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October 24, 2022

Via Electronic Filing

Rosemary Chiavetta, Secretary
PA Public Utility Commission
P.O. Box 3265
Harrisburg, PA 17105-3265

Re: Implementation of Chapter 32 of the Public Utility Code RE: Pittsburgh Water
and Sewer Authority; Docket Nos. M-2018-2640802 and M-2018-2640803
Second Revised Stage 2 Stormwater Compliance Plan

Dear Secretary Chiavetta:

On behalf of The Pittsburgh Water and Sewer Authority (“PWSA”) and pursuant to the final Order entered August 25, 2022 in the above-captioned matter, enclosed for electronic filing please find PWSA’s Stage 2 Compliance Plan: Stormwater (Second Revised). This includes clean and redlined versions of the Second Revised Compliance Plan, as well as Appendices 1 and 2 containing PWSA’s responses to the Bureau of Technical Utility Services’ (“TUS”) Directed Questions. **Please note that other Attachments were previously e-filed as part of PWSA’s April 9, 2021 Stormwater Compliance Plan filing, and due to the volume of attachments, are not being re-filed at this time.** They are available to interested stakeholders on the Eckert ShareFile site and on the Commission’s website.

Copies to be served in accordance with the attached Certificate of Service.

Sincerely,



Lauren M. Burge

Enclosure

cc: Hon. Eranda Vero w/enc. (via email only)
Hon. Gail M. Chiodo w/enc. (via email only)
Certificate of Service (via email only)

CERTIFICATE OF SERVICE

I hereby certify that this day I served a copy of PWSA's Second Revised Stormwater Compliance Plan upon the persons listed below in the manner indicated in accordance with the requirements of 52 Pa. Code Section 1.54.

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/s/ Lauren M. Burge

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Dated: October 24, 2022



Pennsylvania Public Utility Commission
Stage 2 Compliance Plan:
Stormwater (Second Revised)
The Pittsburgh Water & Sewer Authority
October 24, 2022



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Attachment B – Wet Weather Feasibility Study

Attachment C – Long Term Wet Weather Control Plan (includes Appendices A-G)

Attachment D – Green First Plan

Attachment E – PWSA System Map, Storm Sewers Overview (March 2021)

Attachment F – PWSA Green Infrastructure Project Locations Overview (March 2021)

INTRODUCTION

I. Procedural Summary¹

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 Municipality 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

Effective April 1, 2018, PWSA formally became subject to the Public Utility Code and regulation by the Commission. Consistent with 66 Pa. C.S. § 3204(b) and Commission directives, PWSA filed its Compliance Plan on September 28, 2018. On November 28, 2018, the Commission issued a Secretarial Letter which: (1) referred PWSA’s September 28, 2018 Compliance Plan filing to the Office of Administrative Law Judge; and, (2) established two stages of review for PWSA’s Compliance Plan.² Pursuant to commitments from the

¹ A more complete description of the history of the Compliance Plan proceeding is set forth in the PWSA *Stage 2 Compliance Plan: Chapters 14 & 56, DSLPA and Collections (Revised)*, filed on September 12, 2022.

Commission approved settlement of its *Initial Rate Case*,³ PWSA filed a Compliance Plan Supplement on February 1, 2019.

The Commission ultimately entered three orders regarding the Compliance Plan Stage 1 process. Consistent with the *March 2020 Stage 1 Order*, on April 27, 2020, PWSA filed a Revised Compliance Plan⁴ (hereinafter, “Stage 1 Compliance Plan”). PWSA’s Stage 1 Compliance Plan focused on its water/wastewater services and its overall operation as a PUC-regulated utility. The Revised Compliance Plan did not address issues related to Chapters 14 and 56, collections, the Discontinuance of Service to Leased Premises Act (“DSLPA”), 66 Pa.C.S. §§ 1521-1533, or stormwater.

The Commission’s *Stage 1 February 4, 2021 Order* directed PWSA to file Stage 2 Compliance Plans and provided further clarification about the Commission’s expectations regarding Stage 2 stormwater issues.⁵ More specifically, the Commission acknowledged its prior approval of a full settlement of the *Second Rate Case* which included the agreement of the parties to defer development of PWSA’s stormwater tariff to its anticipated 2021 rate case and to request that the Commission consolidate the Compliance Plan Stage 2 stormwater issues with that rate case.⁶ However, the Commission clarified that its orders were not intended to obviate PWSA’s responsibility to file a compliance plan for stormwater service and that the Commission would entertain any future motion or petition to address conflicts between a rate proceeding and the staged litigation of the Compliance Plan.⁷

On April 9, 2021, PWSA filed its Stage 2 Compliance Plan: Stormwater as directed in the *Stage 1 February 4, 2021 Order*, which included information specific to the Authority’s stormwater service and operations, including the implementation of a stormwater tariff and fee. The purpose of the Compliance Plan, consistent with Section 3204 of the Public Utility Code, is

to describe the extent to which PWSA's stormwater service and operations are compliant with the Public Utility Code and Commission regulations, and if necessary, to describe PWSA's plan for coming into compliance with the applicable requirements.

On April 13, 2021, PWSA filed a combined water, wastewater and stormwater base rate case at docket numbers R-2021-3024773 (water), R-2021-3024774 (wastewater), and R-2021-3024779 (stormwater) (*2021 Rate Case*). PWSA simultaneously filed a Motion to Hold in Abeyance the Stage 2 Stormwater Compliance Plan pending resolution of the base rate case, in order to allow the full range of stormwater issues to be addressed in the base rate case, and subsequently any remaining issues would be addressed through the Stage 2 Stormwater Compliance Plan proceeding.

In its May 20, 2021 Order, the Commission granted PWSA's request to hold the Stormwater Compliance Plan in abeyance pending the resolution of the *2021 Rate Case*. The Commission further directed PWSA to file a revised Stormwater Compliance Plan after a final order was issued in the 2021 Base Rate Case, but no later than January 31, 2022.

The *2021 Rate Case* addressed a broad range of issues related to PWSA's stormwater service. As part of the rate case, PWSA responded to directed questions from the Commission's Bureau of Technical Utility Services. On November 18, 2021, the Commission approved a full settlement of the rate case, including approval of PWSA's initial stormwater tariff, stormwater rates, stormwater credit program, and other items related to stormwater service.

In compliance with the May 20, 2021 Order, PWSA submitted a Stormwater Stage 2 Compliance Plan (Revised) on January 20, 2022. The revised Compliance Plan reflected stormwater-related issues that were resolved through the *2021 Rate Case* and provided updated information on any remaining issues to be addressed through the Stage 2 proceeding.

On February 3, 2022, PWSA filed an Unopposed Petition to Separate Stormwater Issues from Other Stage 2 Compliance Plan Issues requesting that the Commission separate any remaining stormwater issues from the customer service and collections issues that have been separately addressed, as described in the Joint Petition for Settlement on customer service issues that was filed at this docket on March 14, 2022.

On February 22, 2022, a Secretarial Letter was entered assigning the Stage 2 Compliance Plan – Stormwater to the Office of Administrative Law Judge (“OALJ”). The Secretarial Letter included a Technical Staff Report and Directed Questions, Stage 2, Set 2. The Secretarial Letter directed the OALJ to “incorporate the Stage 2, Set 2 Report into its Prehearing Order and to conduct evidentiary hearings to address matters raised therein.” The Secretarial Letter also stated that, as directed in the *May 2021 CP Stage 2 Scheduling Order*, the OALJ shall issue a Recommended Decision by May 25, 2022.

On March 7, 2022, the Commission entered an Opinion and Order granting in part and denying in part PWSA’s Unopposed Petition to Separate Stormwater Issues from Other Stage 2 Compliance Plan Issues. Through this Order, the Commission modified its *May 2021 CP Stage 2 Scheduling Order* to extend the previous deadline by 60 days and directed that the Recommended Decision on stormwater be issued no later than July 25, 2022. This modification only relates to PWSA’s Stormwater Compliance Plan and any remaining stormwater issues associated with that plan.

On June 9, 2022, the parties submitted a Joint Petition for Settlement Regarding PWSA’s January 20, 2022 Stage 2 Compliance Plan: Stormwater (Revised). On July 19, 2022, the ALJs issued a Recommended Decision recommending approval of the settlement without modification. On August 25, 2022, the Commission issued an Order adopting the Recommended

Decision and approving the settlement without modification. In compliance with the Order, PWSA now submits this Stage 2 Compliance Plan (Second Revised) on stormwater issues reflecting the terms of that settlement.

II. Appendices

As Appendix 1, PWSA has attached responses to the Directed Questions from the Commission's Bureau of Technical Utility Services ("TUS"). For ease of reference, PWSA's answers are set out separately, although there are overlaps with portions of this Revised Compliance Plan, and those Answers are incorporated herein as part of this Plan.

As Appendix 2, PWSA has attached responses to TUS' Second Set of Directed Questions. This appendix reflects responses to the TUS Set 2 questions as previously provided in PWSA's Direct Testimony in the Stormwater Stage 2 proceeding.

Further, as part of the Settlement of PWSA's Stage 1 Compliance Plan, PWSA agreed to provide certain documents related to stormwater service.⁸ Those documents are attached to this Stage 2 Compliance Plan to the extent possible.

PWSA does not currently have a formal written plan for an inventory of stormwater assets and conditions. As part of the Municipal Separate Storm Sewer System ("MS4") permit requirements, for which PWSA and the City of Pittsburgh are co-permittees, PWSA has mapped stormwater infrastructure, including outfalls and observation points. PWSA and the City are required to update and submit this information to the Pennsylvania Department of Environmental Protection (PA DEP) annually in their Annual MS4 Status Report. This information is updated based on repair records. PWSA and the City have also developed a Pollution Reduction Plan for the MS4 System that includes data on the location of MS4 infrastructure that continues to be updated.

Additionally, the Memorandum of Understanding between PWSA and the City of Pittsburgh regarding the maintenance of stormwater infrastructure is still being developed, as is discussed in greater detail in Appendix 1. PWSA and the City are developing a detailed agreement to negotiate and resolve any issues outside of MS4 requirements. The focus of this agreement will be other stormwater management responsibilities of PWSA's Stormwater Division and the required coordination and cost-sharing with the City. This will include the planning, design, implementation, and maintenance of stormwater-related capital projects that may reduce localized flooding and CSOs at the rivers while improving water quality and the health of streams and waterways. The content and timeline for the additional agreement is still being determined. When the Agreement has been executed, however, PWSA will file it with the Commission consistent with Section 507 of the Public Utility Code, 66 Pa. C.S. § 507.

Attachment A provides PWSA's responses to the U.S. Environmental Protection Agency in September 2017 regarding PWSA and the City's MS4 stormwater permit.

Attachment B is PWSA's Wet Weather Feasibility Study dated July 2013.⁹

Attachment C is PWSA's Long Term Wet Weather Control Plan, also known as the PWSA Feasibility Study, dated October 2008 (includes Appendices A-G).

Attachment D is PWSA's Green First Plan, dated November 2016.¹⁰

Attachments E and F are maps of PWSA's stormwater system, including an overview of PWSA's storm sewers and locations of green infrastructure projects, respectively.

III. Summary of Compliance Plan

In general, because PWSA operates its stormwater operations as part of its "combined" water/wastewater operations, its stormwater operations are and will be consistent with the Public Utility Code and Commission regulations and orders to the same extent as they are for PWSA's other areas of operations. Accordingly, for the most part, its prior Stage 1 Compliance Plan

previously submitted to and approved by the Commission for its water and wastewater operations also is applicable to its stormwater operations. To the extent PWSA has identified any instances in which its plan for compliance with a particular PUC regulation needs to be modified because of the nature of stormwater service, that modification is discussed in this Plan.

This Plan also discusses PWSA's plans for compliance in areas that are unique to stormwater operation: the provision of a separate stormwater Tariff, with rates, terms and conditions of service applicable to stormwater service, and the process of identifying the stormwater-specific costs and investment applicable to stormwater service and which are to be recovered in separate stormwater rates. Many of these items were addressed and approved as part of PWSA's *2021 Rate Case*, as discussed herein.

PWSA PROVISION OF STORMWATER RELATED SERVICES

I. Prior Filed Stormwater Related Information

A. Municipal Segregated Storm Sewer System Assets

The Commission's Final Implementation Order (FIO) directed PWSA to show the costs associated with its MS4 system as part of the cost of service study to be filed with its *Initial Rate Case*. The purpose was to provide a functional level cost allocation to apportion costs between the MS4 and the sanitary systems to demonstrate a projection of the revenue requirement attributable to the MS4 system.¹¹ PWSA provided this information both in its *Initial Rate Case* and its *Second Rate Case*.¹²

B. Stormwater Tariff

The Commission's FIO directed PWSA to file a stormwater tariff and a compliance plan no later than the next wastewater base rate filing after its July 2018 base rate filing.¹³ Accordingly, PWSA submitted a *pro forma* stormwater tariff and supporting testimony tariff as

PWSA Exh. BD-3 with its *Second Rate Case* filed on March 6, 2020.¹⁴ At that time, PWSA did not seek to implement a stormwater fee but sought approval of the other terms set forth in the *pro forma* stormwater tariff. Ultimately, the parties in the *Second Rate Case* concluded that considering a tariff without the proposed rates was not optimal and, therefore, the parties proposed as part of their settlement agreement to defer development of PWSA's stormwater tariff to PWSA's *2021 Rate Case* and to request that the Commission consolidate the Compliance Plan Stage 2 stormwater issues with the 2021 rate case.¹⁵ As explained previously, the Commission later clarified its approval of the *Second Rate Case Settlement* and directed PWSA to file the Stormwater Stage 2 Compliance Plan.

PWSA subsequently proposed a stormwater tariff and stormwater rate as part of its *2021 Rate Case*. On November 18, 2021, the Commission approved a full settlement of the rate case, including PWSA's stormwater tariff, stormwater rates, and other items related to stormwater service. PWSA's stormwater tariff and rates went into effect on January 12, 2022. The Revised Stormwater Stage 2 Compliance Plan submitted on January 20, 2022 modified the initial filing to reflect stormwater topics that were resolved as part of the *2021 Rate Case* and to provide answers to the TUS Directed Questions. This Second Revised Stormwater Stage 2 Compliance Plan has been updated to reflect the settlement of the Stage 2 Compliance Plan proceeding and provide answer to the TUS Second Set of Directed Questions.

II. Description of Stormwater Issues Generally

Stormwater is rain or snowmelt that does not infiltrate into the ground. When precipitation falls on an impervious area, it runs off the property rather than being absorbed. When precipitation falls on undeveloped areas, it is primarily absorbed into the ground or slowly runs off into streams, rivers or other water bodies. However, developed areas that are impervious, such as rooftops and paved areas, prevent water from being absorbed and create a

faster rate of runoff. This development often causes localized flooding or other water quantity or quality issues and an increased total runoff volume. In addition, stormwater can carry harmful pollutants (such as such as oil, dirt, chemicals, and lawn fertilizers) that adversely affect water quality. Stormwater can cause flooding, erode topsoil and stream banks, and destroy habitats. All properties receive precipitation in the form of rain or snow. Accordingly, all properties produce stormwater runoff that must be managed. Even if a property has never flooded and there is no nearby stormwater infrastructure, the stormwater that flows off of a property must be managed so that it does not contribute to pollution and flooding downstream.

III. Description of PWSA's Stormwater System

PWSA's overall wastewater conveyance system is composed of over 1,200 miles of sewer lines, 4 pump stations, and approximately 30,000 catch basins and inlets. PWSA has two types of wastewater conveyance systems – a combined system, and a separate system.

Stormwater is conveyed in different ways by each type of system.

First, approximately 75% of the PWSA system, or approximately 900 miles of sewer lines, is the combined sewer system. This is generally the older areas of the system where wastewater and stormwater are conveyed in the same pipe. During times of dry weather, all flow is conveyed to the Allegheny County Sanitary Authority (“ALCOSAN”) for treatment. When it rains, the capacity of the system to convey flow can be limited, which causes localized flooding, basement sewer backups, and overflows to streams and the river.

Second, newer or more recently redeveloped communities have separated sanitary and storm sewer systems.¹⁶ In a separated system, wastewater is conveyed to the ALCOSAN for treatment via one pipe, and when it rains stormwater is discharged directly to a nearby stream or river via another pipe. The separate stormwater conveyance system (“MS4”)¹⁷ is not connected to either the combined wastewater system or the sanitary sewer system, and only carries

stormwater. Approximately 25% of the PWSA system is separated, and has approximately 172 miles of sanitary sewer and 140 miles of stormwater pipes. These two systems (combined sewer and MS4) currently work to control stormwater runoff from the City of Pittsburgh.

A. PWSA Stormwater Management Operations

Stormwater runoff has a direct effect on PWSA's ability to provide reasonable, safe and adequate wastewater service, and uncontrolled stormwater runoff can impact the quality of life for residents. The recent trend of increased amounts of total annual rainfall as well as frequency of large rainfall events will result an even greater need to adequately manage stormwater. In addition, local rivers are the primary source of drinking water in the region, yet are also the receiving waters for polluted stormwater runoff. Therefore, the Authority has undertaken numerous efforts to manage stormwater and to mitigate its adverse effects in order to provide adequate, efficient, safe and reasonable stormwater service. PWSA has and will continue to make those efforts in conjunction with its water/wastewater operations. PWSA, thus, is operated as a combined, "water/wastewater/stormwater utility."

B. PWSA's Goals for Stormwater Management Service

PWSA's goal is to deliver efficient, high-quality stormwater management service for our customers, and to protect and improve the water quality in local streams and rivers. PWSA will provide an efficient, responsive, and equitable level of service by addressing Pittsburgh's unique challenges of topography with innovative, flexible, sustainable, and cost-effective solutions. This will enhance the livability and resiliency of our neighborhoods, while also addressing the recent trend of more frequent and intense rainfall events. Finally, PWSA will continue to collaborate with local partners to find solutions together to our urban stormwater challenges.

IV. Recovering the Costs of Stormwater Management Service

Historically, the costs of stormwater service have been included in PWSA's wastewater rates and assessed based upon water consumption. Funds have been expended primarily to address combined sewer overflow ("CSO") abatement. There are several problems with this approach:

1. Impervious surface relates to runoff volume, peak runoff rate, and pollution. Basing stormwater rates on water consumption does not account for different volumes of runoff from properties based on their different amounts of impervious surface.
2. Charging the costs of stormwater abatement through wastewater rates lessens responsiveness to manage stormwater runoff and wet weather problems.
3. Focusing primarily on CSO abatement increases exposure to regulatory water quality violations in MS4 areas of the service area.
4. Limiting abatement activity to CSOs means lost opportunities to realize significant city-wide economic, social, and environmental benefits.
5. Tracking and funding stormwater capital, operational, and maintenance costs separately from wastewater costs allows for more targeted budgeting to achieve regulatory compliance and to address stormwater problems.

PWSA's stormwater management program, including the stormwater tariff and stormwater rates that were approved in the *2021 Rate Case*, will better address these issues and funding needs.

APPLICABLE PUC POLICIES OR LAWS

The Commission currently has no regulations or policies specifically related to stormwater management. Additionally, because of its municipal nature, PWSA's stormwater responsibilities differ from those that may exist for other investor-owned public utilities under the Commission's jurisdiction and will raise issues unique to PWSA. Accordingly, the Public Utility Code's general rules and regulatory requirements will apply to PWSA's stormwater management operations, although there may be some instances in which PWSA and the PUC will be required to work together to determine applicable regulatory requirements and

obligations. In addition, the Commission directed that the Compliance Plan address, *inter alia*, the future implementation of a stormwater tariff,¹⁸ which has now been approved as part of PWSA's *2021 Rate Case*, and PWSA's plan for compliance with this directive is discussed below.

I. General Compliance

As noted above, PWSA currently operates as a “combined” water/wastewater/stormwater utility and was providing stormwater management services to customers at the time that it came under the jurisdiction of the Commission in 2018. Accordingly, PWSA’s earlier statements of compliance, set forth in its Stage 1 Compliance Plan,¹⁹ generally apply per force to its stormwater operations and are hereby incorporated by reference. To the extent that the nature of stormwater operations affects the nature or extent of compliance with a particular general requirement, that difference is discussed below.

II. Stormwater Tariff

While PWSA has an ongoing stormwater maintenance, mitigation and control program, historically the costs of that program were recovered in the Authority’s wastewater charges. As noted, the PUC’s FIO directed PWSA to prepare and file a separate stormwater tariff in order to separately identify and charge stormwater-related costs to customers.²⁰ PWSA’s *pro forma* stormwater tariff filed with the *Second Rate Case* contained no rates and set forth initial proposals regarding terms and conditions that would apply to stormwater service. A proposed stormwater tariff and rates were included as part of the *2021 Rate Case* and were subsequently approved by the Commission.

A necessary prerequisite to establishing a reasonable stormwater fee is the allocation of costs between the three services – water, wastewater and stormwater – which, in turn, produces a stormwater revenue requirement to be recovered from the stormwater fee. As noted previously, in its last two rate cases, PWSA submitted an illustrative allocation of wastewater costs between stormwater and wastewater. As part of the *2021 Rate Case* PWSA submitted a detailed cost allocation study which clearly identified the portions of PWSA’s plant in service and expenses that support each service “bucket.” The stormwater revenue requirement is the starting point for stormwater fee development. The stormwater tariff and rate as well as the service cost allocation were reviewed and approved in PWSA’s *2021 Rate Case*. The following provides a description of how the approved stormwater tariff was developed.

A. Developing the Stormwater Tariff

In order to ensure symmetry among all of PWSA’s tariffs (and in recognition of the interrelated nature of the services), PWSA used its wastewater tariff format as the working outline for its stormwater tariff. By doing this, PWSA is ensuring that all of its rates, definitions and other common tariff sections are located in the same place across all three tariffs. PWSA also considered the existing definitions and structure contained in its wastewater tariff to determine whether or not the same language could be utilized in the stormwater tariff. Again, to the extent the terms reasonably carried over from the wastewater tariff to the stormwater tariff, PWSA elected to do so. Where terms needed to be altered or were not appropriate for the stormwater tariff, they were not utilized. Having outlined the stormwater tariff consistent with PWSA’s existing tariffs, PWSA then looked to the Commission’s model tariff, which was shared with PWSA on November 7, 2019, to help inform the stormwater-specific terms that PWSA would propose to include in our tariff. PWSA also reviewed stormwater tariffs and/or

ordinances utilized by other entities assessing a stormwater fee to further inform the terms and conditions in the proposed tariff. Some of the other stormwater tariffs or ordinances PWSA reviewed include: Philadelphia Water Department;²¹ Northeast Ohio Regional Sewer District;²² the Metropolitan Sewer District of Greater Cincinnati;²³ Charlotte, North Carolina;²⁴ Carlisle Borough, Pennsylvania;²⁵ and Dallas, Texas,²⁶ among others.

PWSA has convened a Stormwater Advisory Group (“SWAG”) which developed a series of recommended findings to help guide the development of the stormwater rate structure.²⁷ The SWAG is composed of a diverse group of twenty stakeholders from the public and private sectors. PWSA continues to meet with various stakeholders and has considered and incorporated their feedback throughout the process. The knowledge and experience of the stormwater group has helped to shape the development of the tariff as it evolved. PWSA has also bolstered its internal capabilities with the experience of consultants and legal experts that have expertise in establishing stormwater utilities and tariff experience with the PUC. PWSA will continue to do significant outreach and education efforts within the community as it implements the approved stormwater tariff and stormwater rates.²⁸

B. Stormwater Rate Structure

In the *2021 Rate Case*, PWSA proposed and the Commission approved separate stormwater rates for residential and non-residential customers. Residential customers will be charged one of three flat rates (commonly referred to as tiers). A customer’s tier is based on the impervious surface area found on the residential lot. PWSA has measured the impervious surface area found on each residential lot and found substantial variability in impervious area – from properties with about 400 square feet of impervious area to properties with more than 4,000 square feet of impervious area. This large variability and the availability of the data on

impervious area made the tiered approach more equitable to the individual ratepayer. This approach also is more supportive of a credits program that could grant fee credits to residential ratepayers who undertake measures on their lots to reduce their stormwater demand.

For non-residential customers, the impervious area found on a typical residential property in the service area is called the Equivalent Residential Unit of impervious area, or ERU. PWSA will bill non-residential customers a fee based on the rate per ERU times the number of ERUs found on the property. ERU-based rate structures that charge for impervious surfaces are by far the most common across the United States and balance fairness with simplicity. Impervious surface relates to runoff volume, peak runoff rate, and pollution. These factors most closely relate to demand in the service area.

C. Stormwater Credits

As part of PWSA's *2021 Rate Case*, the Commission approved a stormwater credit program that allows customers to earn credits to reduce their stormwater rates. For non-residential customers, the credit program consists of credits for customers who capture and detain runoff on-site, meeting or exceeding the recent development standards in place in Pittsburgh. Residential customers are eligible for a similar credit, as well as a credit for downspout disconnection to street planters. The non-residential credit is a percentage discount. The residential credit is a "tier reduction" for ratepayers not already in the lowest tier, meaning that qualifying customers will be charged at the tier one step below their assigned tier. For customers already in the lowest Tier 1, those customers receive a percentage discount.

In developing the credit program, PWSA carefully considered many credits approaches and sought to take the simplest approach that met the Stormwater Advisory Group's interests and the Authority's desire to be fair and keep administrative burdens low while being consistent with the types of mitigation efforts currently or expected to be built relatively soon.

D. Stormwater Rate

The stormwater program revenue requirements are the total costs associated with stormwater management, including flood control, strategic planning, and water quality related regulatory compliance. The stormwater revenue requirements approved in the *2021 Rate Case* included approximately \$17.77 million in new rates effective January 12, 2022, and an additional increase of approximately \$5.93 million effective January 1, 2023. These rates include:

- Costs associated with control of combined sewer overflows;
- Costs associated with separate storm sewer operation and maintenance;
- Rate-funded stormwater capital projects;
- 50% of costs associated with combined system maintenance and existing debt service;
- Future debt service based on stormwater capital projects in the CIP; and
- Administrative costs shared between water, wastewater, and stormwater.

In developing the stormwater revenue requirement, stormwater-only costs were allocated to the stormwater revenue requirement, and other shared costs were allocated based on the stormwater utility's proportionate share of costs. This allocation of costs was approved in PWSA's *2021 Rate Case*.

The PWSA's approved stormwater rate (sometimes called a fee) recovers the stormwater revenue requirement based on the impervious area on a customer's property. Using ArcGIS mapping software, impervious area was identified in PWSA's service territory using 2017 imaging of Allegheny County. The impervious area was overlaid with parcel polygons and was used to calculate each property's total impervious area. An analysis of single family residential properties was conducted, which found that the median impervious area is approximately 1,650

square feet. Therefore, PWSA utilized and the Commission approved 1,650 square feet as the value of 1 ERU. As explained above, single family residential customers will be charged one of three tiers of stormwater fees based on impervious area, while the fee for non-residential customers will be calculated by the number of ERUs multiplied by the rate per ERU.

OTHER STORMWATER COMPLIANCE TOPICS

As noted, because PWSA operates its stormwater operations as part of its “combined” water/wastewater operations, its prior Stage 1 Compliance Plan, previously submitted and approved by the Commission for its water and wastewater operation also applies to its wastewater operations. However, because of the nature of stormwater management service, PWSA notes certain areas in which its compliance might need to be different or specialized. Those potential areas are discussed below.

I. 52 Pa. Code, Chapter 56

Chapter 56 describes standards and billing practices for residential utility service. As discussed above, PWSA is currently addressing other Stage 2 Compliance Plan topics – including PWSA’s compliance with Chapter 56 of the Commission’s regulations; compliance with the Discontinuance of Service to Leased Premises Act (“DSLPA”), 66 Pa. C.S. §§ 1521-1533; and PWSA’s plan for collections processes – as part of a separate filing. PWSA’s stormwater operations will comply with the Commission’s Chapter 56 regulations in the same way as discussed in this separate Stage 2 Compliance Plan filing. Any compliance items specific to stormwater service are discussed herein.

52 Pa. Code §§ 56.81 – 56.118, and 56.321 – 56.361: 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 56.100 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. 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. Finally, Section 56.131 provides for third-party notification allowing customers to designate a third-party to receive notices from the utility. Sections 56.321 to 56.361 include similar terms applicable to victims of domestic violence.

[PWSA Compliance Plan](#)

For its previously existing utility services – water and wastewater conveyance – PWSA fully discusses its compliance with Chapter 56 including the termination of service provisions in the Stage 2 Compliance Plan: Chapter 14 & 56, DSLPA and Collections (Revised), which was filed on September 12, 2022. Now that PWSA’s approved stormwater tariff is in effect as of January 12, 2022, PWSA’s stormwater processes regarding termination of service will proceed in the same manner.

Regarding termination of service for non-payment of stormwater fees, PWSA proposed and the Commission approved PWSA’s plan to terminate water service if a customer fails to pay

PWSA’s stormwater charges similar to its current processes when a customer fails to pay PWSA’s wastewater conveyance charges. In addition to its ability to terminate water service for a failure of a customer to pay his or her bill, PWSA is a municipal authority and pursues municipal liens pursuant to the Municipal Claims and Tax Liens statute (“Municipal Lien Law”) on property where water, wastewater, and/or stormwater charges remain unpaid.² While the Commission lacks jurisdiction over issues related to municipal liens themselves, such as the imposition of the lien, the validity of the lien, and the enforcement or removal of the lien,³ the ability of PWSA to lien is an important component of its overall collections toolbox and – for stormwater only customers – will be the only tool available to seek payments of its stormwater charges.

II. 52 Pa. Code § 65.14: Measurement and 52 Pa. Code § 65.8: Meters

The Commission does not have specific regulations regarding the method of measurement to be used to calculate the amount of stormwater service that an individual customer receives. Nor is there any direction as to the calculation of customer bills for stormwater. Additionally, stormwater service is not a metered service. As discussed above and as approved in the *2021 Rate Case*, PWSA will calculate customer bills based on the property’s impervious area.

² 53 P.S. § 7107.

³ *See, e.g., David Fasone v. Philadelphia Gas Works*, Docket No. C-2012-2322684, Final Order (Act 294) entered November 30, 2012 adopting Initial Decision dated October 12, 2012 (“[A]ny challenges to the validity of the lien and the enforcement of the lien are all within the jurisdiction of the Court of Common Pleas, pursuant to the [MCTLL]. No provision of the [MCTLL] grants the Commission jurisdiction over any aspect of a municipal lien proceeding. Municipal lien proceedings, pursuant to the [MCTLL], are exclusively within the jurisdiction of the Court of Common Pleas, not the Commission. The Commission simply lacks jurisdiction over any aspect of a municipal lien proceeding, pursuant to either the Public Utility Code or the [MCTLL]”).

PWSA's responses to Staff's Directed Questions on Sections 65.8 and 65.14 are included in Appendices 1 and 2.

III. 52 Pa. Code § 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

As part of its Stage 1 Compliance Plan, PWSA agreed to certain enhancements and protocols regarding compliance with this Section.²⁹ With those enhancements, PWSA's current operations, including those applicable to stormwater operations, are fully in compliance with Section 65.2. In determining whether an occurrence of an unusual nature causing more than \$50,000 in damages is a reportable accident related to stormwater, such as flooding associated with a severe storm, PWSA will only consider damage related to stormwater that has entered PWSA's system. PWSA cannot be responsible for every rain event or all property damage from stormwater runoff, as there is no legal basis for this and doing so would potentially expose PWSA to hundreds of millions of dollars of damages claims across the City. Rather, PWSA will consider damages related to stormwater that has already entered the system or that is otherwise directly related to the system when determining whether a reportable accident has occurred under Section 65.2.

