, the reason for making the test, the reading of the meter before being disturbed, and the accuracy of the meter together with data taken at the time of the test.

Regarding water meter installation and removal, Section 65.8 specifies that installed water meters shall be inspected within 60 days after installation, and that meter manufacturer test results may be accepted as installation tests if the utility has verified the results by testing at least 10% or ten meters of a meter shipment. A water meter which is removed from service shall be tested within 30 days for accuracy to complete that meter's test history. Public utilities shall provide and keep available suitable and adequate facilities for testing its meters and shall maintain these facilities to ensure they are capable of determining the accuracy of a service meter within .5%.

Finally, a public utility shall make a test of the accuracy of registration of a water meter upon written request of the customer for whom the meter is furnished, upon payment of the fee specified in § 1.43, which specifies the schedule of fees payable to the Commission. If the meter tested upon the request is found to be accurate within the aforementioned accuracy limits, the fee shall be retained by the utility; but if not so found, the cost shall be paid by the utility and the fee paid by the customer shall be refunded.

PWSA Compliance Status

PWSA is currently working toward compliance with Section 65.8. According to the best available information, the Authority has as many as 50,000 meters that have exceeded the time allowed in the Commission's recommended testing schedule and will need to be tested and replaced.

PWSA Compliance Plan

The Authority employs 14 full-time plumbers, but it will need up to an additional 8-12 personnel dedicated to working through the 50,000 overdue meters that require testing and change-out, at a rate of approximately 5,000-6,000 meters per year and the ongoing testing

requirements. PWSA plans to reevaluate its resource needs after a year of project execution, to determine whether additional personnel and resources are necessary.

Meter Testing

PWSA has approximately 800 large (greater than 2”) and 2,000 intermediate (1.5” – 2”) commercial meters, which were last tested prior to 2013, except for those that were subsequently tested at the request of a customer. The Authority is in the process of developing a program for commercial meter testing, which would ensure that approximately 10-25% of the total commercial meters would be tested on an annual basis. PWSA intends to comply with the testing timelines laid out in Section 65.8 and anticipates being in compliance by 2022.

With regard to meter testing, PWSA’s approach is two-fold. First, PWSA plans to contract out testing for all meters greater than 3 inches and has begun to solicit quotes from private meter testing companies. For small and intermediate sized meters, PWSA is spending approximately \$200,000 to upgrade its meter testing bench. The new bench will be installed by early 2019 and allows for as many as 24 meters to be tested at one time. PWSA plans to test 10% of the new meters purchased before installation, and to develop criteria for when to test residential and commercial meters pulled from service, prior to meter disposal. PWSA will also comply with customer requests for meter testing.

65.9: Adjustment of Bills for Meter Error

Section 65.9 relates to the adjustments required if meters are found to be fast, slow, or non-registering. If, upon test of a meter, the meter is found to have an error of more than 4% fast, the public utility shall refund to the consumer the overcharge based upon what the meter would have registered had it not been fast or slow for a period equal to 1/2 the time elapsed since the last previous test, not to exceed 12 months. If the meter is found to have an error of more than

4% slow, the public utility may bill for the water consumed but not covered by previous bills equal to 1/2 of the time elapsed since the previous test, not to exceed 12 months. If a meter is found not to have registered for a period or not to have fully measured the entire flow due to meter interference, the public utility shall compute the water used by taking the average of the water used for the nearest meter reading period immediately preceding and immediately following the date when the meter was found to be not registering or interfered with, which amount shall be assumed to be the amount of water used by the customer during the billing period in which the meter was found not to have registered.

PWSA Compliance Status

PWSA believes that it currently complies with the billing policies included in Section 65.9.

65.10: Disputed Bills

Section 65.10 states that in the event of a dispute between a customer and a public utility regarding a bill, the utility shall immediately investigate the case, in accordance with the procedures laid out in Chapter 56, relating to disputes, termination disputes, and informal/formal complaints.

PWSA Compliance Status

PWSA believes that it currently complies with Section 65.10.

65.11: Mandatory Conservation Measures

According to Section 65.11, public utilities may request general conservation and/or impose mandatory conservation measures to reduce or eliminate nonessential uses of water during supply shortages. Jurisdictional water utilities shall file plans of their contingent mandatory conservation measures with the Commission as part of their tariff rules and

regulations. Conservation measures shall be terminated as soon as the supply shortage is terminated.

PWSA Compliance Status

PWSA is in a water-rich location and has rarely needed to impose water conservation measures on its customers. While PWSA does not currently have a contingency plan imposing mandatory conservation measures, the topic is included in the utility's emergency response plan.

PWSA Compliance Plan

PWSA has committed to developing standard operating procedures for situations that require mandatory conservation measures, to include communication and response protocols. PWSA anticipates full compliance with Section 65.11 by 2020.

65.12: Notice of Desire to have Service Discontinued

Section 65.12 states that a customer who is about to vacate any premises or who wishes to have service discontinued shall give at least 3 days' notice to the utility, specifying the service discontinuation date. In the absence of notice, the customer shall be responsible for service rendered until the time that the utility shall have actual or constructive notice of the intent to discontinue by the customer.

PWSA Compliance Status

PWSA believes that it currently complies with this practice, as outlined in the updated Procedures Manual for Developers.

65.13: Temporary Service

According to Section 65.13, if a public utility provides temporary service for short-term use, the utility can require the customer to pay the costs associated with making the service connection and removing the material after the service has been discontinued or pay a fixed fee

in advance to cover the costs. However, if the material is removed the customer shall be credited with the reasonable salvage which the public utility will receive on discontinuance of service.

PWSA Compliance Status

PWSA believes that it currently complies with the policies in Section 65.13. This policy is included in PWSA's proposed Water Tariff in Part III Section A.10. Temporary Service (page 35).

65.14: Measurement

Section 65.14 stipulates that within three years of the effective date of this section, the utility shall install a suitable measuring device at each source of supply, in order to create and maintain a record of water production rates. These records shall be updated at least once per month, and annual totals shall be provided to the Commission.

PWSA Compliance Status

Although PWSA does have measuring devices installed at each source of supply (Raw Water into the water treatment plant and at the discharge of the two main pump stations serving the City), they are not currently operational.

PWSA Compliance Plan

PWSA is working with an engineering consultant and several contractors to reestablish operability of the meters at each source of supply. An additional meter will be installed at the Fox Chapel Pump Station. These meters should be operational by the end of 2018.

65.15: Refusal to Serve Applicants

Section 65.15 states that a utility may decline to provide service to an applicant who is in noncompliance with the utility's rules and regulations; when the utility lacks adequate facilities to render the service desired, or believes that rendering the service will be detrimental to other

customers; or when installation of piping to provide service is reasonably considered to be hazardous, or could not provide satisfactory service.

PWSA Compliance Status

PWSA believes that it currently complies with the provisions included in Section 65.15. This policy is included in PWSA's proposed Water Tariff in Part III Section B.4. Right to Reject (page 35) and proposed Wastewater Conveyance Tariff in Part III Section B.4 Right to Reject (page 36).

65.16: System of Accounts

Section 65.16 mandates that a public utility, having an annual operating revenue of \$750,000 or more shall keep its accounts in conformity with the most recent *Uniform System of Accounts for a Class A Water Utilities*, as prescribed by the National Association of Regulatory Utility Commissioners (NARUC).

PWSA Compliance Status

In the interim, PWSA will begin a mapping exercise in the fourth quarter of FY 2018 to map the current chart of accounts to the NARUC USOA chart of accounts, in order to conduct a gap analysis. During the FY 2020 budgeting process, which is expected to occur in the second quarter of FY 2019, PWSA will incorporate additional general ledger codes into its budget and begin tracking those codes to fill in the voids identified in the gap analysis. This will ultimately smooth the transition to the NARUC USOA chart of accounts when the new system comes online. While this is not a full conversion to the USOA chart of accounts, PWSA will have the ability to generate a report of financials by the current system and by the USOA chart of accounts, perhaps as early as FY 2020, but no later than 2021.

PWSA Compliance Plan

In the interim, PWSA will begin a mapping exercise in the fourth quarter of FY 2018 to map the current chart of accounts to the NARUC chart of accounts, in order to conduct a gap analysis. During the FY 2020 budgeting process, which is expected to occur in the second quarter of FY 2019, PWSA will incorporate additional general ledger codes into its budget and begin tracking those codes to fill in the voids identified in the gap analysis. This will ultimately smooth the transition to the NARUC chart of accounts when the new system comes online. While this is not a full conversion to NARUC chart of accounts, PWSA will have the ability to generate a report of financials by the current system and by the NARUC chart of accounts, perhaps as early as FY 2020.

65.17: Standards of Design

Section 65.17 has several sections, covering standard acceptable engineering practices, as well as the design of the distribution and transmission systems, the utility's service lines, water supply requirements, and materials and specifications. Specifically:

- > The design of the water plant should conform to generally accepted engineering standards;
- > The distribution system shall be sized appropriately to ensure minimum pressures, and pipe with a diameter of less than 6" should not be used for distribution mains;
- > Together with the storage facilities, transmission lines from sources of supply should be sized to deliver the full capacity of those sources;
- > Utility service lines shall not be less than $\frac{3}{4}$ " in diameter;

- > Materials used in designs shall have a reasonable useful service life, be capable of withstanding internal and external forces while in service, not cause water to be impure or unpotable, and should minimize corrosion, electrolysis, and deterioration; and,
- > Steel pipe used in transmission and distribution systems shall be lined inside and coated outside or lined inside and coated and wrapped outside to conform with the applicable minimum specifications of the American Water Works Association or equivalent standards.

PWSA Compliance Status

PWSA currently complies with most of Section 65.17, in that the Authority maintains standard specifications and construction details for the construction of all water mains and sewers as well as site preparation, excavation, and restoration. PWSA strives to keep their standard specifications up to date with the latest regulations and industry standards. These specifications are currently within the requirements listed in Section 65.17. PWSA also maintains a standard bid list for all horizontal infrastructure work and tracks maximum, minimum, and average unit bid item prices.

PWSA has been actively working to replace all 4-inch diameter mains in the system. There are still 27 miles remaining of 4-inch diameter main in the system. For all new water mains, PWSA requires a minimum 8-inch diameter pipe. However, exceptions are made to this requirement, allowing a minimum 6-inch diameter pipe, in the event of shorter dead ends with little demand.

A majority of PWSA's capital projects are designed using on-call engineering consultants. Design requirements, specifications, and standard details are provided to the on-call consultant as part of the request for proposal and project initiation.

PWSA Compliance Plan

PWSA plans to incorporate these design requirements, specifications, and standard details into a formalized Design Manual, to be completed in 2019 and 2020.

65.18: Standards of Construction

Section 65.18 has several sections, covering standard acceptable construction practices, as well as disinfection of facilities, mains, and company service lines. Specifically:

- > Construction of facilities shall comply with generally accepted engineering practices;
- > New mains, pumps, tanks, wells and other facilities for handling potable water shall be thoroughly disinfected before being connected to the system;
- > Mains shall be installed below the frost line whenever possible, designed to avoid dead-ends in its mains, laid out in a grid system with regularly spaced valves, and new or replacement mains shall be sized to maintain adequate pressure and align with engineering best practices; and,
- > Company service lines shall be constructed below the frost line to prevent freezing and should not be connected to hydrant branch lines.

