

PHILADELPHIA WATER DEPARTMENT
STATEMENT 3

BEFORE THE
PHILADELPHIA WATER, SEWER AND STORM WATER RATE BOARD

In the Matter of the Philadelphia Water Department's Proposed Change in Water, Wastewater and Stormwater Rates and Related Charges	Fiscal Years 2024 - 2025
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Direct Testimony

of

Stephen J. Furtek, Trisha Grace,

Vahe Hovsepian, and William Dobbins

on behalf of

The Philadelphia Water Department

Dated: January 2023

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1 **I. INTRODUCTION AND PURPOSE OF TESTIMONY**

2
3 **Q1. PLEASE STATE YOUR NAMES AND POSITIONS WITH THE**
4 **PHILADELPHIA WATER DEPARTMENT.**

5 A1. My name is Stephen J. Furtek. I am the General Manager of the Engineering and
6 Construction Division at the Philadelphia Water Department (the “Department” or
7 “PWD”).

8
9 Testifying with me is Trisha Grace who is the Projects Control Manager for the
10 Department’s Capital Program; Vahe Hovsepien, P.E., who is a Water Engineering
11 Assistant Manager, Projects Control; and, William Dobbins, P.E., who is a Manager,
12 Facilities and Water & Sewer Sections, in the Design Branch.

13
14 **Q2. WOULD EACH OF YOU PLEASE DESCRIBE YOUR JOB RESPONSIBILITIES,**
15 **EXPERIENCE AND EDUCATIONAL BACKGROUND.**

16 A2. Our respective backgrounds and experience are summarized below:

17
18 Mr. Furtek

19 I am responsible for managing the Engineering and Construction Division which is
20 charged with the implementation of the Water Department’s Capital Improvement
21 Program, generation and maintenance of as-built drawings, and provision of engineering
22 support to the Department at large. Duties for the Engineering and Construction Division
23 also include administration of One Call mark outs, private development review,
24 maintaining the Department’s Geographic Information System (“GIS”), and Act 537
25 management.

1
2 I hold a Bachelor of Science degree in Civil and Urban Engineering from the University
3 of Pennsylvania and am a registered Professional Engineer licensed in Pennsylvania. I
4 was appointed as General Manager of Planning and Engineering (now the Engineering
5 and Construction Division) in March 2005. Since joining the Department in 1982, I have
6 held several positions with increasing responsibility, including Supervisor of the Water
7 and Sewer Design Section, Manager of the Design Branch and my current position. A
8 more detailed overview of my relevant work experience is set forth in my attached
9 resume which is marked as Schedule SJF-1.

10
11 Ms. Grace

12 I am responsible for the implementation of the Water Department's Capital Improvement
13 Program, supervising the public works construction contracting and payment processing
14 systems.

15
16 I hold a Bachelor of Science degree in Civil Engineering from Drexel University. I
17 started employment with the City of Philadelphia in September 1996 as an entry level
18 civil engineer after working in private industry for a national environmental engineering
19 firm. During my time with the City, I have worked in three different operating
20 departments within the City as an engineer with increasing responsibility that lead to my
21 current position as the Capital Program Manager. A more detailed overview of my
22 relevant work experience is set forth in my attached resume which is marked as Schedule
23 TG-1.

1 Mr. Hovsepian

2 I am a Water Engineering Assistant Manager, Projects Control for the Department. I am
3 responsible for the Department’s Capital, Geographic Information System (GIS),
4 Records, One Call, Sewer Connections, and Act 537 programs.

5
6 I hold a Bachelor of Science in Mechanical Engineering and a Master of Science in
7 Mechanical Engineering from the New Jersey Institute of Technology. I am also a
8 licensed Professional Engineer. I started employment with the City of Philadelphia in
9 September 1986 and have held my current positions since January 2022. I have more than
10 30 years of experience in the water and wastewater field. A more detailed overview of
11 my relevant work experience is set forth in my attached resume which is marked as
12 Schedule VH-1.

13
14 Mr. Dobbins

15 I am a Manager, Facilities and Water & Sewer Sections, in the Design Branch. I am
16 responsible for responsible for the design of the Water Department’s capital program,
17 including the generation of biddable plans and specifications.