PWSA's responses to Staff's Directed Questions on Section 65.2 are included in Appendix 1.

IV. 52 Pa. Code § 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

As part of its Stage 1 Compliance Plan, PWSA agreed to certain enhancements and protocols regarding compliance with this Section. With those enhancements, PWSA's current operations and practices, including those applicable to stormwater operations, are fully in compliance with Section 65.4. For example, PWSA's stormwater service area is the same as its wastewater service area. A map of this area can be provided upon request. Maps of PWSA's storm sewer system and current green infrastructure projects are attached as Appendices E and F.

PWSA's responses to Staff's Directed Questions on Section 65.4 are included in Appendix 1.

V. 52 Pa. Code § 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* (USOA), as prescribed by the National Association of Regulatory Utility Commissioners (NARUC).

PWSA Compliance Status

In general, PWSA is in compliance with the requirement and has converted to using the NARUC system of accounts. However, the NARUC system of accounts does not include a system specific to stormwater accounts.

PWSA Compliance Plan

PWSA intends to comply with this section with respect to its stormwater operations in the same manner as it is complying for water/wastewater. As noted, PWSA operates its water/wastewater/stormwater operations as a combined system. Accordingly its accounting practices will not differ.

PWSA's responses to Staff's Directed Questions on Section 65.16 are included in Appendices 1 and 2.

VI. 52 Pa. Code § 65.17: Standards of Design

Section 65.17 applies to water systems and provides that the design of the utility's water plant shall conform to standard acceptable engineering practice, be designed to provide reasonably adequate and safe service to customers, and comply with PA DEP requirements. This section also includes other specification for design requirements of water systems.

PWSA's responses to Staff's Directed Questions regarding Section 65.17 are included in Appendix 1.

VII. 52 Pa. Code § 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 is currently in compliance with this requirement and intends to comply with this requirement for the stormwater utility as well. The settlement of the *2021 Rate Case*, which the Commission approved, included an allocation of all elements of cost of service, including debt, plant in service, and operating expenses among water, wastewater and stormwater operations. Those allocations, together with PWSA's proposed stormwater rate, became effective on January 12, 2022. PWSA will file its first annual report reflecting these approved allocations and rates by April 30, 2023.

PWSA's responses to Staff's Directed Questions on Section 65.19 are included in Appendices 1 and 2.

VIII. 52 Pa. Code § 65.21: Duty of Public Utility to Make Line Extensions

Section 65.21 provides that a utility will include in its tariff a rule outlining the conditions under which it will extend supply service to an applicant in its service area. The section also provides criteria for funding line extension costs.

PWSA's responses to Staff's Directed Questions on Section 65.21 are included in Appendix 1.

IX. 52 Pa. Code § 65.22: Customer Advance Financing, Refunds and Facilities on Private Property

PWSA's response to Staff's Directed Questions on Section 65.22 are included in Appendix 2.

X. 52 Pa. Code § 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 consistent 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

As part of the Stage 1 Compliance Plan, PWSA agreed to become fully compliant with the Commission's annual depreciation reporting requirements by 2024 (for 2023) and has started submitting partial reports on an interim basis starting in 2020.

PWSA Compliance Plan

PWSA intends to comply with this section with respect to its stormwater operations in the same manner as it is complying for water/wastewater. As noted, PWSA operates its water/wastewater/stormwater operations as a combined system. Accordingly its accounting practices will not differ. PWSA will therefore submit depreciation reports in compliance with its earlier Compliance Plan commitments that will include any plant-in-service associated with

stormwater. PWSA's responses to Staff's Directed Questions on Section 73.3 are included in Appendices 1 and 2.

XI. 52 Pa. Code § 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 is working toward providing annual depreciation reports on the schedule described above in Section 73.3.

PWSA Compliance Plan

PWSA intends to comply with this section with respect to its stormwater operations in the same manner as it is complying for water/wastewater. As noted, PWSA operates its water/wastewater/stormwater operations as a combined system. Accordingly its accounting practices will not differ.

XII. 52 Pa. Code § 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 consistent 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 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, by April 1, 2022.

PWSA Compliance Plan

PWSA intends to comply with this section with respect to its stormwater operations in the same manner as it is complying for water/wastewater. As noted, PWSA operates its water/wastewater/stormwater operations as a combined system. Accordingly its accounting practices will not differ. PWSA's responses to Staff's Directed Questions on Section 73.5 are included in Appendix 1.

XIII. 52 Pa. Code § 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 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 for its water, wastewater and stormwater investments and operations. PWSA's responses to Staff's Directed Questions on Section 73.6 are included in Appendix 1.

XIV. 52 Pa. Code § 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

In its Final Compliance Plan, PWSA agreed to comply with the standards and requirements listed in Section 73.7 and 73.8 starting in 2020 and every five years thereafter.

PWSA Compliance Plan

Because of delays related to the pandemic and other matters, PWSA is planning to file its first report shortly. That report, as well as PWSA's 2025 report will show capital improvements on a water/wastewater/stormwater basis. PWSA's responses to Staff's Directed Questions on Section 73.7 are included in Appendix 1.

XV. 52 Pa. Code § 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

In its Final Compliance Plan, PWSA agreed to comply with the standards and requirements listed in Section 73.7 and 73.8 starting in 2020 and every five years thereafter.

PWSA Compliance Plan

PWSA's 2025 report will show capital improvements on a water/wastewater/stormwater basis. PWSA's responses to Staff's Directed Questions on Section 73.8 are included in Appendix 1.

XVI. 52 Pa. Code § 101.3: Emergency Response 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 currently in compliance with Section 101.3, and has now developed 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 Compliance Plan

PWSA's existing cyber security and emergency response plans are applicable to all aspects of PWSA's operations, including its present stormwater operations. PWSA's responses to Staff's Directed Questions on Section 101 are included in Appendix 1.

XVII. 52 Pa. Code § 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

PWSA is now meeting the reporting requirements detailed in Section 101.4. PWSA submitted the Self-Certification Form in Section 101.3 as of February 28, 2020.

PWSA Compliance Plan

PWSA's current Self-Certification applies to all aspects of PWSA's operations, including stormwater. PWSA's responses to Staff's Directed Questions on Section 101 are included in Appendix 1.

XVIII. Memorandum of Understanding with the City of Pittsburgh and Relationship with the City

PWSA's responses to Staff's Directed Questions about PWSA's relationship with the City of Pittsburgh and development of a Memorandum of Understanding related to stormwater services are included in Appendices 1 and 2.

XIX. Bulk Stormwater Agreements

PWSA's responses to Staff's Directed Questions on bulk stormwater agreements are included in Appendices 1 and 2.

XX. 66 Pa. C.S. Section 510; Assessment for Regulatory Expenses Upon Public Utilities, and 66 Pa. C.S. Section 3207: Commission Assessment

PWSA's responses to Staff's Directed Questions on Sections 510 and 3207 are included in Appendix 1.

CONCLUSION

PWSA appreciates the opportunity to present this information and looks forward to working with the Commission and interested stakeholders to finalize this process.

¹ 66 Pa. C.S. § 3205.

² *Assignment of the Pittsburgh Water and Sewer Authority Compliance Plan to the Office of Administrative Law Judge*, Docket No. M-2018-2640802 (water) and M-2018-2640803 (wastewater), dated November 28, 2018 Corrected (“November 28, 2018 Secretarial Letter”).

³ *Pennsylvania Public Utility Commission v. Pittsburgh Water and Sewer Authority*, Docket Nos. R-2018-3002645 (water) and R-2018-3002647 (wastewater) Final Order entered February 27, 2020 (“Initial Rate Case”)

⁴ *Implementation of Chapter 32 of the Public Utility Code Regarding Pittsburgh Water and Sewer Authority – Stage 1, Opinion and Order*, Docket Nos. M-2018-2640802, M-2018-2640803, P-2018-3005037, and P-2018-3005039 (entered March 26, 2020) (“March 2020 Stage 1 Order”).

⁵ *Stage 1 February 4, 2021 Order* at 65.

⁶ *Pennsylvania Public Utility Commission v. Pittsburgh Water and Sewer Authority*, Docket Nos. R-2020-3017951 (water) and R-2020-3017970 (wastewater), Joint Petition for Settlement dated September 20, 2020, Section III.B at 7 (“Second Rate Case Settlement”)

⁷ *Stage 1 February 4, 2021 Order* at 65.

⁸ *Implementation of Chapter 32 of the Public Utility Code Regarding Pittsburgh Water and Sewer Authority – Stage 1*, Docket Nos. M-2018-2640802, M-2018-2640803, P-2018-3005037, and P-2018-3005039, Joint Petition for Partial Settlement (dated Sept. 13, 2019), at 35 (subsequently approved by the Opinion and Order entered Mar. 26, 2020).

⁹ The Executive Summary of the 2013 Wet Weather Feasibility Study is also available on PWSA’s website at <https://www.pgh2o.com/your-water/stormwater/stormwater-plans>.

¹⁰ The Green First Plan is also available on PWSA’s website at <https://www.pgh2o.com/your-water/stormwater>.

¹¹ *FIO* at 28-29.

¹² See PWSA Exhibits HJS-1WW through HJS-6WW (July 2, 2018), Docket Nos. R-2018-3002645 (water) and R-2018-3002647 (wastewater); PWSA Exhibits HJS-1 through HJS-6 (Mar. 6, 2020), Docket Nos. R-2020-3017951 (water) and R-2020-3017970 (wastewater).

¹³ *Implementation of Chapter 32 of the Public Utility Code Re Pittsburgh Water and Sewer Authority, Final Implementation Order* (entered Mar. 15, 2018), Docket Nos. M-2018-2640802 (water) and M-2018-2640803 (wastewater), at 31.

¹⁴ *Pennsylvania Public Utility Commission v. Pittsburgh Water and Sewer Authority*, Docket Nos. R-2020-3017951 (water) and R-2020-3017970 (wastewater) Final Order entered December 3, 2020 (“Second Rate Case”).

¹⁵ *Pennsylvania Public Utility Commission v. Pittsburgh Water and Sewer Authority*, Docket Nos. R-2020-3017951 (water) and R-2020-3017970 (wastewater), Joint Petition for Settlement dated September 20, 2020, Section III.B at 7 (“Second Rate Case Settlement”)

¹⁶ Due to uneven patterns and timelines of real estate development, some areas have been built as separated systems, but must connect to an older combined system downstream because they do not have direct access to ALCOSAN sanitary sewer lines (for sanitary flow) or a body of water (for stormwater flow), resulting in a patchwork of infrastructure types.

¹⁷ “MS4” stands for Municipal Separate Storm Sewer System. See 25 Pa. Code § 92a.2. Municipalities and other entities that meet certain standards must obtain National Pollutant Discharge Elimination System (“NPDES”) permit coverage for discharges of storm water from their MS4s. See, e.g., the Storm Water Management Act, 32 P.S. §§ 680.1, *et seq.* See also 40 CFR 122.26(b) (relating to definitions).

¹⁸ 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.

¹⁹ PWSA Revised Compliance Plan (Apr. 27, 2020), Docket Nos. M-2018-2640802 and M-2018-2640803.

²⁰ 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.

²¹ See <https://www.phila.gov/water/wu/stormwater/Pages/default.aspx>.

²² See <https://www.neorsd.org/>.

²³ See <http://www.msdcg.org/>.

²⁴ See <https://charlottenc.gov/StormWater/Pages/default.aspx>.
²⁵ See https://www.carlislepa.org/residents/stormwater_management/index.php.
²⁶ See <https://dallascityhall.com/departments/trinitywatershedmanagement/wheredoesitgo/Pages/default.aspx>.
²⁷ See PWSA St. No. 9, Direct Testimony of Beth Dutton (Mar. 6, 2020), Exhibit BD-2, Docket Nos. R-2020-3017951 (water) and R-2020-3017970 (wastewater).
²⁸ The stormwater fee is the amount a customer is charged for stormwater service. The fee is calculated based on the customer's impervious area and the rate for PWSA stormwater service as stated in the tariff.
²⁹ PWSA Revised Compliance Plan (Apr. 27, 2020), at 46-48, Docket Nos. M-2018-2640802 and M-2018-2640803.

1. Memorandum of Understanding with the City of Pittsburgh

The Stormwater CP at Page 4 identifies that a Memorandum of Understanding (MOU) is being developed between PWSA and the City of Pittsburgh (City) regarding the maintenance of stormwater infrastructure. The Stormwater CP also describes that PWSA and the City are developing a detailed agreement regarding other stormwater management responsibilities of PWSA and the required coordination and cost-sharing with the City.¹ This includes planning, design implementation, and maintenance of stormwater related capital projects. While PWSA notes the content and timeline for the additional agreement is still being determined, such agreements are important for parties to consider for potential impacts to operations and rates.

Parties should discuss an appropriate timeline for PWSA to complete and file applicable agreements with the Commission.

PWSA Response:

PWSA and the City have held initial discussions to develop an MOU regarding the maintenance of stormwater infrastructure. These discussions were temporarily paused while PWSA and the City negotiated an agreement designating each entity's responsibilities under their joint MS4 permit. PWSA and the City recently finalized an agreement on the MS4 obligations, and this agreement was filed with the Commission on January 11, 2022 at Docket No. U-2022-3030418 pursuant to Section 507 of the Public Utility Code, 66 Pa. C.S. § 507. The MS4 agreement specifically provides that a stormwater MOU will be negotiated "at a later date."

Now that an MS4 agreement has been reached and a stormwater charge is in place, PWSA intends to re-start discussions with the City and the new administration to develop an MOU regarding stormwater responsibility. PWSA anticipates finalizing the MOU by the end of 2023. Any such agreement will be filed with the Commission under Section 507 of the Public Utility Code.

2. Projected Expenditures

The Stormwater CP at Page 14 identifies PWSA's stormwater program revenue requirements for FY 2022 will total approximately \$36.7 million and PWSA's initial stormwater tariff filing at Docket No. R-2021-3024779 identified capital expenditures related to stormwater will increase from approximately \$15.8 million in 2020 to \$34.7

¹ The Stormwater CP at Page 4 does not specify whether the MOU and the reference to an agreement addressing other stormwater management responsibilities are the same agreement or whether these are two separate agreements.

million in 2021, \$21.7 million in 2022, and \$13.2 million in 2023. Parties should discuss:

- A. The allocation of costs assigned to the stormwater revenue requirement for costs shared by water, wastewater and stormwater service.

PWSA Response:

The PWSA has presented extensive testimony and exhibits showing the process it has used to allocate costs among water, wastewater and stormwater service. See the Direct Testimony of Harold J. Smith, PWSA St. No. 4 at 11-13, 44; Exhs. HJS-1, HJS-2, and HJS-5SW in PWSA’s most recent base rate case, in which a stormwater fee was approved. (R-2021-3024779, hereinafter, 2021 Rate Case or Stormwater Rate Case). The allocation of these costs among these service categories is a more expansive version of the allocation that PWSA has presented for informational purposes in its last two base rate proceedings.

As part of its Settlement of the 2021 Rate Case – approved by the Commission – the Parties adopted PWSA’s proposed allocation of costs at present rates among water, wastewater and stormwater services.²

- B. The criteria a proposed project must meet, in terms of cost to benefit, to be included in the Capital Investment Plan (CIP).

PWSA Response:

Due to funding limitations and the need to renew/replace a significant amount of aging infrastructure, the following criteria are used to evaluate and prioritize capital projects:

- *Capacity – Meets community health needs and growth, as needed;*
- *Level of Service – Improvement to customer service;*
- *Operations and Maintenance Efficiency – Potential for operating cost savings;*
- *Regulatory Compliance – Regulatory compliance schedule and potential fines for non-compliance;*

² PWSA 2021 Rate Case Settlement, ¶ III.A.1, App. C.

- *Regional Cooperation/Stewardship – Coordination with external stakeholders and local communities to include considerations of equity and environmental justice;*
- *Reliability/Operational Flexibility – Location, age, and condition of infrastructure and risk if action is not taken;*
- *Safety – Potential health and safety risks to personnel and the public if action is not taken; and*
- *Sustainability – Energy efficiency and “green” approach to improving water quality.*

C. Each of the stormwater projects listed in the CIP and the method PWSA expects to use to finance those projects.

PWSA Response:

PWSA Exhibit EB-5, which was submitted with Mr. Barca’s Direct Testimony (PWSA St. No. 2) in the 2021 Rate Case, is a copy of PWSA’s 2021-2025 Capital Improvement Plan. A detailed description of each of the stormwater projects included in the CIP is provided on pages 80-99 of Exhibit EB-5. Each project summary includes a budget and identifies the funding source(s) for that project.

3. 52 Pa. Code § 53.53 – Information to be furnished with proposed general rate increase filings in excess of \$1 million

Regarding 52 Pa. Code § 53.53, parties should discuss:

- A. The filing requirements for proposed changes in stormwater rates and/or services and whether any additional filing requirements may be necessary.
- B. The applicability of the filing requirements for water and wastewater utilities pursuant to 52 Pa. Code § 53.53(a)(4) to PWSA for proposed changes in stormwater rates and/or services.

PWSA Response:

PWSA believes the same filing requirements for water and wastewater rates and/or service apply to stormwater. PWSA submitted the same information for the Stormwater Rate Case as it submitted for the water and wastewater rate filings in compliance with the existing filing requirements. PWSA does not believe that any

additional filing requirements are necessary for changes in stormwater rates or service.

4. 52 Pa. Code § 65.2 – Accidents

The Stormwater CP at Page 18 indicates that PWSA’s stormwater operations fully comply with 52 Pa. Code § 65.2. PWSA notes that, in determining whether an occurrence of an unusual nature causing more than \$50,000 in damages is a reportable accident related to stormwater, PWSA will only consider damage related to stormwater that has entered its system or that is otherwise directly related to the system.

Parties should discuss the stipulation of reporting accidents for “damage related to stormwater that has entered its system or that is otherwise directly related to the system” identified by PWSA.

PWSA Response:

In the above-referenced portion of the Stormwater CP, PWSA fully explained why the criteria for reporting accidents (“damage related to stormwater that has entered its system or that is otherwise directly related to the system”) is the most reasonable and appropriate reporting standard. No party commented on this question in the Stormwater Rate Case.

5. 52 Pa. Code § 65.4 – Records

The Stormwater CP at Page 19 indicates that PWSA’s current operations and practices, including those applicable to stormwater operations, are fully in compliance with 52 Pa. Code § 65.4. PWSA also references maps of PWSA’s storm sewer system and current green infrastructure projects attached to the Stormwater CP as Appendices E and F. However, the Stormwater CP at Page 3 indicates PWSA does not currently have a formal written plan for an inventory of stormwater assets and conditions, and Appendices E and F do not appear to indicate the character and size of stormwater infrastructure and may not include the location of other relevant stormwater facilities (i.e., stormwater points of connection, basins, inlets, outfalls, etc.).

The terms “character” and “size” in 52 Pa. Code § 65.4 may include several criteria such as material types, pipe/outfall/inlet diameter, catch basin dimensions and capacities, GI project land area, storage tank capacities, asset conditions, and functional capabilities (e.g., PennDOT Type C Inlets, etc.). Certain inventory data may help PWSA and the Commission to determine costs, functional capabilities, and asset service lives.

Parties should discuss a timeframe by which PWSA should be required to complete and be able to furnish to the Commission a complete inventory of stormwater assets and the types of information that PWSA should include in its inventory.

PWSA Response:

PWSA's records of existing stormwater assets are based on historical information that does not provide a complete inventory of these assets. The known stormwater infrastructure is mapped and information on the size of the assets is available, but not all detail is included in PWSA's GIS systems at this time. To date, PWSA has focused on updating its GIS systems to reflect existing water system assets as discussed in the Stage 1 Compliance Plan proceeding, but the Authority plans to update its systems to better reflect existing stormwater assets in the future.

For new stormwater assets, PWSA is tracking these assets and will document new assets on a going forward basis. The Authority has developed additional applications that allow its GIS systems to be actively updated as work is completed on new stormwater assets. Additionally, PWSA plans to explore a more robust asset management system in 2023.

6. 52 Pa. Code §§ 65.8 – Meters & 65.14 - Measurement

The Stormwater CP at Page 14 identifies the use of ArcGIS mapping software to calculate the impervious area for all parcels within PWSA's service territory. In this capacity, the GIS software acts as the meter for a stormwater utility. Regarding 52 Pa. Code §§ 65.8 and 65.14, parties should discuss:

- A. PWSA's proposed method of measurement to calculate applicable stormwater rates (i.e., impervious surface area) as compared to other potential methods, which may include gross area, land use, or some combination of methods.

PWSA Response:

As stated in PWSA witness Readling's direct testimony in the Stormwater Rate Case (PWSA St. No. 8), "impervious surface area" is the most commonly used metric across the United States to charge for costs related to stormwater services like flood control and water quality management... The more impervious area on a property, the more runoff the property generates and the greater the demand for the utility's combined or separate conveyance, flood control and water quality management services." Measuring impervious area in GIS software is an accurate way to determine the total impervious surface area across the service area and the

amount on each individual parcel. Other bases for a stormwater fee, such as the combination of land use and runoff factors are less accurate approximations of an individual parcel's impervious surface area and the resultant demand each places on the system. Any benefits of including gross area in the calculation would not likely outweigh the additional considerations needed in determining the stormwater charge. PWSA's goal for the Stormwater Fee Program is to ensure simple and accurate methods of determining each parcel's fee.

Impervious surface data went through multiple iterations of quality control by Michael Baker International. These efforts included the use of both custom ArcGIS Python scripts and head's up visual review. Adjustments to the impervious area polygons were made based on quality control findings.

The use of impervious area as a means of charging for stormwater costs, as well as the specific calculation of impervious area for customers, were accepted by the Parties in the Stormwater Rate Case and adopted by the Commission when it approved the Joint Petition for Settlement in that proceeding.

- B. The attributes of the GIS software and the map scale, including the detectable size and raster resolution, of the aerial base maps used to produce the impervious area polygons and identify an acceptable allowable error standard for the results.

PWSA Response:

According to the documentation provided to PWSA by Michael Baker International, impervious surface mapping was done against imagery with 6-inch pixels. The minimum mapping unit for all features is 100 square feet, or less, if the feature is visible in the imagery and could be appropriately collected.

- C. The allowable error that, if exceeded, would result in an adjustment to the billing determinant (i.e., the impervious surface area value) of the affected customer.

PWSA Response:

Throughout the impervious area data development process, there was no "allowable error." Any errors identified were resolved.

D. Regarding Page 9 of PWSA Statement No. 8 at Docket No. R-2021-3024779, where Mr. Readling averred that Michael Baker International and PWSA completed quality assurance/quality checks (“QA/QC”) on the hand drawn impervious area closed polygons:

1. The process steps of the QA/QC procedures utilized to correct topological errors induced during the digitizing efforts by the operator, such as polygon knots and loops and other errors and the standard to which these QA/QC efforts were conducted.
2. The requirements, if any, for an on-going QA/QC process of analyzing a different set of customer impervious/parcel data to a statistically significant standard on a periodic basis or upon request by a customer (i.e., similar to how a water utility customer may request that their water meter be tested for accuracy).
3. The method PWSA will use to quantify and retain the results of QA/QC efforts periodically to create a definable record of improving the GIS impervious areas calculations and reducing the likely percentage of errors.

PWSA Response:

QA/QC included comparing computed impervious areas by parcel to parcel gross area to detect topological errors. Future quality control will include developing new impervious feature areas from new aerial imagery sources when they become available, and comparing the computed areas to those currently in use. When changes are found that will change ERUs, an independent reviewer will look at the aerial imagery to decide that something has in fact “changed on the ground” or that an error is being rectified. Further, any customer dispute about impervious area or ERUs will be resolved by aerial imagery review if feasible, and by site visit if necessary.

E. Regarding Page 35 of PWSA Statement No. 7 at Docket No. R-2021-3024779, where Mr. Igwe indicated that PWSA intends to review and reassess impervious area approximately every five (5) years:

1. The ability of PWSA to capture all changes to impervious area associated with customer parcels in the GIS software based upon access to the City’s building permit data set.
2. The appropriate time interval in which the aerial base map, used to calculate impervious areas, should be updated with new and/or higher resolution maps for the stormwater service territory.

PWSA Response:

PWSA staff will update stormwater billing source data – impervious surface area data and parcel boundary data – in response to customer inquiries and event triggers indicating new or changed developments (such as development permits, Certificates of Occupancy issued, building inspections, etc.). Updates will also be made as needed following new releases of aerial imagery.

Customers may request that their measured impervious area be validated, and PWSA staff will do so. If PWSA can access City building permit data, it will be used to identify likely locations where impervious surfaces have changed due to construction or demolition. That is, some types of permits are often related to impervious surface changes, while others may often not be.

Impervious area will also be updated upon receipt and review of updated aerial imagery data, which is anticipated every five years.

Changes to impervious surface area on each parcel will be audited in PWSA's stormwater billing information software. PWSA can use those audit data to track instances of updated impervious surface data.

7. 52 Pa. Code § 65.16 - System of Accounts

The Stormwater CP at Page 20 indicates that PWSA intends to comply with 52 Pa. Code § 65.16 in the same manner as it is complying for water/wastewater and that its accounting practices will not differ. However, PWSA also notes that the NARUC system of accounts does not include a system specific to stormwater accounts. Also, the Stormwater CP notes that PWSA intends to present a proposed allocation of all elements of cost and service among its water, wastewater, and stormwater operations.

The Stormwater CP does not appear to address with specificity how PWSA intends to record stormwater transactions where categories of transactions are unique to stormwater service. For example, stormwater utilities frequently invest in and operate green infrastructure projects, which may include a variety of different types of components, such as rain gardens, permeable pavement, green roofs, etc. Recording stormwater transactions in a consistent and accurate manner may assist with ensuring that PWSA's rates are just and reasonable. Parties should discuss:

- A. The manner and form of PWSA's system of accounting for stormwater transactions, and actions the Commission may take with respect to any further recommendations under Chapter 17 of the Public Utility Code.

PWSA Response:

For stormwater infrastructure that PWSA owns, including green and other infrastructure, PWSA intends to account for this infrastructure in the same manner as water and wastewater assets. Green infrastructure projects are considered as a system, and costs are associated with installing the system as a whole. (For example, underground storage and associated plantings or landscaping are grouped together and considered part of one green infrastructure system.). However, most green infrastructure is not owned by PWSA since it is installed on private property. Improvements on private property will be expensed.

B. Depreciation, amortization and retirement practices, including, but not limited to:

1. Depreciation rates used for green infrastructure assets;
2. Amortization rates used for planning and studies (i.e., flow studies, long term control plans, etc.); and
3. Retirement practices where combined sewer system (CSS) assets are abandoned or transferred to PWSA stormwater utility accounts.

PWSA Response:

Most green infrastructure is not owned by the PWSA since it is installed on private property. Due to this, improvements on private property will be expensed rather than capitalized as an asset on PWSA's financial statements. Therefore, depreciation rates are not applicable. However, green infrastructure that is PWSA-owned will be recorded as an asset and depreciated in accordance with regular practices. Green infrastructure projects are considered as a system, and costs are associated with installing the system as a whole. (For example, underground storage and associated plantings or landscaping are grouped together and considered part of one green infrastructure system.). The costs of "daylighting" a stream, which is then interconnected to a PWSA storm pipe, will be included with the cost of the storm pipe. Importantly, PWSA's revenue requirement is based on cash requirements and not on a return on assets and, therefore determining depreciated plant in service is not necessary to establish rates for the Authority.

The PWSA does not currently amortize flow studies and long control plans and there is no plan to do so in the future.

The bulk of PWSA's assets that were transferred from the City of Pittsburgh are grouped as lump sums. There is not enough information to modify the depreciation associated with specific existing assets. The PWSA will continue to hold them on our books as is until they are fully depreciated.

Note that PWSA's handling of these items is evolving, and there may be future changes based on U.S. Environmental Protection Agency and U.S. Department of Justice requirements.

- C. PWSA's accounting practices for situations where CSS assets are subsequently used solely for stormwater purposes. For example, if 50% of the book value of a CSS wastewater main is considered wastewater utility plant in service with the remaining 50% of the book value being considered stormwater utility plant in service, and the CSS wastewater main is then converted to a stormwater main after the installation of a separate sanitary sewer system, parties should discuss how this may impact the stormwater utility. Likewise, parties should address allocated expenses associated with the infrastructure and for situations where stormwater mains discharge stormwater into a CSS.

PWSA Response:

All new stormwater assets that are on PWSA property will be recorded and depreciated as new stormwater assets. Green infrastructure projects that are not owned by PWSA, will be expensed on the Authority's books.

The bulk of PWSA's assets that were transferred from the City of Pittsburgh are grouped as lump sums. There is not enough information to modify the book value of specific existing assets. The PWSA will continue to hold them on its books as is until the entire relevant category of asset is fully depreciated.

In term of ratemaking, this is a cost allocation question. In the 2021 Stormwater Rate Case, and in PWSA's future base rate cases, plant in service will be allocated among wastewater and stormwater will be shown in the cost of service study and allocated between wastewater and stormwater going forward.

- D. New or subaccounts for recording various entries including, but not limited to:
1. Different categories of green infrastructure assets, further broken down by major plant components. For example, categories of green infrastructure assets may include rain gardens, permeable pavement, bioswales, etc. whereas major plant components may include inlets, pipes, paving, vegetation, and other capitalizable costs.

PWSA Response:

Since PWSA will not own most green infrastructure, the Authority currently does not believe there is a need to create new or subaccounts to record the assets. However, PWSA is still examining whether any subaccounts may be needed in the future. Please refer to PWSA's responses above describing how items on PWSA or non-PWSA property are handled.

2. Subaccounts for transactions where investments or costs are allocated as opposed to those assigned entirely to stormwater. For example, whether PWSA should maintain subaccounts for CSS assets to separate the book value of CSS assets allocated to PWSA's stormwater utility function from the book value allocated to PWSA's wastewater utility function, and likewise for PWSA-owned laterals, studies, operating expenses, etc.

PWSA Response:

PWSA currently believes that subaccounts will not be needed for stormwater assets, although PWSA is still examining this question. Stormwater assets will either be pipe or green infrastructure. New stormwater pipe, and, if applicable, green infrastructure assets owned by PWSA, will be recorded and depreciated in accordance with PWSA standard practices. Please see the responses above describing how green infrastructure on PWSA or non-PWSA property are handled.

8. 52 Pa. Code § 65.17 - Standards of Design

The Stormwater CP references potential standards of design for stormwater management in several sections, including: at Page 4, when describing a detailed agreement between PWSA and the City to negotiate and resolve any issues outside of MS4 requirements; at Page 13, while describing proposed stormwater credits; and throughout Attachments A and B. Parties should discuss:

- A. The level of runoff capture PWSA will adopt as a design standard.
- B. The proposed standards of design with regard to a specific level of service, the goals set forth by PWSA's Green First Plan, and the requirements of the January 26, 2021 Administrative Order on Consent with the EPA (January 2021 AOC).

- C. Whether PWSA should maintain exclusive control over standards of design for PWSA-owned utility facilities, notwithstanding any agreement with the City.