PWSA Compliance Status

As noted in Section 65.17, PWSA maintains standard specifications and details for the construction of horizontal infrastructure. The existing standards meet or exceed a majority of the requirements for Section 65.18, including disinfection of facilities after construction. PWSA's standard construction depth for water mains is a minimum of 48-inches. For new mains, PWSA provides a means to flush dead end mains. However, PWSA is currently evaluating their system to determine where existing dead ends may have the opportunity to be looped or may need the ability to flush.

PWSA does not currently maintain a comprehensive flushing program.

PWSA Compliance Plan

A flushing program is being developed as part of the design of the orthophosphate injection system. This flushing program will concentrate on flushing transmission mains, dead ends, and locations serving critical customers (hospitals, schools, etc.). The initial phase of the flushing program commenced in September 2018. PWSA intends to continue flushing throughout the year and in future years to ensure that the distribution system meets the compliance requirements. Note that the distribution system was originally designed to utilize washouts which were installed to provide for system Flushing and draining. The Pennsylvania DEP is requiring that these washouts be eliminated and that all discharges from the water system to drainage meet specified design criteria. PWSA will implement a washout program over the next five years to eliminate those washouts that are noncompliant and upgrade flushing locations as required.

PWSA will review its existing system to ensure there are ample valves to meet the requirements of § 65.18(c)(3). However, additional field effort is required, and is included as part of the 2019 Valve Replacement program to increase the number of valves inspected and operated per year to ensure there are an adequate number of functional valves.

Section 65.19: Filing of Annual Financial Reports

Section 65.19 specifies that a public utility, subject to the jurisdiction of the Commission, shall file annual financial reports with the Commission by April 30 immediately following the reporting year, for reports based upon the calendar year; or by July 31 immediately following the reporting year, for reports permitted to be based upon the fiscal year ending May 31. A request

for an extension of time for filing an annual report shall be submitted to the Commission prior to the filing dates.

PWSA Compliance Status

PWSA intends to comply with this requirement, and to file its first annual financial report in 2019.

Section 65.20: Water Conservation Measures – Statement of Policy

According to Section 65.20, in rate proceedings of water utilities, the Commission examines specific factors regarding the action or failure to act to encourage cost-effective conservation by their customers. Specifically, the Commission will review utilities' efforts to meet the criteria in this section when determining just and reasonable rates, including education; water audits for large users; efficiency plumbing fixtures; unaccounted-for water; leak detection; metering; and a conservation plan.

PWSA Compliance Status

PWSA does not currently meet the standards laid out in Section 65.20.

PWSA Compliance Plan

Starting in 2019, PWSA will begin to comply with the items required by § 5=65.20(a) – (3) (efficient water use brochure once a year; large water use audit availability brochure; use of efficient plumbing fixtures). Items (4) – (7) are addressed in other parts of the Compliance Plan (i.e., reducing unaccounted for water; regular leak detection activities; meter installation and testing conservation).

Section 65.21: Duty of Public Utility to Make Line Extensions

Section 65.21 relates to the conditions under which a public utility shall extend facilities to new customers within its service area. These conditions include:

- > Line extensions shall be funded without customer advance if the annual revenue from the line extension will equal or exceed the utility's annual line extension costs.
- > If the annual revenue from the line extension will not equal or exceed the utility's annual line extension costs, an applicant may be required to provide a customer advance to the utility's cost of construction for the line extension. The utility's investment for the line extension shall be the portion of the total construction costs which generate annual line extension costs equal to annual revenue from the line extension.

PWSA Compliance Status

PWSA does not plan to comply with Section 65.21, and will instead, subject to PUC approval, follow the PWSA Policies and Procedures related to line extensions, as provided in its 2018 Tariff Filing Rules and Regulations and required by the Municipality Authorities Act.

65.22: Customer Advance Financing, Refunds, and Facilities on Private Property

Section 65.22 states that if a customer advance is required from a company with gross annual receipts of \$10 million or more, and the customer is unable to advance the funds, the utility shall either allow payments over a three-year time horizon after a deposit of up to one-third of the total advance, or provide information on financial institutions, so that the customer can finance the line extension. When a customer advance is required of a service applicant and an additional customer or customers attach service lines to the main extension within 10 years, the utility shall refund a portion of the advance to the customer in accordance with the utility's currently effective tariff. A utility shall require a customer to pay, in advance, a reasonable charge for service lines and equipment installed on private property for the exclusive use of the customer.

PWSA Compliance Status

PWSA's policy on line extensions is detailed in the Rules and Regulations section of its Tariff filing and is consistent with the requirements of the Pennsylvania Municipality Authorities Act.

65.23: Special Utility Service

Section 65.23 states that Sections 65.21 and the portions of 65.22 relating to duty of public utility to make line extensions; and customer advance financing, refunds and facilities on private property do not apply to special utility service.

PWSA Compliance Status

PWSA's policy on line extensions is detailed in the Rules and Regulations section of its Tariff filing and is consistent with the requirements of the Pennsylvania Municipality Authorities Act.

c. Chapter 67. Service Outages

Chapter 67 of the Pennsylvania Code was created to establish procedures for electric, gas, water, steam and telephone utilities during unscheduled service interruptions. The Chapter includes requirements to take specific action, including notifying the Commission when 2,500 or 5% of the utility’s total customers have a service interruption and notifying the Commission by telephone after a preliminary assessment has been completed. The Commission will then implement a plan to govern its internal operations in receiving notification of service interruptions, in investigating such interruptions, and in assisting the customers of the utility, the utility and Commonwealth agencies in restoring service. Additionally, all utilities shall list in the local telephone directories of their service areas, and on their web sites, a telephone number to be used during normal operating hours and an emergency telephone number to be used 24 hours in emergency service situations. Table 6 shows PWSA’s compliance status for Chapter 67.

Table 6: PWSA Compliance with Chapter 67

| Section | Subchapter | Currently in Compliance | 6 Months or Less to Compliance | More than 6 Months to Compliance |
|----------------|-------------------|--------------------------------|---------------------------------------|---|
| 67.1 | Service Outages. | | X | |

PWSA Compliance Status

PWSA has an emergency response plan and informal process for notifying the Commission during unscheduled service interruptions that affect at least 2,500 customers or 5% of the utility’s total customer base (whichever is smaller). PWSA lists in the local telephone directories of its service area, and on its web sites, a telephone number to be used during normal operating hours and an emergency telephone number to be used 24 hours in emergency service situations.

PWSA Compliance Plan

PWSA is in the process updating its emergency response plan to include a comprehensive standard operating procedure related to notifying the Commission during periods of unscheduled service interruptions. These activities should be completed within the next six months.

d. Chapter 69. General Orders, Policy Statements, and Guidelines on Fixed Utilities

Chapter 69 is a compilation of general orders, policy statements, and guidelines for fixed utilities. Much of Chapter 69 applies to utility services not provided by PWSA, such as electric, natural gas, and telephone. In many cases, the provision states the policy that the PUC intends to follow in specific circumstances. In such cases where the content of the subchapter does not apply, PWSA will take the policy statements into account where applicable. The remaining subchapters of Chapter 69, as well as PWSA adherence to the policies and guidelines contained within, are shown in Table 7 and discussed in the following sections.

Table 7: PWSA's compliance status with Chapter 69

| Section | Subchapter | Currently in Compliance | 6 Months or less to Compliance | More than 6 Months to Compliance |
|--------------------------|---|-------------------------|--------------------------------|----------------------------------|
| 69.51 – 69.85 | Inclusion of State Taxes and Gross Receipts Taxes in Base Rates | X | | |
| 69.87 | Tariff Provisions that Limit the Liability of Utilities for Injury or Damage as A Result of Negligence or Intentional Torts—Statement of Policy | | X | |
| 69.169 | Policy Statement Interpreting Terms Included In 66 Pa. C.S. § 1326 | X | | |
| 69.251 | Policy Statement on Plain Language Guidelines | | | X |
| 69.261 – 69.267 | Policy Statement on Customer Assistance Programs | X | | |
| 69.351 | Implementation of SFAS 106 | X | | |
| 69.801 – 69.809 | Diversity at Major Jurisdictional Utility Companies—Statement of Policy | | X | |
| 69.1601 – 69.1603 | Unscheduled Water Service Interruptions and Associated Actions | | X | |

69.51-69.85: Inclusion of State Taxes and Gross Receipts Taxes in Base Rates

Sections 69.51 through 69.85 state that a utility which has a State tax adjustment surcharge or gross receipts tax rider shall maintain its surcharge and rider rates at 0%. Any revenues collected through the State tax adjustment surcharge or the gross receipts tax rider shall

be rolled into the utility's base rate, using either the rate case method or the non-rate case method.

PWSA Compliance Status

PWSA does not include a State tax adjustment surcharge or a gross receipts tax rider in its water or wastewater rate structure or rate revenue requirement; therefore, PWSA is in compliance with this policy.

69.87: Tariff Provisions that Limit the Liability of Utilities for Injury or Damage As A Result Of Negligence Or Intentional Torts—Statement Of Policy

Section 69.87 allows utilities to limit their liability for interruption or cessation of service. If a utility seeks to place the language in its tariff, a tariff filing should be made under section 1308 of the code, relating to voluntary changes in rates. The language should include a company-specific dollar amount for the proposed limitation and work papers to substantiate the dollar amount.

PWSA Compliance Status

PWSA included a proposed limitation of liability section in its Water (page 58) and Wastewater (page 52) Tariff. These proposed Tariffs are being considered in a Section 1308 rate proceeding before the PUC. The proposed water provision, which follows the Commission's model Water Service Tariff, is set forth below:

Liability for Service Interruptions: a. Limitation of Damages: The Authority's liability to a customer for any loss or damage from any excess or deficiency in the pressure, volume or supply of water, its employees or agents shall be limited to an amount no more than the customer charge or minimum bill for the period in question. The Authority will undertake to use reasonable care and diligence in

order to prevent and avoid interruptions and fluctuations in service, but cannot and does not guarantee that such will not occur.

b. Responsibility for Customer Facilities: The Authority shall not be liable for any loss or damage caused by reason of any break, leak or other defect in a customer's own service pipe, line, fixtures or other installations.

These provisions, when approved by the PUC, satisfy Section 69.87 Policy Statement.

69.169: Policy Statement Interpreting Terms Included in 66 Pa. C.S. §1326

Section 69.169 defines two of the terms used in 66 Pa. C.S. §1326: residential structure and standby charge. A residential structure is defined as a building which contains only individually metered dwelling units intended for human habitation. A standby charge is defined as a charge for the availability of water supply during fire emergencies. Costs for upsizing of company-owned service lines and meters, for the installation of additional lines and for backflow prevention devices are not standby charges for purposes of residential sprinkler systems, and these costs shall be borne by the applicant for service on a one-time basis.