18
19 I hold a Bachelor of Science in Civil Engineering from Penn State University. I am also a
20 licensed Professional Engineer. I started employment with the City of Philadelphia in
21 December 2001, and have held various position since then. A more detailed overview of
22 my relevant work experience is set forth in my attached resume which is marked as
23 Schedule WD-1.

1 **Q3. PLEASE IDENTIFY THE SCHEDULES ATTACHED TO THIS TESTIMONY.**

2 A3. The following schedules accompany this testimony.

3 Schedule SJF-1 Resume of Stephen J. Furtek

4 Schedule TG-1 Resume of Trisha Grace

5 Schedule VH-1 Resume of Vahe Hovsepian

6 Schedule WD-1 Resume of William Dobbins

7
8 Schedule CP-1 Capital Program and Budget Process

9
10 **Q4. WHAT IS THE PURPOSE OF THIS PANELS' TESTIMONY?**

11 A4. The purpose of our testimony is to describe: (i) the City's Capital Program and Capital
12 Budget Process; (ii) the Department's current and projected Capital Improvement
13 Programs; and (iii) costs associated with financing the Capital Improvement Program
14 which contribute to the revenue requirements for Fiscal Year ("FY") 2024 and FY 2025
15 (together, the "Rate Period").

16
17 **II. THE CITY'S CAPITAL PROGRAM AND CAPITAL BUDGET PROCESS**

18
19 **Q5. PLEASE DESCRIBE THE HOME RULE CHARTER REQUIREMENTS**
20 **RELATED TO THE CITY'S CAPITAL PROGRAM AND CAPITAL BUDGET.**

21 A5. The Philadelphia Home Rule Charter requires that prior to the passage of the annual
22 operating budget ordinance, Philadelphia City Council ("City Council") must adopt a
23 capital program and capital budget. The capital program must show planned capital
24 expenditures to be financed from funds subject to control and appropriation by City
25 Council for each of the six ensuing fiscal years. The capital budget ordinance must show

1 the planned capital expenditures to be financed from funds subject to control or
2 appropriation by City Council during the ensuing fiscal year.

3
4 **Q6. HOW IS THE CITY'S CAPITAL PROGRAM AND CAPITAL BUDGET**
5 **DEVELOPED AND APPROVED?**

6 A6. The process for developing and approving the Capital Program and Capital Budget is
7 described in Appendix I of the City's FY 2023-2028 Capital Program Book, a copy of
8 which is attached to our testimony as Schedule CP-1.

9
10 **III. PWD'S CAPITAL IMPROVEMENT PROGRAM**

11
12 **Q7. PLEASE DESCRIBE THE DEPARTMENT'S CURRENT CAPITAL BUDGET**
13 **FOR FISCAL YEAR 2023.**

14 A7. PWD's FY 2023 Capital Budget, as currently adopted by City Council, includes
15 approximately \$580 million as summarized below.

16
17 **Table 1**
Approved Capital Budget FY 2023

18	Improvements to Water and Wastewater Facilities	\$ 255,000,000
19	Wastewater Collector System/CSO/Flood Relief	170,860,000
20	Water Conveyance System (new and reconstruction)	128,060,000
	Engineering, Administration and Material Support	26,321,000
	TOTAL	<u>\$ 580,241,000</u>

21
22 The total amount shown is the amount appropriated by City Council during that fiscal
23 year. The amount of the appropriation for capital projects does not always match the
24 actual amount encumbered on capital projects in any given fiscal year. Any appropriated
25

1 funds not encumbered in that year is carried-forward and may be encumbered in the next
2 fiscal year.

3
4 **Q8. PLEASE EXPLAIN ANY CONTINUED IMPACTS OF THE PANDEMIC ON**
5 **THE CONSTRUCTION SCHEDULE AND TOTAL CAPITAL APPROPRIATION**
6 **FOR FY 2023.**

7 A8. Beyond the projects that were already bid and underway, the pandemic forced the
8 Department to prioritize remaining projects planned for FY 2021 and only bid those
9 projects deemed critical in order to utilize the limited amount of capital funds in the most
10 prudent manner. Prioritization was done by the Operations Division and caused less
11 critical projects that were planned for FY 2021 to be delayed beyond FY 2021. But, those
12 projects could not be delayed indefinitely, since the circumstances that necessitate those
13 capital projects in the first place did not change.