PWSA Response:

PWSA and the City of Pittsburgh's Department of Planning have been working collaboratively to update the stormwater code and review process. Part of this initiative involved the development of a Stormwater Design Manual to serve as a companion document to assist applicants in complying with the City's stormwater regulations. The manual includes detailed guidance on the selection and design of specific stormwater management techniques, and guidance on the construction of stormwater management systems. The manual became available and the updated code went into effect in early 2022. PWSA will use this guidance for design for PWSA facilities, and they will be integrated into the development of the future stormwater agreement with the City.

However, the Level of Service for the PWSA system is a broader discussion and will involve considerations of such factors as rainfall trends, existing problem areas of flooding and basement backups, impacts of the future wastewater storage tunnel systems to be constructed by ALCOSAN, equity, stakeholder and customer input, and affordability. PWSA is currently engaged in a Stormwater Strategic Planning process (formerly referred to as the "Stormwater Master Plan"), which will develop a framework for a future Level of Service analysis that builds on existing data models, climate change models, and review of other cities' approaches to Level of Service. The draft Stormwater Strategic Plan is complete and is currently being reviewed by PWSA. The draft will then be made available for public review and comment prior to being finalized, and PWSA will integrate the Level of Service recommendations in the Master Plan into its Wet Weather Program goals.

9. 52 Pa. Code § 65.19 Filing of Annual Financial Reports

The Stormwater CP at Pages 19-20 indicates PWSA intends to comply with the requirement to file annual financial reports for stormwater services, and that PWSA will use allocations from its rate case filed at Docket No. R-2021-3024779 when filing its first annual report by April 30, 2023.

The information included in annual financial reports differs between municipal wastewater utilities and Class A, B, and C wastewater utilities. Parties should discuss:

- A. When filing annual financial reports for stormwater service, whether PWSA should use the approved annual report form for Class A wastewater utilities, the approved annual report form for municipal wastewater utilities, or some other annual report form.

PWSA Response:

PWSA proposes to use the approved annual report form for municipal wastewater utilities. PWSA's stormwater service was previously included within wastewater service and reported on this form. Now that PWSA is separating stormwater from wastewater, the annual report form for municipal wastewater utilities should still be able to be used for annual reporting for stormwater service.

- B. Whether PWSA should use an existing approved annual report form, or the changes, if any, that should be made to the form to report stormwater financial and operational data.

PWSA Response:

See PWSA's response to Part A, above. PWSA proposes to use the approved annual report form for municipal wastewater utilities without any changes.

- C. How certain categories of entries should be recorded where a similar type of expense or investment is not made by wastewater utilities.

PWSA Response:

See PWSA's responses to Parts A and B, above. Additionally, as discussed previously, most green infrastructure is not owned by PWSA since it is on private property. For green infrastructure projects that are not owned by PWSA, these will be expensed on the Authority's books. Any new stormwater assets that are on PWSA property will be recorded as assets. Additionally, green infrastructure projects are considered as a system, and costs are associated with installing the system as a whole. (For example, underground storage and associated plantings or landscaping are grouped together and considered part of one green infrastructure system, which will be recorded under "underground storage.") At this time, PWSA does not believe any different or additional categories of entries are needed, but PWSA is still evaluating this.

10. 52 Pa. Code § 65.21 - Duty of Public Utility to Make Line Extensions

The Stormwater CP and PWSA Statement No. 7, Exhibit TI-4 (Tariff Storm Water – Pa. P.U.C. No. 1) at Docket No. R-2021-3024779 do not address line extensions for bona fide service applicants under 52 Pa. Code § 65.21. Conversely, Statement No. 6, Exhibit JAQ-6 (Tariff Wastewater – Pa. P.U.C. No. 1), Section G at Docket No. R-2021-3024774 specifies the conditions for main extensions for Bona Fide and Non-Bona Fide Service Applicant(s) to PWSA’s wastewater system. Parties should discuss:

- A. The terms and conditions for both Bona Fide and Non-Bona Fide Service Applicants who desire to connect to PWSA’s stormwater system and the differences in requirements for new sanitary sewer, storm sewer and combined sewer connections to an existing combined sewer and for new storm sewer connections to an existing MS4.
- B. Whether it is necessary or proper for the accommodation, convenience, and safety of PWSA patrons and the public for PWSA to assume ownership and operation of stormwater utility facilities installed in its service area to serve the public (i.e., excluding facilities that serve individual lots or a defined, limited and privileged group of lots) as new facilities are constructed or as existing facilities are replaced, provided that such facilities meet PWSA’s standards of design and construction and the existing owner/operator is willing and able to dedicate the facilities to PWSA.

PWSA Response:

In general, PWSA will follow the same rules for stormwater line extensions as for wastewater line extensions. However, stormwater line extensions are not as easily performed as water line extensions. The capacity of the existing combined sewer system plays a role in the ability to construct the extension. Because of the extremely limited capacity in PWSA’s combined system due to development over the years, stormwater lines have been extended only for purposes of separating stormwater from wastewater. For this reason, PWSA’s Stormwater Tariff originally did not provide for line extensions for bona fide or non-bona fide service applicants. Since that filing, PWSA has reconsidered that position and PWSA’s current view is that its Stormwater Tariff should include line extension provisions that follow the general rules and conditions applicable to wastewater line extensions in PWSA’s Tariff. Contemporaneously with this Second Revised Compliance Plan filing, PWSA is filing Supplement No. 2 to its Stormwater Tariff that provides for stormwater line extensions consistent with the wastewater line extension provisions in PWSA’s Wastewater Tariff. (See the June 9, 2022 Joint Petition for Settlement at ¶ III.C.1; see also the July 19, 2022 Recommended Decision at 14-17.)

However, the availability of a line extension must be strictly limited to instances in which PWSA currently has the necessary facilities and capacity to accommodate the extension.

In several areas served by the MS4 system where stormwater piping is not present, natural swales were formerly present along the roadway to convey the flow of stormwater. These have either been paved over or have not been maintained. If PWSA would consider approving a stormwater line extension request by a bona fide service applicant in the MS4 portions of the system, capacity and permits would need to be approved, and the construction funded per the provisions of 52 Pa. Code § 65.21 and its Tariff. PWSA proposes to submit a stormwater line extension provision to be added to its approved stormwater tariff upon PUC approval of this Stormwater Compliance Plan.

With respect to ownership, as new facilities are constructed or as existing facilities are replaced, provided that such facilities meet PWSA's standards of design and construction and the existing owner/operator is willing and able to dedicate the facilities to PWSA, the Authority may consider assuming ownership and operation of stormwater facilities installed in its service area to serve the public (i.e., excluding facilities that serve individual lots or a defined, limited and privileged group of lots).

11. 52 Pa. Code § 65.22 - Customer Advance Financing, Refunds and Facilities on Private Property

The Stormwater CP at Page 13 identifies PWSA's proposal to allow customers to earn credits to reduce their stormwater rates. Under that proposal, for non-residential customers, credits will be provided for customers that capture and detain runoff on-site, where such infrastructure meets or exceeds the development standards in place. Section B.3 on Page 10 of the *pro forma* Stormwater tariff filed at Docket No. R-2021-3024779 indicates that non-residential customers who undertake regional efforts may also be eligible for credit. Parties should discuss:

- A. PWSA's proposed tier and percentage discounts with respect to potential revenue loss and the equity of discounts available to each customer class when compared to the cost of service for that customer class.

PWSA Response:

Most stormwater programs set a maximum credit for standard approaches with the understanding that even if all ratepayers did everything possible to

install on-site controls, the Authority would still need to provide certain services. Therefore, the costs and rates would not trend completely to zero. This is true for PWSA and Raftelis determined from the 2022 budget that about 25% of the costs in 2022 will be support services which include administration, bad debt and credit program costs, and transfers. The remaining 75% of costs can be functionalized across several categories including system cleaning, MS4-related, CSO, and flood control. On-site controls like those installed to comply with the 2019 City of Pittsburgh stormwater standard will mitigate stormwater demand for all of these functions (except support services), but not completely. Raftelis estimates that about 80% of the non-support costs might be mitigated by on-site stormwater controls that meet the 2019 standard, such that the maximum credit would best be set at 80% of the non-support costs.

This totals 60% of all costs and this is the basis for the planned 60% credit for properties complying with the 2019 standards with regard to their installation and maintenance of stormwater control measures. This is also consistent with the planned 50% credit available to residential customers who either disconnect downspouts to route impervious drainage to street planters, or control runoff from $\frac{3}{4}$ inch of rain on impervious surfaces on their parcels, since the mitigative effect of these actions mirrors that of the types of controls employed on non-residential properties complying with the 2019 standards.

The 45% credit for compliance with the 2016 City of Pittsburgh stormwater standards reflects the fact that those standards are about 75% as stringent as the 2019 City of Pittsburgh stormwater standards.

PWSA anticipates that participation in the credit program would result in revenue offsets of less than 5% of full billings. (PWSA St. No. 8 at 19).

In the PWSA Stormwater Rate Case, the costs of the credit program were allocated to classes based on the unadjusted cost of service. (PWSA St. No. 4 at 44). Impervious area is the sole metric used for cost causation, regardless of the customer class, and therefore costs of the credit program will be recovered from all customer classes through the impervious area rate, in recognition that the reduced units of service resulting from credits is a refinement of the total demand and total units of service, not a benefit to one or another customer class.

- B. The definition of “regional efforts,” whether the definition includes monetary contributions to PWSA to fund facilities that collect, convey, treat and/or dispose of stormwater for the public, the level of contribution required to obtain a stormwater credit, and the handling of those contributions.

PWSA Response:

Regional efforts” refers to stormwater controls that treat an effective impervious area larger than that which exists on the same property as the control, or treating a greater amount of runoff from the property itself. This may also be referred to as “overtreatment” or “enhanced volume control.” Through sufficient overtreatment (controlling at least 25% more runoff than required by 2019 City of Pittsburgh stormwater standards), customers may achieve a credit up to 100% of their fee. “Regional efforts” do not include monetary contributions to PWSA to fund facilities that collect, convey, treat and/or dispose of stormwater for the public.

12. 52 Pa. Code § 69.87 - Tariff Provisions That Limit the Liability of Utilities for Injury or Damage as a Result of Negligence or Intentional Torts

Parties should discuss the limitation of liability section of PWSA’s proposed Stormwater tariff, including:

- A. The company-specific dollar amount for the proposed limitation that will become effective at the time PWSA’s proposed tariff is approved.

PWSA Response:

The section of PWSA’s proposed Stormwater Tariff addressing the limitation on liability for injury or damages as a result of negligence or intentional torts is based on the language in PWSA’s PUC-approved water and wastewater tariffs. That section states:

“Limitation of Damages: The Authority's liability to a Customer for any loss or damage from any excess or deficiency in the storm water service due to any cause other than willful misconduct or negligence by the Authority, 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 in storm water service, but cannot and does not guarantee that such will not occur. The Authority shall not be considered in any manner an insurer of property or persons against loss or damage by storm water, or otherwise. The Authority shall not be liable in any action where the loss or damage involves an act of God, force majeure or does not involve a duty of the Authority.” (PWSA Stormwater Tariff, pg. 40).

This Tariff provision was approved by the Commission as part of the Stormwater Rate Case.

- B. The company specific dollar amount and how that amount was calculated, including the potential applicability to intentional torts, and incidents involving the actions of third parties where the physical and cyber protection of PWSA's facilities and systems may be at issue.

PWSA Response:

Regardless of the "source" of an injury or damage resulting from negligence or intentional tort, a person's right to bring a suit and their entitlement to damages would be governed by the Municipal Tort Claims Act.³ Accordingly including any specific limitations of liability in PWSA's Tariff could only track the provisions of this separate, non-Commission enforced statute, which, in the Authority's view, would be inappropriate and confusing.

13. 52 Pa. Code § 73.3 - Annual Depreciation Reports

The Stormwater CP at Pages 21-22 indicates that PWSA will submit depreciation reports in compliance with its Stage 1 CP commitments that will include any plant-in-service associated with stormwater.

Parties should discuss how PWSA should determine the appropriate book reserve, net original cost, average service life, survivor curve, remaining life, and annual depreciation rate of unique assets associated with stormwater infrastructure (i.e., green infrastructure assets including trees and shrubs and gray infrastructure assets like inlets, diversion structures, stormwater mains, dissipators, etc.).

PWSA Response:

100% of the assets identified as "Stormwater" in PWSA's Stormwater Rate Case had previously been designated "Wastewater" assets. This redesignation was accepted by the Parties in the Settlement of the Rate Case, which, in turn was accepted by the Commission when it approved the Settlement. As such PWSA will continue to follow the same methods it has been using for wastewater to determine depreciation. At the present time, PWSA is not including any "unique assets" in its stormwater management plan and revenue requirement. PWSA is still identifying stormwater assets that may be considered "unique," but generally green infrastructure projects are considered as a system, and costs are associated

³ 42 Pa. C.S. § 8501.

with installing the system as a whole. For example, underground storage or pipes and associated plantings are grouped together and considered part of one green infrastructure storage system. In these systems, the pipes or underground storage are the primary costs, and the costs of trees or shrubs are ancillary and grouped with the pipe as part of the system. The costs of the pipe are then depreciated in the same manner as for water or wastewater assets.

14. 52 Pa. Code § 73.5 - Service Life Study Report

The Stormwater CP at Page 23 indicates that PWSA intends to comply with 52 Pa. Code § 73.5 with respect to its stormwater operations in the same manner as it is complying for water/wastewater and that its accounting practices will not differ. Parties should discuss the requirements of Section 73.5.

PWSA Response:

See Response to Question 13.

15. 52 Pa. Code § 73.6 Format for Filing Service Life Study Report

The Stormwater CP at Page 24 notes that PWSA plans to comply with the standards and requirements listed in 52 Pa. Code § 73.6 for its stormwater investments and operations. Parties should discuss the requirements of Section 73.6.

PWSA Response:

See Response to Question 13.

16. 52 Pa. Code § 73.7 - Capital Investment Plan Report

The Stormwater CP at Page 25 states that PWSA's 2025 report will show capital improvements on a water/wastewater/stormwater basis. Parties should discuss the requirements of 52 Pa. Code § 73.7.

Parties should also discuss whether PWSA should be required to file a CIP Report every five years under Section 73.7(a).

PWSA Response:

As noted, 100% of the assets identified as “Stormwater” in PWSA’s Stormwater Rate Case had previously been designated “Wastewater” assets. This redesignation was accepted by the Parties in the Settlement of the 2021 Rate Case, which, in turn was accepted by the Commission when it approved the Settlement. Accordingly, PWSA’s prior plans and commitments regarding compliance with Section 73.7 with respect to wastewater will also apply to the portion of its assets and capital improvements that have now or will be designated as stormwater related.

In Stage 1 of PWSA’s Compliance Plan Proceeding PWSA committed to filing a CIP report starting in 2020 and then every five years thereafter. 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, Joint Petition for Partial Settlement, dated Sept. 13, 2019 at Section III.C.1 (subsequently approved in the Commission’s Opinion and Order entered March 26, 2020). Because of personnel shortages and additional burden of ramping up its stormwater operations to accompany its new tariffed rate, PWSA is planning to file its first Capital Investment Report in the near future. This pending report will encompass major stormwater investments (if any) as well as water and wastewater.

17. 52 Pa. Code § 73.8 Format for Filing the Capital Investment Plan Report

The Stormwater CP at Page 25 states that PWSA’s 2025 report will show capital improvements on a water/wastewater/stormwater basis.

Parties should discuss whether information should be provided separately for each type of utility service (i.e., water, wastewater, and stormwater) or whether PWSA should provide CIP reports on a consolidated basis.

PWSA Response:

PWSA’s current and future CIPs will include sections that specifically detail water, wastewater, and stormwater projects. The CIP information will comply with the requirements of Section 73.8 and will include a separate section for stormwater projects.

18. 52 Pa. Code § 101 - Public Utility Preparedness through Self-Certification

The Stormwater CP at Page 26 indicates that PWSA’s existing cyber security and emergency response plans are applicable to all aspects of PWSA’s operations, including its present stormwater operations. However, the Stormwater CP does not explicitly state that PWSA’s existing physical security, cyber security, business continuity, and emergency response plans for stormwater operations comply with 52 Pa. Code § 101.

Parties should discuss whether PWSA physical security, cyber security, business continuity, and emergency response plans for stormwater operations should comply with Section 101.

PWSA Response:

PWSA operates as a combined water, wastewater and stormwater utility. The Authority’s existing physical security, cyber security, business continuity, and emergency response plans and any future modifications to those plans apply to stormwater operations just as they apply to water and wastewater functions.

19. PWSA’s Relationship with the City of Pittsburgh

The Stormwater CP at Page 3 describes that PWSA and the City are co-permittees for PWSA’s MS4, are required to update and submit information to the Pennsylvania Department of Environmental Protection annually in their Annual MS4 Status Report, and have developed a Pollution Reduction Plan for the MS4. Further, the Stormwater CP indicates that a MOU between PWSA and the City regarding the maintenance of stormwater infrastructure is being developed. Also, the Stormwater CP states that PWSA and the City are developing an agreement to negotiate and resolve any issues outside of MS4 requirements and to address certain PWSA stormwater management responsibilities, including required coordination and cost-sharing with the City.

On Page 20 of PWSA Statement No. 7 at Docket No. R-2021-3024779, PWSA witness Tony Igwe discusses that PWSA and the City are subject to the January 2021 AOC. Mr. Igwe discusses that the City and PWSA have committed to a timeline for implementing a full stormwater inspection and enforcement program that consists of: (1) submitting an updated stormwater code for approval to the Pittsburgh City Council by July 2021; (2) hiring additional inspectors and enforcement staff “for 2022;” (3) putting “management partnership procedures” in place by the end of January 2022; and achieving full compliance with “the requirements” by March 31, 2022.

Also, on Pages 21-22 of PWSA Statement No. 7, Mr. Igwe indicates that PWSA

has taken responsibility for maintaining approximately 25,000 stormwater catch basins and inlets. Mr. Igwe also avers that, currently, PWSA acts as an agent of the City to perform maintenance of all publicly owned catch basins. Regarding the MOU and the agreement addressing other stormwater management responsibilities, parties should discuss:

- A. Whether the MOU and any other agreement containing commitments by PWSA affecting stormwater service are subject to the Commission’s review and approval process in accordance with Sections 507 and 508 of the Public Utility Code, 66 Pa.C.S. §§ 507 and 508.

PWSA Response:

The MOU and other agreements related to stormwater service are subject to the Commission’s review pursuant to Sections 507 and 508 of the Public Utility Code, and PWSA will file any such agreements with the Commission.

- B. Whether the Commission should require PWSA to file executed copies of any agreements with the City that are necessary for PWSA to fulfill its obligations pursuant to the January 2021 AOC and, if so, the date by which these agreements should be filed with the Commission so that the Commission and interested parties may complete a meaningful review of applicable agreements and, to the extent permissible and necessary, direct any revisions to such agreements prior to PWSA’s deadlines under the January 2021 AOC.

PWSA Response:

PWSA recently finalized an agreement with the City regarding MS4 obligations pursuant to the January 2021 AOC. PWSA filed an executed copy of this Agreement with the Commission on January 11, 2022 (Docket No. U-2022-3030418) for its review under Section 507 of the Public Utility Code.

- C. How the potential increase in PWSA’s responsibilities for the City’s MS4 may impact its revenue requirements and how those costs should be tracked during the timeframe preceding PWSA’s next rate case filing.

PWSA Response:

The MS4 agreement primarily memorializes the responsibilities and activities PWSA has already undertaken, so no increase or impact on revenue requirements is expected. Additionally, to the extent that PWSA provides services to the City (such as sampling the City’s outfalls), PWSA

will charge the City for those services pursuant to the Cooperation Agreement.

- D. Whether PWSA should continue to operate stormwater infrastructure that it does not own without a written service agreement or lease.

PWSA Response:

PWSA is not operating stormwater infrastructure without a written service agreement or lease, except for a few limited instances in which PWSA is currently finalizing O&M agreements with the City to maintain certain City-owned green infrastructure projects. To the extent PWSA performs any work or provides services on private stormwater infrastructure, PWSA will charge the owner, including the City of Pittsburgh, for such services. Charging the City for PWSA services provided is set forth in the City/PWSA Cooperation Agreement.

- E. Whether PWSA should provide repairs or capital improvements for infrastructure that it operates on behalf of the owner or the owner of such infrastructure should be responsible for the cost of repairs or improvements.

PWSA Response:

Private property owners are responsible for maintaining, repairing or improving their own infrastructure. Pursuant to PWSA's Stormwater Tariff, PWSA is permitted to provide repairs if there is a health and safety issue, but PWSA will charge the property owner for any such work.

- F. If PWSA activities regarding maintenance of stormwater catch basins and inlets are covered by an existing service agreement or lease.

PWSA Response:

PWSA only maintains stormwater catch basins or inlets if they connect to PWSA's system.

- G. If PWSA, as an agent of the City, maintains exclusive control over the services and improvements required to provide service.

PWSA Response:

PWSA is a municipal authority, not an "agent" of the City, and will be a fully independent authority as of 2025. PWSA does maintain control over the service and improvements necessary to provide service to its customers.

- H. Whether PWSA may recover through tariff rates costs for services and improvements where PWSA does not have exclusive control over determining what services and improvements are necessary. For example, if the City designates to PWSA what services and improvements are required for catch basins, whether PWSA should recover costs to fulfill City-imposed requirements through tariff rates or should such costs be recovered exclusively from the City. Also, consider where PWSA may control some, but not all, of the services and improvements required.

PWSA Response:

As explained above, if PWSA provides a service or improvement to the City, PWSA will charge the City for such services or improvements pursuant to the Cooperation Agreement with the City.

20. Bulk Stormwater Agreements

The Stormwater CP does not appear to address arrangements relating to stormwater service provided by PWSA for entities located outside of the City's municipal limits. For example, the Stormwater CP's Attachment E identifies private storm sewers located in portions of Mount Oliver Borough and PWSA and private storm sewers located either entirely outside of, partially outside of, or along the City's municipal limits, including, but not limited to, PWSA storm sewers proximate to PWSA's Lampher Reservoir in Shaler Township.

When reviewing issues surrounding PWSA bulk stormwater agreements, parties should discuss:

- A. Whether PWSA is required to file with the Commission copies of its current contracts and/or agreements for stormwater services with other utilities, municipalities, or public authorities, pursuant to 66 Pa.C.S. §§ 505 and 507.
- B. The terms of any existing bulk stormwater agreements or arrangements have the financial effect with regard to PWSA's provision of stormwater services.
- C. The cost structure and standards by which future bulk stormwater agreements will be examined to determine an appropriate incremental system contribution.
- D. Whether PWSA is financially responsible to third parties for costs borne by the third parties for managing stormwater that does not enter a facility operated by PWSA, which may include costs to collect and convey stormwater using roadways.

- E. Whether PWSA may be financially responsible for costs paid by a third party for managing stormwater that was conveyed to the third party by PWSA.
- F. How the costs of conveying stormwater generated from developed properties outside PWSA's service territory, but within PWSA's sewershed areas, by contributing municipalities should be managed and whether those costs should be recovered by PWSA from the entities causing such costs.

PWSA Response:

PWSA does not have any agreements in place regarding bulk stormwater service at this time. Additionally, PWSA is not financially responsible to third parties for costs borne by the third parties for managing stormwater that does not enter a facility operated by PWSA. PWSA does pay conveyance and treatment charges to the Allegheny County Sanitary Authority (ALCOSAN) per the agreement between these two parties. PWSA is not currently responsible and is not aware of any plans to require PWSA to be financially responsible for costs paid by a third party for managing stormwater that was conveyed to the third party by PWSA.

Any bulk stormwater agreements that PWSA may enter into in the future would be handled in the same manner as any bulk water or wastewater agreements. Such agreements would be submitted to the Commission pursuant to 66 Pa. C.S. § 507.

Regarding costs of conveying stormwater generated from contributing municipalities, PWSA did not propose any charges for contributing municipality service as part of the Stormwater Rate Case for two major reasons. First, stormwater from these municipalities flows into a combined sewer system that the City of Pittsburgh developed decades ago, in some cases by enclosing creeks in which the stormwater originally discharged. Second, future control of combined sewer and separate sanitary sewer overflows may involve PWSA and upstream municipalities working together to provide parallel relief sewers to address these wet weather issues. When such projects are developed, a cost sharing model that includes upstream communities will be developed, and PWSA will enter into agreements with these municipalities. With this approach, PWSA and these municipalities will work together to provide adequate stormwater management to solve wet weather issues.

21. 66 Pa.C.S. §§ 510 - Assessment for regulatory expenses upon public utilities & 3207 – Commission assessment

Section 3207(b) of the Public Utility Code, 66 Pa.C.S. § 3207(b), indicates that the Commission shall make an estimate based on the gross intrastate revenues in accordance with the procedures set forth in Section 510(b)(1) of the Public Utility Code, 66 Pa.C.S. § 510(b)(1), and shall impose an assessment on an authority based on the authority's proportional share of the Commission's expenses "relating to the Commission's utility group in accordance with section 510(b)." Section 510(b) generally requires the Commission to allocate expenses directly attributable to the regulation of each group of utilities furnishing the same kind of service and to debit the amount determined to such group. However, Section 510(b)(1) permits the Commission to deem utilities rendering water, wastewater or water, and wastewater service as a utility group.

Parties should discuss whether, for assessment purposes, PWSA stormwater service should be treated as a distinct utility group or whether the Commission, by waiver or otherwise, should deem stormwater service as part of the water and wastewater utility group. For example, if stormwater is treated as a distinct utility group, PWSA may be responsible for payment of all direct and indirect expenditures attributable to the regulation of stormwater service. However, if stormwater is treated as part of the water/wastewater utility group, the entire water/wastewater utility group may be responsible for payment of all direct expenditures attributable to the regulation of stormwater service. Either scenario may impact PWSA water, wastewater and/or stormwater rates and may increase or decrease assessments upon the remainder of the water/wastewater utility group.

PWSA Response:

In light of the current circumstances – where PWSA is the only PUC-regulated entity that has a separate Stormwater Tariff and its revenue requirement is associated with assets that were previously designated as wastewater assets – PWSA believes that including its stormwater revenues as part of its wastewater revenues for this purpose is the most reasonable.

22. 66 Pa.C.S. § 1311 – Valuation of and return on the property of a public utility

Section 1311(c) of the Public Utility Code, 66 Pa.C.S. § 1311(c), provides that the Commission, when setting base rates, after notice and an opportunity to be heard, may allocate a portion of the wastewater revenue requirement to the combined water and wastewater customer base if in the public interest.

Parties should discuss whether PWSA may combine its stormwater revenue requirement with its water or wastewater revenue requirements, or both, and whether combining applicable revenue requirements is in the public interest. Discussions should focus on the portion of PWSA's stormwater revenue requirement that is associated with costs to collect, convey, treat, and dispose of stormwater that is not also considered to be wastewater under the Public Utility Code.

PWSA Response:

In each of its previous rate cases, PWSA has filed a petition requesting consolidation of its water and wastewater revenue requirements, and the Commission has granted each of these requests. In the current proceeding, PWSA filed a Petition for Consolidation of Water, Wastewater and Stormwater Rate Proceedings and for Authorization to Use Combined Water, Wastewater and Stormwater Revenue Requirements on April 13, 2021, which was granted on June 8, 2021.

PWSA provides water, wastewater conveyance and stormwater service as a single entity and is eligible to combine its revenue requirements under 66 Pa. C.S. § 1311(c). In the past, PWSA has always determined water and wastewater revenue requirement and rates using combined information. Allowing PWSA to use a combined revenue requirement, which now includes stormwater, continues PWSA's prior accounting and ratemaking practice. Practically speaking, if PWSA were required to use separate revenue requirements for each of its utilities, the timing and costs associated with submitting entirely separate base rate filings for the water, wastewater and/or stormwater utilities would be extremely burdensome to the point of being nearly impossible.

PWSA tariff filings and rate requests contain coordinated plans, rate design changes and tariffs for PWSA's water, wastewater conveyance, and stormwater services. Moreover, PWSA's bonds and other financial instruments apply to the combined water/wastewater/stormwater conveyance system and are evaluated by bond rating agencies on a consolidated company basis. There is no practical way in which to fully separate PWSA's bonds or its revenue requirement between water, wastewater conveyance and stormwater without creating risks of violating PWSA's bond covenants which require that PWSA attain certain financial metrics on an integrated system basis. Again, PWSA's revenue requirement is determined using the Cash Flow Method and does not rely on a return on investment on assets; accordingly, maintaining a "combined" plant in service (separating costs in rate proceedings using a Cost of Service Study) is the most rational and efficient means of tracking PWSA's rate base and revenue requirement for each of the services it provides.

23. Stormwater Credit Program

On Pages 33 and 34 of PWSA Statement No. 7 at Docket No. R-2021-3024779, PWSA witness Mr. Igwe discusses the types of credits that may be approved for both residential and non-residential customers where a percentage discount may be applied to the customer's tariff rate. On Exhibit HJS-2SW, the total cost of the Stormwater Credit Program is added to determine the revenue requirement regardless of the proportionality of cost attributed to each customer class.

Parties should discuss whether the costs of proposed stormwater credits should be borne exclusively by the customer class receiving, or eligible to receive, those credits.

PWSA Response:

This is addressed in PWSA witness Harold Smith's Direct Testimony in the Stormwater Rate Case, in which he explained that costs of the credit program are allocated to classes based on the unadjusted cost of service. (PWSA St. No. 4 at 44). Impervious area is the sole metric of cost causation, regardless of the customer class, and therefore costs of the credit program should be recovered from all customer classes through the impervious area rate, in recognition that the reduced units of service resulting from credits is a refinement of the total demand and total units of service, not a benefit to one or another customer class. Again, this allocation was accepted by the Parties in the Stormwater Rate Case and approved by the Commission when it approved the Settlement.

PWSA Responses to TUS Directed Questions, Stage 2, Set 2 – Stormwater, dated February 22, 2022 (with Questions and Subparts Numbered for Reference)

1. 52 Pa. Code § 53.53 – Information to be furnished with proposed general rate increase filings in excess of \$1 million

Certain PWSA responses to filing requirements included with PWSA’s 2021 Rate Case do not appear to include separate and distinct data for each operating division (*i.e.*, water, wastewater, and stormwater). For example, PWSA provided a consolidated income statement, rather than separate and distinct income statements for each operating division, in response to Filing Requirements I.2 & I.3. Parties should discuss:

- (a) Whether PWSA should provide separate and distinct data for each operating division.

PWSA Response:

PWSA does not support any requirement that it file “separate and distinct data” for each of its three operations – water, wastewater and stormwater – as the primary data submitted to satisfy the PUC filing requirements, although, as will be explained, such data was made available – and will continue to be made available – in PWSA’s base rate cases on an allocated basis. PWSA’s experience before the Commission to date shows that such a segregated filing is neither necessary nor justified.

As a preliminary matter, in none of PWSA’s three base rate cases that PWSA has filed since coming under the jurisdiction of the PUC has the Authority segregated its financial data among its various operations to respond to the Commission’s filing requirements. In all three cases, PWSA filed a petition pursuant to 66 Pa. C.S. §1311(c) which specifically authorizes a water/wastewater utility to file its revenue requirement data on a consolidated basis.¹ In all three cases the Petitions were granted by the presiding officers without opposition and were approved as part of overall settlements by the PUC. Notably, in PWSA’s last base rate case, it was authorized to file its rate case filing requirements on a consolidated basis regardless of the fact that the Authority was requesting three separate rate increases. For filing requirement purposes, PWSA provided only a consolidated income statement in all of its cases because PWSA operates their water, wastewater conveyance, and stormwater systems as a combined utility. PWSA maintains only one operating fund, sharing administrative and support functions across all three services, and is legally required to issue debt pledged on all utility revenue sources.