PWSA Compliance Status

PWSA's charge conforms to 66 Pa. C.S. § 1326 and the definitions in Section 69.169. Private fire protection service is available from PWSA at an optional rate separate from that charged for water service. See PWSA Tariff Water – Pa. P.U.C. No. 1, Page 10. This is not the same as an impermissible “standby charge.” See, e.g., *PUC v. Philadelphia Suburban Water Company*, Docket No. R-911892, Opinion entered October 18, 1991; 1991 Pa. PUC LEXIS 206. The statute defines “standby charge” as “an amount, in addition to the regular rate, assessed against the owner of a residential structure for the reason that the residential structure is equipped with an automatic fire protection system.” 66 Pa. C.S. § 1326(b). Customers are not being

charged an additional amount because the structure is equipped with a fire protection system; therefore, residential customers are not being assessed an impermissible standby charge. See, e.g. Pennsylvania American Water, Tariff Water-PA P.U.C. No. 5, at First Revised Page 29-30 (Private Fire Protection, unmetered), First Revised Page 31 (Private Fire Protection, metered).

69.251: Policy Statement on Plain Language Guidelines

Section 69.251 lays out the Commission's recommended guidelines for written materials that are provided to residential customers and suggests that each utility designate staff to serve as liaisons with the Bureau of Consumer Services. Plain language materials should be field tested, tested through consumer advisory panels, or considered through focus groups, prior to review by the Commission. Section 69.251 details written and visual guidelines, as well as guidelines for bill format. Water utility bills should calculate and display the unit price per gallon, in addition to the total usage and charges; display a graph of comparative water use for the preceding five quarters or 13 months; and include clear definitions of technical terms.

PWSA Compliance Status

PWSA has adopted the plain language guidelines suggested by the Commission.

PWSA Compliance Plan

PWSA is in the process of redesigning its printed materials to be in accordance with Section 69.251. This effort includes a bill redesign and a language review of the Authority's termination notices, to reduce the reading level from 13th to 8th. PWSA anticipates full compliance with this section in 2019.

69.261 – 69.267: Policy Statement on Customer Assistance Programs

Customer Assistance Programs (CAPs) are designed to assist low-income, payment troubled customers in maintaining utility service. Customers participating in CAPs agree to make

monthly payments based on household family size and gross income. Sections 69.261 through 69.267 detail scope, development considerations, design elements, cost recovery, and alternative program designs for these programs.

PWSA Compliance Status

While Sections 69.261 – 69.267 applies only to electric and large natural gas companies, PWSA has recently implemented a CAP that was developed based on the Commission’s recommended design, and modeled after the program implemented by Pennsylvania American Water Co. As of May 2018, more than 2,000 PWSA customers have enrolled in the program.

The PWSA CAP has the following elements:

- > Winter Shut Off Moratorium - December 1st through March 31st for customers who are at or below 250% of the Federal Poverty Level; 2,152 customers took advantage of the 2017-2018 Winter Shut Off Moratorium
- > Bill Discount Program - 50% reduction of fixed monthly water and sewer conveyance charges for customers at or below 150% of the Federal Poverty Level; 2,283 customers have enrolled in the Bill Discount Program in 2018
- > Hardship Program – Cash grants up to \$300 per year for customers at or below 150% of the Federal Poverty Level; 110 customers have applied for grants via the Hardship Program in 2018
- > Private Lead Line Replacement Community Environmental Project – Private side lead line replacements for customers who are at or below 250% of the Federal Poverty Level, which is expected to assist 200 customers

69.351: Implementation of SFAS 106

Section 69.351 details the requirements for implementation of the Statement of Financial Accounting Standards (SFAS) for Rule No. 106. SFAS 106 provides the generally accepted accounting principles to be used by large companies in accounting for post-retirement benefits other than pensions (OPEBs). SFAS 106 operates on the premise that post-retirement benefits are a form of deferred compensation whereby an employer promises to exchange future benefits for current service. SFAS 106 requires companies to switch to the accrual method of accounting for OPEBs.

PWSA Compliance Status

PWSA does not contribute to post-retirement benefits other than pensions. As a result, SFAS 106 and Section 69.351 are not applicable to PWSA at this time.

69.801 – 69.809: Diversity at Major Jurisdictional Utility Companies – Statement of Policy

The Commission strongly believes that diversity is an economic reality that corporate entities must include in their corporate strategies now and in the future and uses Sections 69.801 through 69.809 to encourage major jurisdictional utility companies to incorporate diversity in their business strategy in connection with the workforce and procurement of goods and services.

PWSA Compliance Status

PWSA includes the following language in all procurement solicitations:

“The Authority requires that all Offerors demonstrate a good faith effort to obtain the participation of MBEs, WBEs, VBEs and/or SDVBEs in all work to be performed under Authority contracts. Such participation may be demonstrated by utilization of MBE/WBE/VBE/SDVBE firms through the use of subcontracts with such firms in support services, supplies, etc. For many of the services, supplies and equipment for which the Authority

contracts, the Authority recognizes that the current business pool does not include percentages of minorities, females, veterans, or service disabled veterans. The Authority, however, wishes to encourage MBE, WBE, VBE and/or SDVBE participation in all business pools.

It is therefore the current goal of the Authority to encourage increased MBE, WBE, VBE and/or SDVBE participation in all business pools. The Authority's current MBE goal is 18%, WBE goal is 7%, and VBE/SDVBE goal is 5% of the total dollar value of Authority contracts exceeding \$250,000. The Authority intends to monitor the progress closely, including revising the practices and procedures from time to time as conditions warrant.”

PWSA does not currently have a formal policy to support diversity in the workforce.

PWSA Compliance Plan

PWSA is in the process of developing a formal policy to support workforce diversity, which will be presented to the Board for approval within the next six months.

PWSA also will submit, on a going forward basis, the “diversity program activity report” requested by Section 69.809. PWSA's first report will be submitted by March 1, 2019.

69.1601 – 69.1603: Unscheduled Water Service Interruptions and Associated Actions

Sections 69.1601 through 69.1603 stipulate the acceptable methods of public notification during an unscheduled water service interruption, encourage adherence to the National Incident Management System's public information system to organize everything into one unified message, and encourage utilities to assign a knowledgeable contact person to answer questions and to communicate on behalf of the utility. Water utilities need to make reasonable efforts to ensure that adequate quantities of alternative supplies of water essential for domestic use are made available.

PWSA Compliance Status

PWSA has an emergency management plan that addresses public notification during unscheduled water service interruptions. Depending on the number of customers affected, PWSA has processes to notify customers through door-to-door notifications, automated phone calls, social media blasts, traditional media notifications, and posts on the PWSA website. Messages released through traditional and social media, as well as through the PWSA website, are coordinated through the PWSA Communications Office, which coordinates with PWSA customer service to answer questions on behalf of the utility. PWSA also has two water buffalos to provide potable water for essential use during longer periods of water service interruption, and bottled water is available by customer request. The existing emergency management plan does not currently adhere to the National Incident Management System's public information system.

PWSA Compliance Plan

PWSA is in the process of updating its emergency response plan to better adhere to the National Incident Management System's public information system and include updated standard operating procedures. The update should be completed within the next six months.

e. Chapter 71. Financial Reports

Chapter 71 was established to serve as a financial reporting guide for utilities that are subject to the jurisdiction of the Commission. The goal of Chapter 71 is to establish a process and set of practices that, when followed by the utility, will make it as easy as possible for the Commission to “monitor” the “financial performance and earnings” of the utility under its jurisdiction. This Chapter is addressed to utilities providing a diverse range of services, including gas, electric, telephone, or water and wastewater services. Regardless of industry and service provided, all utilities under Commission oversight are subject to the same financial reporting requirements as outlined in this chapter. PWSA’s compliance status with Chapter 71 is outlined in Table 8.

Table 8: PWSA Compliance with Chapter 71

| Section | Subchapter | Currently in Compliance | 6 Months or Less to Compliance | More than 6 Months to Compliance |
|----------------|---|--------------------------------|---------------------------------------|---|
| 71.3. | Filing requirements. | | | X |
| 71.4. | Time of filing. | | | X |
| 71.5. | Format for filing financial reports. | | | X |
| 71.6. | Permitted adjustments to financial reports. | | | X |
| 71.7. | Filing procedures. | | | X |
| 71.8. | Intrastate allocation factors. | N/A | | |
| 71.9. | Financial reports as public documents. | | | X |

71.3-71.4: Filing Requirements and Time of Filing

Section 71.3 and Section 71.4 define the frequency and level of detail utilities must provide in their financial report filings based on their annual “intrastate” gross revenues (i.e., revenues that are subject to State jurisdiction). Water and wastewater utilities may fall into two categories: those with more than \$10 million in annual intrastate gross revenues, and those with annual intrastate gross revenues greater than \$1 million but less than \$10 million.

- > Utilities with annual intrastate gross revenues exceeding \$10 million: Large utilities must submit a financial report “for the 12-month period ending each March 31, June 30, September 30 and December 31.” These utilities must include annualization, normalization and ratemaking adjustments in their report. This report is due within 60 days of the quarter ending March 31, June 30, and September 30 of each year. However, if the utility has a general rate investigation pending (under 66 Pa. C.S. § 1308(d), 1309 or 1310, relating to voluntary rate changes, fixed rates, cost-of-production investigation, or temporary rates), the utility is not required to meet this 60-day deadline, according to Section 71.4 (c). Instead, under this rate investigation circumstance, the utility must file a letter with the Secretary of the Commission (Secretary) “for each quarter in which a general rate investigation is pending.”
- > Utilities with annual intrastate gross revenues exceeding \$1 million but not exceeding \$10 million: Small utilities must file a financial report “for the 12-month period ending each December 31,” and *do not* need to include annualization, normalization and ratemaking adjustments in their report. This report is due within 90 days of the quarter ending December 31 of each year. However, if the utility has a general rate investigation pending (under 66 Pa. C.S. § 1308(d), 1309 or 1310, relating to voluntary rate changes, fixed rates, cost-of-production investigation, or temporary rates), the utility is not required to meet this 90-day deadline, according to Section 71.4 (c). Instead, under this rate investigation circumstance, the utility must file a letter with the Secretary of the Commission “for each quarter in which a general rate investigation is pending.”

PWSA Compliance Status

PWSA has annual intrastate gross revenues exceeding \$10 million, and currently provides annual audit reports. PWSA has not yet submitted (quarterly) these annual financial reports to the Commission.

PWSA Compliance Plan

PWSA intends to meet the financial reporting requirements and timeline laid out in Sections 71.3-71.4. The first financial report that PWSA will file under these sections will be for the first quarter of 2019, by May 31.

71.5: Format for Filing Financial Reports

Section 71.5 specifies the required components of the financial reports discussed in Section 71.4. These components include:

1. Computations that illustrate, in detail, two crucial ratemaking parameters: the utility's rate base, and income available for return and capitalization.
2. Financial data specifying "actual per book amounts, intrastate allocation percentages, intrastate amounts, adjustments to intrastate amounts and adjusted results." When presenting the actual per book amounts, the utility must use the same format as that in its most recent audited annual report filed with the Commission.
3. Adjustments to intrastate amounts, which may be in the form of annualization, normalization, or ratemaking. These adjustments must be accompanied by: 1) A demonstration of each respective adjustment's effects on revenue, expense, tax and rate base effect; 2) A brief explanation stating the nature of the adjustment (i.e., annualization, normalization or ratemaking) and the reason for the adjustment; and 3) Narrative references to prior Commission decisions and associated computations.