14
15 The Department made changes to the construction schedules to catch-up. Simply put, the
16 Department slid the program back one year for all those projects that were not bid in FY
17 2021. This impacted the construction schedules for FY 2022 and FY 2023. The
18 Department, with rates in place for FY 2022 and FY 2023 to support new bond issuance
19 to fund the capital program, was able to resume to normal levels of construction.

20
21 **Q9. PLEASE DESCRIBE THE DEPARTMENT'S PROPOSED CAPITAL BUDGET**
22 **FOR FY 2024.**

23 A9. PWD's Proposed FY 2024 Capital Budget includes approximately \$764.9 million as
24 summarized below.

Table 2
Proposed Capital Budget FY 2024

Improvements to Water and Wastewater Facilities	\$ 393,000,000
Wastewater Collector System/CSO/Flood Relief	185,000,000
Water Conveyance System (new and reconstruction)	162,100,000
Engineering, Administration and Material Support	24,806,000
TOTAL	<u>\$ 764,906,000</u>

Again, that total amount shown is the amount of the appropriation that the Department will be seeking in the upcoming process for FY 2024. That amount does not include any appropriated funds carried-forward from prior fiscal years. We would note that Black & Veatch projected carry-forward into FY 2024 from prior fiscal years as shown on Line 13 of Table C-7 in Schedule BV-1.

The proposed FY 2024 capital budget of \$764.9 million is \$184.7 million more than the FY 2023 due to the increase in the number and size of water facility and water transmission projects included in the Water Revitalization Plan; the increase in water and sewer mileage and the increase in Green City, Clean Waters Program under the Consent Order and Agreement (COA). The FY 2024 budget represents the resumption of the full capital improvement program post-pandemic.

Q10. PLEASE DESCRIBE THE DEPARTMENT'S PROPOSED CAPITAL BUDGET FOR FY 2025.

A10. PWD's Proposed FY 2025 Capital Budget includes approximately \$755.9 million as summarized below.

Table 3
Proposed Capital Budget FY 2025

Improvements to Water and Wastewater Facilities	\$ 295,000,000
Wastewater Collector System/CSO/Flood Relief	191,000,000
Water Conveyance System (new and reconstruction)	245,100,000
Engineering, Administration and Material Support	24,806,000
TOTAL	<u>\$ 755,906,000</u>

The amount shown is the amount of the appropriation that the Department anticipates seeking in the upcoming process for FY 2025. That amount does not include any appropriated funds carried-forward from prior fiscal years. We would note that Black & Veatch projected carry-forward into FY 2025 from prior fiscal years as shown on Line 13 of Table C-7 in Schedule BV-1.

Q11. HAS THE DEPARTMENT PREPARED A PROPOSED CAPITAL IMPROVEMENT PROGRAM FOR FISCAL YEARS 2024 THROUGH 2029?

A11. Yes, the Department has prepared a proposed Capital Improvement Program for Fiscal Years 2024 through 2029, which will be presented to City Council for approval in March of 2023. Currently projected expenditures for the Capital Improvement Program for FY 2024 through FY 2029 are summarized below.

Table 4
Proposed Capital Improvement Program (FY 2024-2029)

Improvements to Water and Wastewater Facilities	\$ 1,842,000,000
Wastewater Collector System/CSO/Flood Relief	1,507,000,000
Water Conveyance System (new and reconstruction)	980,600,000
Engineering, Administration and Material Support	238,836,000
TOTAL	<u>\$ 4,568,436,000</u>

1 The Department identified projects and maintenance activities for the Rate Period, FY
2 2024 and FY 2025. Those projects are included within the above-described Capital
3 Improvement Program for FY 2024 through FY 2029.

4
5 **Q12. PLEASE DESCRIBE THE LARGEST INITIATIVES INCLUDED IN THE**
6 **PROPOSED CAPITAL IMPROVEMENT PROGRAM FOR FISCAL YEARS 2024**
7 **THROUGH 2029.**

8 A12. The largest initiatives in the Capital Improvement Program include: (i) the Green City,
9 Clean Waters Program; (ii) the Drinking Water Revitalization Plan; and (iii) the Renewal
10 and Replacement of Other Older Infrastructure, all of which are discussed below.