The 2021 Rate Case, as did PWSA’s prior cases, included a detailed cost allocation analysis that established the utility revenue requirements by service (before the service

¹ The relevant language states: “When any public utility furnishes more than one of the different types of utility service, the commission shall segregate the property used and useful in furnishing each type of such service, and shall not consider the property of such public utility as a unit in determining the value of the rate base of such public utility for the purpose of fixing base rates. A utility that provides water and wastewater service shall be exempt from this subsection upon petition of a utility to combine water and wastewater revenue requirements.” 66 Pa. C.S. § 1311 (c).

data was then separated still further by customer class). Direct costs for water, wastewater conveyance, and stormwater were identified where available, and the remaining costs were allocated between two or more of the services. In the 2021 Rate Case (Docket No. R-2021-3024779), the cost allocation analysis was detailed in PWSA St. No. 4 Harold J. Smith, pages 10-13, and the results were provided in Exhibit HJS-1. Additionally, in this Stage 2 Compliance Plan proceeding, a detailed description of the cost allocation analysis was provided by Mr. Smith in PWSA St. No. 4. Importantly, the Allocation Study produces separated financial data, including revenues, expenses, assets etc. for each of the categories of operations – water, wastewater and stormwater. It also provides a calculation of total cost of service for each category and compares total costs with total applicable revenues.

Unfortunately, it would not be possible for the Authority to separate on its books its revenues, expenses, assets and debt among the three categories of operations and present separate revenue requirement information that was not based on an allocation study. PWSA's historic books of account are not sufficiently detailed. PWSA has not historically designated on its books what portion of wastewater expenditures were associated with sewer verses stormwater. Even if it were possible for some assets, it would take years to actually go through the Authority's books of account to separate assets and associated depreciation accounts among water, wastewater and stormwater, and it would be enormously expensive and difficult to do so. Accordingly, any directive to "separate" such costs into distinct revenue requirement categories would require the application of the same types of allocation factors that are used in the Allocation Study discussed above. Using the Allocation Study approach is not only much more cost effective, it ensures that all of the allocations are conducted on a consistent and logical basis. Given that there has been no indication by either the Parties or the Commission that submitting consolidated revenue requirement information, with subsequent allocation using the allocation study method, was a problem in any way. PWSA submits that no change in its present approach is warranted.

If the Commission would prefer to see PWSA's filing requirement data separated by operating area in future base rate cases, PWSA could, where possible and in addition to providing total company data, provide separated income statements for reference purposes. (PWSA St. No. 3 at 4-6; see also PWSA St. No. 4).

- (b) The potential steps and associated time frame for Filing Requirement I.3.

PWSA Response:

See the response to Question 1(a) above.

Additionally, certain filing requirements include terms like "consumption," "usage," "gallons," "water," and "wastewater." Parties should discuss:

- (c) Whether such terms are applicable for stormwater purposes and whether such terms provide necessary data.

PWSA Response:

See the response to Question 1(d) below.

- (d) Whether PWSA’s responses should include similar stormwater billing units (i.e., impervious area) or other data and/or metrics where the terms “consumption,” “usage,” and “gallons” are used.

PWSA Response:

In PWSA’s initial stormwater rate case, the Commission established the applicable billing units for stormwater (impervious area and “Equivalent Residential Units” or “ERUs”). PWSA provided detailed information about these measurements of responsibility for stormwater charges. See, Docket No. R-2021-3024779, Direct Testimony of Keith Readling, PWSA St. No. 8. As these are now the established billing units for stormwater service, they will be used to respond to filing requirements or other questions to the extent those questions are applicable to stormwater, which is a non-metered service. (PWSA St. No. 2 at 12).

2. 52 Pa. Code §§ 65.8 – Meters & 65.14 - Measurement

In the Revised Stormwater CP, Section 6, Part C of Appendix 1 at Page 6, PWSA indicated that, throughout the impervious area data development process, there was no “allowable error.” Further, PWSA indicated that the minimum mapping unit for all features is 100 square feet, or less, if the feature is visible in the imagery and could be appropriately collected. It appears, based upon the minimum mapping unit, that features less than 100 square feet or not visible may have reasonably induced errors for certain customers. Parties should discuss:

- (a) The registration error tolerance of no more than 2% for water meters established by the Commission at 52 Pa. Code § 65.8.

PWSA Response:

The identification of impervious area using GIS-based stormwater mapping is inherently different from water meters such that the 2% registration error tolerance established in Section 56.8 does not apply here. In developing impervious area calculations, the data was subjected to a detailed quality assurance/quality control process to correct the vast majority of errors (such as errors resulting from imperfections in overlaying the map of parcel boundaries on the aerial imagery). Going forward, when any error in mapping impervious area is identified, it will be corrected. Therefore, it is not possible to identify an “error tolerance” for stormwater impervious area mapping in the way that a water meter can be tested for accuracy.

PWSA’s stormwater rate structure has a level of error tolerance built into its design. The rate structure allows for small variations in impervious area determinations which, in most cases, will not result in any change to the customer’s bill. For single family

residential customers, the tiered rate structure results in most customers (70%) being billed at the Tier 2 rate, and minor variations in impervious area (caused by, among other things, an error) would only potentially affect the bill for customers with impervious area very close to the breakpoints between Tiers 1 and 2, and between Tiers 2 and 3. Similarly, for non-single family residential customers, a small variation in impervious area would only affect the bill for customers at each ERU threshold. As such, the rate design itself includes a level of error tolerance.

Additionally, to further explain PWSA's use of the 100 square foot minimum mapping unit, PWSA has used a 100 square foot minimum mapping unit because very small or very narrow features cannot always be seen in the aerial imagery. When the aerial imagery was processed to identify impervious area, features under 100 square feet were captured in the vast majority of cases. However, if such a feature was not able to be captured, this did not automatically result in an error since the error definition applies only when impervious area for a feature is greater than 100 square feet. Importantly, when a very small piece of impervious area is excluded, it is most likely to result in a customer being undercharged (if it affects their billed amount for stormwater service at all). (PWSA St. No. 2 at 4-5).

- (b) The level, amount, or percentage, if any, at which a reasonable error tolerance should be established for Geographical Information Systems (GIS) based stormwater mapping of impervious areas.

PWSA Response:

As discussed above in response to Question 2(a), it is not possible to set a specific level of error tolerance for impervious area, although the stormwater rate structure itself is designed to include a level of error tolerance in which small errors would almost never result in a change to the customer's billed amount (because of the relatively large blocks used for determining a customer's bill). Note that PWSA's stormwater rate structure is an industry standard approach and was approved by the Commission as part of PWSA's 2021 rate case without opposition.² (PWSA St. No. 2 at 5).

- (c) The utilization of equivalent residential units (ERUs) in PWSA's Storm Water Tariff Tiers based upon impervious area measured in square feet.

PWSA Response:

The Commission has previously approved PWSA's Stormwater Tariff, including the tiered rate structure for residential customers based on square feet of impervious area on a property. The basis for this was addressed in detail in PWSA's 2021 base rate case, and this tiered structure was unopposed by the parties. Impervious area is the most commonly used metric across the United States to charge for costs related to stormwater

² See the testimonies of Keith Readling in PWSA's 2021 rate case (Docket No. R-2021-3024779), PWSA St. Nos. 8, 8-SD, 8-R, and 8-RJ, on the Authority's stormwater rate structure and its development, which are incorporated herein by reference.

service. PWSA's ERU value was calculated based on a statistical analysis of impervious areas for single family residential properties in Pittsburgh, resulting in a value of 1,650 square feet of impervious area per 1 ERU.

PWSA has implemented a tiered rate structure for residential customers in order to recognize the wide range of impervious area found on residential lots in Pittsburgh, which ranges from 400 square feet to over 4,000 square feet. A tiered rate structure (as opposed to one flat rate) allows PWSA to maintain an equitable approach across the various types of development and homes and results in substantially similar properties being billed the same amount. Under this rate structure, the majority of residential ratepayers (70%) are included in the middle tier, or Tier 2. PWSA's three-tiered residential rate structure recognizes that residential lots tend to have more trees and more complicated building shapes and are the most difficult to measure at high precision. Any minor error in the impervious area calculation for an individual property is unlikely to result in a change to the applicable billing tier, as most customers will continue to fall into Tier 2.

The use of an ERU-based rate structure for residential customers is the most common approach across the United States, and for those using a tiered rate design, three tiers is the most common structure. This design is more equitable than one flat rate, while still limiting the number of thresholds where an error can occur. If, for example, it were suggested that PWSA should instead bill in 100 square feet increments (or some other small increment), this would introduce many more thresholds where an error could move the customer into a different tier and would make stormwater billing more complex and confusing for customers. By way of illustration, if PWSA billed in 100 square foot increments, this would result in 37 different possible fees for residential customers. PWSA's current stormwater rate structure provides a reasonable, industry-standard approach that is both equitable and avoids unnecessary complexity. (PWSA St. No. 2 at 6-7).

Additionally, in Section 6, Part E of Appendix 1, PWSA indicated that it will update stormwater billing source data in response to customer inquiries, "event triggers" indicating new or changed developments, and "as needed" following new releases of aerial imagery. Parties should discuss:

- (d) The tariff language for billing unit adjustments included in Pages 38-39 of PWSA's stormwater tariff.

PWSA Response:

The language on Pages 38-39 of PWSA's stormwater tariff allows PWSA to adjust the number of ERUs or tier applicable to a customer from time to time, as updated information is obtained or the property is altered. This tariff provision provides a notification process if any adjustment results in an increase to the customer's bill, and provides for a credit/refund process if the adjustment results in a decrease to the customer's bill. This tariff language was approved by the Commission as part of PWSA's 2021 base rate case. No party raised any concern with this language or PWSA's proposal to periodically update ERU data in order to keep billing information up-to-date.

When PWSA periodically obtains new aerial imagery, it will not use this imagery to completely remeasure all impervious area and recalculate all customer bills. Rather, the Authority will use customer feedback, permitting data, and visually discernable areas in new imagery to guide it to selected locations for updated measurement. It is extremely important to understand that PWSA will not change a customer's bill unless impervious area on the ground has changed, or a mistake is identified. (PWSA St. No. 2 at 7-8).

- (e) Sources that PWSA may or must use to determine stormwater billing unit data, and whether PWSA should be permitted to use any sources or change between sources at its discretion, even when sources have not been identified in a rate case as one of PWSA's stormwater billing unit data sources.

PWSA Response:

PWSA should be permitted to use a variety of data sources to measure impervious area, as the purpose is to identify actual impervious area on the site which may change over time. Original measurements have been completed for all properties and bills are currently based on these measurements. There are a variety of reasons the impervious area and, potentially, the customer's bill may need to change in the future, including: new construction, demolition, correction of a previous measuring error, parcel boundary changes caused by recombination or subdivision, service area changes, or ownership changes. Since the measurement of impervious area relies on human interpretation of imagery sources that can be verified or modified by field observation, and since a customer who disagrees with a measurement always has recourse and can request a field visit to verify impervious area (and a field visit should definitively resolve any dispute about impervious area), there is no need to limit the data sources for identifying this information. (PWSA St. No. 2 at 8-9).

- (f) If mapping or data sources are permitted to be changed between rate cases, thereby modifying the underlying GIS/meter source material, whether there should be a customer notification process describing how the mapping changeover may impact customer billing ERUs and whether PWSA should be required to retain the previous mapping and data sets to resolve billing disputes for a set time period.

PWSA Response:

As explained above, there will not be a "mapping changeover" when PWSA obtains updated aerial imagery or other data sources. Rather, this information will be used to guide the Authority to areas where impervious area on the ground has changed and where information for specific parcels should be updated to reflect the property's current impervious area.

There is no need to notify customers that PWSA has obtained updated imagery, as most customer bills will be unaffected by this. Further, PWSA's Commission-approved stormwater tariff already provides for a customer notification process when ERU adjustments occur at the customer's property. If an ERU adjustment will increase a customer's bill and occurs outside of a base rate case, PWSA will provide written notice

to the customer at least sixty (60) days in advance of the effective date of the ERU adjustment. If the ERU adjustment will increase a customer's bill and occurs concurrent with a base rate case, PWSA will include information regarding the ERU adjustment as part of its written notice to customers. (PWSA Tariff Storm Water – Pa. P.U.C. No. 1, Part III, Section E.9.) (PWSA St. No. 2 at 9).

- (g) How to handle billing unit data discrepancies where there has not been an apparent change on the ground, and what types of discrepancies would trigger a modification of billing unit data. For example, if a residential customer is assigned 2,711 square feet of impervious area based on existing aerial imagery, and a new release of aerial imagery indicates that same customer should be assigned 2,708 square feet, under PWSA's effective stormwater tariff, that customer would be billed a Tier 3 service charge under existing imagery and a Tier 2 service charge under updated imagery.

PWSA Response:

PWSA will not change a customer's stormwater bill unless there has been a change on the ground or an error is being corrected. Slight changes in imagery/parcel registration or the angle of the imagery can cause slight changes in measurements, but PWSA will not remeasure the property's impervious area unless a new or changed feature is identified on the ground or a clear-cut error is identified. (PWSA St. No. 2 at 10).

PWSA again wishes to note that its approach to impervious area is the industry standard approach that is used across the country, and which was accepted by the Parties and approved by the Commission as part of PWSA's 2021 rate case. (PWSA St. No. 2 at 11).

In this regard, parties should also discuss:

- i. Whether the difference of three-square feet, or approximately 0.1%, should result in a change in what the customer is billed, and whether the customer should be entitled to a refund.

PWSA Response:

If there is a legitimate change on the ground to the customer's impervious area that results in a change to the property's residential tier or ERU classification, even if the change is small, the customer will be billed for the current accurate tier or ERUs.

Pursuant to PWSA's Stormwater Tariff, if an ERU adjustment will result in a decrease to a customer's bill, any excess amounts received by the Authority will be provided as a credit to the customer's account. If the excess amount is greater than the customer's next bill, PWSA will refund the difference between the excess amount and the customer's next bill upon the customer's request. The effective date of the ERU adjustment will be the date PWSA received or collected the ERU data that resulted in the ERU adjustment. (PWSA St. No. 2 at 10).

- ii. Whether this changes if the discrepancy is larger (*i.e.*, if the discrepancy is above a certain number or percentage difference between existing and updated values, and which has a material impact to the amount billed) or if existing data and updated data were based on different data sources (*i.e.*, a development permit vs. aerial imagery, or 2020 aerial imagery vs. 2025 aerial imagery, etc.).

PWSA Response:

No, the response is the same regardless of the size of any “discrepancy” or the data sources used. Again, PWSA will not change the customer’s impervious area or bill unless something has changed on the ground or the Authority is fixing a clear error. PWSA’s approach is that, if nothing has changed, the units also should not change. (PWSA St. No. 2 at 11).

3. 52 Pa. Code § 65.16 - System of Accounts

In the Revised Stormwater CP, Section 7, Part A of Appendix 1 at Page 8, PWSA indicated green infrastructure projects are considered as a system and that costs associated with installing the system are considered as a whole. PWSA further stated that most green infrastructure is not owned by PWSA as it is installed on private property and improvements on private property will be expensed. Parties should discuss:

- (a) Whether PWSA should record costs associated with green infrastructure projects as a whole or break down the system by major plant categories or subaccounts that are recorded and depreciated separately.

PWSA Response:

PWSA believes its present approach is reasonable and that no change is needed. PWSA includes the costs of green infrastructure along with the costs of the related stormwater facility being installed because the “green infrastructure” costs a relatively small part of the costs (estimated by PWSA’s stormwater team at 5%). Separating out these incidental costs from the much more costly stormwater facilities (such as piping) would not be appropriate because the time and expense of doing so is not justified. PWSA would note that it is not unusual to capitalize associated expenses, such as design work, in the total cost of a capital project. The incidental green infrastructure expenditures are similarly ancillary to the “grey” infrastructure expenditures for stormwater drains, piping etc., with which they are included. Importantly, PWSA does not set rates using a rate base and therefore, its depreciation and plant in service accounts are relevant only for financial accounting purposes. Therefore, there is no reason to separate out these incidental costs. (PWSA St. No. 3 at 7).

- (b) PWSA's capitalization policy for stormwater improvements, including whether PWSA should use the \$750 capitalization threshold for water and wastewater utilities under the uniform system of accounts for Class A Water and Wastewater Utilities.

PWSA Response:

PWSA employs a \$10,000 threshold for capitalization which is standard for municipal water/wastewater utilities. PWSA does not believe that a \$750 threshold is reasonable considering its circumstances. The \$750 threshold is more appropriate for companies that are regulated on a rate of return/rate base basis. For investor-owned utilities, when an asset is capitalized, the return on and of the investment is recovered over the asset's depreciation life. This means that the cost of a purchase of a computer, for example, with a useful life of 3-5 years will be recovered in 3-5 years. However, PWSA finances most of its capital additions using long term debt that is reflected in PWSA's debt for 30 years (the typical term of PWSA's bonds). Since it is not regulated on a rate of return/rate base basis, the cost of the computer is recovered via the debt service associated with the bond that financed the purchase. As a result, the cost of the capitalized asset will be charged to ratepayers for the entire 30-year life of the bond – long after the short lived asset has been retired. Additionally, because PWSA's rates are regulated on a Cash Flow basis, it has no need to calculate an accurate rate base. Therefore, in PWSA's view, it would not be worth the time and effort to capitalize and then have to track small, short lived assets such as computers or printers. Therefore, it is more reasonable to customers, and better for the municipal utility to expense smaller asset acquisitions and to only capitalize more substantial purchases, which will generally have longer useful lives. (PWSA St. No. 3 at 8).

- (c) Whether PWSA should expense improvements in one year or expense improvements through amortization of a deferred asset over a reasonable time period.

PWSA Response:

PWSA's rates are regulated on a Cash Flow basis. Therefore, PWSA needs to have available the full amount of cash required to add the asset in the year in which the asset is put in service. Therefore, amortization of the costs of an asset simply means that PWSA will not be able to add the asset (because it won't have the cash to pay for it in the year in which it wished to add it). Further, PWSA believes, respectfully, that this is a ratemaking question and should not be determined in the context of this compliance process. (PWSA St. No. 3 at 8-9).

4. 52 Pa. Code § 65.19 Filing of Annual Financial Reports

In the Revised Stormwater CP, Section 9, Part B of Appendix 1 at Page 13, PWSA indicated that, for stormwater financial reporting, it proposes to use the approved annual report form for municipal wastewater utilities without any changes. Parties should discuss:

- (a) Whether PWSA should use the approved annual report for municipal wastewater utilities for an interim period before switching to the approved annual report form for Class A wastewater utilities in the future and the appropriate timeline for this transition.

PWSA Response:

As noted in the referenced portion of the Compliance Plan, PWSA is currently utilizing the annual report form for municipal utilities for its annual report for water and wastewater. It continues its commitment that it will utilize this annual report form to reflect its stormwater operations as well. PWSA does not believe that the creation of stormwater as a separate service justifies changing the annual report format which has, at this point, been acceptable to the Commission. Moreover, compiling the data to populate the much more extensive and detailed annual report form for Class A water/wastewater utilities is not feasible for PWSA at the present time. Currently, PWSA is struggling to comply with a variety of commitments to various agencies while it is also attempting to bring its entire operation into compliance with PUC requirements. PWSA believes that it should focus its limited resources on compliance with PUC requirements in other areas, such as consumer protection, eradicating lead service lines and improving reliability of its system. PWSA suggests that transition to the more extensive and costly Class A form be reconsidered in the future. (PWSA St. No. 3 at 9).

5. 52 Pa. Code § 65.22 - Customer Advance Financing, Refunds and Facilities on Private Property

In the Revised Stormwater CP, Section 7, Part B of Appendix 1 at Page 8, PWSA indicated that most green infrastructure is not owned by PWSA as it is installed on private property and that improvements on private property will be expensed. Parties should discuss:

- (a) The requirements of 52 Pa. Code § 65.22(c) and whether this provision applies to green infrastructure installed on private property.

PWSA Response:

Section 65.22 does not apply to green infrastructure installed on private property. This section requires customers “to pay, in advance, a reasonable charge for service lines and equipment installed on private property for the exclusive use of the customer.” However, green infrastructure projects are, in most cases, not for the exclusive use of the customer. If PWSA is installing green infrastructure on private property, it is doing so because it benefits PWSA’s system as a whole, not the individual customer. PWSA often installs green infrastructure in the public right of way or in public parks, but in some instances it is necessary to install GI on private property. Again, installations on private property provide broader stormwater management benefits to PWSA’s system as a whole, not the individual property owner. (PWSA St. No. 3 at 10).

- (b) PWSA’s method of formally dedicating assets installed on private property to the property owner.

PWSA Response:

PWSA does not formally dedicate assets installed on private property to the property owner because the assets are not installed for the benefit of that one customer. They benefit the system as a whole. As such, it would be inappropriate to dedicate the asset to the customer. (PWSA St. No. 3 at 11).

- (c) Whether PWSA’s method of formal dedication ensures assets installed on private property will be maintained to a working order, and whether an operating, inspection and maintenance, or similar agreement for such facilities that runs with the property should be created.

PWSA Response:

See the response to Question 5(b) above.

- (d) Whether PWSA should expense improvements on private property.

PWSA Response:

PWSA’s current practice is to expense improvements that provide system benefits and which are on private property. This is true for green infrastructure projects, as well as other improvements such as lead service line replacements and damaged wastewater lateral replacements. Please note that, under Generally Accepted Accounting Principles applicable to municipal entities, PWSA is not permitted to capitalize work on private property. The Authority is not permitted to list an asset on its books and depreciate it if PWSA does not own it. This current practice therefore is the only feasible course. Note that this is the same approach that PWSA utilizes for private lead service line replacements. (PWSA St. No. 3 at 11).

6. **52 Pa. Code § 73.3 - Annual Depreciation Reports**

In the Revised Stormwater CP, Section 13 of Appendix 1 at Page 18, PWSA indicated that, for green infrastructure systems, the pipes or underground storage are the primary costs and the costs of trees and shrubs are ancillary and grouped with the pipe as part of the system. The costs of the pipe are then depreciated in the same manner as for water or wastewater assets. Parties should discuss:

- (a) Whether PWSA should group disparate assets with different service lives together and then apply the same depreciation to that group.

PWSA Response:

PWSA believes it is reasonable for PWSA to include incidental green infrastructure costs with the costs of piping, etc. because those incidental “green infrastructure” costs are a very small fraction of the total costs (estimated at around 5%). Moreover, tracking and recording incidental costs would impose additional costs on the Authority and require PWSA to devote resources that would be better spent on other projects. It is important to

recall that PWSA's Cash Flow ratemaking methodology does not utilize PWSA's reserve for depreciation in any way. While PWSA needs to account for depreciation on its books there does not appear to be any reason to spend the time or money to separate out these incidental costs. (PWSA St. No. 3 at 12).

7. **PWSA's Relationship with the City of Pittsburgh**

In the Revised Stormwater CP, Section 19, Part G of Appendix 1 at Page 23, PWSA indicated that PWSA is not an "agent" of the City. On Pages 21 to 22 of PWSA Statement No. 7 at Docket No. R-2021-3024779, PWSA stated, "PWSA has taken responsibility for maintaining approximately 25,000 stormwater catch basins and inlets. [...] Right now, PWSA acts as an agent of the [City] to perform maintenance of all publicly owned catch basins."

Additionally, in Revised Stormwater CP at Section 19, Part D of Appendix 1, Pages 22 to 23, PWSA indicated that: (1) PWSA is not operating stormwater infrastructure without a written service agreement or lease, except in certain instances; (2) if PWSA performs any work or services on "private" stormwater infrastructure, PWSA will charge the owner for such services; and (3) that charging the City for PWSA services provided is set forth in the City/PWSA Cooperation Agreement. Parties should discuss:

- (a) Whether the City/PWSA Cooperation Agreement and other agreements between the City and PWSA adequately address non-tariff stormwater services and costs, facility ownership, and facility operational control. Parties should distinguish between stormwater facilities that are part of PWSA's combined sewer system and stormwater facilities that are part of the City's and/or PWSA's MS4.

PWSA Response:

As a preliminary matter, regarding the statement from PWSA's 2021 rate case testimony that "[r]ight now, PWSA acts as an agent of the [City] to perform maintenance of all publicly owned catch basins," PWSA clarifies that this statement was not intended to mean that PWSA is an "agent" of the City in a legal or technical sense. Rather, this statement simply meant that PWSA is currently performing maintenance of publicly owned catch basins on the City's behalf. Under the Capital Lease Agreement between PWSA and the City, PWSA is responsible for maintaining catch basins that connect to its system. (PWSA St. No. 1 at 3).

In response to Question 7(a), PWSA has a variety of agreements in place with the City that adequately address non-tariff stormwater services and costs, as well as facility ownership and operations.³ While the Cooperation Agreement does not specifically discuss stormwater services and costs, it broadly establishes that that the City will pay

³ See the testimonies of Tony Igwe in PWSA's 2021 rate case (Docket No. R-2021-3024779), PWSA St. Nos. 7, 7-SD, and 7-R on this topic, which are incorporated herein by reference.

PWSA for services provided based on actual direct expenses. This applies to all services provided by PWSA, including those related to non-tariff stormwater services and costs.

Other agreements between PWSA and the City address the division of responsibilities related to stormwater facilities. PWSA recently finalized an agreement with the City regarding Municipal Separate Storm Sewer System (“MS4”) obligations. This agreement was filed with the Commission under Section 507 of the Public Utility Code on January 11, 2022 (Docket No. U-2022-3030418). The MS4 Agreement provides, for example, that PWSA will sample City outfalls and will charge the City for these services.

PWSA is currently in the process of re-starting discussions with the City and the new administration to develop a Memorandum of Understanding (“MOU”) regarding overall stormwater responsibilities. PWSA anticipates finalizing the Stormwater MOU by the end of 2023.

In addition to these overarching agreements, PWSA also enters into agreements with the City on a project-specific basis regarding costs, services, and facility ownership and maintenance. For example, these agreements may relate to individual green infrastructure projects or stormwater projects within City parks.

Taken together, these agreements adequately address stormwater services, costs and facilities. (PWSA St. No. 1 at 4-5).

Finally, in Revised Stormwater CP, Section 19, Part C of Appendix 1 at Page 22, PWSA indicated that, to the extent PWSA provides services to the City, such as sampling the City’s outfalls or maintaining City-owned catch basins, PWSA will charge the City for those services pursuant to the Cooperation Agreement. Parties should discuss:

- (b) Whether any current non-tariff stormwater services and costs, including sampling costs for the City and costs for PWSA to operate and replace City-owned stormwater infrastructure that serves the public, should be incorporated into PWSA’s revenue requirement and charged as a component of PWSA’s base stormwater rates.

PWSA Response:

Non-tariffed stormwater services and costs should not be incorporated into PWSA’s stormwater revenue requirement. Under the Cooperation Agreement, PWSA charges the City for services provided, including stormwater services. PWSA is already being directly compensated for these non-tariff stormwater services and costs and it is not necessary to include the costs in stormwater base rates. (PWSA St. No. 1 at 5).

8. Bulk Stormwater Agreements

In the Revised Stormwater CP, Section 20 of Appendix 1 at Page 25, PWSA indicated that it did not propose any charges for contributing municipality service as part of the Stormwater Rate Case for two major reasons. One reason is that stormwater from these municipalities flows into

a combined sewer system that the City of Pittsburgh developed decades ago. Parties should discuss:

- (a) Whether PWSA should enter into Bulk Service Agreements with contributing municipalities for the conveyance and treatment of these flows or maintain the practice of charging PWSA's wastewater and stormwater ratepayers located in the City for these costs.

PWSA Response:

PWSA does not believe that the stormwater “flows” emanating from areas outside of PWSA’s service territory are the responsibility of those municipalities. As the Authority set forth in its initial Stormwater Compliance Filing, “[i]n determining whether an occurrence ...is a reportable accident related to stormwater, such as flooding associated with a severe storm, PWSA will only consider damage related to stormwater that has entered PWSA’s system”⁴ Accordingly, all flows from upstream municipalities that enter into PWSA’s system are the responsibility of PWSA to mitigate. Any stormwater abatement or control that PWSA undertakes in those upstream communities is conducted in order to mitigate flows that will ultimately become the responsibility of PWSA. As such, it would not be reasonable to attempt to “charge upstream municipalities for such flows.” PWSA has also been informed by counsel that any attempt to charge upstream municipalities (absent their cooperation and agreement) for stormwater flows into PWSA’s system would be on questionable legal footing, as PWSA’s approved Stormwater Tariff lists the Authority’s service territory as “The City of Pittsburgh.” Moreover, PWSA had previously pointed out that, in many cases, the flows that now enter its stormwater management system had previously flowed into open streams that the City of Pittsburgh had determined to cover. Those coverings formed a portion of PWSA’s combined sewer or stormwater system. PWSA has inherited responsibility for such coverings and it and its customers therefore continue to be responsible for costs of maintaining these facilities as well as mitigating flows into these facilities.⁵ (PWSA St. No. 1 at 6-7).

- (b) Whether PWSA should develop a stormwater cost of service study for contributing municipalities within PWSA’s sewershed areas to be filed prior to its next stormwater base rate case.

PWSA Response:

PWSA does not believe that such a cost of service study would be appropriate. As noted in the answer to Question 8(a), PWSA considers the stormwater that finds its way into its system as its responsibility. Any stormwater mitigation efforts conducted in those upstream areas are undertaken to mitigate the stormwater flows into PWSA’s system,

⁴ PWSA Stormwater Compliance Plan at 18.

⁵ See the discussions of contributing municipality service in the testimonies of Tony Igwe in PWSA’s 2021 rate case (Docket No. R-2021-3024779), PWSA St. Nos. 7, 7-SD, and 7-R, which are incorporated herein by reference.

which in turn mitigates the costs that PWSA and its customers must deal with. Moreover, it would, in PWSA's view, be virtually impossible to separately identify the "cost" of mitigating stormwater flows that emanated from upstream communities as opposed to costs created by stormwater originating in PWSA's service territory.

It is important to note, however, that PWSA has not ruled out discussions with upstream municipalities to potentially address stormwater flows entering our system that can be specifically identified as coming from a particular municipality, or which have increased due to a municipality's specific policy or action. In that case, PWSA could work collaboratively with that upstream municipality to finance and construct additional stormwater mitigation measures designed to address these added flows as they affect both PWSA and the municipality at issue. No such opportunities have arisen to date. (PWSA St. No. 1 at 7).

- (c) Whether any existing arrangements between PWSA and contributing municipalities impact PWSA's ability to earn a reasonable amount of funding for stormwater operations or create a burden on PWSA customers located in the City.

PWSA Response:

No, not as far as the Authority can identify. PWSA has not entered into any existing agreements that "impact PWSA's ability to earn a reasonable amount of funding for stormwater operations." (PWSA St. No. 1 at 8).