4. Calculation of return on common equity for the 12-month period based on 1) the utility's actual and adjusted rate base, 2) income available for return and 3) capitalization data.
5. Capitalization data showing: 1) A calculation of the utility's capital structure and related ratios; 2) The cost of debt; 3) Preferred stock and necessary adjustments to capital structure to account for changes that occurred during the reported 12-month period.

The utility must present the five components described above “in a manner which is consistent with the schedules and format specified by the Office of Special Assistants.”

PWSA Compliance Status

PWSA currently provides audited financials annually. In the annual audit reports, some of the components described in Section 71.5 are addressed; however, it is important to note that PWSA is a municipal authority and does not determine nor charge a return. Thus, the sections regarding a return on assets or equity are not applicable. PWSA has not yet submitted these annual financial reports to the Commission.

PWSA Compliance Plan

PWSA intends to meet the financial reporting requirements and timeline laid out in Sections 71.5. The first financial report that PWSA will file under these sections will be for the first quarter of 2019, by May 31.

71.6: Permitted Adjustments to Financial Reports

Section 71.6 describes how a public utility should adjust its financial reports. These adjustments include annualization adjustments (e.g. to estimate full-year expenses or revenues where full year data is unavailable), normalization adjustments (e.g. adjustments for non-recurring events), and ratemaking adjustments. Ratemaking adjustments should be used to make current reporting equivalent to previous reports that had been adjusted by the Commission

(provided the adjustment is still relevant under current policy), or to incorporate Commission ratemaking policy changes. Ratemaking adjustments are specified by the Commission through a Secretarial letter. Section 71.6 also defines the financial information that must be considered intrastate, and therefore must be included in financial reporting.

PWSA Compliance Status

PWSA currently provides annual audit reports that include normalization, annualization, and ratemaking adjustments, as described in Section 71.6. PWSA has not yet submitted these annual financial reports to the Commission.

PWSA Compliance Plan

PWSA intends to follow the adjustment guidelines established in Section 71.6 and specify any ratemaking adjustments to the Commission to a Secretarial letter. The first financial report that PWSA will file under these sections will be by April 30, 2019.

71.7: Filing Procedures

Section 71.7 states that the utility must provide a printed, hard-copy financial report to the Secretary, the Office of Special Assistants, Office of Trial Staff, Office of Consumer Advocate, and the Small Business Advocate. An electronic copy of the report should be provided to the Office of Special Assistants.

PWSA Compliance Plan

PWSA intends to meet the financial reporting filing procedures established in Section 71.7. The first financial report that PWSA will file under these sections will include printed copies sent to the Secretary, the Office of Special Assistants, Office of Trial Staff, Office of Consumer Advocate, and the Small Business Advocate. An electronic copy will also be provided to the Office of Special Assistants.

71.8: Intrastate Allocation Factors

This section specifies that financial allocation factors must be consistent with Federal Energy Regulatory Commission and Federal Communications Commission reports, if applicable. If a utility uses a different method for calculating allocation factors than that used in the prior quarter, the utility must provide an explanation for the change. If a utility has “non-jurisdictional revenues” and lacks a cost of service study completed within the past three years, the utility must file a cost of service study within a year of the time the utility becomes subject to this chapter.

PWSA Compliance Status

The financial allocation factors of the Federal Energy Regulatory Commission and the Federal Communications Commission are not applicable to PWSA, as PWSA does not have intrastate revenues.

71.9: Financial Reports as Public Documents

Financial reports are open to the public by default; if the utility wishes to keep some information in their financial report proprietary, they must file a petition for protective order under § 5.423.

PWSA Compliance Status

PWSA currently provides annual audit reports that are public documents, as outlined in Section 71.9.

PWSA Compliance Plan

PWSA is a municipal authority and subject to the Right-to-Know Act. Therefore, PWSA does not anticipate that information contained in its financial reports could reasonably be deemed proprietary. Should that situation change, the Authority intends to follow the process laid out in Section 71.9 and petition for a protective order under § 5.423.

f. Chapter 73. Annual Depreciation Reports, Service Life Studies, and Capital Investment Plans

Chapter 73 was created to establish uniform and industry-wide reporting requirements, designed to improve the Commission’s ability to regularly monitor depreciation practices and capital planning for public utilities subject to its jurisdiction. PWSA’s compliance status with Chapter 73 is detailed in Table 9.

Table 9: PWSA Compliance with Chapter 73

| Section | Subchapter | Currently in Compliance | 6 Months or Less to Compliance | More than 6 Months to Compliance |
|--------------|--|-------------------------|--------------------------------|----------------------------------|
| 73.3. | Annual depreciation reports | | | X |
| 73.4. | Format for filing the annual depreciation report | | | X |
| 73.5. | Service life study report | | | X |
| 73.6. | Format for filing the service life study report | | | X |
| 73.7. | Capital investment plan report | X | | |
| 73.8. | Format for filing the capital investment plan report | | | X |

73.3: Annual Depreciation Reports

Section 73.3 stipulates that public utilities that have gross intrastate revenues in excess of \$20 million per year shall file a depreciation report with the Bureau of Fixed Utility Services annually. For water utilities, the depreciation report is due on or before June 30 each year, and reports shall be prepared in a manner consisted with the formats and filing deadlines specified in Chapter 73. In years when depreciation reports and service life study reports are both due, public utilities must notify the Secretary of their intent to file both reports on or before August 31. Finally, the utility shall file a copy of its depreciation report with the Office of the Consumer Advocate and the Office of the Small Business Advocate at the same time as the report is filed with the Office of Special Assistants.

PWSA Compliance Status

PWSA does not currently generate an annual depreciation report that meets the Commission's requirements.

PWSA Compliance Plan

PWSA does not generate an annual depreciation report that meets the Commission's requirements. PWSA does not currently have the capability to produce a depreciation report that includes the detail the PUC requires. PWSA inherited asset records from the City of Pittsburgh during the formation of the Authority that lack sufficient specificity to appropriately depreciate. Many of the assets are also missing information on their installation year and original cost. During the transition to PWSA control, several different asset types were entered under one journal entry by type with no associated records of installation date or original cost. PWSA has been keeping better records, tracking the installation date, depreciation, and related data since its inception. However, PWSA is still not capable of providing the report per the PUC specifications.

Moreover, PWSA operates on the cash basis and does not use depreciation in ratemaking as investor-owned utilities do. PWSA does not return any equity to investors, so the concept of depreciation has a different function for PWSA. While PWSA acknowledges that keeping better fixed asset records is essential for well-run utilities, since it is not essential for ratemaking, PWSA is not planning to commission a fixed asset study in 2019. PWSA plans to comply with the requirements listed in Section 73.3 and file its first annual depreciation report with the Bureau of Fixed Utility Services within 5 years.

73.4: Format for Filing the Annual Depreciation Report

Section 73.4 highlights the filing requirements for a public utility's annual depreciation report. These requirements include: an executive summary, inclusive of an explanation of the depreciation methods used; a comparison with the prior year's annual depreciation report; explanations of extraordinary events occurring over the last year; the plant database used in the most recent service life study; a summary of the depreciation calculations at the end of the calendar year by function or account; a summary of book reserve entries by function or account; a summary of retirements by function or account; and additional information if requested by the Commission.

PWSA Compliance Status

PWSA does not currently generate an annual depreciation report that meets the Commission's requirements and at this time, does not have the capability to generate a report that includes the detail the PUC requires.

PWSA Compliance Plan

At such time PWSA files its first annual depreciation report, PWSA plans to comply with the standards and requirements listed in Section 73.4.

73.5: Service Life Study Report

Section 73.5 stipulates that public utilities that have gross intrastate revenues in excess of \$20 million per year shall file a service life study report with the Office of Special Assistants every five years. For water utilities, the service life study report is due on or before August 31 of the appropriate year, and reports shall be prepared in a manner consisted with the formats and filing deadlines specified in Chapter 73 and based on the same body of historic data used in the annual depreciation reports. Finally, the utility shall file a copy of its depreciation report with the

Office of the Consumer Advocate and the Office of the Small Business Advocate at the same time as the report is filed with the Office of Special Assistants.

PWSA Compliance Status

PWSA does not currently generate a service life study report.

PWSA Compliance Plan

As a newly regulated utility, PWSA plans to comply with the requirements listed in Section 73.5 and file a service life study report with the Office of Special Assistants every five years, filing its first report within 5 years from the beginning of its PUC regulation, April 1, 2018.

73.6: Format for Filing Service Life Study Report

Section 73.6 highlights the filing requirements for a public utility's annual depreciation report. These requirements include: an explanation of methods used in selecting average service lives and survivor curves, any significant changes since the last service life study report, and the impact of the proposed service lives on annual depreciation expense; an explanation by account or category of the individual factors used in selection of an average service life; an exhibit detailing the calculations done to develop plant data for survivor curve or other depreciation parameter comparisons; interim service life studies on individual accounts when circumstances indicate that a significant service life estimate change may be warranted; an exhibit of depreciation calculations by function, account, or rate category; and additional information if requested by the Commission.

PWSA Compliance Status

PWSA does not currently generate a service life study report.

PWSA Compliance Plan

At such time PWSA files its first service life study report, PWSA plans to comply with the standards and requirements listed in Section 73.6.

73.7: Capital Investment Plan Report

Section 73.7 indicates that public utilities that have gross intrastate revenues in excess of \$20 million per year shall file a capital investment plan report with the Office of Special Assistants every five years. For water utilities, the capital investment plan report is due on or before August 31 in the year in which it is due, and reports shall be prepared in a manner consistent with the formats and filing deadlines specified in Chapter 73. Finally, the utility shall file a copy of its capital investment plan report with the Office of the Consumer Advocate and the Office of the Small Business Advocate at the same time as the report is filed with the Office of Special Assistants.

PWSA Compliance Status

PWSA's most recent Capital Improvement Plan was completed in 2017 for the period of 2017 through 2021. PWSA's Capital Improvement Program focuses on sustaining cost-effective operations, while optimizing the system's asset performance and life expectancy. The 2017-2021 Capital Improvement Program invests in programs that consider risk and consequence of asset failure and levels of service benefits.

PWSA Compliance Plan

As a newly regulated utility, PWSA plans to comply with the standards and requirements listed in Section 73.8 and file its long-term infrastructure improvement plan in the place of a capital investment plan report with the Office of Special Assistants.

73.8: Format for Filing the Capital Investment Plan Report

Section 73.8 provides an overview of the filing requirements for a public utility's capital investment plan report. These requirements include: a summary with an overview of plans for major project expansion, modification, or other alteration of current and proposed facilities; a discussion of each major project expansion, modification, or other alteration of current and proposed facilities; a discussion of anticipated major expansions, modifications, or other alterations of the facilities that are not addressed under this chapter; and additional information if requested by the Commission.

PWSA Compliance Status

PWSA currently generates five-year capital investment plan reports for presentation to its Board of Directors that include many of the elements listed in Section 73.8. The most recent capital investment plan was completed January 27, 2017.

PWSA Compliance Plan

As a newly regulated utility, PWSA plans to comply with the standards and requirements listed in Section 73.8 and file its long-term infrastructure improvement plan in the place of a capital investment plan report with the Office of Special Assistants.

g. Chapter 101. Public Utility Preparedness through Self Certification

Chapter 101 deals with the methods a utility must use to maintain contingency or emergency response plans. These plans are designed to help the utility maintain safety standards and reliable service in the case of disruption to service or accident. The utility must create a plan that addresses general operations, cybersecurity, and business operations following an unusual operational event. The plan must identify the responsibilities of each individual or job function following a disruption (see § 101.3 (c)). To demonstrate compliance, this chapter requires the utility to submit a “Self Certification Form” to the Commission to document its emergency response plans. PWSA’s compliance status with Chapter 101 is shown in Table 10.