11
12 The Green City, Clean Waters Program

13 The Green City, Clean Waters Program (alternatively referred to as the Long Term
14 Control Plan – “LTCP”) along with the Water Revitalization Plan are the two largest
15 initiatives being undertaken by the Department in its capital program. The LTCP and the
16 Water Revitalization Plan will require significant capital expenditures beyond the FY
17 2024-2029 period referenced above. Specifically, the LTCP addresses combined sewer
18 overflows through large scale City-wide implementation of green stormwater
19 management infrastructure along with installation of “grey” infrastructure improvements
20 (storage and treatment plant capacity increases). This approach focuses on controlling
21 pollution at its source and improving water quality by restoring the natural hydrologic
22 cycle in the urban environment and is consistent with current United States
23 Environmental Protection Agency policy for addressing wet weather impacts. LTCP
24 expenditures in the proposed FY 2024-2029 Capital Improvement Program total \$999
25 million, which represents 21.8% of the Capital Improvement Program for the period FY

1 2024-2029.

2
3 Drinking Water Revitalization Plan (WRP)

4 Another large initiative in the Capital Improvement Program involves the Drinking Water
5 Revitalization Plan (WRP). This 25-year plan provides a comprehensive roadmap for the
6 Department to upgrade its facilities and to continue providing safe and reliable drinking
7 water to Philadelphia residents now and in the future. In devising the plan, the
8 Department set goals for a resilient and dependable drinking water system. After
9 establishing these goals, the Department conducted a detailed evaluation of existing water
10 treatment, pumping and storage facilities to document their current condition and identify
11 repair, replacement or improvement needs. The Department also considered other
12 planning drivers including water demand projections, water quality regulations, and
13 environmental factors. PWD developed and evaluated a wide range of alternatives before
14 identifying approximately 400 projects to be completed over the next 25 years at a cost of
15 \$2.5 billion. The projects focus on the rehabilitation of existing facilities, the complete
16 reconstruction of several existing facilities, and the construction of several new facilities.
17 The implementation of these projects will result in an increase in capital costs compare to
18 historical levels. In sequencing and developing a schedule for specific projects, PWD
19 took into consideration its other planned infrastructure improvements to avoid significant
20 capital needs from occurring at the same time.

21
22 Water Revitalization Plan projects that are scheduled to be constructed during Fiscal
23 Years 2024 and 2025 include: (i) the final phase of the replacement of the current clear
24 well basin at the Baxter Water Treatment plant at an estimated cost of \$125 million; (ii)
25 the rehabilitation of the Lardner's Point Finished Water Pump Station to update aging

1 infrastructure and enhance redundancy at an estimated cost of \$138.4 million; and (iii)
2 improvements in transmission piping by constructing an additional Schuylkill River
3 crossing in order increase system reliability and gain flexibility in the operation of the
4 water conveyance system at an estimated cost of \$150.9 million. The Water
5 Revitalization Plan also includes many other projects that are beyond the timeline of this
6 Capital Improvement Program. The Water Revitalization Plan represents \$1.38 billion or
7 about 30% of the FY 2024-2029 CIP.

8
9 Replacement and Renewal of Other Aging Infrastructure

10 The Department continues to replace, rehabilitate, and/or update water and wastewater
11 facilities in order to keep up with facility degradation and maintain system reliability. The
12 replacement and rehabilitation of Water Department facilities is budgeted at \$879 million
13 or 19.2% of the 6-year FY 2024-2029 budget.

14
15 The Department also continues to invest in its water distribution and wastewater collector
16 systems by replacing aging infrastructure to ensure reliability of service.

17
18 The water main relay program looks to replace aging water distribution mains in order to
19 increase service reliability. It targets failing components of our distribution system and
20 failure prone mains. This effort over time will reduce water main breaks and disruption in
21 service to our customers. Over the 6-year period FY 2024-2029, \$720 million or 15.8% is
22 budgeted for this program.

23
24 The collector system program consists of sewer reconstruction and rehabilitation which
25 targets failing components of the sewer system in an effort to prevent disruptions in

1 service by replacing sewers that are showing signs of deterioration in the amount of \$500
2 million over the 6-year period FY 2024-2029.

3
4 In addition, in this item is \$150 million of Storm Flood Relief and stream restoration for a
5 total collector systems budget of \$650 million or 14.2% in the 6-year period from FY
6 2024 to FY 2029.