Pennsylvania Public Utility Commission
Stage 2 Compliance Plan:
Stormwater (Second Revised)
The Pittsburgh Water & Sewer Authority
~~January 20~~October 24, 2022

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Appendices

Appendix 1 – PWSA Responses to TUS Directed Questions

[Appendix 2 – PWSA Response to TUS Second Set of Directed Questions](#)

Attachments

Attachment A – PWSA Responses to EPA Regarding MS4 Stormwater Permit

Attachment B – Wet Weather Feasibility Study

Attachment C – Long Term Wet Weather Control Plan (includes Appendices A-G)

Attachment D – Green First Plan

Attachment E – PWSA System Map, Storm Sewers Overview (March 2021)

Attachment F – PWSA Green Infrastructure Project Locations Overview (March 2021)

INTRODUCTION

I. Procedural Summary¹

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 Municipality 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

Effective April 1, 2018, PWSA formally became subject to the Public Utility Code and regulation by the Commission. Consistent with 66 Pa. C.S. § 3204(b) and Commission directives, PWSA filed its Compliance Plan on September 28, 2018. On November 28, 2018, the Commission issued a Secretarial Letter which: (1) referred PWSA’s September 28, 2018 Compliance Plan filing to the Office of Administrative Law Judge; and, (2) established two stages of review for PWSA’s Compliance Plan.² Pursuant to commitments from the

¹ A more complete description of the history of the Compliance Plan proceeding is set forth in the PWSA *Stage 2 Compliance Plan: Chapters 14 & 56, DSLPA and Collections (Revised)*, filed on ~~April 9~~ [September 12, 2021](#)~~2022~~.

Commission approved settlement of its *Initial Rate Case*,³ PWSA filed a Compliance Plan Supplement on February 1, 2019.

The Commission ultimately entered three orders regarding the Compliance Plan Stage 1 process. Consistent with the *March 2020 Stage 1 Order*, on April 27, 2020, PWSA filed a Revised Compliance Plan⁴ (hereinafter, “Stage 1 Compliance Plan”). PWSA’s Stage 1 Compliance Plan focused on its water/wastewater services and its overall operation as a PUC-regulated utility. The Revised Compliance Plan did not address issues related to Chapters 14 and 56, collections, the Discontinuance of Service to Leased Premises Act (“DSLPA”), 66 Pa.C.S. §§ 1521-1533, or stormwater.

The Commission’s *Stage 1 February 4, 2021 Order* directed PWSA to file Stage 2 Compliance Plans and provided further clarification about the Commission’s expectations regarding Stage 2 stormwater issues.⁵ More specifically, the Commission acknowledged its prior approval of a full settlement of the *Second Rate Case* which included the agreement of the parties to defer development of PWSA’s stormwater tariff to its anticipated 2021 rate case and to request that the Commission consolidate the Compliance Plan Stage 2 stormwater issues with that rate case.⁶ However, the Commission clarified that its orders were not intended to obviate PWSA’s responsibility to file a compliance plan for stormwater service and that the Commission would entertain any future motion or petition to address conflicts between a rate proceeding and the staged litigation of the Compliance Plan.⁷

On April 9, 2021, PWSA filed its Stage 2 Compliance Plan: Stormwater as directed in the *Stage 1 February 4, 2021 Order*, which included information specific to the Authority’s stormwater service and operations, including the implementation of a stormwater tariff and fee. The purpose of the Compliance Plan, consistent with Section 3204 of the Public Utility Code, is

to describe the extent to which PWSA's stormwater service and operations are compliant with the Public Utility Code and Commission regulations, and if necessary, to describe PWSA's plan for coming into compliance with the applicable requirements.

On April 13, 2021, PWSA filed a combined water, wastewater and stormwater base rate case at docket numbers R-2021-3024773 (water), R-2021-3024774 (wastewater), and R-2021-3024779 (stormwater) (*2021 Rate Case*). PWSA simultaneously filed a Motion to Hold in Abeyance the Stage 2 Stormwater Compliance Plan pending resolution of the base rate case, in order to allow the full range of stormwater issues to be addressed in the base rate case, and subsequently any remaining issues would be addressed through the Stage 2 Stormwater Compliance Plan proceeding.

In its May 20, 2021 Order, the Commission granted PWSA's request to hold the Stormwater Compliance Plan in abeyance pending the resolution of the *2021 Rate Case*. The Commission further directed PWSA to file a revised Stormwater Compliance Plan after a final order was issued in the 2021 Base Rate Case, but no later than January 31, 2022.

The *2021 Rate Case* addressed a broad range of issues related to PWSA's stormwater service. As part of the rate case, PWSA responded to directed questions from the Commission's Bureau of Technical Utility Services. On November 18, 2021, the Commission approved a full settlement of the rate case, including approval of PWSA's initial stormwater tariff, stormwater rates, stormwater credit program, and other items related to stormwater service.

In compliance with the May 20, 2021 Order, PWSA ~~now submits this revised~~submitted a Stormwater Stage 2 Compliance Plan.~~This~~ (Revised) on January 20, 2022. The revised Compliance Plan ~~reflects~~reflected stormwater-related issues that were resolved through the *2021*

Rate Case and ~~provides~~provided updated information on any remaining issues to be addressed through the Stage 2 proceeding.

On February 3, 2022, PWSA filed an Unopposed Petition to Separate Stormwater Issues from Other Stage 2 Compliance Plan Issues requesting that the Commission separate any remaining stormwater issues from the customer service and collections issues that have been separately addressed, as described in the Joint Petition for Settlement on customer service issues that was filed at this docket on March 14, 2022.

On February 22, 2022, a Secretarial Letter was entered assigning the Stage 2 Compliance Plan – Stormwater to the Office of Administrative Law Judge (“OALJ”). The Secretarial Letter included a Technical Staff Report and Directed Questions, Stage 2, Set 2. The Secretarial Letter directed the OALJ to “incorporate the Stage 2, Set 2 Report into its Prehearing Order and to conduct evidentiary hearings to address matters raised therein.” The Secretarial Letter also stated that, as directed in the *May 2021 CP Stage 2 Scheduling Order*, the OALJ shall issue a Recommended Decision by May 25, 2022.

On March 7, 2022, the Commission entered an Opinion and Order granting in part and denying in part PWSA’s Unopposed Petition to Separate Stormwater Issues from Other Stage 2 Compliance Plan Issues. Through this Order, the Commission modified its *May 2021 CP Stage 2 Scheduling Order* to extend the previous deadline by 60 days and directed that the Recommended Decision on stormwater be issued no later than July 25, 2022. This modification only relates to PWSA’s Stormwater Compliance Plan and any remaining stormwater issues associated with that plan.

On June 9, 2022, the parties submitted a Joint Petition for Settlement Regarding PWSA’s January 20, 2022 Stage 2 Compliance Plan: Stormwater (Revised). On July 19, 2022, the ALJs

[issued a Recommended Decision recommending approval of the settlement without modification. On August 25, 2022, the Commission issued an Order adopting the Recommended Decision and approving the settlement without modification. In compliance with the Order, PWSA now submits this Stage 2 Compliance Plan \(Second Revised\) on stormwater issues reflecting the terms of that settlement.](#)

II. Appendices

As Appendix 1, PWSA has attached responses to the Directed Questions from the Commission’s Bureau of Technical Utility Services (“TUS”). For ease of reference, PWSA’s answers are set out separately, although there are overlaps with portions of this Revised Compliance Plan, and those Answers are incorporated herein as part of this Plan.

[As Appendix 2, PWSA has attached responses to TUS’ Second Set of Directed Questions. This appendix reflects responses to the TUS Set 2 questions as previously provided in PWSA’s Direct Testimony in the Stormwater Stage 2 proceeding.](#)

Further, as part of the Settlement of PWSA’s Stage 1 Compliance Plan, PWSA agreed to provide certain documents related to stormwater service.⁸ Those documents are attached to this Stage 2 Compliance Plan to the extent possible.

PWSA does not currently have a formal written plan for an inventory of stormwater assets and conditions. As part of the Municipal Separate Storm Sewer System (“MS4”) permit requirements, for which PWSA and the City of Pittsburgh are co-permittees, PWSA has mapped stormwater infrastructure, including outfalls and observation points. PWSA and the City are required to update and submit this information to the Pennsylvania Department of Environmental Protection (PA DEP) annually in their Annual MS4 Status Report. This information is updated based on repair records. PWSA and the City have also developed a Pollution Reduction Plan for

the MS4 System that includes data on the location of MS4 infrastructure that continues to be updated.

Additionally, the Memorandum of Understanding between PWSA and the City of Pittsburgh regarding the maintenance of stormwater infrastructure is still begin developed, as is discussed in greater detail in Appendix 1. PWSA and the City are developing a detailed agreement to negotiate and resolve any issues outside of MS4 requirements. The focus of this agreement will be other stormwater management responsibilities of PWSA's Stormwater Division and the required coordination and cost-sharing with the City. This will include the planning, design, implementation, and maintenance of stormwater-related capital projects that may reduce localized flooding and CSOs at the rivers while improving water quality and the health of streams and waterways. The content and timeline for the additional agreement is still being determined. When the Agreement has been executed, however, PWSA will file it with the Commission consistent with Section 507 of the Public Utility Code, 66 Pa. C.S. § 507.

Attachment A provides PWSA's responses to the U.S. Environmental Protection Agency in September 2017 regarding PWSA and the City's MS4 stormwater permit.

Attachment B is PWSA's Wet Weather Feasibility Study dated July 2013.⁹

Attachment C is PWSA's Long Term Wet Weather Control Plan, also known as the PWSA Feasibility Study, dated October 2008 (includes Appendices A-G).

Attachment D is PWSA's Green First Plan, dated November 2016.¹⁰

Attachments E and F are maps of PWSA's stormwater system, including an overview of PWSA's storm sewers and locations of green infrastructure projects, respectively.

III. Summary of Compliance Plan

In general, because PWSA operates its stormwater operations as part of its "combined" water/wastewater operations, its stormwater operations are and will be consistent with the Public

Utility Code and Commission regulations and orders to the same extent as they are for PWSA's other areas of operations. Accordingly, for the most part, its prior Stage 1 Compliance Plan previously submitted to and approved by the Commission for its water and wastewater operations also is applicable to its stormwater operations. To the extent PWSA has identified any instances in which its plan for compliance with a particular PUC regulation needs to be modified because of the nature of stormwater service, that modification is discussed in this Plan.

This Plan also discusses PWSA's plans for compliance in areas that are unique to stormwater operation: the provision of a separate stormwater Tariff, with rates, terms and conditions of service applicable to stormwater service, and the process of identifying the stormwater-specific costs and investment applicable to stormwater service and which are to be recovered in separate stormwater rates. Many of these items were addressed and approved as part of PWSA's *2021 Rate Case*, as discussed herein.

PWSA PROVISION OF STORMWATER RELATED SERVICES

I. Prior Filed Stormwater Related Information

A. Municipal Segregated Storm Sewer System Assets

The Commission's Final Implementation Order (FIO) directed PWSA to show the costs associated with its MS4 system as part of the cost of service study to be filed with its *Initial Rate Case*. The purpose was to provide a functional level cost allocation to apportion costs between the MS4 and the sanitary systems to demonstrate a projection of the revenue requirement attributable to the MS4 system.¹¹ PWSA provided this information both in its *Initial Rate Case* and its *Second Rate Case*.¹²

B. Stormwater Tariff

The Commission's FIO directed PWSA to file a stormwater tariff and a compliance plan no later than the next wastewater base rate filing after its July 2018 base rate filing.¹³ Accordingly, PWSA submitted a *pro forma* stormwater tariff and supporting testimony tariff as PWSA Exh. BD-3 with its *Second Rate Case* filed on March 6, 2020.¹⁴ At that time, PWSA did not seek to implement a stormwater fee but sought approval of the other terms set forth in the *pro forma* stormwater tariff. Ultimately, the parties in the *Second Rate Case* concluded that considering a tariff without the proposed rates was not optimal and, therefore, the parties proposed as part of their settlement agreement to defer development of PWSA's stormwater tariff to PWSA's *2021 Rate Case* and to request that the Commission consolidate the Compliance Plan Stage 2 stormwater issues with the 2021 rate case.¹⁵ As explained previously, the Commission later clarified its approval of the *Second Rate Case Settlement* and directed PWSA to file the Stormwater Stage 2 Compliance Plan. ~~The 2021 rate case as anticipated in the *Second Rate Case Settlement* will be filed on or about April 13, 2021 at docket numbers R-2021-3024773 (water), R-2021-3024774 (wastewater), R-2021-3024779 (stormwater). As part of this forthcoming rate case filing, PWSA will propose a stormwater fee.~~

PWSA subsequently proposed a stormwater tariff and stormwater rate as part of its *2021 Rate Case*. On November 18, 2021, the Commission approved a full settlement of the rate case, including PWSA's stormwater tariff, stormwater rates, and other items related to stormwater service. ~~This~~ PWSA's stormwater tariff and rates went into effect on January 12, 2022. The Revised Stormwater Stage 2 Compliance Plan ~~modifies~~ submitted on January 20, 2022 modified the initial filing to reflect stormwater topics that were resolved as part of the *2021 Rate Case* and to provide answers to the TUS Directed Questions. This Second Revised Stormwater Stage 2

[Compliance Plan has been updated to reflect the settlement of the Stage 2 Compliance Plan proceeding and provide answer to the TUS Second Set of Directed Questions.](#)

II. Description of Stormwater Issues Generally

Stormwater is rain or snowmelt that does not infiltrate into the ground. When precipitation falls on an impervious area, it runs off the property rather than being absorbed. When precipitation falls on undeveloped areas, it is primarily absorbed into the ground or slowly runs off into streams, rivers or other water bodies. However, developed areas that are impervious, such as rooftops and paved areas, prevent water from being absorbed and create a faster rate of runoff. This development often causes localized flooding or other water quantity or quality issues and an increased total runoff volume. In addition, stormwater can carry harmful pollutants (such as such as oil, dirt, chemicals, and lawn fertilizers) that adversely affect water quality. Stormwater can cause flooding, erode topsoil and stream banks, and destroy habitats. All properties receive precipitation in the form of rain or snow. Accordingly, all properties produce stormwater runoff that must be managed. Even if a property has never flooded and there is no nearby stormwater infrastructure, the stormwater that flows off of a property must be managed so that it does not contribute to pollution and flooding downstream.

III. Description of PWSA's Stormwater System

PWSA's overall wastewater conveyance system is composed of over 1,200 miles of sewer lines, 4 pump stations, and approximately ~~25,000~~30,000 catch basins [and inlets](#). PWSA has two types of wastewater conveyance systems – a combined system, and a separate system. Stormwater is conveyed in different ways by each type of system.

First, approximately 75% of the PWSA system, or approximately 900 miles of sewer lines, is the combined sewer system. This is generally the older areas of the system where wastewater and stormwater are conveyed in the same pipe. During times of dry weather, all flow

is conveyed to the Allegheny County Sanitary Authority (“ALCOSAN”) for treatment. When it rains, the capacity of the system to convey flow can be limited, which causes localized flooding, basement sewer backups, and overflows to streams and the river.

Second, newer or more recently redeveloped communities have separated sanitary and storm sewer systems.¹⁶ In a separated system, wastewater is conveyed to the ALCOSAN for treatment via one pipe, and when it rains stormwater is discharged directly to a nearby stream or river via another pipe. The separate stormwater conveyance system (“MS4”)¹⁷ is not connected to either the combined wastewater system or the sanitary sewer system, and only carries stormwater. Approximately 25% of the PWSA system is separated, and has approximately 172 miles of sanitary sewer and 140 miles of stormwater pipes. These two systems (combined sewer and MS4) currently work to control stormwater runoff from the City of Pittsburgh.

A. PWSA Stormwater Management Operations

Stormwater runoff has a direct effect on PWSA’s ability to provide reasonable, safe and adequate wastewater service, and uncontrolled stormwater runoff can impact the quality of life for residents. The recent trend of increased amounts of total annual rainfall as well as frequency of large rainfall events will result an even greater need to adequately manage stormwater. In addition, local rivers are the primary source of drinking water in the region, yet are also the receiving waters for polluted stormwater runoff. Therefore, the Authority has undertaken numerous efforts to manage stormwater and to mitigate its adverse effects in order to provide adequate, efficient, safe and reasonable stormwater service. PWSA has and will continue to make those efforts in conjunction with its water/wastewater operations. PWSA, thus, is operated as a combined, “water/wastewater/stormwater utility.”

B. PWSA's Goals for Stormwater Management Service

PWSA's goal is to deliver efficient, high-quality stormwater management service for our customers, and to protect and improve the water quality in local streams and rivers. PWSA will provide an efficient, responsive, and equitable level of service by addressing Pittsburgh's unique challenges of topography with innovative, flexible, sustainable, and cost-effective solutions. This will enhance the livability and resiliency of our neighborhoods, while also addressing the recent trend of more frequent and intense rainfall events. Finally, PWSA will continue to collaborate with local partners to find solutions together to our urban stormwater challenges.

IV. Recovering the Costs of Stormwater Management Service

Historically, the costs of stormwater service have been included in PWSA's wastewater rates and assessed based upon water consumption. Funds have been expended primarily to address combined sewer overflow ("CSO") abatement. There are several problems with this approach:

1. Impervious surface relates to runoff volume, peak runoff rate, and pollution. Basing stormwater rates on water consumption does not account for different volumes of runoff from properties based on their different amounts of impervious surface.
2. Charging the costs of stormwater abatement through wastewater rates lessens responsiveness to manage stormwater runoff and wet weather problems.
3. Focusing primarily on CSO abatement increases exposure to regulatory water quality violations in MS4 areas of the service area.
4. Limiting abatement activity to CSOs means lost opportunities to realize significant city-wide economic, social, and environmental benefits.
5. Tracking and funding stormwater capital, operational, and maintenance costs separately from wastewater costs allows for more targeted budgeting to achieve regulatory compliance and to address stormwater problems.

PWSA's stormwater management program, including the stormwater tariff and stormwater rates that were approved in the *2021 Rate Case*, will better address these issues and funding needs.

APPLICABLE PUC POLICIES OR LAWS

The Commission currently has no regulations or policies specifically related to stormwater management. Additionally, because of its municipal nature, PWSA's stormwater responsibilities differ from those that may exist for other investor-owned public utilities under the Commission's jurisdiction and will raise issues unique to PWSA. Accordingly, the Public Utility Code's general rules and regulatory requirements will apply to PWSA's stormwater management operations, although there may be some instances in which PWSA and the PUC will be required to work together to determine applicable regulatory requirements and obligations. In addition, the Commission directed that the Compliance Plan address, *inter alia*, the future implementation of a stormwater tariff,¹⁸ which has now been approved as part of PWSA's *2021 Rate Case*, and PWSA's plan for compliance with this directive is discussed below.

I. General Compliance

As noted above, PWSA currently operates as a “combined” water/wastewater/stormwater utility and was providing stormwater management services to customers at the time that it came under the jurisdiction of the Commission in 2018. Accordingly, PWSA’s earlier statements of compliance, set forth in its Stage 1 Compliance Plan,¹⁹ generally apply per force to its stormwater operations and are hereby incorporated by reference. To the extent that the nature of stormwater operations affects the nature or extent of compliance with a particular general requirement, that difference is discussed below.

II. Stormwater Tariff

While PWSA has an ongoing stormwater maintenance, mitigation and control program, historically the costs of that program were recovered in the Authority’s wastewater charges. As noted, the PUC’s FIO directed PWSA to prepare and file a separate stormwater tariff in order to separately identify and charge stormwater-related costs to customers.²⁰ PWSA’s *pro forma* stormwater tariff filed with the *Second Rate Case* contained no rates and set forth initial proposals regarding terms and conditions that would apply to stormwater service. A proposed stormwater tariff and rates were included as part of the *2021 Rate Case* and were subsequently approved by the Commission.

A necessary prerequisite to establishing a reasonable stormwater fee is the allocation of costs between the three services – water, wastewater and stormwater – which, in turn, produces a stormwater revenue requirement to be recovered from the stormwater fee. As noted previously, in its last two rate cases, PWSA submitted an illustrative allocation of wastewater costs between stormwater and wastewater. As part of the *2021 Rate Case* PWSA submitted a detailed cost allocation study which clearly identified the portions of PWSA’s plant in service and expenses that support each service “bucket.” The stormwater revenue requirement is the starting point for stormwater fee development. The stormwater tariff and rate as well as the service cost allocation were reviewed and approved in PWSA’s *2021 Rate Case*. The following provides a description of how the approved stormwater tariff was developed.

A. Developing the Stormwater Tariff

In order to ensure symmetry among all of PWSA’s tariffs (and in recognition of the interrelated nature of the services), PWSA used its wastewater tariff format as the working outline for its stormwater tariff. By doing this, PWSA is ensuring that all of its rates, definitions and other common tariff sections are located in the same place across all three tariffs. PWSA also considered the existing definitions and structure contained in its wastewater tariff to determine whether or not the same language could be utilized in the stormwater tariff. Again, to the extent the terms reasonably carried over from the wastewater tariff to the stormwater tariff, PWSA elected to do so. Where terms needed to be altered or were not appropriate for the stormwater tariff, they were not utilized. Having outlined the stormwater tariff consistent with PWSA’s existing tariffs, PWSA then looked to the Commission’s model tariff, which was shared with PWSA on November 7, 2019, to help inform the stormwater-specific terms that PWSA would propose to include in our tariff. PWSA also reviewed stormwater tariffs and/or

ordinances utilized by other entities assessing a stormwater fee to further inform the terms and conditions in the proposed tariff. Some of the other stormwater tariffs or ordinances PWSA reviewed include: Philadelphia Water Department;²¹ Northeast Ohio Regional Sewer District;²² the Metropolitan Sewer District of Greater Cincinnati;²³ Charlotte, North Carolina;²⁴ Carlisle Borough, Pennsylvania;²⁵ and Dallas, Texas,²⁶ among others.

PWSA has convened a Stormwater Advisory Group (“SWAG”) which developed a series of recommended findings to help guide the development of the stormwater rate structure.²⁷ The SWAG is composed of a diverse group of twenty stakeholders from the public and private sectors. PWSA continues to meet with various stakeholders and has considered and incorporated their feedback throughout the process. The knowledge and experience of the stormwater group has helped to shape the development of the tariff as it evolved. PWSA has also bolstered its internal capabilities with the experience of consultants and legal experts that have expertise in establishing stormwater utilities and tariff experience with the PUC. PWSA will continue to do significant outreach and education efforts within the community as it implements the approved stormwater tariff and stormwater rates.²⁸

B. Stormwater Rate Structure

In the *2021 Rate Case*, PWSA proposed and the Commission approved separate stormwater rates for residential and non-residential customers. Residential customers will be charged one of three flat rates (commonly referred to as tiers). A customer’s tier is based on the impervious surface area found on the residential lot. PWSA has measured the impervious surface area found on each residential lot and found substantial variability in impervious area – from properties with about 400 square feet of impervious area to properties with more than 4,000 square feet of impervious area. This large variability and the availability of the data on

impervious area made the tiered approach more equitable to the individual ratepayer. This approach also is more supportive of a credits program that could grant fee credits to residential ratepayers who undertake measures on their lots to reduce their stormwater demand.

For non-residential customers, the impervious area found on a typical residential property in the service area is called the Equivalent Residential Unit of impervious area, or ERU. PWSA will bill non-residential customers a fee based on the rate per ERU times the number of ERUs found on the property. ERU-based rate structures that charge for impervious surfaces are by far the most common across the United States and balance fairness with simplicity. Impervious surface relates to runoff volume, peak runoff rate, and pollution. These factors most closely relate to demand in the service area.

C. Stormwater Credits

As part of PWSA's *2021 Rate Case*, the Commission approved a stormwater credit program that allows customers to earn credits to reduce their stormwater rates. For non-residential customers, the credit program consists of credits for customers who capture and detain runoff on-site, meeting or exceeding the recent development standards in place in Pittsburgh. Residential customers are eligible for a similar credit, as well as a credit for downspout disconnection to street planters. The non-residential credit is a percentage discount. The residential credit is a "tier reduction" for ratepayers not already in the lowest tier, meaning that qualifying customers will be charged at the tier one step below their assigned tier. For customers already in the lowest Tier 1, those customers receive a percentage discount.

In developing the credit program, PWSA carefully considered many credits approaches and sought to take the simplest approach that met the Stormwater Advisory Group's interests and the Authority's desire to be fair and keep administrative burdens low while being consistent with the types of mitigation efforts currently or expected to be built relatively soon.

D. Stormwater Rate

The stormwater program revenue requirements are the total costs associated with stormwater management, including flood control, strategic planning, and water quality related regulatory compliance. The stormwater revenue requirements approved in the *2021 Rate Case* ~~include~~included approximately \$17.77 million in new rates effective January 12, 2022, and an additional increase of approximately \$5.93 million effective January 1, 2023. These rates include:

- Costs associated with control of combined sewer overflows;
- Costs associated with separate storm sewer operation and maintenance;
- Rate-funded stormwater capital projects;
- 50% of costs associated with combined system maintenance and existing debt service;
- Future debt service based on stormwater capital projects in the CIP; and
- Administrative costs shared between water, wastewater, and stormwater.

In developing the stormwater revenue requirement, stormwater-only costs were allocated to the stormwater revenue requirement, and other shared costs were allocated based on the stormwater utility's proportionate share of costs. This allocation of costs was approved in PWSA's *2021 Rate Case*.

The PWSA's approved stormwater rate (sometimes called a fee) recovers the stormwater revenue requirement based on the impervious area on a customer's property. Using ArcGIS mapping software, impervious area was identified in PWSA's service territory using 2017 imaging of Allegheny County. The impervious area was overlaid with parcel polygons and was used to calculate each property's total impervious area. An analysis of single family residential

properties was conducted, which found that the median impervious area is approximately 1,650 square feet. Therefore, PWSA utilized and the Commission approved 1,650 square feet as the value of 1 ERU. As explained above, single family residential customers will be charged one of three tiers of stormwater fees based on impervious area, while the fee for non-residential customers will be calculated by the number of ERUs multiplied by the rate per ERU.

OTHER STORMWATER COMPLIANCE TOPICS

As noted, because PWSA operates its stormwater operations as part of its “combined” water/wastewater operations, its prior Stage 1 Compliance Plan, previously submitted and approved by the Commission for its water and wastewater operation also applies to its wastewater operations. However, because of the nature of stormwater management service, PWSA notes certain areas in which its compliance might need to be different or specialized. Those potential areas are discussed below.

I. 52 Pa. Code, Chapter 56

Chapter 56 describes standards and billing practices for residential utility service. As discussed above, PWSA is currently addressing other Stage 2 Compliance Plan topics – including PWSA’s compliance with Chapter 56 of the Commission’s regulations; compliance with the Discontinuance of Service to Leased Premises Act (“DSLPA”), 66 Pa. C.S. §§ 1521-1533; and PWSA’s plan for collections processes – as part of a separate filing. PWSA’s stormwater operations will comply with the Commission’s Chapter 56 regulations in the same way as discussed in this separate Stage 2 Compliance Plan filing. Any compliance items specific to stormwater service are discussed herein.

52 Pa. Code §§ 56.81 – 56.118, and 56.321 – 56.361: 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 56.100 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. 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. Finally, Section 56.131 provides for third-party notification allowing customers to designate a third-party to receive notices from the utility. Sections 56.321 to 56.361 include similar terms applicable to victims of domestic violence.

PWSA Compliance Plan

For its ~~currently~~previously existing utility services – water and wastewater conveyance – PWSA fully discusses its compliance with Chapter 56 including the termination of service provisions in the Stage 2 Compliance Plan: Chapter 14 & 56, DSLPA and Collections (Revised), which was filed on ~~April 13~~September 12, 2021~~2022~~. Now that PWSA's approved stormwater

tariff is in effect as of January 12, 2022, PWSA’s stormwater processes regarding termination of service will proceed in the same manner.

Regarding termination of service for non-payment of stormwater fees, PWSA proposed and the Commission approved PWSA’s plan to terminate water service if a customer fails to pay PWSA’s stormwater charges similar to its current processes when a customer fails to pay PWSA’s wastewater conveyance charges. In addition to its ability to terminate water service for a failure of a customer to pay his or her bill, PWSA is a municipal authority and pursues municipal liens pursuant to the Municipal Claims and Tax Liens statute (“Municipal Lien Law”) on property where water, wastewater, and/or stormwater charges remain unpaid.² While the Commission lacks jurisdiction over issues related to municipal liens themselves, such as the imposition of the lien, the validity of the lien, and the enforcement or removal of the lien,³ the ability of PWSA to lien is an important component of its overall collections toolbox and – for stormwater only customers – will be the only tool available to seek payments of its stormwater charges.

II. 52 Pa. Code § 65.14: Measurement and 52 Pa. Code § 65.8: Meters

The Commission does not have specific regulations regarding the method of measurement to be used to calculate the amount of stormwater service that an individual customer receives. Nor is there any direction as to the calculation of customer bills for

² 53 P.S. § 7107.

³ *See, e.g., David Fasone v. Philadelphia Gas Works*, Docket No. C-2012-2322684, Final Order (Act 294) entered November 30, 2012 adopting Initial Decision dated October 12, 2012 (“[A]ny challenges to the validity of the lien and the enforcement of the lien are all within the jurisdiction of the Court of Common Pleas, pursuant to the [MCTLL]. No provision of the [MCTLL] grants the Commission jurisdiction over any aspect of a municipal lien proceeding. Municipal lien proceedings, pursuant to the [MCTLL], are exclusively within the jurisdiction of the Court of Common Pleas, not the Commission. The Commission simply lacks jurisdiction over any aspect of a municipal lien proceeding, pursuant to either the Public Utility Code or the [MCTLL]”).

stormwater. Additionally, stormwater service is not a metered service. As discussed above and as approved in the *2021 Rate Case*, PWSA will calculate customer bills based on the property's impervious area.

PWSA's responses to Staff's Directed Questions on Sections 65.8 and 65.14 are included in [Appendix Appendices 1 and 2](#).

III. 52 Pa. Code § 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

As part of its Stage 1 Compliance Plan, PWSA agreed to certain enhancements and protocols regarding compliance with this Section.²⁹ With those enhancements, PWSA's current operations, including those applicable to stormwater operations, are fully in compliance with Section 65.2. In determining whether an occurrence of an unusual nature causing more than \$50,000 in damages is a reportable accident related to stormwater, such as flooding associated with a severe storm, PWSA will only consider damage related to stormwater that has entered PWSA's system. PWSA cannot be responsible for every rain event or all property damage from stormwater runoff, as there is no legal basis for this and doing so would potentially expose PWSA to hundreds of millions of dollars of damages claims across the City. Rather, PWSA will

consider damages related to stormwater that has already entered the system or that is otherwise directly related to the system when determining whether a reportable accident has occurred under Section 65.2.

PWSA's responses to Staff's Directed Questions on Section 65.2 are included in Appendix 1.

IV. 52 Pa. Code § 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

As part of its Stage 1 Compliance Plan, PWSA agreed to certain enhancements and protocols regarding compliance with this Section. With those enhancements, PWSA's current operations and practices, including those applicable to stormwater operations, are fully in compliance with Section 65.4. For example, PWSA's stormwater service area is the same as its wastewater service area. A map of this area can be provided upon request. Maps of PWSA's storm sewer system and current green infrastructure projects are attached as Appendices E and F.

PWSA's responses to Staff's Directed Questions on Section 65.4 are included in Appendix 1.

V. 52 Pa. Code § 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* (USOA), as prescribed by the National Association of Regulatory Utility Commissioners (NARUC).

PWSA Compliance Status

In general, PWSA is in compliance with the requirement and has converted to using the NARUC system of accounts. However, the NARUC system of accounts does not include a system specific to stormwater accounts.

PWSA Compliance Plan

PWSA intends to comply with this section with respect to its stormwater operations in the same manner as it is complying for water/wastewater. As noted, PWSA operates its water/wastewater/stormwater operations as a combined system. Accordingly its accounting practices will not differ.