Table 10: PWSA Compliance with Chapter 101

| Section | Subchapter | Currently in Compliance | 6 Months or Less to Compliance | More than 6 Months to Compliance |
|---------------|-------------------------|-------------------------|--------------------------------|----------------------------------|
| 101.3. | Plan Requirements. | | X | |
| 101.4. | Reporting Requirements. | | | X |

101.3: Plan Requirements

Section 101.3 outlines the four types of documented emergency response plans a utility must create: a physical security plan, a cyber security plan, an emergency response plan, and a business continuity plan. The physical security plan must include a facility protection program for facilities deemed “mission critical” (defined as “essential equipment or facilities to the organization’s ability to perform necessary business functions”). The cyber security plan must include appropriate backup for software and data, as well as backup methods for “meeting critical functional responsibilities” if information technology systems are compromised. The business continuity plan must include a guideline for restoring utility operations after an emergency, as well as a detailed process addressing “business recovery” (e.g. implementing

operations following an emergency), “business resumption” (e.g. the restarting of normal operations following emergency by prioritizing time-sensitive functionality), and “contingency planning” (e.g. emergency preparedness planning). The emergency response plan must include the following three steps: 1) Assessment of the problem; 2) Mitigation of the problem in a timely manner; and 3) Notification of emergency service organizations as appropriate. To ensure that the emergency plan is up-to-date and practical as conditions change, the utility must test and update the plan annually. To demonstrate compliance with Section 101.3, the utility must submit a “Self Certification Form” to the Secretary’s Bureau.

PWSA Compliance Status

PWSA is not currently in compliance with Section 101.3, in that the Authority does not currently have a physical security plan, a cyber security plan, an emergency response plan, or a business continuity plan that meet the requirements laid out by the Commission. PWSA has recently conducted physical and cyber-security assessments and has an emergency response plan that is currently in the process of being updated. Regarding the business continuity plan, PWSA currently has elements of what the Commission requires, but not comprehensively compiled in one place.

PWSA Compliance Plan

As a newly regulated utility, PWSA plans to comply with the standards and requirements listed in Section 101.3 and submit a Self Certification Form to the Secretary’s Bureau. PWSA is in the process of developing a physical security plan and anticipates that it will be complete within the next six months, based on the results of the previously completed physical security assessment. Similarly, a cyber security assessment has been completed within the last year, and PWSA plans to hire a consultant and develop a cyber security plan by early 2019. Updating the

emergency response plan to ensure compliance with Commission requirements, as well as to incorporate feedback from the Allegheny County Health Department and the PA Department of Environmental Protection, is already underway, and is anticipated to be complete within the next six months. PWSA also plans to compile and further develop the information required for inclusion by the Commission for a business continuity plan over the next six months.

101.4: Reporting Requirements

The filing of the Self Certification Form discussed in Section 101.3 must occur at the same time as each Annual Report is filed (see Chapter 71 for more information regarding the annual financial report requirements).

PWSA Compliance Status

As a newly regulated utility, PWSA does not currently meet the reporting requirements detailed in Section 101.4.

PWSA Compliance Plan

PWSA plans to comply with the standards and requirements listed in Section 101.4 and file its Self Certification Form with its first Annual Report by April 30, 2019.

h. Chapter 102. Confidential Security Information

Chapter 102 outlines procedures for public utilities to follow when filing confidential security information with the Commission. This chapter also addresses how a utility should handle challenges by members of the public in Commission proceedings that seek to gain access to this confidential information. PWSA’s compliance status is highlighted in Table 11.

Table 11: PWSA Compliance with Chapter 102, Confidential Security Information

| Section | Subchapter | Currently in Compliance | 6 Months or Less to Compliance | More than 6 Months to Compliance |
|---------|--------------------|-------------------------|--------------------------------|----------------------------------|
| 102.3. | Filing procedures. | | | X |

102.3: Filing Procedures

Section 102.3 defines the appropriate filing procedures for confidential security information. This section addresses seven points: the maintenance of onsite records; filing requirements; utility responsibility to identify secure information; the Commission’s responsibility in handling secure information; the status of previously filed records; the Commission’s responsibility with non-secure information; and electronic submissions. A brief summary of each subsection follows:

1. *Utility’s record-keeping:* Confidential records must be maintained onsite, and they must be certified as up-to-date according to Chapter 101 self-certification procedures. The utility must make the record with the confidential security information available for review upon request by authorized Commission employees.
2. *Submitting secure information to the Commission:* The transmittal letter accompanying the filing, itself is a public document, must clarify that the filing contains confidential security information. Each page of the filing containing

- confidential information must be stamped with the words “Confidential Security Information” and must be in a separate envelope. The utility must create a separate filing with the confidential security information omitted and submit this version as a public file.
3. *Public utility’s responsibility:* If the utility fails to denote a record as confidential as described in the previous subsection, the record may be made available to the public.
 4. *Commission’s responsibility with secure information:* If the Commission employee authorized to receive the document believes the document should not be confidential, and the submitter disagrees, the Commission employee should submit a dispute to the Law Bureau for determination as a challenge under Section 102.4.
 5. *Previously-filed unmarked records:* If a previously-filed public record is later deemed to include secure information, the utility must resubmit the secure information.
 6. *Commission’s responsibility with unmarked records:* If a member of the public requests information the Commission believes should be confidential, the Commission will refer the request to the Law Bureau for review. If the Law Bureau deems the record confidential, the utility is given the opportunity to resubmit the record as containing confidential security information.
 7. *Electronic submissions:* Utilities may not use email or any other electronic mail system to submit records containing confidential security information.

PWSA Compliance Status

As previously stated, PWSA does not currently meet the reporting requirements detailed in Section 101.4. As such, PWSA is not currently compliant with Section 102.3’s requirement

that confidential records be maintained onsite and be certified as up-to-date according to Chapter 101's self-certification procedures.

PWSA Compliance Plan

PWSA plans to be in compliance with the standards and requirements listed in Section 102.3 by the time it files its Self Certification Form on or before April 30, 2019. PWSA is in the process of developing the necessary security plans, which will include comprehensive standard operating procedures for security reporting and records management.

i. Chapter 121. Long-Term Infrastructure Improvement Plan

Chapter 121 describes how a utility may create a long-term infrastructure improvement plan (LTIIP) to ensure that their infrastructure provides “adequate, efficient, safe, reliable and reasonable service to customers.” This type of plan is designed to support “accelerated” infrastructure improvement and is associated with assessing charges to customers to recover capital costs for the distribution system (distribution system improvement charges, or DSIC). PWSA is filing an LTIIP with the Compliance Plan for the Commission’s review, despite not requesting approval for a DSIC at this time. PWSA’s compliance status with Chapter 121 is shown in Table 12.

Table 12: PWSA Compliance with Chapter 121, Long-term Infrastructure Improvement Plan

| Section | Subchapter | Currently in Compliance | 6 Months or Less to Compliance | More than 6 Months to Compliance |
|---------|--|-------------------------|--------------------------------|----------------------------------|
| 121.3. | LTIIIP. | X | | |
| 121.4. | Filing and Commission review procedures. | X | | |
| 121.5. | Modifications to and expiration of an LTIIIP | | | X |
| 121.6. | AAO plan filings. | | | X |
| 121.7. | Periodic review of an LTIIIP. | | | X |
| 121.8. | Enforcement of LTIIIP implementation. | | | X |

121.3: LTIIIP

Utilities wishing to implement a distribution system improvement charge (DSIC)—a charge to recover costs for repair and replacement of distribution infrastructure—must file an LTIIIP. The LTIIIP must only address property eligible for DSIC recovery, as defined in 66 Pa. C.S. § 1351. The LTIIIP must include: 1) types and age of relevant property that is owned and operated by the utility; 2) a schedule for planned infrastructure repairs and replacement for this property; 3) descriptions of the locations of the property; 4) estimated quantity to be improved or repaired; 5) projected annual expenditures to finance the improvements or repairs; 6) description

of how the replacement will be accelerated and how the improvement or replacement will improve service; 7) a training program to ensure the utility's access to qualified professionals to perform the work; 8) description of the utility's outreach and coordination efforts with other utilities, Department of Transportation and local governments regarding the planned construction, along with roadways that may be impacted by the project.

On March 15, 2018 the PUC issued its Final Implementation Order which provides PWSA and stakeholders with guidance as to how PWSA may work to comply with its obligations under Chapter 32. Part of that guidance deals with filing of an LTIPP. The Final Implementation Order allows PWSA the discretion of filing individual or a unified LTIPP for water, wastewater and stormwater assets. If PWSA opts to file a unified LTIPP, it was directed to segregate its discrete services and operations as they exist at the time of the LTIPP filing. As to the future application of a DSIC, the PUC stated that the approved DSIC mechanisms should follow the distinct segments of PWSA operations and eligible property whether they be water, wastewater, or in future, stormwater service.

PWSA Compliance Status

Though PWSA has elected not to request a separate distribution system improvement charge at this time and is proposing to fund the short-term water distribution system and sanitary sewer collection system capital improvements through its current and proposed tariffs, PWSA has prepared a unified LTIPP for the Commission's consideration. PWSA may reconsider the need for a DSIC in the future, and the submitted LTIPP Report outlines the Authority's proposed program of renewal and rehabilitation as an initial step to comply with the Commission's requirement.

PWSA Compliance Plan

If PWSA does elect to file a DSIC in the future, a revised LTIIIP will be submitted to support the charges. The revised LTIIIP will have segregated costs for water, sewer and stormwater assets.

121.4: Filing and Commission Review Procedures

LTIIIPs must be filed with the Commission's Secretary Bureau and copies must be provided to the Bureau of Investigation and Enforcement, the Office of Consumer Advocate, the Office of Small Business Advocate, and the parties of record in the utility's most recent base rate case. The LTIIIP is a public document by default, and the utility must proactively designate and exclude confidential security information. After completion of the LTIIIP, the document is open to the public for a 30-day comment period; if comments raise "material factual issues," they may be referred to a hearing under the Office of Administrative Law Judge. The utility's responsibility is to prove that its proposed LTIIIP infrastructure plans and expenditures are reasonable, cost effective, and appropriate. The Commission's responsibility is to review the filed LTIIIP to confirm that the LTIIIP: 1) contains measures to ensure projected annual expenditures are cost-effective; 2) specifies the manner in which it accelerates or maintains an accelerated rate of infrastructure repair; 3) plans to maintain "adequate, efficient, safe, reliable and reasonable service"; and 4) meets the requirements of Section 121.3(a). If the utility's LTIIIP does not meet criteria in this section or Section 121.3(a), the Commission will order the utility to file a revised LTIIIP. In this case, the utility may withdraw its LTIIIP, at which point the utility is no longer eligible to implement a DSIC charge.

PWSA Compliance Status

PWSA is filing its first LTIIIP for the Commission's review and consideration concurrently with this Compliance Plan, despite not currently requesting the associated DSIC.