7
8 **Water Projects**

9
10 **Q13. PLEASE DESCRIBE THE KEY WATER TREATMENT PLANT AND WATER**
11 **FACILITY UPGRADES THAT ARE INCLUDED IN THE PROPOSED CAPITAL**
12 **IMPROVEMENT PROGRAM FOR FISCAL YEARS 2024 THROUGH 2025**

13 A13. Each project in the CIP is important for operating, and maintaining the infrastructure and
14 organization necessary to reliably provide service.

15
16 The following are a few highlighted Water Treatment Plant and Water Facility Projects
17 for Fiscal Years 2024 through 2025:

- 18
19
 - Lardner's Point Pump Station (\$138.4M)
 - East Park Booster Pump Station (\$46M)
 - Georges Hill/Belmont High Service Pump Station (\$33.9M)
 - Monument Road Storage Tank (\$46.8M)
 - Queen Lane Clear Well Roof (\$17M)
 - Queen Lane Raw Water Pump Station 15KV Switchgear and Standby Generator (\$7M)

20
21
22
23
24 The above dollar amounts are provided to show the respective magnitude of those
25 projects. The amounts are not final estimates. The amounts reflect are merely planning

1 level estimates that will be further refined at the completion of the design process.

2
3 **Q14. WHY ARE PLANT UPGRADES IMPORTANT DURING THE RATE PERIOD,**
4 **FY 2024 and FY 2025?**

5 A14. Plant and facility upgrades are required to keep up with plant degradation due to aging
6 infrastructure. These upgrades are needed to meet regulatory compliance and provide
7 reliable service to our customers, as further explained in PWD Statement 1 and PWD
8 Statement 4.

9
10 **Q15. PLEASE DESCRIBE THE LEVEL OF WATER MAIN REPLACEMENT THAT**
11 **IS INCLUDED IN THE PROPOSED CAPITAL IMPROVEMENT PROGRAM**
12 **FOR FISCAL YEARS 2024 THROUGH 2025.**

13 A15. The Department has embarked on a program of accelerated main replacement which will
14 significantly exceed historic man replacement. Over the last 28 years, PWD has replaced,
15 on average, 19 miles of water mains annually. This level of main replacement has
16 increased in the recent past based on a revised goal of replacing 40 miles of main in FY
17 2023. This is reflected in an increase in budget for water main replacements from
18 approximately \$93 million in Fiscal Year 2021 to \$115 million in Fiscal Year 2023. The
19 Department plans to fund an additional increase of two miles of water main replacement
20 per year with the goal of reaching 42 miles of water main replacement annually in Fiscal
21 Year 2024 and beyond. This will require an increase in the annual capital budget for
22 water main replacement to approximately \$120 million in Fiscal Year 2024.

1 **Q16. WHY IS THAT THE LEVEL OF WATER MAIN REPLACEMENT NECESSARY**
2 **IN THE RATE PERIOD?**

3 A16. The Water Department assesses its water main break rate against the optimal level of 15
4 breaks per 100 miles/year as defined by the Distribution System Optimization Program
5 under the American Waterworks Association Partnership for Safe Water. Currently the
6 Water Department's five-year average breaks per 100 miles is 25.8 per year. In order to
7 decrease the water main break rate, keep up with an aging water system, and increase
8 system reliability, the Water Department has determined that an increase in water main
9 replacement is warranted.

10
11 **Wastewater Projects**

12
13 **Q17. PLEASE DESCRIBE THE KEY WATER POLLUTION CONTROL PLANT AND**
14 **WASTEWATER FACILITY IMPROVEMENTS THAT ARE INCLUDED IN THE**
15 **PROPOSED CAPITAL IMPROVEMENT PROGRAM FOR FISCAL YEARS 2024**
16 **THROUGH 2025.**

17 A17. Each project in the CIP is important for operating, and maintaining the infrastructure and
18 organization necessary to reliably provide service.

19
20 The following are a few highlighted Water Pollution Control Plant and Wastewater
21 Facility Projects for Fiscal Years 2024 through 2025:

- 22 ○ Process Tank Components at the Northeast Water Pollution Control Plant (\$16M)
- 23 ○ Oxygen Plant Betterment at the Southwest Pollution Control Plant (\$25M)
- 24 ○ Replacement of Aeration System Blowers at the Northeast Water Pollution
25 Control Plant (\$9M)

- New Side Stream Treatment Process at the Southwest Pollution Control Plant (\$50M)
- Final Sedimentation Tank Betterment at the Southwest Pollution Control Plant (\$40M)
- Replacement of Aeration Tank Mixers at the Southwest Pollution Control Plant (\$20M)

The above dollar amounts are provided to show the respective magnitude of those projects. The amounts are not final estimates. The amounts reflect are merely planning level estimates that will be further refined at the completion of the design process.