PWSA's responses to Staff's Directed Questions on Section 65.16 are included in ~~Appendix~~ [Appendices 1 and 2](#).

VI. 52 Pa. Code § 65.17: Standards of Design

Section 65.17 applies to water systems and provides that the design of the utility's water plant shall conform to standard acceptable engineering practice, be designed to provide reasonably adequate and safe service to customers, and comply with PA DEP requirements. This section also includes other specification for design requirements of water systems.

PWSA's responses to Staff's Directed Questions regarding Section 65.17 are included in Appendix 1.

VII. 52 Pa. Code § 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 is currently in compliance with this requirement and intends to comply with this requirement for the stormwater utility as well. The settlement of the *2021 Rate Case*, which the Commission approved, included an allocation of all elements of cost of service, including debt, plant in service, and operating expenses among water, wastewater and stormwater operations. Those allocations, together with PWSA's proposed stormwater rate, became effective on January 12, 2022. PWSA will file its first annual report reflecting these approved allocations and rates by April 30, 2023.

PWSA's responses to Staff's Directed Questions on Section 65.19 are included in ~~Appendix~~[Appendices 1 and 2](#).

VIII. 52 Pa. Code § 65.21: Duty of Public Utility to Make Line Extensions

Section 65.21 provides that a utility will include in its tariff a rule outlining the conditions under which it will extend supply service to an applicant in its service area. The section also provides criteria for funding line extension costs.

PWSA's responses to Staff's Directed Questions on Section 65.21 are included in Appendix 1.

[IX. 52 Pa. Code § 65.22: Customer Advance Financing, Refunds and Facilities on Private Property](#)

[PWSA's response to Staff's Directed Questions on Section 65.22 are included in Appendix 2.](#)

[X. ~~IX.~~ 52 Pa. Code § 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 consistent 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

As part of the Stage 1 Compliance Plan, PWSA agreed to become fully compliant with the Commission's annual depreciation reporting requirements by 2024 (for 2023) and has started submitting partial reports on an interim basis starting in 2020.

PWSA Compliance Plan

PWSA intends to comply with this section with respect to its stormwater operations in the same manner as it is complying for water/wastewater. As noted, PWSA operates its

water/wastewater/stormwater operations as a combined system. Accordingly its accounting practices will not differ. PWSA will therefore submit depreciation reports in compliance with its earlier Compliance Plan commitments that will include any plant-in-service associated with stormwater. PWSA's responses to Staff's Directed Questions on Section 73.3 are included in ~~Appendix~~[Appendices 1 and 2](#).

XI. ~~X-52~~ Pa. Code § 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 is working toward providing annual depreciation reports on the schedule described above in Section 73.3.

[PWSA Compliance Plan](#)

PWSA intends to comply with this section with respect to its stormwater operations in the same manner as it is complying for water/wastewater. As noted, PWSA operates its water/wastewater/stormwater operations as a combined system. Accordingly its accounting practices will not differ.

XII. ~~XI.~~ 52 Pa. Code § 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 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, by April 1, 2022.

PWSA Compliance Plan

PWSA intends to comply with this section with respect to its stormwater operations in the same manner as it is complying for water/wastewater. As noted, PWSA operates its water/wastewater/stormwater operations as a combined system. Accordingly its accounting practices will not differ. PWSA's responses to Staff's Directed Questions on Section 73.5 are included in Appendix 1.

XIII. ~~XII.~~ 52 Pa. Code § 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 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 for its water, wastewater and stormwater investments and operations. PWSA's responses to Staff's Directed Questions on Section 73.6 are included in Appendix 1.

XIV. ~~XIII.~~ 52 Pa. Code § 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 consisted 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

In its Final Compliance Plan, PWSA agreed to comply with the standards and requirements listed in Section 73.7 and 73.8 starting in 2020 and every five years thereafter.

PWSA Compliance Plan

Because of delays related to the pandemic and other matters, PWSA is planning to file its first report shortly. That report, as well as PWSA's 2025 report will show capital improvements on a water/wastewater/stormwater basis. PWSA's responses to Staff's Directed Questions on Section 73.7 are included in Appendix 1.

XV. ~~XIV.~~ 52 Pa. Code § 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

In its Final Compliance Plan, PWSA agreed to comply with the standards and requirements listed in Section 73.7 and 73.8 starting in 2020 and every five years thereafter.

PWSA Compliance Plan

PWSA's 2025 report will show capital improvements on a water/wastewater/stormwater basis. PWSA's responses to Staff's Directed Questions on Section 73.8 are included in Appendix 1.

XVI. ~~XV.~~ 52 Pa. Code § 101.3: Emergency Response 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 currently in compliance with Section 101.3, and has now developed 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 Compliance Plan

PWSA's existing cyber security and emergency response plans are applicable to all aspects of PWSA's operations, including its present stormwater operations. PWSA's responses to Staff's Directed Questions on Section 101 are included in Appendix 1.

XVII. ~~XVI.~~ 52 Pa. Code § 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

PWSA is now meeting the reporting requirements detailed in Section 101.4. PWSA submitted the Self-Certification Form in Section 101.3 as of February 28, 2020.

PWSA Compliance Plan

PWSA's current Self-Certification applies to all aspects of PWSA's operations, including stormwater. PWSA's responses to Staff's Directed Questions on Section 101 are included in Appendix 1.

XVIII. ~~XVII.~~ Memorandum of Understanding with the City of Pittsburgh and Relationship with the City

PWSA's responses to Staff's Directed Questions about PWSA's relationship with the City of Pittsburgh and development of a Memorandum of Understanding related to stormwater services are included in ~~Appendix~~[Appendices 1 and 2](#).

XIX. ~~XVIII.~~ Bulk Stormwater Agreements

PWSA's responses to Staff's Directed Questions on bulk stormwater agreements are included in ~~Appendix~~[Appendices 1 and 2](#).

XX. ~~XIX.~~ 66 Pa. C.S. Section 510; Assessment for Regulatory Expenses Upon Public Utilities, and 66 Pa. C.S. Section 3207: Commission Assessment

PWSA's responses to Staff's Directed Questions on Sections 510 and 3207 are included in Appendix 1.

CONCLUSION

PWSA appreciates the opportunity to present this information and looks forward to working with the Commission and interested stakeholders to finalize this process.

Summary report:	
Litera Compare for Word 11.0.0.61 Document comparison done on 10/24/2022 2:00:29 PM	
Style name: ESCM	
Intelligent Table Comparison: Active	
Original filename: PWSA SW CP Original.docx	
Modified DMS: iw://escm-mobility.imanage.work/ECKERTACTIVE/107685321/3	
Changes:	
Add	97
Delete	73
Move From	0
Move To	0
Table Insert	0
Table Delete	0
Table moves to	0
Table moves from	0
Embedded Graphics (Visio, ChemDraw, Images etc.)	0
Embedded Excel	0
Format changes	0
Total Changes:	170

¹ 66 Pa. C.S. § 3205.

² *Assignment of the Pittsburgh Water and Sewer Authority Compliance Plan to the Office of Administrative Law Judge*, Docket No. M-2018-2640802 (water) and M-2018-2640803 (wastewater), dated November 28, 2018 Corrected (“November 28, 2018 Secretarial Letter”).

³ *Pennsylvania Public Utility Commission v. Pittsburgh Water and Sewer Authority*, Docket Nos. R-2018-3002645 (water) and R-2018-3002647 (wastewater) Final Order entered February 27, 2020 (“Initial Rate Case”)

⁴ *Implementation of Chapter 32 of the Public Utility Code Regarding Pittsburgh Water and Sewer Authority – Stage I, Opinion and Order*, Docket Nos. M-2018-2640802, M-2018-2640803, P-2018-3005037, and P-2018-3005039 (entered March 26, 2020) (“March 2020 Stage I Order”).

⁵ *Stage I February 4, 2021 Order* at 65.

⁶ *Pennsylvania Public Utility Commission v. Pittsburgh Water and Sewer Authority*, Docket Nos. R-2020-3017951 (water) and R-2020-3017970 (wastewater), Joint Petition for Settlement dated September 20, 2020, Section III.B at 7 (“Second Rate Case Settlement”)

⁷ *Stage I February 4, 2021 Order* at 65.

⁸ *Implementation of Chapter 32 of the Public Utility Code Regarding Pittsburgh Water and Sewer Authority – Stage I*, Docket Nos. M-2018-2640802, M-2018-2640803, P-2018-3005037, and P-2018-3005039, Joint Petition for Partial Settlement (dated Sept. 13, 2019), at 35 (subsequently approved by the Opinion and Order entered Mar. 26, 2020).

⁹ The Executive Summary of the 2013 Wet Weather Feasibility Study is also available on PWSA’s website at <https://www.pgh2o.com/your-water/stormwater/stormwater-plans>.

¹⁰ The Green First Plan is also available on PWSA’s website at <https://www.pgh2o.com/your-water/stormwater>.

¹¹ *FIO* at 28-29.

¹² See PWSA Exhibits HJS-1WW through HJS-6WW (July 2, 2018), Docket Nos. R-2018-3002645 (water) and R-2018-3002647 (wastewater); PWSA Exhibits HJS-1 through HJS-6 (Mar. 6, 2020), Docket Nos. R-2020-3017951 (water) and R-2020-3017970 (wastewater).

¹³ Implementation of Chapter 32 of the Public Utility Code Re Pittsburgh Water and Sewer Authority, Final Implementation Order (entered Mar. 15, 2018), Docket Nos. M-2018-2640802 (water) and M-2018-2640803 (wastewater), at 31.

¹⁴ *Pennsylvania Public Utility Commission v. Pittsburgh Water and Sewer Authority*, Docket Nos. R-2020-3017951 (water) and R-2020-3017970 (wastewater) Final Order entered December 3, 2020 (“*Second Rate Case*”).

¹⁵ *Pennsylvania Public Utility Commission v. Pittsburgh Water and Sewer Authority*, Docket Nos. R-2020-3017951 (water) and R-2020-3017970 (wastewater), Joint Petition for Settlement dated September 20, 2020, Section III.B at 7 (“*Second Rate Case Settlement*”)

¹⁶ Due to uneven patterns and timelines of real estate development, some areas have been built as separated systems, but must connect to an older combined system downstream because they do not have direct access to ALCOSAN sanitary sewer lines (for sanitary flow) or a body of water (for stormwater flow), resulting in a patchwork of infrastructure types.

¹⁷ “MS4” stands for Municipal Separate Storm Sewer System. See 25 Pa. Code § 92a.2. Municipalities and other entities that meet certain standards must obtain National Pollutant Discharge Elimination System (“NPDES”) permit coverage for discharges of storm water from their MS4s. See, e.g., the Storm Water Management Act, 32 P.S. §§ 680.1, *et seq.* See also 40 CFR 122.26(b) (relating to definitions).

¹⁸ 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.

¹⁹ PWSA Revised Compliance Plan (Apr. 27, 2020), Docket Nos. M-2018-2640802 and M-2018-2640803.

²⁰ 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.

²¹ See <https://www.phila.gov/water/wu/stormwater/Pages/default.aspx>.

²² See <https://www.neorsd.org/>.

²³ See <http://www.msdcg.org/>.

²⁴ See <https://charlottenc.gov/StormWater/Pages/default.aspx>.

²⁵ See https://www.carlislepa.org/residents/stormwater_management/index.php.

²⁶ See <https://dallascityhall.com/departments/trinitywatershedmanagement/wheredoesitgo/Pages/default.aspx>.

²⁷ See PWSA St. No. 9, Direct Testimony of Beth Dutton (Mar. 6, 2020), Exhibit BD-2, Docket Nos. R-2020-3017951 (water) and R-2020-3017970 (wastewater).

²⁸ The stormwater fee is the amount a customer is charged for stormwater service. The fee is calculated based on the customer’s impervious area and the rate for PWSA stormwater service as stated in the tariff.

²⁹ PWSA Revised Compliance Plan (Apr. 27, 2020), at 46-48, Docket Nos. M-2018-2640802 and M-2018-2640803.

1. Memorandum of Understanding with the City of Pittsburgh

The Stormwater CP at Page 4 identifies that a Memorandum of Understanding (MOU) is being developed between PWSA and the City of Pittsburgh (City) regarding the maintenance of stormwater infrastructure. The Stormwater CP also describes that PWSA and the City are developing a detailed agreement regarding other stormwater management responsibilities of PWSA and the required coordination and cost-sharing with the City.¹ This includes planning, design implementation, and maintenance of stormwater related capital projects. While PWSA notes the content and timeline for the additional agreement is still being determined, such agreements are important for parties to consider for potential impacts to operations and rates.

Parties should discuss an appropriate timeline for PWSA to complete and file applicable agreements with the Commission.

PWSA Response:

PWSA and the City have held initial discussions to develop an MOU regarding the maintenance of stormwater infrastructure. These discussions were temporarily paused while PWSA and the City negotiated an agreement designating each entity's responsibilities under their joint MS4 permit. PWSA and the City recently finalized an agreement on the MS4 obligations, and this agreement was filed with the Commission on January 11, 2022 at Docket No. U-2022-3030418 pursuant to Section 507 of the Public Utility Code, 66 Pa. C.S. § 507. The MS4 agreement specifically provides that a stormwater MOU will be negotiated "at a later date."

Now that an MS4 agreement has been reached and a stormwater charge is in place, PWSA intends to re-start discussions with the City and the new administration to develop an MOU regarding stormwater responsibility. PWSA anticipates finalizing the MOU by the end of ~~2022~~2023. Any such agreement will be filed with the Commission under Section 507 of the Public Utility Code.

2. Projected Expenditures

The Stormwater CP at Page 14 identifies PWSA's stormwater program revenue requirements for FY 2022 will total approximately \$36.7 million and PWSA's initial stormwater tariff filing at Docket No. R-2021-3024779 identified capital expenditures related to stormwater will increase from approximately \$15.8 million in 2020 to \$34.7

¹ The Stormwater CP at Page 4 does not specify whether the MOU and the reference to an agreement addressing other stormwater management responsibilities are the same agreement or whether these are two separate agreements.

million in 2021, \$21.7 million in 2022, and \$13.2 million in 2023. Parties should discuss:

- A. The allocation of costs assigned to the stormwater revenue requirement for costs shared by water, wastewater and stormwater service.

PWSA Response:

The PWSA has presented extensive testimony and exhibits showing the process it has used to allocate costs among water, wastewater and stormwater service. See the Direct Testimony of Harold J. Smith, PWSA St. No. 4 at 11-13, 44; Exhs. HJS-1, HJS-2, and HJS-5SW in PWSA’s most recent base rate case, in which a stormwater fee was approved. (R-2021-3024779, hereinafter, 2021 Rate Case or Stormwater Rate Case). The allocation of these costs among these service categories is a more expansive version of the allocation that PWSA has presented for informational purposes in its last two base rate proceedings.

As part of its Settlement of the 2021 Rate Case – approved by the Commission – the Parties adopted PWSA’s proposed allocation of costs at present rates among water, wastewater and stormwater services.²

- B. The criteria a proposed project must meet, in terms of cost to benefit, to be included in the Capital Investment Plan (CIP).

PWSA Response:

Due to funding limitations and the need to renew/replace a significant amount of aging infrastructure, the following criteria are used to evaluate and prioritize capital projects:

- *Capacity – Meets community health needs and growth, as needed;*
- *Level of Service – Improvement to customer service;*
- *Operations and Maintenance Efficiency – Potential for operating cost savings;*
- *Regulatory Compliance – Regulatory compliance schedule and potential fines for non-compliance;*

² PWSA 2021 Rate Case Settlement, ¶ III.A.1, App. C.

- *Regional Cooperation/Stewardship – Coordination with external stakeholders and local communities to include considerations of equity and environmental justice;*
- *Reliability/Operational Flexibility – Location, age, and condition of infrastructure and risk if action is not taken;*
- *Safety – Potential health and safety risks to personnel and the public if action is not taken; and*
- *Sustainability – Energy efficiency and “green” approach to improving water quality.*

C. Each of the stormwater projects listed in the CIP and the method PWSA expects to use to finance those projects.

PWSA Response:

PWSA Exhibit EB-5, which was submitted with Mr. Barca’s Direct Testimony (PWSA St. No. 2) in the 2021 Rate Case, is a copy of PWSA’s 2021-2025 Capital Improvement Plan. A detailed description of each of the stormwater projects included in the CIP is provided on pages 80-99 of Exhibit EB-5. Each project summary includes a budget and identifies the funding source(s) for that project.

3. 52 Pa. Code § 53.53 – Information to be furnished with proposed general rate increase filings in excess of \$1 million

Regarding 52 Pa. Code § 53.53, parties should discuss:

- A. The filing requirements for proposed changes in stormwater rates and/or services and whether any additional filing requirements may be necessary.
- B. The applicability of the filing requirements for water and wastewater utilities pursuant to 52 Pa. Code § 53.53(a)(4) to PWSA for proposed changes in stormwater rates and/or services.

PWSA Response:

PWSA believes the same filing requirements for water and wastewater rates and/or service apply to stormwater. PWSA submitted the same information for the Stormwater Rate Case as it submitted for the water and wastewater rate filings in compliance with the existing filing requirements. PWSA does not believe that any

additional filing requirements are necessary for changes in stormwater rates or service.

4. 52 Pa. Code § 65.2 – Accidents

The Stormwater CP at Page 18 indicates that PWSA’s stormwater operations fully comply with 52 Pa. Code § 65.2. PWSA notes that, in determining whether an occurrence of an unusual nature causing more than \$50,000 in damages is a reportable accident related to stormwater, PWSA will only consider damage related to stormwater that has entered its system or that is otherwise directly related to the system.

Parties should discuss the stipulation of reporting accidents for “damage related to stormwater that has entered its system or that is otherwise directly related to the system” identified by PWSA.

PWSA Response:

In the above-referenced portion of the Stormwater CP, PWSA fully explained why the criteria for reporting accidents (“damage related to stormwater that has entered its system or that is otherwise directly related to the system”) is the most reasonable and appropriate reporting standard. No party commented on this question in the Stormwater Rate Case.

5. 52 Pa. Code § 65.4 – Records

The Stormwater CP at Page 19 indicates that PWSA’s current operations and practices, including those applicable to stormwater operations, are fully in compliance with 52 Pa. Code § 65.4. PWSA also references maps of PWSA’s storm sewer system and current green infrastructure projects attached to the Stormwater CP as Appendices E and F. However, the Stormwater CP at Page 3 indicates PWSA does not currently have a formal written plan for an inventory of stormwater assets and conditions, and Appendices E and F do not appear to indicate the character and size of stormwater infrastructure and may not include the location of other relevant stormwater facilities (i.e., stormwater points of connection, basins, inlets, outfalls, etc.).

The terms “character” and “size” in 52 Pa. Code § 65.4 may include several criteria such as material types, pipe/outfall/inlet diameter, catch basin dimensions and capacities, GI project land area, storage tank capacities, asset conditions, and functional capabilities (e.g., PennDOT Type C Inlets, etc.). Certain inventory data may help PWSA and the Commission to determine costs, functional capabilities, and asset service lives.

Parties should discuss a timeframe by which PWSA should be required to complete and be able to furnish to the Commission a complete inventory of stormwater assets and the types of information that PWSA should include in its inventory.

PWSA Response:

PWSA's records of existing stormwater assets are based on historical information that does not provide a complete inventory of these assets. The known stormwater infrastructure is mapped and information on the size of the assets is available, but not all detail is included in PWSA's GIS systems at this time. To date, PWSA has focused on updating its GIS systems to reflect existing water system assets as discussed in the Stage 1 Compliance Plan proceeding, but the Authority plans to update its systems to better reflect existing stormwater assets in the future.

For new stormwater assets, PWSA is tracking these assets and will document new assets on a going forward basis. The Authority has developed additional applications that allow its GIS systems to be actively updated as work is completed on new stormwater assets. Additionally, PWSA plans to explore a more robust asset management system in 2023.

6. 52 Pa. Code §§ 65.8 – Meters & 65.14 - Measurement

The Stormwater CP at Page 14 identifies the use of ArcGIS mapping software to calculate the impervious area for all parcels within PWSA's service territory. In this capacity, the GIS software acts as the meter for a stormwater utility. Regarding 52 Pa. Code §§ 65.8 and 65.14, parties should discuss:

- A. PWSA's proposed method of measurement to calculate applicable stormwater rates (i.e., impervious surface area) as compared to other potential methods, which may include gross area, land use, or some combination of methods.

PWSA Response:

As stated in PWSA witness Readling's direct testimony in the Stormwater Rate Case (PWSA St. No. 8), "impervious surface area" is the most commonly used metric across the United States to charge for costs related to stormwater services like flood control and water quality management... The more impervious area on a property, the more runoff the property generates and the greater the demand for the utility's combined or separate conveyance, flood control and water quality management services." Measuring impervious area in GIS software is an accurate way to determine the total impervious surface area across the service area and the

amount on each individual parcel. Other bases for a stormwater fee, such as the combination of land use and runoff factors are less accurate approximations of an individual parcel's impervious surface area and the resultant demand each places on the system. Any benefits of including gross area in the calculation would not likely outweigh the additional considerations needed in determining the stormwater charge. PWSA's goal for the Stormwater Fee Program is to ensure simple and accurate methods of determining each parcel's fee.

Impervious surface data went through multiple iterations of quality control by Michael Baker International. These efforts included the use of both custom ArcGIS Python scripts and head's up visual review. Adjustments to the impervious area polygons were made based on quality control findings.

The use of impervious area as a means of charging for stormwater costs, as well as the specific calculation of impervious area for customers, were accepted by the Parties in the Stormwater Rate Case and adopted by the Commission when it approved the Joint Petition for Settlement in that proceeding.

- B. The attributes of the GIS software and the map scale, including the detectable size and raster resolution, of the aerial base maps used to produce the impervious area polygons and identify an acceptable allowable error standard for the results.

PWSA Response:

According to the documentation provided to PWSA by Michael Baker International, impervious surface mapping was done against imagery with 6-inch pixels. The minimum mapping unit for all features is 100 square feet, or less, if the feature is visible in the imagery and could be appropriately collected.

- C. The allowable error that, if exceeded, would result in an adjustment to the billing determinant (i.e., the impervious surface area value) of the affected customer.

PWSA Response:

Throughout the impervious area data development process, there was no "allowable error." Any errors identified were resolved.

D. Regarding Page 9 of PWSA Statement No. 8 at Docket No. R-2021-3024779, where Mr. Readling averred that Michael Baker International and PWSA completed quality assurance/quality checks (“QA/QC”) on the hand drawn impervious area closed polygons:

1. The process steps of the QA/QC procedures utilized to correct topological errors induced during the digitizing efforts by the operator, such as polygon knots and loops and other errors and the standard to which these QA/QC efforts were conducted.
2. The requirements, if any, for an on-going QA/QC process of analyzing a different set of customer impervious/parcel data to a statistically significant standard on a periodic basis or upon request by a customer (i.e., similar to how a water utility customer may request that their water meter be tested for accuracy).
3. The method PWSA will use to quantify and retain the results of QA/QC efforts periodically to create a definable record of improving the GIS impervious areas calculations and reducing the likely percentage of errors.

PWSA Response:

QA/QC included comparing computed impervious areas by parcel to parcel gross area to detect topological errors. Future quality control will include developing new impervious feature areas from new aerial imagery sources when they become available, and comparing the computed areas to those currently in use. When changes are found that will change ERUs, an independent reviewer will look at the aerial imagery to decide that something has in fact “changed on the ground” or that an error is being rectified. Further, any customer dispute about impervious area or ERUs will be resolved by aerial imagery review if feasible, and by site visit if necessary.

E. Regarding Page 35 of PWSA Statement No. 7 at Docket No. R-2021-3024779, where Mr. Igwe indicated that PWSA intends to review and reassess impervious area approximately every five (5) years:

1. The ability of PWSA to capture all changes to impervious area associated with customer parcels in the GIS software based upon access to the City’s building permit data set.
2. The appropriate time interval in which the aerial base map, used to calculate impervious areas, should be updated with new and/or higher resolution maps for the stormwater service territory.

PWSA Response:

PWSA staff will update stormwater billing source data – impervious surface area data and parcel boundary data – in response to customer inquiries and event triggers indicating new or changed developments (such as development permits, Certificates of Occupancy issued, building inspections, etc.). Updates will also be made as needed following new releases of aerial imagery.

Customers may request that their measured impervious area be validated, and PWSA staff will do so. If PWSA can access City building permit data, it will be used to identify likely locations where impervious surfaces have changed due to construction or demolition. That is, some types of permits are often related to impervious surface changes, while others may often not be.

Impervious area will also be updated upon receipt and review of updated aerial imagery data, which is anticipated every five years.

Changes to impervious surface area on each parcel will be audited in PWSA's stormwater billing information software. PWSA can use those audit data to track instances of updated impervious surface data.

7. 52 Pa. Code § 65.16 - System of Accounts

The Stormwater CP at Page 20 indicates that PWSA intends to comply with 52 Pa. Code § 65.16 in the same manner as it is complying for water/wastewater and that its accounting practices will not differ. However, PWSA also notes that the NARUC system of accounts does not include a system specific to stormwater accounts. Also, the Stormwater CP notes that PWSA intends to present a proposed allocation of all elements of cost and service among its water, wastewater, and stormwater operations.

The Stormwater CP does not appear to address with specificity how PWSA intends to record stormwater transactions where categories of transactions are unique to stormwater service. For example, stormwater utilities frequently invest in and operate green infrastructure projects, which may include a variety of different types of components, such as rain gardens, permeable pavement, green roofs, etc. Recording stormwater transactions in a consistent and accurate manner may assist with ensuring that PWSA's rates are just and reasonable. Parties should discuss:

- A. The manner and form of PWSA's system of accounting for stormwater transactions, and actions the Commission may take with respect to any further recommendations under Chapter 17 of the Public Utility Code.

PWSA Response:

For stormwater infrastructure that PWSA owns, including green and other infrastructure, PWSA intends to account for this infrastructure in the same manner as water and wastewater assets. Green infrastructure projects are considered as a system, and costs are associated with installing the system as a whole. (For example, underground storage and associated plantings or landscaping are grouped together and considered part of one green infrastructure system.). However, most green infrastructure is not owned by PWSA since it is installed on private property. Improvements on private property will be expensed.

B. Depreciation, amortization and retirement practices, including, but not limited to:

1. Depreciation rates used for green infrastructure assets;
2. Amortization rates used for planning and studies (i.e., flow studies, long term control plans, etc.); and
3. Retirement practices where combined sewer system (CSS) assets are abandoned or transferred to PWSA stormwater utility accounts.

PWSA Response:

Most green infrastructure is not owned by the PWSA since it is installed on private property. ~~Improvements~~Due to this, improvements on private property will be expensed rather than capitalized as an asset on PWSA's ~~books~~financial statements. Therefore, depreciation rates are not applicable. However, green infrastructure that is PWSA-owned will be recorded as an asset and depreciated in accordance with regular practices. Green infrastructure projects are considered as a system, and costs are associated with installing the system as a whole. (For example, underground storage and associated plantings or landscaping are grouped together and considered part of one green infrastructure system.). The costs of "daylighting" a stream, which is then interconnected to a PWSA storm pipe, will be included with the cost of the storm pipe. Importantly, PWSA's revenue requirement is based on cash requirements and not on a return on assets and, therefore determining depreciated plant in service is not necessary to establish rates for the Authority.

The PWSA does not currently amortize flow studies and long control plans and there is no plan to do so in the future.

The bulk of PWSA's assets that were transferred from the City of Pittsburgh are grouped as lump sums. There is not enough information to modify the depreciation associated with specific existing assets. The PWSA will continue to hold them on our books as is until they are fully depreciated.

Note that PWSA's handling of these items is evolving, and there may be future changes based on U.S. Environmental Protection Agency and U.S. Department of Justice requirements.

- C. PWSA's accounting practices for situations where CSS assets are subsequently used solely for stormwater purposes. For example, if 50% of the book value of a CSS wastewater main is considered wastewater utility plant in service with the remaining 50% of the book value being considered stormwater utility plant in service, and the CSS wastewater main is then converted to a stormwater main after the installation of a separate sanitary sewer system, parties should discuss how this may impact the stormwater utility. Likewise, parties should address allocated expenses associated with the infrastructure and for situations where stormwater mains discharge stormwater into a CSS.

PWSA Response:

All new stormwater assets that are on PWSA property will be recorded and depreciated as new stormwater assets. Green infrastructure projects that are not owned by PWSA, will be expensed on the Authority's books.

The bulk of PWSA's assets that were transferred from the City of Pittsburgh are grouped as lump sums. There is not enough information to modify the book value of specific existing assets. The PWSA will continue to hold them on its books as is until the entire relevant category of asset is fully depreciated.

In term of ratemaking, this is a cost allocation question. In the 2021 Stormwater Rate Case, and in PWSA's future base rate cases, plant in service will be allocated among wastewater and stormwater will be shown in the cost of service study and allocated between wastewater and stormwater going forward.

- D. New or subaccounts for recording various entries including, but not limited to:
1. Different categories of green infrastructure assets, further broken down by major plant components. For example, categories of green infrastructure assets may include rain gardens, permeable pavement, bioswales, etc. whereas major plant components may include inlets, pipes, paving, vegetation, and other capitalizable costs.

PWSA Response:

Since PWSA will not own most green infrastructure, the Authority currently does not believe there is a need to create new or subaccounts to record the assets. However, PWSA is still examining whether any subaccounts may be needed in the future. Please refer to PWSA's responses above describing how items on PWSA or non-PWSA property are handled.

2. Subaccounts for transactions where investments or costs are allocated as opposed to those assigned entirely to stormwater. For example, whether PWSA should maintain subaccounts for CSS assets to separate the book value of CSS assets allocated to PWSA's stormwater utility function from the book value allocated to PWSA's wastewater utility function, and likewise for PWSA-owned laterals, studies, operating expenses, etc.

PWSA Response:

PWSA currently believes that subaccounts will not be needed for stormwater assets, although PWSA is still examining this question. Stormwater assets will either be pipe or green infrastructure. New stormwater pipe, and, if applicable, green infrastructure assets owned by PWSA, will be recorded and depreciated in accordance with PWSA standard practices. Please see the responses above describing how green infrastructure on PWSA or non-PWSA property are handled.

8. 52 Pa. Code § 65.17 - Standards of Design

The Stormwater CP references potential standards of design for stormwater management in several sections, including: at Page 4, when describing a detailed agreement between PWSA and the City to negotiate and resolve any issues outside of MS4 requirements; at Page 13, while describing proposed stormwater credits; and throughout Attachments A and B. Parties should discuss:

- A. The level of runoff capture PWSA will adopt as a design standard.
- B. The proposed standards of design with regard to a specific level of service, the goals set forth by PWSA's Green First Plan, and the requirements of the January 26, 2021 Administrative Order on Consent with the EPA (January 2021 AOC).

- C. Whether PWSA should maintain exclusive control over standards of design for PWSA-owned utility facilities, notwithstanding any agreement with the City.

PWSA Response:

PWSA and the City of Pittsburgh's Department of Planning have been working collaboratively to update the stormwater code and review process. Part of this initiative involved the development of a Stormwater Design Manual to serve as a companion document to assist applicants in complying with the City's stormwater regulations. The manual includes detailed guidance on the selection and design of specific stormwater management techniques, and guidance on the construction of stormwater management systems. ~~It is anticipated that the~~The manual ~~will be~~became available and ~~the~~ updated code ~~will be in~~went into effect in early 2022. PWSA will use this guidance for design for PWSA facilities, and they will be integrated into the development of the future stormwater agreement with the City.