PWSA Compliance Plan

If PWSA elects to file a DSIC in the future, the Authority plans to comply with the process laid out in Section 121.4 for filing and Commission review procedures and will submit a revised LTIP to support the charges.

121.5: Modifications to and Expiration of an LTIP

If a utility wishes to modify a Commission-approved LTIP based on changes to elements outlined in Section 121.3(a), the utility must file a separate petition for modification that identifies the change and explains the justification for the change. This petition will be subject to notice for interested parties, who will have 30 days to file comments on the petition. Minor modifications to the LTIP (defined in Section 121.2) will be addressed at the same time as the Commission staff's review of the utility's annual asset optimization plan (AAO plan), if applicable. If a utility's LTIP expires but the utility wishes to continue its DSIC mechanism, the utility must file a new LTIP at least 120 days prior to the current LTIP's expiration.

PWSA Compliance Status

PWSA is filing its first LTIP for the Commission's review and consideration concurrently with this Compliance Plan, despite not requesting the associated DSIC currently.

PWSA Compliance Plan

Should PWSA elect to propose a DSIC in the future, PWSA plans to comply with the process laid out in Section 121.5 for modifications to and expiration of an LTIP.

121.6: AAO Plan Filings

Any utility with an approved DSIC must file an associated AAO plan annually within 60 days after the expiration of the first 12 months of its LTIP period (regardless of whether the expired LTIP will be replaced with a new LTIP). This AAO plan must include a description of property improved, repaired or replaced under the prior year's LTIP, and property to be

improved, repaired or replaced in the upcoming 12-month period. Major modifications to the upcoming LTIP should be accounted for in a separate petition for modification as described in Section 121.5.

PWSA Compliance Status

PWSA does not have an approved DSIC and is not requesting one currently. PWSA is filing its first LTIP for the Commission's review and consideration concurrently with this Compliance Plan, as an initial step, should the Authority elect to pursue a DSIC in the future.

PWSA Compliance Plan

Should PWSA elect to propose a DSIC in the future, PWSA plans to comply with the process laid out in Section 121.6 for filing an AAO plan annually after its LTIP is approved.

121.7: Periodic Review of an LTIP

The Commission reviews a utility's LTIP at least once every 5 years or more frequently if deemed necessary. The review will ensure that the utility has adhered to its LTIP and if adjustments to the LTIP are necessary. If the LTIP is considered no longer adequate to provide suitable service to customers, the Commission will direct the utility to revise the LTIP accordingly.

PWSA Compliance Status

PWSA is filing its first LTIP for the Commission's review and consideration concurrently with this Compliance Plan, despite not currently requesting the associated DSIC.

PWSA Compliance Plan

Should PWSA elect to propose a DSIC in the future, PWSA plans to support the Commission's policy of periodic LTIP review, as laid out in Section 121.7.

121.8: Enforcement of LTIP Implementation

A utility with a Commission-approved LTIP is obligated to comply with the elements of their LTIP. If the LTIP does not comply, the utility's DSIC may be subject to termination.

PWSA Compliance Status

PWSA is filing its first LTIP for the Commission's review and consideration concurrently with this Compliance Plan, despite not currently requesting the associated DSIC.

PWSA Compliance Plan

Should PWSA elect to propose a DSIC in the future, PWSA plans to comply with the process laid out in Section 121.8 for enforcement of LTIP Implementation.



OTHER COMPLIANCE ISSUES

6. OTHER COMPLIANCE ISSUES

In addition to the areas covered by Chapter 52, the Commission’s Final Implementation Order required that PWSA address several other issues in the Compliance Plan. These issues include: PWSA’s relationship with the City of Pittsburgh, specifically relating to the Cooperation Agreement and the Capital Lease Agreement; unbilled or unmetered usage, including City usage; billing arrangements, specifically regarding those with ALCOSAN and Pennsylvania American Water Company; future implementation of a stormwater tariff; the Authority’s plan to address lead levels in the water supply and the replacement of lead service lines; the Authority’s plan to address non-revenue water; the Bureau of Consumer Services Access to the PWSA Customer Service Management Information System; bulk water sales; and bulk wastewater conveyance agreements. The next several sections discuss these issues, providing background information, noting applicable PUC policies or laws, stating PWSA’s compliance status, and outlining PWSA’s plan to move forward in addressing each issue.

a. Relationship with City

- i. PWSA Services Contract with City of Pittsburgh
 (“Cooperation Agreement” or “CA”)

Background

PWSA remits to the City of Pittsburgh (City) an annual fee of \$7.15 million (Cooperation Agreement Fee). The fee is designated to compensate the City for a variety of services and costs that the City provides to PWSA such as vehicle lease and fleet maintenance. PWSA employees also participate in the City’s pension plan and the City pays the required employer contribution amounts for pension-related costs using a portion of the fee. The current fee is not accompanied by a detailed invoice. The arrangement was set forth in the 1995 Cooperation Agreement

between the City and PWSA, which was amended on March 21, 2001 (First Amendment to Cooperation Agreement). A copy of the Cooperation Agreement and the First Amendment to Cooperation Agreement are attached hereto as Appendix B.

Applicable PUC Policies or Laws

Expenses charged to ratepayers must be just, reasonable and reasonably “known and definite.” Generally, a public utility needs to be able to show that it is receiving a service or other value from any expenditure and that ratepayers are benefitting from any *pro forma* expense.

PWSA Compliance Status

PWSA is negotiating with the City to revise the Cooperation Agreement so that the annual payment reflects actual services being provided and the fair market value of those services. The revised agreement is expected to require that the City provide periodic invoices detailing the services provided to PWSA and the fees for each service.

PWSA Compliance Plan

PWSA is committed to working with the City to develop a modern Cooperation Agreement that is fair to the City, its taxpayers, PWSA and its ratepayers.⁵⁷ It is anticipated that the revised Cooperation Agreement discussions will also address public fire protection. To this end, as noted above, PWSA is currently negotiating with the City to revise the payment under the Cooperation Agreement to only reflect actual services provided.

The revised agreement will be filed with the Commission under Section 507. The revised agreement will be between PWSA, as a public utility, and the City, as a municipal corporation. The revised agreement relates to services purchased by PWSA from the City. So, the revised agreement does not fall within the exception in Section 507 for the utility’s provision of service at tariff rates.

If the revised Cooperation Agreement cannot be satisfactorily renegotiated by the City and PWSA by the end of this year (December 31, 2018), PWSA suggests that the PUC should initiate an investigation to determine the services actually received by PWSA and the associated cost. Once the PUC determines the services provided by the City and the associated cost, the PUC should consider utilizing its power under Section 508 to vary or reform the Cooperation Agreement so that the Agreement (and subsequent PWSA payments) reflect just and reasonable levels.

ii. **Capital Lease Agreement with City of Pittsburgh**

Background

PWSA is a party to 30-year lease (Capital Lease Agreement) with the City of Pittsburgh, which was created as a mechanism for the City to draw equity invested in the water and wastewater assets to cover budget shortfalls. PWSA has the option to acquire the City's assets upon termination of the lease term in 2025.⁵⁸ The Capital Lease Agreement provides PWSA with the option to purchase the System for one dollar in 2025. The Capital Lease Agreement stipulates minimum lease payments, all of which were satisfied during the initial three years of the lease.

Applicable PUC Policies or Laws

Chapter 11 of the Public Utility Code is not applicable to the City of Pittsburgh or PWSA⁵⁹ and, therefore, PWSA does not need to obtain a Certificate of Public Convenience to acquire the Systems in 2025.

PWSA Compliance Status

There are no compliance issues at this time.

PWSA Compliance Plan

PWSA intends to purchase the system for one dollar when eligible in 2025 or renegotiate a new arrangement with the City, whereby allowing PWSA to acquire the assets sooner. Any revised lease agreement with the City will be filed with the Commission under Section 507.

b. Unmetered and/or Unbilled Usage (including City Usage)

Background

PWSA is aware of between 200-400 City-owned and/or operated locations where it either does not bill the City for water service or where it neither meters nor bills the City for water service. The exact number of locations that are not metered and/or billed is pending confirmation. Note that this number may also include other quasi-municipal, government or non-profit City affiliated water service locations, such as the Pittsburgh Zoo. More than 150 City locations have been verified to be unmetered and/or unbilled as of July 2, 2018.

As part of the existing Cooperation Agreement between the City⁶⁰ and PWSA, PWSA has agreed to provide up to 600 million gallons per year of unbilled water to the City. These locations are related to areas where the City, and successors and assigns of the City, are receiving water service but are not being metered. In some other cases, a meter has been installed at the location, but the water provided is not billed. Note that since PWSA has not metered the majority of City properties and does not keep an accurate accounting of metered water use at other City locations, it is impossible to determine if the City exceeds its yearly allocation of 600 million gallons. Based on estimates, however, it is suspected that the total used by the City is in excess of 600 million gallons.

PUC Policies or Laws

The Commission directed that the Compliance Plan address, *inter alia*, a metering plan identifying unmetered accounts and plans to meter all customers.⁶¹ Failing to meter and/or failing to charge some locations but not others, is inconsistent with the Public Utility Code as well as PUC Regulations,⁶² prohibiting “unreasonable” discrimination in rates and service. 66 Pa. C.S. § 1304. Failing to charge tariffed rates also violates the 66 Pa. C.S. § 1303. “No public utility shall, directly or indirectly, by any device whatsoever, or in anywise, demand or receive from any person, corporation, or municipal corporation a greater or less rate for any service rendered or to be rendered by such public utility than that specified in the tariffs of such public utility applicable thereto.”

PWSA Compliance Status

PWSA is in the process of identifying all the non-billed and/or non-metered locations, the types of meters needed, meter installation requirements (plumbing, valving, etc.), and a reasonable timeframe over which PWSA will be able to install meters and begin billings. Because the plumbing at many of the non-metered locations was not designed to accept meters, a significant amount of re-plumbing and/or construction may be required at some sites. This may consist of installing new plumbing fixtures, pipe and valving, constructing meter pits, and/or building facilities to satisfactorily house meters and appurtenances.

PWSA Compliance Plan

PWSA is set to begin a robust meter installation and replacement campaign that will include all City offices and facilities for the first time, plus related public attractions such as the Pittsburgh Zoo and PPG Aquarium and Phipps Conservancy⁶³. PWSA does not have sufficient plumbing and field staff to engage in a meter installation program of this magnitude at this time. The Authority is developing a Request for Proposal (RFP) for qualified engineering consulting

firms to assist with identifying, evaluating, and designing metering facilities for unmetered properties. A separate construction contract will be bid to construct and install these meter facilities. The goal is to have the RFP released by December 31, 2018 and have the consulting firm under contract by April 1, 2019. The construction contract is anticipated to be bid by December 31, 2019. PWSA also plans to hire two additional customer service representatives to support scheduling and new account management activities.

PWSA proposes a multi-step, multi-year plan to address the unmetered locations, as described in the LTIP. That plan is summarized as:

Table 13: PWSA plan to address unmetered locations

| TASK | END DATE FOR COMPLETION |
|--|--|
| Release RFP for design contractor | December 31, 2018 |
| Identify all locations where service is either: a) unmetered entirely; or b) metered but not billed. | December 31, 2019 |
| Have one (or more) plumbing contractors under contract | April 1, 2020 |
| Install meter sets in accordance with PUC tariff | December 31, 2024 |
| Begin to bill all unbilled and/or unmetered locations | December 31, 2024 |
| Begin to collect fees billed | 20% of the total bill will be due in first year, 40% of total bill in second year, and so on, until amounts due fully reflect billed amounts |

With assistance of a contractor, PWSA estimated that all unbilled and unmetered facilities can be metered within five years. As new meters are installed, PWSA customer service staff will create accounts, track water consumption and begin the billing process. The City’s bills will then be restricted, based on the phase-in approach, which is appropriate because the City has never been billed for water at these locations, and is neither aware of the amount of water it uses nor the dollar amount it will have to pay once billing for the water begins. The City needs a reasonable amount of time in which to understand what these obligations will be and to

consider taking steps to try to mitigate its current water use. The City also needs lead time to incorporate these payment obligations in future budgets.

PWSA is committed to working with the City and affiliated parties to catalog all water delivery locations and maintain accurate ownership records as City real estate holdings change.⁶⁴ Negotiations on Cooperation Agreement will include discussion w/City about responsibility for cost of meter-sets.

c. Billing Arrangements

i. Billing Arrangements with ALCOSAN

Background

ALCOSAN bills each PWSA wastewater conveyance customer a charge for wastewater treatment; this charge is passed through to customers on PWSA's bill. Currently, PWSA wastewater conveyance customers bear the cost of: (1) uncollected revenue associated with ALCOSAN charges; and (2) billing and collection costs.⁶⁵

In May 2004, PWSA started directly billing City residents for current and delinquent ALCOSAN wastewater treatment charges and remitting to ALCOSAN the aggregate amount of service charges billed. This was done by way of a "2004 Amendment" to the 1995 Agreement between the City and ALCOSAN. Prior to the 2004 Amendment, PWSA (on behalf of the City), was required (under a 1996 Memorandum of Understanding) to purchase ALCOSAN's wastewater receivables.

Applicable PUC Policies or Laws

ALCOSAN's customers are not paying the full cost of wastewater treatment because they are not paying cost of uncollected revenue or all billing costs. The Public Utility Code generally mandates that costs should be allocated to the cost causer.

PWSA Compliance Status

While PWSA is under a contractual obligation to continue the billing relationship with ALCOSAN, PWSA is in the process of determining a reasonable methodology to recover the full cost of wastewater treatment.

PWSA Compliance Plan

PWSA is proposing the addition of a surcharge to be included with the ALCOSAN portion of the charges billed to PWSA customers on behalf of ALCOSAN. The surcharge would reflect billing costs not already collected and uncollected revenue costs. This proposal would be a part of PWSA's next rate case for wastewater. (Note: the addition of the surcharge should be revenue neutral as the same amount of costs will be removed from the wastewater conveyance cost of service.)

Any revised agreement with ALCOSAN will have to be filed with the Commission under Section 507. The revised agreement will be between PWSA, as a public utility, and ALCOSAN, as a municipal corporation. The revised agreement relates to a billing arrangement for service provided by ALCOSAN. Therefore, the revised agreement does not fall within the exception in Section 507 for the utility's provision of service at tariff rates. The proposed approach to dealing with the ALCOSAN would not necessarily require a revision in the ALCOSAN agreement by the PUC under section 508, but if any party disagrees then PWSA requests that the PUC exercise its authority under that section.

ii. *Billing Arrangement with Pennsylvania American Water Company*

Background

The City entered into an arrangement (City Ordinance No. 675; "South Hills Water Subsidy" Agreement December 28, 1973) with Pennsylvania American Water Company (PAWC) whereby the City pays a rate subsidy directly to PAWC that offsets PAWC's water

rates for about 27,000 of the Authority's sewer only customers. The subsidy limits water charges for City residents served by PAWC (which are in southern reaches of the City), so their out-of-pocket rates match PWSA prices.

The Cooperation Agreement requires PWSA to reimburse the City for this expense. In practice, PWSA pays the rate subsidy directly to PAWC.

Applicable Policies or Laws

Public Utility Law requires every expense or charge to be just and reasonable and reasonably related to the provision of public utility service to its customers; PWSA customers are currently paying a part of the water bill for a specific set of PWSA wastewater customers (who receive water service from PAWC).

PWSA Compliance Status

Negotiations on the Cooperation Agreement will include discussion w/City about termination of the Subsidy Agreement,⁶⁶ which requires written notice six months prior to the expiration of the then current term.

PWSA Compliance Plan

PWSA is proposing that the Subsidy payment to PAWC be eliminated in PWSA's next base rate case for water service.

d. Future Implementation of Stormwater Tariff

Background

The great majority of PWSA's sewers are combined and by virtue of these combined sewers and the broader mission of stormwater management within the PWSA service area, the Authority has been heavily engaged in stormwater management since its formation in 1984. The interconnected network of separate stormwater conveyances, combined sewers, and street-related infrastructure have required PWSA and the City of Pittsburgh to share portions of the stormwater

management services. The complex stormwater network requires a multi-pronged approach to maintenance and capital repair and replacement.

As part of its July 2018 wastewater tariff filing, PWSA (1) provided preliminary estimates of costs associated with its segregated stormwater system; (2) provided a preliminary estimate of costs when a stormwater rate is implemented; (3) provided a projection of a stormwater revenue requirement; and (4) preliminarily identified the portion of its wastewater costs attributable to its stormwater system.⁶⁷

Applicable PUC Policies or Laws

The Public Utility Code's general requirements would apply, but the Commission has no regulations for stormwater. The Commission directed that the Compliance Plan address, *inter alia*, the future implementation of a stormwater tariff.⁶⁸

PWSA Compliance Status

Despite this ongoing effort and substantial expenditures, drainage and infrastructure problems are numerous and worsening, with surface flooding and sewer system basement backups the most visible and vexing issues. PWSA has developed a plan to address these most significant stormwater issues, focused on two primary goals:

- > Rebuild portions of the City's stormwater management system to provide residents with resilient, strong, flood-prepared neighborhoods, and
- > Build and maintain projects that keep as much stormwater out of the sanitary sewer system as possible, so the existing infrastructure can effectively carry flows to minimize sewer system basement backups and surface flooding.

In addition to these two primary goals, PWSA must keep pace to invest in rehabilitating and replacing the aging stormwater infrastructure that are impacting various neighborhoods and

urban centers. In order to implement this program, the Authority will need to increase efforts and spending on both stormwater operations and maintenance as well as on capital (project) construction. The details of an expanded operation and maintenance effort will depend in part on the way that maintenance responsibilities are shared between the City and the Authority. Efforts to quantify and formalize this relationship are underway.

Efforts to rebuild portions of the existing stormwater system that properly manage stormwater in the separate sewer system and keep stormwater out of existing combined sewers will take on many forms. Two examples of areas where projects will help achieve both the Authority's primary goals are 1) Four Mile Run-Panther Hollow Lake and 2) CSO A22 Maryland Avenue.

Within the Four Mile Run-Panther Hollow Lake watershed there is an opportunity to "daylight" an existing stream and lake using land within Schenley Park (thus removing the stream and lake flow from the combined sewer infrastructure). PWSA has studied this area and detailed design is underway.

In the CSO A22 Maryland Avenue area, surface flooding and basement sewer backups are frequent, and opportunities exist to build stormwater source control and storage features in the watershed to keep stormwater out of the existing combined sewer system.

These examples address the Authority's two primary goals, but other projects are needed to replace failed or aged stormwater infrastructure. As an example, PWSA is installing tide gates at 44 stormwater outfalls across the service area to prevent river water intrusion into the sewer system. This river water intrusion robs capacity from the sewer system and leads to increased overflows.

These few projects highlight that a combination of “green” and “gray” solutions and technologies are needed to address Pittsburgh’s pressing stormwater problem. Gray infrastructure projects are defined as man-made, engineered components to collect and treat sewage or stormwater. For stormwater, gray infrastructure includes gutters, storm sewers, tunnels, culverts, detention basins, pipes and mechanical devices used in a system to capture and convey runoff. Green infrastructure projects are defined as ecologically engineered measures that reduce and treat stormwater at its source while delivering environmental, social, and economic benefits. Green Infrastructure uses vegetation, soils, and other natural elements to restore the natural processes required to manage stormwater locally and create healthier urban environments.

Where tide gates are a traditional brick and mortar or gray infrastructure solution or project, and the Four Mile Run-Panther Hollow Lake project are stormwater detention or separation projects there are other projects that the Authority intends to pursue as a “Green Infrastructure Solution”. Green infrastructure solutions may include rain gardens, bioretention or other forms of surface detention to mitigate impacts of stormwater.

PWSA Compliance Plan

Using both gray and green solutions, enhances our ability to rehabilitate and upgrade stormwater infrastructure throughout Pittsburgh and will support the Authority’s primary goals to create safe, flood-prepared neighborhoods and keep as much stormwater out of sanitary sewer system as possible.

In addition to capital spending, enhanced maintenance efforts will be needed to maintain the infrastructure. These efforts will take the form of open channel conveyance cleaning, storm sewer pipe and inlet cleaning, repair, replacement, and/or rehabilitation, roadway curb improvements in the areas of green infrastructure installations to provide proper drainage, and

infrastructure inspections to proactively identify and manage emerging drainage problems quickly.

Because so much of the drainage infrastructure is combined sewers, determining what portion of the Authority's current spending is allocated to stormwater spending is difficult. Currently all Authority stormwater spending is funded through the Authority's wastewater rates. Once a new stormwater utility is formed and a separate rate structure implemented, the new stormwater rates rather than wastewater rates will fund stormwater projects and maintenance efforts.

This reallocation of costs may result in little overall change for many ratepayers, since they could see reductions in wastewater fees that might be similar to the increases that come from a new stormwater fee. Customer by customer, however, this may vary greatly for two reasons: (1) overall spending on stormwater is expected to increase significantly and thus the change is not "zero sum," and (2) large ratepayers under the current approach are those with large water consumption (as an analog for wastewater usage), but these may not be the same as large ratepayers under a new stormwater rate structure, since the rate structure for the new service would be based indirectly on the amount of stormwater runoff generated and no longer based on water consumption.

It is the Authority's goal to implement a new stormwater fee in 2020. The stormwater fee would go into effect along with wastewater rate changes to address the reallocation of costs between services. The stormwater fees would be charged to all properties within the City which are developed.

Within the context of stormwater rate structures, the definition of a "developed" land parcel is a parcel which has in whole or part been modified from its natural state to create land

surfaces which prevent or substantially impede the infiltration of stormwater into the soil. Rate structures for stormwater fees are thus, most often, based on impervious surface areas. The Authority envisions a simplified approach for residential detached properties where one flat rate would be assessed for each parcel that has one home.

Efforts are underway to establish a new stormwater utility and associated stormwater fee including:

- > Working with the City on a Memorandum of Understanding (MOU) that will establish the details of drainage maintenance responsibilities between the City and Authority
- > Developing final measured impervious areas for parcels from which rates and charges can be established
- > Developing an interface and associated functionality to help maintain the relationship between parcels and impervious surface measurements and existing utility account and billing data
- > Establishing a task force to assist the Authority in building support for the implementation of the stormwater fee among stakeholders
- > Developing a public outreach program to build awareness about PWSA's multi-pronged approach to managing stormwater. This includes educating ratepayers about Pittsburgh's stormwater problems, the solutions for managing it, and the benefits of implementing a new stormwater program.