However, the Level of Service for the PWSA system is a broader discussion and will involve considerations of such factors as rainfall trends, existing problem areas of flooding and basement backups, impacts of the future wastewater storage tunnel systems to be constructed by ALCOSAN, equity, stakeholder and customer input, and affordability. PWSA is currently engaged in a Stormwater Strategic Planning process (formerly referred to as the "Stormwater Master Plan"), which will develop a framework for a future Level of Service analysis that builds on existing data models, climate change models, and review of other cities' approaches to Level of Service. The ~~draft~~ Stormwater Strategic Plan is ~~currently scheduled to be completed in June 2022~~complete and is currently being reviewed by PWSA. The draft ~~will then be made available for public review and comment prior to being finalized~~, and PWSA will integrate the Level of Service recommendations in the Master Plan into its Wet Weather Program goals. ~~It is anticipated that PWSA will have a draft Level of Service for the system by 2025.~~

9. 52 Pa. Code § 65.19 Filing of Annual Financial Reports

The Stormwater CP at Pages 19-20 indicates PWSA intends to comply with the requirement to file annual financial reports for stormwater services, and that PWSA will use allocations from its rate case filed at Docket No. R-2021-3024779 when filing its first annual report by April 30, 2023.

The information included in annual financial reports differs between municipal wastewater utilities and Class A, B, and C wastewater utilities. Parties should discuss:

- A. When filing annual financial reports for stormwater service, whether PWSA should use the approved annual report form for Class A wastewater utilities, the approved annual report form for municipal wastewater utilities, or some other annual report form.

PWSA Response:

PWSA proposes to use the approved annual report form for municipal wastewater utilities. PWSA's stormwater service was previously included within wastewater service and reported on this form. Now that PWSA is separating stormwater from wastewater, the annual report form for municipal wastewater utilities should still be able to be used for annual reporting for stormwater service.

- B. Whether PWSA should use an existing approved annual report form, or the changes, if any, that should be made to the form to report stormwater financial and operational data.

PWSA Response:

See PWSA's response to Part A, above. PWSA proposes to use the approved annual report form for municipal wastewater utilities without any changes.

- C. How certain categories of entries should be recorded where a similar type of expense or investment is not made by wastewater utilities.

PWSA Response:

See PWSA's responses to Parts A and B, above. Additionally, as discussed previously, most green infrastructure is not owned by PWSA since it is on private property. For green infrastructure projects that are not owned by PWSA, these will be expensed on the Authority's books. Any new stormwater assets that are on PWSA property will be recorded as assets. Additionally, green infrastructure projects are considered as a system, and costs are associated with installing the system as a whole. (For example, underground storage and associated plantings or landscaping are grouped together and considered part of one green infrastructure system, which will be recorded under "underground storage.") At this time, PWSA does not believe any different or additional categories of entries are needed, but PWSA is still evaluating this.

10. 52 Pa. Code § 65.21 - Duty of Public Utility to Make Line Extensions

The Stormwater CP and PWSA Statement No. 7, Exhibit TI-4 (Tariff Storm Water – Pa. P.U.C. No. 1) at Docket No. R-2021-3024779 do not address line extensions for bona fide service applicants under 52 Pa. Code § 65.21. Conversely, Statement No. 6, Exhibit JAQ-6 (Tariff Wastewater – Pa. P.U.C. No. 1), Section G at Docket No. R-2021-3024774 specifies the conditions for main extensions for Bona Fide and Non-Bona Fide Service Applicant(s) to PWSA’s wastewater system. Parties should discuss:

- A. The terms and conditions for both Bona Fide and Non-Bona Fide Service Applicants who desire to connect to PWSA’s stormwater system and the differences in requirements for new sanitary sewer, storm sewer and combined sewer connections to an existing combined sewer and for new storm sewer connections to an existing MS4.
- B. Whether it is necessary or proper for the accommodation, convenience, and safety of PWSA patrons and the public for PWSA to assume ownership and operation of stormwater utility facilities installed in its service area to serve the public (i.e., excluding facilities that serve individual lots or a defined, limited and privileged group of lots) as new facilities are constructed or as existing facilities are replaced, provided that such facilities meet PWSA’s standards of design and construction and the existing owner/operator is willing and able to dedicate the facilities to PWSA.

PWSA Response:

In general, PWSA will follow the same rules for stormwater line extensions as for wastewater line extensions. However, stormwater line extensions are not as easily performed as water line extensions. The capacity of the existing combined sewer system plays a role in the ability to construct the extension. Because of the extremely limited capacity in PWSA’s combined system due to development over the years, stormwater lines have been extended only for purposes of separating stormwater from wastewater. For this reason, PWSA’s ~~approved~~ Stormwater Tariff ~~does not currently~~ originally did not provide for line extensions for bona fide or non-bona fide service applicants. Since that filing, PWSA has reconsidered that position and PWSA’s current view is that its Stormwater Tariff should include line extension provisions that follow the general rules and conditions applicable to wastewater line extensions in PWSA’s Tariff. Contemporaneously with this Second Revised Compliance Plan filing.

PWSA is filing Supplement No. 2 to its Stormwater Tariff that provides for stormwater line extensions consistent with the wastewater line extension provisions in PWSA's Wastewater Tariff. (See the June 9, 2022 Joint Petition for Settlement at ¶ III.C.1; see also the July 19, 2022 Recommended Decision at 14-17.) However, the availability of a line extension must be strictly limited to instances in which PWSA currently has the necessary facilities and capacity to accommodate the extension.

In several areas served by the MS4 system where stormwater piping is not present, natural swales were formerly present along the roadway to convey the flow of stormwater. These have either been paved over or have not been maintained. If PWSA would consider approving a stormwater line extension request by a bona fide service applicant in the MS4 portions of the system, capacity and permits would need to be approved, and the construction funded per the provisions of 52 Pa. Code § 65.21 and its Tariff. PWSA proposes to submit a stormwater line extension provision to be added to its approved stormwater tariff upon PUC approval of this Stormwater Compliance Plan.

With respect to ownership, as new facilities are constructed or as existing facilities are replaced, provided that such facilities meet PWSA's standards of design and construction and the existing owner/operator is willing and able to dedicate the facilities to PWSA, the Authority may consider assuming ownership and operation of stormwater facilities installed in its service area to serve the public (i.e., excluding facilities that serve individual lots or a defined, limited and privileged group of lots).

11. 52 Pa. Code § 65.22 - Customer Advance Financing, Refunds and Facilities on Private Property

The Stormwater CP at Page 13 identifies PWSA's proposal to allow customers to earn credits to reduce their stormwater rates. Under that proposal, for non-residential customers, credits will be provided for customers that capture and detain runoff on-site, where such infrastructure meets or exceeds the development standards in place. Section B.3 on Page 10 of the *pro forma* Stormwater tariff filed at Docket No. R-2021-3024779 indicates that non-residential customers who undertake regional efforts may also be eligible for credit. Parties should discuss:

- A. PWSA's proposed tier and percentage discounts with respect to potential revenue loss and the equity of discounts available to each customer class when compared to the cost of service for that customer class.

PWSA Response:

Most stormwater programs set a maximum credit for standard approaches with the understanding that even if all ratepayers did everything possible to install on-site controls, the Authority would still need to provide certain services. Therefore, the costs and rates would not trend completely to zero. This is true for PWSA and Raftelis determined from the 2022 budget that about 25% of the costs in 2022 will be support services which include administration, bad debt and credit program costs, and transfers. The remaining 75% of costs can be functionalized across several categories including system cleaning, MS4-related, CSO, and flood control. On-site controls like those installed to comply with the 2019 City of Pittsburgh stormwater standard will mitigate stormwater demand for all of these functions (except support services), but not completely. Raftelis estimates that about 80% of the non-support costs might be mitigated by on-site stormwater controls that meet the 2019 standard, such that the maximum credit would best be set at 80% of the non-support costs.

This totals 60% of all costs and this is the basis for the planned 60% credit for properties complying with the 2019 standards with regard to their installation and maintenance of stormwater control measures. This is also consistent with the planned 50% credit available to residential customers who either disconnect downspouts to route impervious drainage to street planters, or control runoff from ¾ inch of rain on impervious surfaces on their parcels, since the mitigative effect of these actions mirrors that of the types of controls employed on non-residential properties complying with the 2019 standards.

The 45% credit for compliance with the 2016 City of Pittsburgh stormwater standards reflects the fact that those standards are about 75% as stringent as the 2019 City of Pittsburgh stormwater standards.

PWSA anticipates that participation in the credit program would result in revenue offsets of less than 5% of full billings. (PWSA St. No. 8 at 19).

In the PWSA Stormwater Rate Case, the costs of the credit program were allocated to classes based on the unadjusted cost of service. (PWSA St. No. 4 at 44). Impervious area is the sole metric used for cost causation, regardless of the customer class, and therefore costs of the credit program will be recovered from all customer classes through the impervious area rate, in recognition that the reduced units of service resulting from credits is a refinement of the total demand and total units of service, not a benefit to one or another customer class.

- B. The definition of “regional efforts,” whether the definition includes monetary contributions to PWSA to fund facilities that collect, convey, treat and/or dispose of stormwater for the public, the level of contribution required to obtain a stormwater credit, and the handling of those contributions.

PWSA Response:

Regional efforts” refers to stormwater controls that treat an effective impervious area larger than that which exists on the same property as the control, or treating a greater amount of runoff from the property itself. This may also be referred to as “overtreatment” or “enhanced volume control.” Through sufficient overtreatment (controlling at least 25% more runoff than required by 2019 City of Pittsburgh stormwater standards), customers may achieve a credit up to 100% of their fee. “Regional efforts” do not include monetary contributions to PWSA to fund facilities that collect, convey, treat and/or dispose of stormwater for the public.

12. 52 Pa. Code § 69.87 - Tariff Provisions That Limit the Liability of Utilities for Injury or Damage as a Result of Negligence or Intentional Torts

Parties should discuss the limitation of liability section of PWSA’s proposed Stormwater tariff, including:

- A. The company-specific dollar amount for the proposed limitation that will become effective at the time PWSA’s proposed tariff is approved.

PWSA Response:

The section of PWSA’s proposed Stormwater Tariff addressing the limitation on liability for injury or damages as a result of negligence or intentional torts is based on the language in PWSA’s PUC-approved water and wastewater tariffs. That section states:

“Limitation of Damages: The Authority's liability to a Customer for any loss or damage from any excess or deficiency in the storm water service due to any cause other than willful misconduct or negligence by the Authority, 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 in storm water service, but cannot and does not guarantee that such will not occur. The Authority shall not be considered in any manner an insurer of property or persons against loss or damage by storm water, or otherwise. The Authority shall not be liable in

any action where the loss or damage involves an act of God, force majeure or does not involve a duty of the Authority.” (PWSA Stormwater Tariff, pg. 40).

This Tariff provision was approved by the Commission as part of the Stormwater Rate Case.

- B. The company specific dollar amount and how that amount was calculated, including the potential applicability to intentional torts, and incidents involving the actions of third parties where the physical and cyber protection of PWSA’s facilities and systems may be at issue.

PWSA Response:

Regardless of the “source” of an injury or damage resulting from negligence or intentional tort, a person’s right to bring a suit and their entitlement to damages would be governed by the Municipal Tort Claims Act.³ Accordingly including any specific limitations of liability in PWSA’s Tariff could only track the provisions of this separate, non-Commission enforced statute, which, in the Authority’s view, would be inappropriate and confusing.

13. 52 Pa. Code § 73.3 - Annual Depreciation Reports

The Stormwater CP at Pages 21-22 indicates that PWSA will submit depreciation reports in compliance with its Stage 1 CP commitments that will include any plant-in-service associated with stormwater.

Parties should discuss how PWSA should determine the appropriate book reserve, net original cost, average service life, survivor curve, remaining life, and annual depreciation rate of unique assets associated with stormwater infrastructure (i.e., green infrastructure assets including trees and shrubs and gray infrastructure assets like inlets, diversion structures, stormwater mains, dissipators, etc.).

PWSA Response:

100% of the assets identified as “Stormwater” in PWSA’s Stormwater Rate Case had previously been designated “Wastewater” assets. This redesignation was accepted by the Parties in the Settlement of the Rate Case, which, in turn was accepted by the Commission when it approved the Settlement. As such PWSA will continue to follow the same methods it has been using for wastewater to determine

³ 42 Pa. C.S. § 8501.

depreciation. At the present time, PWSA is not including any “unique assets” in its stormwater management plan and revenue requirement. PWSA is still identifying stormwater assets that may be considered “unique,” but generally green infrastructure projects are considered as a system, and costs are associated with installing the system as a whole. For example, underground storage or pipes and associated plantings are grouped together and considered part of one green infrastructure storage system. In these systems, the pipes or underground storage are the primary costs, and the costs of trees or shrubs are ancillary and grouped with the pipe as part of the system. The costs of the pipe are then depreciated in the same manner as for water or wastewater assets.

14. 52 Pa. Code § 73.5 - Service Life Study Report

The Stormwater CP at Page 23 indicates that PWSA intends to comply with 52 Pa. Code § 73.5 with respect to its stormwater operations in the same manner as it is complying for water/wastewater and that its accounting practices will not differ. Parties should discuss the requirements of Section 73.5.

PWSA Response:

See Response to Question 13.

15. 52 Pa. Code § 73.6 Format for Filing Service Life Study Report

The Stormwater CP at Page 24 notes that PWSA plans to comply with the standards and requirements listed in 52 Pa. Code § 73.6 for its stormwater investments and operations. Parties should discuss the requirements of Section 73.6.

PWSA Response:

See Response to Question 13.

16. 52 Pa. Code § 73.7 - Capital Investment Plan Report

The Stormwater CP at Page 25 states that PWSA’s 2025 report will show capital improvements on a water/wastewater/stormwater basis. Parties should discuss the requirements of 52 Pa. Code § 73.7.

Parties should also discuss whether PWSA should be required to file a CIP Report every five years under Section 73.7(a).

PWSA Response:

As noted, 100% of the assets identified as “Stormwater” in PWSA’s Stormwater Rate Case had previously been designated “Wastewater” assets. This redesignation was accepted by the Parties in the Settlement of the 2021 Rate Case, which, in turn was accepted by the Commission when it approved the Settlement. Accordingly, PWSA’s prior plans and commitments regarding compliance with Section 73.7 with respect to wastewater will also apply to the portion of its assets and capital improvements that have now or will be designated as stormwater related.

In Stage 1 of PWSA’s Compliance Plan Proceeding PWSA committed to filing a CIP report starting in 2020 and then every five years thereafter. 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, Joint Petition for Partial Settlement, dated Sept. 13, 2019 at Section III.C.1 (subsequently approved in the Commission’s Opinion and Order entered March 26, 2020). Because of personnel shortages and additional burden of ramping up its stormwater operations to accompany its new tariffed rate, PWSA is planning to file its first Capital Investment Report in the near future. This pending report will encompass major stormwater investments (if any) as well as water and wastewater.

17. 52 Pa. Code § 73.8 Format for Filing the Capital Investment Plan Report

The Stormwater CP at Page 25 states that PWSA’s 2025 report will show capital improvements on a water/wastewater/stormwater basis.

Parties should discuss whether information should be provided separately for each type of utility service (i.e., water, wastewater, and stormwater) or whether PWSA should provide CIP reports on a consolidated basis.

PWSA Response:

PWSA’s current and future CIPs will include sections that specifically detail water, wastewater, and stormwater projects. The CIP information will comply with the requirements of Section 73.8 and will include a separate section for stormwater projects.

18. 52 Pa. Code § 101 - Public Utility Preparedness through Self-Certification

The Stormwater CP at Page 26 indicates that PWSA's existing cyber security and emergency response plans are applicable to all aspects of PWSA's operations, including its present stormwater operations. However, the Stormwater CP does not explicitly state that PWSA's existing physical security, cyber security, business continuity, and emergency response plans for stormwater operations comply with 52 Pa. Code § 101.

Parties should discuss whether PWSA physical security, cyber security, business continuity, and emergency response plans for stormwater operations should comply with Section 101.

PWSA Response:

PWSA operates as a combined water, wastewater and stormwater utility. The Authority's existing physical security, cyber security, business continuity, and emergency response plans and any future modifications to those plans apply to stormwater operations just as they apply to water and wastewater functions.

19. PWSA's Relationship with the City of Pittsburgh

The Stormwater CP at Page 3 describes that PWSA and the City are co-permittees for PWSA's MS4, are required to update and submit information to the Pennsylvania Department of Environmental Protection annually in their Annual MS4 Status Report, and have developed a Pollution Reduction Plan for the MS4. Further, the Stormwater CP indicates that a MOU between PWSA and the City regarding the maintenance of stormwater infrastructure is being developed. Also, the Stormwater CP states that PWSA and the City are developing an agreement to negotiate and resolve any issues outside of MS4 requirements and to address certain PWSA stormwater management responsibilities, including required coordination and cost-sharing with the City.

On Page 20 of PWSA Statement No. 7 at Docket No. R-2021-3024779, PWSA witness Tony Igwe discusses that PWSA and the City are subject to the January 2021 AOC. Mr. Igwe discusses that the City and PWSA have committed to a timeline for implementing a full stormwater inspection and enforcement program that consists of: (1) submitting an updated stormwater code for approval to the Pittsburgh City Council by July 2021; (2) hiring additional inspectors and enforcement staff "for 2022;" (3) putting

“management partnership procedures” in place by the end of January 2022; and achieving full compliance with “the requirements” by March 31, 2022.

Also, on Pages 21-22 of PWSA Statement No. 7, Mr. Igwe indicates that PWSA has taken responsibility for maintaining approximately 25,000 stormwater catch basins and inlets. Mr. Igwe also avers that, currently, PWSA acts as an agent of the City to perform maintenance of all publicly owned catch basins. Regarding the MOU and the agreement addressing other stormwater management responsibilities, parties should discuss:

- A. Whether the MOU and any other agreement containing commitments by PWSA affecting stormwater service are subject to the Commission’s review and approval process in accordance with Sections 507 and 508 of the Public Utility Code, 66 Pa.C.S. §§ 507 and 508.

PWSA Response:

The MOU and other agreements related to stormwater service are subject to the Commission’s review pursuant to Sections 507 and 508 of the Public Utility Code, and PWSA will file any such agreements with the Commission.

- B. Whether the Commission should require PWSA to file executed copies of any agreements with the City that are necessary for PWSA to fulfill its obligations pursuant to the January 2021 AOC and, if so, the date by which these agreements should be filed with the Commission so that the Commission and interested parties may complete a meaningful review of applicable agreements and, to the extent permissible and necessary, direct any revisions to such agreements prior to PWSA’s deadlines under the January 2021 AOC.

PWSA Response:

PWSA recently finalized an agreement with the City regarding MS4 obligations pursuant to the January 2021 AOC. PWSA filed an executed copy of this Agreement with the Commission on January 11, 2022 (Docket No. U-2022-3030418) for its review under Section 507 of the Public Utility Code.

- C. How the potential increase in PWSA’s responsibilities for the City’s MS4 may impact its revenue requirements and how those costs should be tracked during the timeframe preceding PWSA’s next rate case filing.

PWSA Response:

The MS4 agreement primarily memorializes the responsibilities and activities PWSA has already undertaken, so no increase or impact on revenue requirements is expected. Additionally, to the extent that PWSA provides services to the City (such as sampling the City's outfalls), PWSA will charge the City for those services pursuant to the Cooperation Agreement.

- D. Whether PWSA should continue to operate stormwater infrastructure that it does not own without a written service agreement or lease.

PWSA Response:

PWSA is not operating stormwater infrastructure without a written service agreement or lease, except for a few limited instances in which PWSA is currently finalizing O&M agreements with the City to maintain certain City-owned green infrastructure projects. To the extent PWSA performs any work or provides services on private stormwater infrastructure, PWSA will charge the owner, including the City of Pittsburgh, for such services. Charging the City for PWSA services provided is set forth in the City/PWSA Cooperation Agreement.

- E. Whether PWSA should provide repairs or capital improvements for infrastructure that it operates on behalf of the owner or the owner of such infrastructure should be responsible for the cost of repairs or improvements.

PWSA Response:

Private property owners are responsible for maintaining, repairing or improving their own infrastructure. Pursuant to PWSA's Stormwater Tariff, PWSA is permitted to provide repairs if there is a health and safety issue, but PWSA will charge the property owner for any such work.

- F. If PWSA activities regarding maintenance of stormwater catch basins and inlets are covered by an existing service agreement or lease.

PWSA Response:

PWSA only maintains stormwater catch basins or inlets if they connect to PWSA's system.

- G. If PWSA, as an agent of the City, maintains exclusive control over the services and improvements required to provide service.

PWSA Response:

PWSA is a municipal authority, not an “agent” of the City, and will be a fully independent authority as of 2025. PWSA does maintain control over the service and improvements necessary to provide service to its customers.

- H. Whether PWSA may recover through tariff rates costs for services and improvements where PWSA does not have exclusive control over determining what services and improvements are necessary. For example, if the City designates to PWSA what services and improvements are required for catch basins, whether PWSA should recover costs to fulfill City-imposed requirements through tariff rates or should such costs be recovered exclusively from the City. Also, consider where PWSA may control some, but not all, of the services and improvements required.

PWSA Response:

As explained above, if PWSA provides a service or improvement to the City, PWSA will charge the City for such services or improvements pursuant to the Cooperation Agreement with the City.

20. Bulk Stormwater Agreements

The Stormwater CP does not appear to address arrangements relating to stormwater service provided by PWSA for entities located outside of the City’s municipal limits. For example, the Stormwater CP’s Attachment E identifies private storm sewers located in portions of Mount Oliver Borough and PWSA and private storm sewers located either entirely outside of, partially outside of, or along the City’s municipal limits, including, but not limited to, PWSA storm sewers proximate to PWSA’s Lampher Reservoir in Shaler Township.

When reviewing issues surrounding PWSA bulk stormwater agreements, parties should discuss:

- A. Whether PWSA is required to file with the Commission copies of its current contracts and/or agreements for stormwater services with other utilities, municipalities, or public authorities, pursuant to 66 Pa.C.S. §§ 505 and 507.
- B. The terms of any existing bulk stormwater agreements or arrangements have the financial effect with regard to PWSA’s provision of stormwater services.
- C. The cost structure and standards by which future bulk stormwater agreements will be examined to determine an appropriate incremental system contribution.

- D. Whether PWSA is financially responsible to third parties for costs borne by the third parties for managing stormwater that does not enter a facility operated by PWSA, which may include costs to collect and convey stormwater using roadways.
- E. Whether PWSA may be financially responsible for costs paid by a third party for managing stormwater that was conveyed to the third party by PWSA.
- F. How the costs of conveying stormwater generated from developed properties outside PWSA's service territory, but within PWSA's sewershed areas, by contributing municipalities should be managed and whether those costs should be recovered by PWSA from the entities causing such costs.

PWSA Response:

PWSA does not have any agreements in place regarding bulk stormwater service at this time. Additionally, PWSA is not financially responsible to third parties for costs borne by the third parties for managing stormwater that does not enter a facility operated by PWSA. PWSA does pay conveyance and treatment charges to the Allegheny County Sanitary Authority (ALCOSAN) per the agreement between these two parties. PWSA is not currently responsible and is not aware of any plans to require PWSA to be financially responsible for costs paid by a third party for managing stormwater that was conveyed to the third party by PWSA.

Any bulk stormwater agreements that PWSA may enter into in the future would be handled in the same manner as any bulk water or wastewater agreements. Such agreements would be submitted to the Commission pursuant to 66 Pa. C.S. § 507.

Regarding costs of conveying stormwater generated from contributing municipalities, PWSA did not propose any charges for contributing municipality service as part of the Stormwater Rate Case for two major reasons. First, stormwater from these municipalities flows into a combined sewer system that the City of Pittsburgh developed decades ago, in some cases by enclosing creeks in which the stormwater originally discharged. Second, future control of combined sewer and separate sanitary sewer overflows may involve PWSA and upstream municipalities working together to provide parallel relief sewers to address these wet weather issues. When such projects are developed, a cost sharing model that includes upstream communities will be developed, and PWSA will enter into agreements with these municipalities. With this approach, PWSA and these municipalities will work together to provide adequate stormwater management to solve wet weather issues.

21. 66 Pa.C.S. §§ 510 - Assessment for regulatory expenses upon public utilities & 3207 – Commission assessment

Section 3207(b) of the Public Utility Code, 66 Pa.C.S. § 3207(b), indicates that the Commission shall make an estimate based on the gross intrastate revenues in accordance with the procedures set forth in Section 510(b)(1) of the Public Utility Code, 66 Pa.C.S. § 510(b)(1), and shall impose an assessment on an authority based on the authority's proportional share of the Commission's expenses "relating to the Commission's utility group in accordance with section 510(b)." Section 510(b) generally requires the Commission to allocate expenses directly attributable to the regulation of each group of utilities furnishing the same kind of service and to debit the amount determined to such group. However, Section 510(b)(1) permits the Commission to deem utilities rendering water, wastewater or water, and wastewater service as a utility group.

Parties should discuss whether, for assessment purposes, PWSA stormwater service should be treated as a distinct utility group or whether the Commission, by waiver or otherwise, should deem stormwater service as part of the water and wastewater utility group. For example, if stormwater is treated as a distinct utility group, PWSA may be responsible for payment of all direct and indirect expenditures attributable to the regulation of stormwater service. However, if stormwater is treated as part of the water/wastewater utility group, the entire water/wastewater utility group may be responsible for payment of all direct expenditures attributable to the regulation of stormwater service. Either scenario may impact PWSA water, wastewater and/or stormwater rates and may increase or decrease assessments upon the remainder of the water/wastewater utility group.

PWSA Response:

In light of the current circumstances – where PWSA is the only PUC-regulated entity that has a separate Stormwater Tariff and its revenue requirement is associated with assets that were previously designated as wastewater assets – PWSA believes that including its stormwater revenues as part of its wastewater revenues for this purpose is the most reasonable.

22. 66 Pa.C.S. § 1311 – Valuation of and return on the property of a public utility

Section 1311(c) of the Public Utility Code, 66 Pa.C.S. § 1311(c), provides that the Commission, when setting base rates, after notice and an opportunity to be heard, may

allocate a portion of the wastewater revenue requirement to the combined water and wastewater customer base if in the public interest.

Parties should discuss whether PWSA may combine its stormwater revenue requirement with its water or wastewater revenue requirements, or both, and whether combining applicable revenue requirements is in the public interest. Discussions should focus on the portion of PWSA's stormwater revenue requirement that is associated with costs to collect, convey, treat, and dispose of stormwater that is not also considered to be wastewater under the Public Utility Code.

PWSA Response:

In each of its previous rate cases, PWSA has filed a petition requesting consolidation of its water and wastewater revenue requirements, and the Commission has granted each of these requests. In the current proceeding, PWSA filed a Petition for Consolidation of Water, Wastewater and Stormwater Rate Proceedings and for Authorization to Use Combined Water, Wastewater and Stormwater Revenue Requirements on April 13, 2021, which was granted on June 8, 2021.

PWSA provides water, wastewater conveyance and stormwater service as a single entity and is eligible to combine its revenue requirements under 66 Pa. C.S. § 1311(c). In the past, PWSA has always determined water and wastewater revenue requirement and rates using combined information. Allowing PWSA to use a combined revenue requirement, which now includes stormwater, continues PWSA's prior accounting and ratemaking practice. Practically speaking, if PWSA were required to use separate revenue requirements for each of its utilities, the timing and costs associated with submitting entirely separate base rate filings for the water, wastewater and/or stormwater utilities would be extremely burdensome to the point of being nearly impossible.

PWSA tariff filings and rate requests contain coordinated plans, rate design changes and tariffs for PWSA's water, wastewater conveyance, and stormwater services. Moreover, PWSA's bonds and other financial instruments apply to the combined water/wastewater/stormwater conveyance system and are evaluated by bond rating agencies on a consolidated company basis. There is no practical way in which to fully separate PWSA's bonds or its revenue requirement between water, wastewater conveyance and stormwater without creating risks of violating PWSA's bond covenants which require that PWSA attain certain financial metrics on an integrated system basis. Again, PWSA's revenue requirement is determined using the Cash Flow Method and does not rely on a return on investment on assets; accordingly, maintaining a "combined" plant in service (separating costs in rate proceedings using a Cost of Service Study) is the

most rational and efficient means of tracking PWSA's rate base and revenue requirement for each of the services it provides.

23. Stormwater Credit Program

On Pages 33 and 34 of PWSA Statement No. 7 at Docket No. R-2021-3024779, PWSA witness Mr. Igwe discusses the types of credits that may be approved for both residential and non-residential customers where a percentage discount may be applied to the customer's tariff rate. On Exhibit HJS-2SW, the total cost of the Stormwater Credit Program is added to determine the revenue requirement regardless of the proportionality of cost attributed to each customer class.

Parties should discuss whether the costs of proposed stormwater credits should be borne exclusively by the customer class receiving, or eligible to receive, those credits.

PWSA Response:

This is addressed in PWSA witness Harold Smith's Direct Testimony in the Stormwater Rate Case, in which he explained that costs of the credit program are allocated to classes based on the unadjusted cost of service. (PWSA St. No. 4 at 44). Impervious area is the sole metric of cost causation, regardless of the customer class, and therefore costs of the credit program should be recovered from all customer classes through the impervious area rate, in recognition that the reduced units of service resulting from credits is a refinement of the total demand and total units of service, not a benefit to one or another customer class. Again, this allocation was accepted by the Parties in the Stormwater Rate Case and approved by the Commission when it approved the Settlement.

Summary report:	
Litera Compare for Word 11.0.0.61 Document comparison done on 10/24/2022 2:04:42 PM	
Style name: ESCM	
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Modified DMS: iw://escm-mobility.imatech.com/ECKERTACTIVE/101183282/2	
Changes:	
<u>Add</u>	13
Delete	10
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<u>Move To</u>	0
<u>Table Insert</u>	0
Table Delete	0
<u>Table moves to</u>	0
Table moves from	0
Embedded Graphics (Visio, ChemDraw, Images etc.)	0
Embedded Excel	0
Format changes	0
Total Changes:	23

PWSA Responses to TUS Directed Questions, Stage 2, Set 2 – Stormwater, dated February 22, 2022 (with Questions and Subparts Numbered for Reference)

1. 52 Pa. Code § 53.53 – Information to be furnished with proposed general rate increase filings in excess of \$1 million

Certain PWSA responses to filing requirements included with PWSA’s 2021 Rate Case do not appear to include separate and distinct data for each operating division (i.e., water, wastewater, and stormwater). For example, PWSA provided a consolidated income statement, rather than separate and distinct income statements for each operating division, in response to Filing Requirements I.2 & I.3. Parties should discuss:

- (a) Whether PWSA should provide separate and distinct data for each operating division.

PWSA Response:

PWSA does not support any requirement that it file “separate and distinct data” for each of its three operations – water, wastewater and stormwater – as the primary data submitted to satisfy the PUC filing requirements, although, as will be explained, such data was made available – and will continue to be made available – in PWSA’s base rate cases on an allocated basis. PWSA’s experience before the Commission to date shows that such a segregated filing is neither necessary nor justified.