The PUC mandated schedule for implementing the stormwater fee is to submit the detailed tariff filing in the spring of 2019 with anticipated regulatory approval in 2020.

e. Plan to Address Lead Levels in Water Supply and the Replacement of Lead Service Lines

Background

The Commission directed that the Compliance Plan address, *inter alia*, lead levels in the water supply and replacement of lead service lines.⁶⁹ In 2017, PWSA entered into a Consent Order and Agreement with PADEP to resolve regulatory issues related to lead service line replacements, corrosion control treatment and other related matters. The COA sets amended deadlines for performing lead service line replacements, completing a lead service line system inventory, finishing a corrosion control treatment study, and implementing the optimized corrosion control water treatment.

Applicable PUC Policies or Laws

The Commission has concluded that the Commission (under the Public Utility Code) and the PADEP (under the state and federal Safe Drinking Water Acts) have joint jurisdiction over water quality.⁷⁰

PWSA Compliance Status

There is no detectable lead⁷¹ in the Pittsburgh Water and Sewer Authority's water when it leaves the treatment plant and travels through the PWSA's water mains. However, lead can enter drinking water through lead services lines and household plumbing.

PWSA budgeted \$44 million to replace 2,100 lead service lines in Pittsburgh in 2018 as part of an agreement with PADEP.⁷² PWSA has replaced 1,341 service lines as required by the PADEP order, signed in November 2017. An additional 885 lines will be replaced by December 2018, as required by the PADEP Consent Order.⁷³

PWSA counts about 71,000 total residential service line connections system-wide, and PADEP expects the Authority to inventory them all – and identify all the lead ones – by Dec. 31, 2020.⁷⁴

PWSA is also finalizing the implementation of an orthophosphate treatment to manage lead corrosion throughout the system, which has been approved by the PADEP.⁷⁵

PWSA Compliance Plan

PWSA is in the process of identifying and removing lead service lines in the public right of way; that is, from the water main to approximately the edge of a customer's property as demarcated by a curb stop valve. It is also removing lead services lines on the private portion of customers' properties, as part of an interim program that will last through at least 2019. As detailed in the LTIP, the lead service line replacement (LSLR) program will be authorized and funded (at an accelerated rate) in 2019. PWSA submitted an application to the Pennsylvania Infrastructure Investment Authority (PENNVEST) for \$50 million in funding for a LSLR program in 2019. Beyond 2019, it is unclear whether the program will be authorized and fully funded. PWSA has the continuing need to invest in its systems to replace lead service lines and other aging infrastructure to ensure water quality, safety, reliability and customer-service levels.⁷⁶ PWSA's Lead program is projected to replace roughly 15 to 20 lead service lines per day until year end.⁷⁷ PWSA intends to keep replacing the public side of lead service lines even if lead levels plunge - as intended - with the introduction of an orthophosphate passivating agent at the Aspinwall water treatment expected in Fall/Winter 2018.⁷⁸ In addition, the number of miles of main replacement per year under annual small diameter water main replacement (SDWMR) program is being accelerated with the goal of eliminating all lead service lines from the system by 2026, as shown in Tables 2-7 and 2-8 of the LTIP.

PWSA has free lead test kits available to all PWSA drinking water customers. Samples from the tests are then sent to an independent laboratory, and the results are provided directly to customers.

f. Plan to Address Non-Revenue Water

Background

Non-revenue water (NRW) is water that has been treated at a water treatment facility, but is not billed to customers. NRW differs from Unaccounted-for-Water (UFW), which is water treated at a water treatment facility, but is not billed, measured or estimated through accepted AWWA practices.⁷⁹ Water losses contributing to UFW can be real losses (through leaks, sometimes also referred to as physical losses) or apparent losses (for example through theft or metering inaccuracies).

Applicable PUC Policies or Laws

Unacceptably high NRW and UFW percentages are viewed as both an unreasonable expense (because it effectively increases the actual cost of delivering water to the customer) as well as inadequate service. Levels of NRW should be kept within reasonable amounts.⁸⁰ The Commission has set a goal of 20% or less for NRW.⁸¹

PWSA Compliance Status

PWSA is not able to make a meaningful assessment of its NRW because it lacks accurate means of determining flows into and out of the water distribution system. It is estimated that NRW is approximately 50% of the water produced at the Aspinwall treatment plant. PWSA recently installed water meters on the filters at the Aspinwall water treatment plant but is does not meter water through its clearwell or water going into or out of its major pumping and storage facilities. These filter meters provide an approximation of the volume of the water going into the water system. PWSA lack reliable meters on its raw water pump station, but it has made strides

to corroborate readings with filtered water flows. PWSA meters most residential and non-residential accounts. However, some City accounts, as described in PWSA's response to Sections 65.7 and 65.8, are not metered and a large number of meters have been in service past their prescribed testing periods, as required by PUC requirements. The combination of inadequate metering at the treatment, storage and pumping facilities and challenges with City locations and old meters, makes it impossible to develop an accurate measure of NRW or UFW.

PWSA Compliance Plan

PWSA is working towards gathering better information on flows into the distribution system. PWSA has a plan to add meters on major treatment, storage and pumping facilities as part of upgrades to those facilities. These meters are projected to be in place by September 28, 2021. In addition, as noted, PWSA is in the process of identifying and developing a program to metering all service locations and to test and replace meters as prescribed by PUC regulations. PWSA also plans to implement a comprehensive leak surveying program, consistent with AWWA standards and procedures.

g. BCS Access to PWSA Customer Service Management Information System

Background

The Commission's Bureau of Consumer Services ("BCS") responds to consumer complaints, provides utility-related information to consumers and monitors utility compliance with PUC regulations and evaluates utility performance. The bureau consists of a Division of Customer Assistance and Complaints and a Division of Policy.

Applicable PUC Policies or Laws

The Commission directed PWSA to provide BCS with direct access to PWSA's service management information system in a manner like other similarly situated jurisdictional utilities.

PWSA Compliance Status

PWSA is working on providing Read-only access to BCS.

PWSA Compliance Plan

PWSA will continue working on providing Read-only access to BCS.

h. Bulk Water: Sales for Resale

Background

PWSA has contracts for the sale of water by PWSA to other water utilities or public authorities.

Applicable PUC Policies or Laws

Public Utility Law requires every expense or charge to be just and reasonable and reasonably related to the provision of public utility service to its customers.

PWSA Compliance Status

Part I, Section I (Sales for Resale) of the Proposed Water Tariff applies to all sales of water to other water utilities or public authorities for resale. Generally speaking, that schedule authorizes negotiated rates and terms. Service under this rate is interruptible, and the Authority reserves the right to interrupt service at Authority's discretion.

PWSA Compliance Plan

Any new or revised agreements will be filed with the Commission under Section 507. To the extent deemed necessary, sales for resale agreements will be dealt with in PWSA's next water base rate cases.

i. Bulk Wastewater Conveyance Agreements

Background

PWSA has contracts for the conveyance of wastewater from other water utilities or public authorities through PWSA's wastewater conveyance system to ALCOSAN's system.

Applicable PUC Policies or Laws

Public Utility Law requires every expense or charge to be just and reasonable and reasonably related to the provision of public utility service to its customers.

PWSA Compliance Status

Part I, Section B (Bulk Wastewater Conveyance) of the Proposed Wastewater Tariff applies to all bulk wastewater conveyance for other wastewater utilities or public authorities. Generally speaking, the schedule authorizes negotiated rates and terms.

PWSA Compliance Plan

Any new or revised agreements will be filed with the Commission under Section 507. To the extent deemed necessary, bulk wastewater conveyance agreements will be dealt with in PWSA's next wastewater base rate cases.

- ⁵⁷ Audit Response from PWSA (dated October 17, 2017) to the 2017 Auditor General Report, at Item 12, 16-17.
- ⁵⁸ See Implementation of Chapter 32 of the Public Utility Code Re Pittsburgh Water and Sewer Authority, Docket No. M-2018-2640802 (water) and M-2018-2640803 (wastewater), Final Implementation Order entered March 15, 2018, at p. 27
- ⁵⁹ 66 Pa.C.S. § 3202(a).
- ⁶⁰ Or a successor or assign, such as the Pittsburgh Zoo, which is now operated by a non-profit corporation, the Pittsburgh Zoological Association.
- ⁶¹ See Implementation of Chapter 32 of the Public Utility Code Re Pittsburgh Water And Sewer Authority, Docket No. M-2018-2640802 (water) and M-2018-2640803 (wastewater), Final Implementation Order entered March 15, 2018, at Ordering Paragraph 6.
- ⁶² 52 Pa. Code § 65.7. (Flat rate service permitted if there is a reasonable plan to meter.)
- ⁶³ Pittsburgh Tribune Review, September 3, 2018: Statements attributed to PWSA Executive Director Robert Weimar
- ⁶⁴ Audit Response from PWSA (dated October 17, 2017) to the 2017 Auditor General Report, at Item 13-15.
- ⁶⁵ The ALCOSAN billing does include a small administrative fee, but it does not cover a share of PWSA's billing system costs or the labor costs associated with billing activity.
- ⁶⁶ Audit Response from PWSA (dated October 17, 2017) to the 2017 Auditor General Report, at Item 7.
- ⁶⁷ [Exhibit DML-4.]
- ⁶⁸ See Implementation of Chapter 32 of the Public Utility Code Re Pittsburgh Water And Sewer Authority, Docket No. M-2018-2640802 (water) and M-2018-2640803 (wastewater), Final Implementation Order entered March 15, 2018, at Ordering Paragraph 6.
- ⁶⁹ See Implementation of Chapter 32 of the Public Utility Code Re Pittsburgh Water and Sewer Authority, Docket No. M-2018-2640802 (water) and M-2018-2640803 (wastewater), Final Implementation Order entered March 15, 2018, at Ordering Paragraph 6.
- ⁷⁰ *Susan K. Pickford, et. al. v. Pennsylvania American Water Company*, Docket Nos. C-20078029, et. al., Opinion and Order [on Preliminary Objections] entered March 20, 2008; 2008 Pa. PUC LEXIS 29.
- ⁷¹ Using EPA approved testing methods as described in *Standard Methods for the Examination of Water and Wastewater*: 23rd Edition. Standard Methods is a joint publication of the American Public Health Association (APHA), the American Water Works Association (AWWA), and the Water Environment Federation (WEF).
- ⁷² PWSA St. 1 at 9.
- ⁷³ PWSA St. 1 at 9.
- ⁷⁴ PWSA St. 1 at 9.
- ⁷⁵ PWSA St. 1 at 10.
- ⁷⁶ PWSA St. 1 at 16.
- ⁷⁷ PWSA St. 1 at 17-18.
- ⁷⁸ Pittsburgh Post-Gazette. September 2, 2018. Statement Attributed to executive director Robert Weimar
- ⁷⁹ AWWA Manual - M36 Water Audits and Loss Control Programs, Fourth Edition
- ⁸⁰ 52 Pa.Code § 65.20(4).
- ⁸¹ 52 Pa.Code § 65.20(4).