As a preliminary matter, in none of PWSA’s three base rate cases that PWSA has filed since coming under the jurisdiction of the PUC has the Authority segregated its financial data among its various operations to respond to the Commission’s filing requirements. In all three cases, PWSA filed a petition pursuant to 66 Pa. C.S. §1311(c) which specifically authorizes a water/wastewater utility to file its revenue requirement data on a consolidated basis.¹ In all three cases the Petitions were granted by the presiding officers without opposition and were approved as part of overall settlements by the PUC. Notably, in PWSA’s last base rate case, it was authorized to file its rate case filing requirements on a consolidated basis regardless of the fact that the Authority was requesting three separate rate increases. For filing requirement purposes, PWSA provided only a consolidated income statement in all of its cases because PWSA operates their water, wastewater conveyance, and stormwater systems as a combined utility. PWSA maintains only one operating fund, sharing administrative and support functions across all three services, and is legally required to issue debt pledged on all utility revenue sources.

The 2021 Rate Case, as did PWSA’s prior cases, included a detailed cost allocation analysis that established the utility revenue requirements by service (before the service

¹ The relevant language states: “When any public utility furnishes more than one of the different types of utility service, the commission shall segregate the property used and useful in furnishing each type of such service, and shall not consider the property of such public utility as a unit in determining the value of the rate base of such public utility for the purpose of fixing base rates. A utility that provides water and wastewater service shall be exempt from this subsection upon petition of a utility to combine water and wastewater revenue requirements.” 66 Pa. C.S. § 1311 (c).

data was then separated still further by customer class). Direct costs for water, wastewater conveyance, and stormwater were identified where available, and the remaining costs were allocated between two or more of the services. In the 2021 Rate Case (Docket No. R-2021-3024779), the cost allocation analysis was detailed in PWSA St. No. 4 Harold J. Smith, pages 10-13, and the results were provided in Exhibit HJS-1. Additionally, in this Stage 2 Compliance Plan proceeding, a detailed description of the cost allocation analysis was provided by Mr. Smith in PWSA St. No. 4. Importantly, the Allocation Study produces separated financial data, including revenues, expenses, assets etc. for each of the categories of operations – water, wastewater and stormwater. It also provides a calculation of total cost of service for each category and compares total costs with total applicable revenues.

Unfortunately, it would not be possible for the Authority to separate on its books its revenues, expenses, assets and debt among the three categories of operations and present separate revenue requirement information that was not based on an allocation study. PWSA's historic books of account are not sufficiently detailed. PWSA has not historically designated on its books what portion of wastewater expenditures were associated with sewer verses stormwater. Even if it were possible for some assets, it would take years to actually go through the Authority's books of account to separate assets and associated depreciation accounts among water, wastewater and stormwater, and it would be enormously expensive and difficult to do so. Accordingly, any directive to "separate" such costs into distinct revenue requirement categories would require the application of the same types of allocation factors that are used in the Allocation Study discussed above. Using the Allocation Study approach is not only much more cost effective, it ensures that all of the allocations are conducted on a consistent and logical basis. Given that there has been no indication by either the Parties or the Commission that submitting consolidated revenue requirement information, with subsequent allocation using the allocation study method, was a problem in any way. PWSA submits that no change in its present approach is warranted.

If the Commission would prefer to see PWSA's filing requirement data separated by operating area in future base rate cases, PWSA could, where possible and in addition to providing total company data, provide separated income statements for reference purposes. (PWSA St. No. 3 at 4-6; see also PWSA St. No. 4).

(b) The potential steps and associated time frame for Filing Requirement I.3.

PWSA Response:

See the response to Question 1(a) above.

Additionally, certain filing requirements include terms like "consumption," "usage," "gallons," "water," and "wastewater." Parties should discuss:

(c) Whether such terms are applicable for stormwater purposes and whether such terms provide necessary data.

PWSA Response:

See the response to Question 1(d) below.

- (d) Whether PWSA’s responses should include similar stormwater billing units (i.e., impervious area) or other data and/or metrics where the terms “consumption,” “usage,” and “gallons” are used.

PWSA Response:

In PWSA’s initial stormwater rate case, the Commission established the applicable billing units for stormwater (impervious area and “Equivalent Residential Units” or “ERUs”). PWSA provided detailed information about these measurements of responsibility for stormwater charges. See, Docket No. R-2021-3024779, Direct Testimony of Keith Readling, PWSA St. No. 8. As these are now the established billing units for stormwater service, they will be used to respond to filing requirements or other questions to the extent those questions are applicable to stormwater, which is a non-metered service. (PWSA St. No. 2 at 12).

2. 52 Pa. Code §§ 65.8 – Meters & 65.14 - Measurement

In the Revised Stormwater CP, Section 6, Part C of Appendix 1 at Page 6, PWSA indicated that, throughout the impervious area data development process, there was no “allowable error.” Further, PWSA indicated that the minimum mapping unit for all features is 100 square feet, or less, if the feature is visible in the imagery and could be appropriately collected. It appears, based upon the minimum mapping unit, that features less than 100 square feet or not visible may have reasonably induced errors for certain customers. Parties should discuss:

- (a) The registration error tolerance of no more than 2% for water meters established by the Commission at 52 Pa. Code § 65.8.

PWSA Response:

The identification of impervious area using GIS-based stormwater mapping is inherently different from water meters such that the 2% registration error tolerance established in Section 56.8 does not apply here. In developing impervious area calculations, the data was subjected to a detailed quality assurance/quality control process to correct the vast majority of errors (such as errors resulting from imperfections in overlaying the map of parcel boundaries on the aerial imagery). Going forward, when any error in mapping impervious area is identified, it will be corrected. Therefore, it is not possible to identify an “error tolerance” for stormwater impervious area mapping in the way that a water meter can be tested for accuracy.

PWSA’s stormwater rate structure has a level of error tolerance built into its design. The rate structure allows for small variations in impervious area determinations which, in most cases, will not result in any change to the customer’s bill. For single family

residential customers, the tiered rate structure results in most customers (70%) being billed at the Tier 2 rate, and minor variations in impervious area (caused by, among other things, an error) would only potentially affect the bill for customers with impervious area very close to the breakpoints between Tiers 1 and 2, and between Tiers 2 and 3. Similarly, for non-single family residential customers, a small variation in impervious area would only affect the bill for customers at each ERU threshold. As such, the rate design itself includes a level of error tolerance.

Additionally, to further explain PWSA's use of the 100 square foot minimum mapping unit, PWSA has used a 100 square foot minimum mapping unit because very small or very narrow features cannot always be seen in the aerial imagery. When the aerial imagery was processed to identify impervious area, features under 100 square feet were captured in the vast majority of cases. However, if such a feature was not able to be captured, this did not automatically result in an error since the error definition applies only when impervious area for a feature is greater than 100 square feet. Importantly, when a very small piece of impervious area is excluded, it is most likely to result in a customer being undercharged (if it affects their billed amount for stormwater service at all). (PWSA St. No. 2 at 4-5).

- (b) The level, amount, or percentage, if any, at which a reasonable error tolerance should be established for Geographical Information Systems (GIS) based stormwater mapping of impervious areas.

PWSA Response:

As discussed above in response to Question 2(a), it is not possible to set a specific level of error tolerance for impervious area, although the stormwater rate structure itself is designed to include a level or error tolerance in which small errors would almost never result in a change to the customer's billed amount (because of the relatively large blocks used for determining a customer's bill). Note that PWSA's stormwater rate structure is an industry standard approach and was approved by the Commission as part of PWSA's 2021 rate case without opposition.² (PWSA St. No. 2 at 5).

- (c) The utilization of equivalent residential units (ERUs) in PWSA's Storm Water Tariff Tiers based upon impervious area measured in square feet.

PWSA Response:

The Commission has previously approved PWSA's Stormwater Tariff, including the tiered rate structure for residential customers based on square feet of impervious area on a property. The basis for this was addressed in detail in PWSA's 2021 base rate case, and this tiered structure was unopposed by the parties. Impervious area is the most commonly used metric across the United States to charge for costs related to stormwater

² See the testimonies of Keith Readling in PWSA's 2021 rate case (Docket No. R-2021-3024779), PWSA St. Nos. 8, 8-SD, 8-R, and 8-RJ, on the Authority's stormwater rate structure and its development, which are incorporated herein by reference.

service. PWSA's ERU value was calculated based on a statistical analysis of impervious areas for single family residential properties in Pittsburgh, resulting in a value of 1,650 square feet of impervious area per 1 ERU.

PWSA has implemented a tiered rate structure for residential customers in order to recognize the wide range of impervious area found on residential lots in Pittsburgh, which ranges from 400 square feet to over 4,000 square feet. A tiered rate structure (as opposed to one flat rate) allows PWSA to maintain an equitable approach across the various types of development and homes and results in substantially similar properties being billed the same amount. Under this rate structure, the majority of residential ratepayers (70%) are included in the middle tier, or Tier 2. PWSA's three-tiered residential rate structure recognizes that residential lots tend to have more trees and more complicated building shapes and are the most difficult to measure at high precision. Any minor error in the impervious area calculation for an individual property is unlikely to result in a change to the applicable billing tier, as most customers will continue to fall into Tier 2.

The use of an ERU-based rate structure for residential customers is the most common approach across the United States, and for those using a tiered rate design, three tiers is the most common structure. This design is more equitable than one flat rate, while still limiting the number of thresholds where an error can occur. If, for example, it were suggested that PWSA should instead bill in 100 square foot increments (or some other small increment), this would introduce many more thresholds where an error could move the customer into a different tier and would make stormwater billing more complex and confusing for customers. By way of illustration, if PWSA billed in 100 square foot increments, this would result in 37 different possible fees for residential customers. PWSA's current stormwater rate structure provides a reasonable, industry-standard approach that is both equitable and avoids unnecessary complexity. (PWSA St. No. 2 at 6-7).

Additionally, in Section 6, Part E of Appendix 1, PWSA indicated that it will update stormwater billing source data in response to customer inquiries, "event triggers" indicating new or changed developments, and "as needed" following new releases of aerial imagery. Parties should discuss:

- (d) The tariff language for billing unit adjustments included in Pages 38-39 of PWSA's stormwater tariff.

PWSA Response:

The language on Pages 38-39 of PWSA's stormwater tariff allows PWSA to adjust the number of ERUs or tier applicable to a customer from time to time, as updated information is obtained or the property is altered. This tariff provision provides a notification process if any adjustment results in an increase to the customer's bill, and provides for a credit/refund process if the adjustment results in a decrease to the customer's bill. This tariff language was approved by the Commission as part of PWSA's 2021 base rate case. No party raised any concern with this language or PWSA's proposal to periodically update ERU data in order to keep billing information up-to-date.

When PWSA periodically obtains new aerial imagery, it will not use this imagery to completely remeasure all impervious area and recalculate all customer bills. Rather, the Authority will use customer feedback, permitting data, and visually discernable areas in new imagery to guide it to selected locations for updated measurement. It is extremely important to understand that PWSA will not change a customer's bill unless impervious area on the ground has changed, or a mistake is identified. (PWSA St. No. 2 at 7-8).

- (e) Sources that PWSA may or must use to determine stormwater billing unit data, and whether PWSA should be permitted to use any sources or change between sources at its discretion, even when sources have not been identified in a rate case as one of PWSA's stormwater billing unit data sources.

PWSA Response:

PWSA should be permitted to use a variety of data sources to measure impervious area, as the purpose is to identify actual impervious area on the site which may change over time. Original measurements have been completed for all properties and bills are currently based on these measurements. There are a variety of reasons the impervious area and, potentially, the customer's bill may need to change in the future, including: new construction, demolition, correction of a previous measuring error, parcel boundary changes caused by recombination or subdivision, service area changes, or ownership changes. Since the measurement of impervious area relies on human interpretation of imagery sources that can be verified or modified by field observation, and since a customer who disagrees with a measurement always has recourse and can request a field visit to verify impervious area (and a field visit should definitively resolve any dispute about impervious area), there is no need to limit the data sources for identifying this information. (PWSA St. No. 2 at 8-9).

- (f) If mapping or data sources are permitted to be changed between rate cases, thereby modifying the underlying GIS/meter source material, whether there should be a customer notification process describing how the mapping changeover may impact customer billing ERUs and whether PWSA should be required to retain the previous mapping and data sets to resolve billing disputes for a set time period.

PWSA Response:

As explained above, there will not be a "mapping changeover" when PWSA obtains updated aerial imagery or other data sources. Rather, this information will be used to guide the Authority to areas where impervious area on the ground has changed and where information for specific parcels should be updated to reflect the property's current impervious area.

There is no need to notify customers that PWSA has obtained updated imagery, as most customer bills will be unaffected by this. Further, PWSA's Commission-approved stormwater tariff already provides for a customer notification process when ERU adjustments occur at the customer's property. If an ERU adjustment will increase a customer's bill and occurs outside of a base rate case, PWSA will provide written notice

to the customer at least sixty (60) days in advance of the effective date of the ERU adjustment. If the ERU adjustment will increase a customer's bill and occurs concurrent with a base rate case, PWSA will include information regarding the ERU adjustment as part of its written notice to customers. (PWSA Tariff Storm Water – Pa. P.U.C. No. 1, Part III, Section E.9.) (PWSA St. No. 2 at 9).

- (g) How to handle billing unit data discrepancies where there has not been an apparent change on the ground, and what types of discrepancies would trigger a modification of billing unit data. For example, if a residential customer is assigned 2,711 square feet of impervious area based on existing aerial imagery, and a new release of aerial imagery indicates that same customer should be assigned 2,708 square feet, under PWSA's effective stormwater tariff, that customer would be billed a Tier 3 service charge under existing imagery and a Tier 2 service charge under updated imagery.

PWSA Response:

PWSA will not change a customer's stormwater bill unless there has been a change on the ground or an error is being corrected. Slight changes in imagery/parcel registration or the angle of the imagery can cause slight changes in measurements, but PWSA will not remeasure the property's impervious area unless a new or changed feature is identified on the ground or a clear-cut error is identified. (PWSA St. No. 2 at 10).

PWSA again wishes to note that its approach to impervious area is the industry standard approach that is used across the country, and which was accepted by the Parties and approved by the Commission as part of PWSA's 2021 rate case. (PWSA St. No. 2 at 11).

In this regard, parties should also discuss:

- i. Whether the difference of three-square feet, or approximately 0.1%, should result in a change in what the customer is billed, and whether the customer should be entitled to a refund.

PWSA Response:

If there is a legitimate change on the ground to the customer's impervious area that results in a change to the property's residential tier or ERU classification, even if the change is small, the customer will be billed for the current accurate tier or ERUs.

Pursuant to PWSA's Stormwater Tariff, if an ERU adjustment will result in a decrease to a customer's bill, any excess amounts received by the Authority will be provided as a credit to the customer's account. If the excess amount is greater than the customer's next bill, PWSA will refund the difference between the excess amount and the customer's next bill upon the customer's request. The effective date of the ERU adjustment will be the date PWSA received or collected the ERU data that resulted in the ERU adjustment. (PWSA St. No. 2 at 10).

- ii. Whether this changes if the discrepancy is larger (i.e., if the discrepancy is above a certain number or percentage difference between existing and updated values, and which has a material impact to the amount billed) or if existing data and updated data were based on different data sources (i.e., a development permit vs. aerial imagery, or 2020 aerial imagery vs. 2025 aerial imagery, etc.).

PWSA Response:

No, the response is the same regardless of the size of any “discrepancy” or the data sources used. Again, PWSA will not change the customer’s impervious area or bill unless something has changed on the ground or the Authority is fixing a clear error. PWSA’s approach is that, if nothing has changed, the units also should not change. (PWSA St. No. 2 at 11).

3. 52 Pa. Code § 65.16 - System of Accounts

In the Revised Stormwater CP, Section 7, Part A of Appendix 1 at Page 8, PWSA indicated green infrastructure projects are considered as a system and that costs associated with installing the system are considered as a whole. PWSA further stated that most green infrastructure is not owned by PWSA as it is installed on private property and improvements on private property will be expensed. Parties should discuss:

- (a) Whether PWSA should record costs associated with green infrastructure projects as a whole or break down the system by major plant categories or subaccounts that are recorded and depreciated separately.

PWSA Response:

PWSA believes its present approach is reasonable and that no change is needed. PWSA includes the costs of green infrastructure along with the costs of the related stormwater facility being installed because the “green infrastructure” costs a relatively small part of the costs (estimated by PWSA’s stormwater team at 5%). Separating out these incidental costs from the much more costly stormwater facilities (such as piping) would not be appropriate because the time and expense of doing so is not justified. PWSA would note that it is not unusual to capitalize associated expenses, such as design work, in the total cost of a capital project. The incidental green infrastructure expenditures are similarly ancillary to the “grey” infrastructure expenditures for stormwater drains, piping etc., with which they are included. Importantly, PWSA does not set rates using a rate base and therefore, its depreciation and plant in service accounts are relevant only for financial accounting purposes. Therefore, there is no reason to separate out these incidental costs. (PWSA St. No. 3 at 7).

- (b) PWSA's capitalization policy for stormwater improvements, including whether PWSA should use the \$750 capitalization threshold for water and wastewater utilities under the uniform system of accounts for Class A Water and Wastewater Utilities.

PWSA Response:

PWSA employs a \$10,000 threshold for capitalization which is standard for municipal water/wastewater utilities. PWSA does not believe that a \$750 threshold is reasonable considering its circumstances. The \$750 threshold is more appropriate for companies that are regulated on a rate of return/rate base basis. For investor-owned utilities, when an asset is capitalized, the return on and of the investment is recovered over the asset's depreciation life. This means that the cost of a purchase of a computer, for example, with a useful life of 3-5 years will be recovered in 3-5 years. However, PWSA finances most of its capital additions using long term debt that is reflected in PWSA's debt for 30 years (the typical term of PWSA's bonds). Since it is not regulated on a rate of return/rate base basis, the cost of the computer is recovered via the debt service associated with the bond that financed the purchase. As a result, the cost of the capitalized asset will be charged to ratepayers for the entire 30-year life of the bond – long after the short lived asset has been retired. Additionally, because PWSA's rates are regulated on a Cash Flow basis, it has no need to calculate an accurate rate base. Therefore, in PWSA's view, it would not be worth the time and effort to capitalize and then have to track small, short lived assets such as computers or printers. Therefore, it is more reasonable to customers, and better for the municipal utility to expense smaller asset acquisitions and to only capitalize more substantial purchases, which will generally have longer useful lives. (PWSA St. No. 3 at 8).

- (c) Whether PWSA should expense improvements in one year or expense improvements through amortization of a deferred asset over a reasonable time period.

PWSA Response:

PWSA's rates are regulated on a Cash Flow basis. Therefore, PWSA needs to have available the full amount of cash required to add the asset in the year in which the asset is put in service. Therefore, amortization of the costs of an asset simply means that PWSA will not be able to add the asset (because it won't have the cash to pay for it in the year in which it wished to add it). Further, PWSA believes, respectfully, that this is a ratemaking question and should not be determined in the context of this compliance process. (PWSA St. No. 3 at 8-9).

4. 52 Pa. Code § 65.19 Filing of Annual Financial Reports

In the Revised Stormwater CP, Section 9, Part B of Appendix 1 at Page 13, PWSA indicated that, for stormwater financial reporting, it proposes to use the approved annual report form for municipal wastewater utilities without any changes. Parties should discuss:

- (a) Whether PWSA should use the approved annual report for municipal wastewater utilities for an interim period before switching to the approved annual report form for Class A wastewater utilities in the future and the appropriate timeline for this transition.

PWSA Response:

As noted in the referenced portion of the Compliance Plan, PWSA is currently utilizing the annual report form for municipal utilities for its annual report for water and wastewater. It continues its commitment that it will utilize this annual report form to reflect its stormwater operations as well. PWSA does not believe that the creation of stormwater as a separate service justifies changing the annual report format which has, at this point, been acceptable to the Commission. Moreover, compiling the data to populate the much more extensive and detailed annual report form for Class A water/wastewater utilities is not feasible for PWSA at the present time. Currently, PWSA is struggling to comply with a variety of commitments to various agencies while it is also attempting to bring its entire operation into compliance with PUC requirements. PWSA believes that it should focus its limited resources on compliance with PUC requirements in other areas, such as consumer protection, eradicating lead service lines and improving reliability of its system. PWSA suggests that transition to the more extensive and costly Class A form be reconsidered in the future. (PWSA St. No. 3 at 9).

5. 52 Pa. Code § 65.22 - Customer Advance Financing, Refunds and Facilities on Private Property

In the Revised Stormwater CP, Section 7, Part B of Appendix 1 at Page 8, PWSA indicated that most green infrastructure is not owned by PWSA as it is installed on private property and that improvements on private property will be expensed. Parties should discuss:

- (a) The requirements of 52 Pa. Code § 65.22(c) and whether this provision applies to green infrastructure installed on private property.

PWSA Response:

Section 65.22 does not apply to green infrastructure installed on private property. This section requires customers “to pay, in advance, a reasonable charge for service lines and equipment installed on private property for the exclusive use of the customer.” However, green infrastructure projects are, in most cases, not for the exclusive use of the customer. If PWSA is installing green infrastructure on private property, it is doing so because it benefits PWSA’s system as a whole, not the individual customer. PWSA often installs green infrastructure in the public right of way or in public parks, but in some instances it is necessary to install GI on private property. Again, installations on private property provide broader stormwater management benefits to PWSA’s system as a whole, not the individual property owner. (PWSA St. No. 3 at 10).

- (b) PWSA’s method of formally dedicating assets installed on private property to the property owner.

PWSA Response:

PWSA does not formally dedicate assets installed on private property to the property owner because the assets are not installed for the benefit of that one customer. They benefit the system as a whole. As such, it would be inappropriate to dedicate the asset to the customer. (PWSA St. No. 3 at 11).

- (c) Whether PWSA’s method of formal dedication ensures assets installed on private property will be maintained to a working order, and whether an operating, inspection and maintenance, or similar agreement for such facilities that runs with the property should be created.

PWSA Response:

See the response to Question 5(b) above.

- (d) Whether PWSA should expense improvements on private property.

PWSA Response:

PWSA’s current practice is to expense improvements that provide system benefits and which are on private property. This is true for green infrastructure projects, as well as other improvements such as lead service line replacements and damaged wastewater lateral replacements. Please note that, under Generally Accepted Accounting Principles applicable to municipal entities, PWSA is not permitted to capitalize work on private property. The Authority is not permitted to list an asset on its books and depreciate it if PWSA does not own it. This current practice therefore is the only feasible course. Note that this is the same approach that PWSA utilizes for private lead service line replacements. (PWSA St. No. 3 at 11).

6. 52 Pa. Code § 73.3 - Annual Depreciation Reports

In the Revised Stormwater CP, Section 13 of Appendix 1 at Page 18, PWSA indicated that, for green infrastructure systems, the pipes or underground storage are the primary costs and the costs of trees and shrubs are ancillary and grouped with the pipe as part of the system. The costs of the pipe are then depreciated in the same manner as for water or wastewater assets. Parties should discuss:

- (a) Whether PWSA should group disparate assets with different service lives together and then apply the same depreciation to that group.

PWSA Response:

PWSA believes it is reasonable for PWSA to include incidental green infrastructure costs with the costs of piping, etc. because those incidental “green infrastructure” costs are a very small fraction of the total costs (estimated at around 5%). Moreover, tracking and recording incidental costs would impose additional costs on the Authority and require PWSA to devote resources that would be better spent on other projects. It is important to

recall that PWSA's Cash Flow ratemaking methodology does not utilize PWSA's reserve for depreciation in any way. While PWSA needs to account for depreciation on its books there does not appear to be any reason to spend the time or money to separate out these incidental costs. (PWSA St. No. 3 at 12).

7. PWSA's Relationship with the City of Pittsburgh

In the Revised Stormwater CP, Section 19, Part G of Appendix 1 at Page 23, PWSA indicated that PWSA is not an "agent" of the City. On Pages 21 to 22 of PWSA Statement No. 7 at Docket No. R-2021-3024779, PWSA stated, "PWSA has taken responsibility for maintaining approximately 25,000 stormwater catch basins and inlets. [...] Right now, PWSA acts as an agent of the [City] to perform maintenance of all publicly owned catch basins."

Additionally, in Revised Stormwater CP at Section 19, Part D of Appendix 1, Pages 22 to 23, PWSA indicated that: (1) PWSA is not operating stormwater infrastructure without a written service agreement or lease, except in certain instances; (2) if PWSA performs any work or services on "private" stormwater infrastructure, PWSA will charge the owner for such services; and (3) that charging the City for PWSA services provided is set forth in the City/PWSA Cooperation Agreement. Parties should discuss:

- (a) Whether the City/PWSA Cooperation Agreement and other agreements between the City and PWSA adequately address non-tariff stormwater services and costs, facility ownership, and facility operational control. Parties should distinguish between stormwater facilities that are part of PWSA's combined sewer system and stormwater facilities that are part of the City's and/or PWSA's MS4.

PWSA Response:

As a preliminary matter, regarding the statement from PWSA's 2021 rate case testimony that "[r]ight now, PWSA acts as an agent of the [City] to perform maintenance of all publicly owned catch basins," PWSA clarifies that this statement was not intended to mean that PWSA is an "agent" of the City in a legal or technical sense. Rather, this statement simply meant that PWSA is currently performing maintenance of publicly owned catch basins on the City's behalf. Under the Capital Lease Agreement between PWSA and the City, PWSA is responsible for maintaining catch basins that connect to its system. (PWSA St. No. 1 at 3).

In response to Question 7(a), PWSA has a variety of agreements in place with the City that adequately address non-tariff stormwater services and costs, as well as facility ownership and operations.³ While the Cooperation Agreement does not specifically discuss stormwater services and costs, it broadly establishes that that the City will pay

³ See the testimonies of Tony Igwe in PWSA's 2021 rate case (Docket No. R-2021-3024779), PWSA St. Nos. 7, 7-SD, and 7-R on this topic, which are incorporated herein by reference.

PWSA for services provided based on actual direct expenses. This applies to all services provided by PWSA, including those related to non-tariff stormwater services and costs.

Other agreements between PWSA and the City address the division of responsibilities related to stormwater facilities. PWSA recently finalized an agreement with the City regarding Municipal Separate Storm Sewer System (“MS4”) obligations. This agreement was filed with the Commission under Section 507 of the Public Utility Code on January 11, 2022 (Docket No. U-2022-3030418). The MS4 Agreement provides, for example, that PWSA will sample City outfalls and will charge the City for these services.

PWSA is currently in the process of re-starting discussions with the City and the new administration to develop a Memorandum of Understanding (“MOU”) regarding overall stormwater responsibilities. PWSA anticipates finalizing the Stormwater MOU by the end of 2023.

In addition to these overarching agreements, PWSA also enters into agreements with the City on a project-specific basis regarding costs, services, and facility ownership and maintenance. For example, these agreements may relate to individual green infrastructure projects or stormwater projects within City parks.

Taken together, these agreements adequately address stormwater services, costs and facilities. (PWSA St. No. 1 at 4-5).

Finally, in Revised Stormwater CP, Section 19, Part C of Appendix 1 at Page 22, PWSA indicated that, to the extent PWSA provides services to the City, such as sampling the City’s outfalls or maintaining City-owned catch basins, PWSA will charge the City for those services pursuant to the Cooperation Agreement. Parties should discuss:

- (b) Whether any current non-tariff stormwater services and costs, including sampling costs for the City and costs for PWSA to operate and replace City-owned stormwater infrastructure that serves the public, should be incorporated into PWSA’s revenue requirement and charged as a component of PWSA’s base stormwater rates.

PWSA Response:

Non-tariffed stormwater services and costs should not be incorporated into PWSA’s stormwater revenue requirement. Under the Cooperation Agreement, PWSA charges the City for services provided, including stormwater services. PWSA is already being directly compensated for these non-tariff stormwater services and costs and it is not necessary to include the costs in stormwater base rates. (PWSA St. No. 1 at 5).

8. Bulk Stormwater Agreements

In the Revised Stormwater CP, Section 20 of Appendix 1 at Page 25, PWSA indicated that it did not propose any charges for contributing municipality service as part of the Stormwater Rate Case for two major reasons. One reason is that stormwater from these municipalities flows into

a combined sewer system that the City of Pittsburgh developed decades ago. Parties should discuss:

- (a) Whether PWSA should enter into Bulk Service Agreements with contributing municipalities for the conveyance and treatment of these flows or maintain the practice of charging PWSA’s wastewater and stormwater ratepayers located in the City for these costs.

PWSA Response:

PWSA does not believe that the stormwater “flows” emanating from areas outside of PWSA’s service territory are the responsibility of those municipalities. As the Authority set forth in its initial Stormwater Compliance Filing, “[i]n determining whether an occurrence ...is a reportable accident related to stormwater, such as flooding associated with a severe storm, PWSA will only consider damage related to stormwater that has entered PWSA’s system”⁴ Accordingly, all flows from upstream municipalities that enter into PWSA’s system are the responsibility of PWSA to mitigate. Any stormwater abatement or control that PWSA undertakes in those upstream communities is conducted in order to mitigate flows that will ultimately become the responsibility of PWSA. As such, it would not be reasonable to attempt to “charge upstream municipalities for such flows.” PWSA has also been informed by counsel that any attempt to charge upstream municipalities (absent their cooperation and agreement) for stormwater flows into PWSA’s system would be on questionable legal footing, as PWSA’s approved Stormwater Tariff lists the Authority’s service territory as “The City of Pittsburgh.” Moreover, PWSA had previously pointed out that, in many cases, the flows that now enter its stormwater management system had previously flowed into open streams that the City of Pittsburgh had determined to cover. Those coverings formed a portion of PWSA’s combined sewer or stormwater system. PWSA has inherited responsibility for such coverings and it and its customers therefore continue to be responsible for costs of maintaining these facilities as well as mitigating flows into these facilities.⁵ (PWSA St. No. 1 at 6-7).

- (b) Whether PWSA should develop a stormwater cost of service study for contributing municipalities within PWSA’s sewershed areas to be filed prior to its next stormwater base rate case.

PWSA Response:

PWSA does not believe that such a cost of service study would be appropriate. As noted in the answer to Question 8(a), PWSA considers the stormwater that finds its way into its system as its responsibility. Any stormwater mitigation efforts conducted in those upstream areas are undertaken to mitigate the stormwater flows into PWSA’s system.

⁴ PWSA Stormwater Compliance Plan at 18.

⁵ See the discussions of contributing municipality service in the testimonies of Tony Igwe in PWSA’s 2021 rate case (Docket No. R-2021-3024779), PWSA St. Nos. 7, 7-SD, and 7-R, which are incorporated herein by reference.

which in turn mitigates the costs that PWSA and its customers must deal with. Moreover, it would, in PWSA's view, be virtually impossible to separately identify the "cost" of mitigating stormwater flows that emanated from upstream communities as opposed to costs created by stormwater originating in PWSA's service territory.

It is important to note, however, that PWSA has not ruled out discussions with upstream municipalities to potentially address stormwater flows entering our system that can be specifically identified as coming from a particular municipality, or which have increased due to a municipality's specific policy or action. In that case, PWSA could work collaboratively with that upstream municipality to finance and construct additional stormwater mitigation measures designed to address these added flows as they affect both PWSA and the municipality at issue. No such opportunities have arisen to date. (PWSA St. No. 1 at 7).

- (c) Whether any existing arrangements between PWSA and contributing municipalities impact PWSA's ability to earn a reasonable amount of funding for stormwater operations or create a burden on PWSA customers located in the City.

PWSA Response:

No, not as far as the Authority can identify. PWSA has not entered into any existing agreements that "impact PWSA's ability to earn a reasonable amount of funding for stormwater operations." (PWSA St. No. 1 at 8).

Summary report:	
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Table moves from	0
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