Q18. PLEASE DESCRIBE THE LEVEL OF SEWER REPLACEMENT AND REHABILITATION IN THE PROPOSED CAPITAL IMPROVEMENT PROGRAM FOR FISCAL YEARS 2024 THROUGH 2029.

A18. Over the last 28 years, the Department has reconstructed and/or rehabilitated, on average, approximately 8 miles of sewer annually. The Department's Capital Renewal Program for FY2023 budgeted for reconstructing 11 miles of sewers per year based on results of its Sewer Infrastructure Assessment Program and other condition reports. Some sewers are scheduled for reconstruction as a result of programmed water main replacement and the need to update infrastructure concurrently. The capital budget for sewer replacement and/or rehabilitation is \$62 million in Fiscal Year 2023 for 11 miles of sewer reconstruction or lining, \$69 million in Fiscal Year 2024 for 12 miles and \$75 million in Fiscal Year 2025 for 13 miles. The Department intends on reconstructing an additional mile per year until it reaches a replacement rate of twenty miles per year. Annual budget expenditures for this purpose are projected to increase by \$5 million per year through FY 2029.

1 **Q19. WHY IS THAT LEVEL OF SEWER REPLACEMENT AND REHABILITATION**
2 **NECESSARY IN THE RATE PERIOD, FY 2024 AND FY 2025.**

3 A19. This level of sewer replacement is required to keep up with an aging wastewater system
4 and system degradation in order to maintain system reliability.

5 **IV. RATE RELIEF NEEDED TO SUPPORT CAPITAL PROGRAM**
6

7 **Q20. WHY IS THIS LEVEL OF CAPITAL IMPROVEMENT PROGRAM**
8 **NECESSARY IN THE RATE PERIOD, FY 2024 AND FY 2025**

9 A20. This level of capital investment throughout the projected period is required to address
10 replacement of aging infrastructure, meeting regulatory requirements and to maintain
11 reliable service to our customers.

12
13 **Q21. PLEASE EXPLAIN HOW PWD PLANS TO FUND THE PROPOSED CAPITAL**
14 **IMPROVEMENT PROGRAM FOR THE RATE PERIOD?**

15 A21. PWD expects most of such funding to be in the form of new borrowing financed through
16 revenue bonds. PWD Statement 2A addresses this issue in greater detail.

17
18 **Q22. PLEASE EXPLAIN HOW THE ABOVE CAPITAL PROGRAM BUDGET**
19 **RELATES TO THE PENDING RATE CASE.**

20 A22. The proposed rates will support planned capital expenditures in the Rate Period, FY 2024
21 and FY 2025. As mentioned above, a significant portion of the costs of the Capital
22 Improvement Program for these years will be funded with the proceeds of debt. Debt
23 service requirements and contributions from current revenues are integral components of
24 the revenue requirements for the Rate Period.
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V. CONCLUSION

Q23. DOES THIS CONCLUDE THE DIRECT TESTIMONY OF THIS PANEL?

A23. Yes, it does.

Stephen J. Furtek, P.E.

- Education:** B.S. degree, Civil & Urban Engineering, University of Pennsylvania (1978-82)
- Experience:** Philadelphia Water Department (August 1982 – present)
- 3/2005 to Present** **General Manager of the Engineering & Construction Division**
Responsible for the administration and management of the Engineering & Construction Division of the Water Department. The Engineering & Construction Division is responsible for the implementation of the Department’s capital program. The division is comprised of the following units:
- **Design Branch** – Responsible for providing in-house design services, as well as managing outsourced design services, for the capital program. In addition, Design provides technical support to the Department at large regarding water and wastewater issues.
 - **Construction Branch:** - Construction Branch is responsible for administration and construction inspection of all capital program projects, including surveying and generation of as-built drawings.
 - **Projects Control Section** – The Projects Control Section is responsible for developing, maintaining, and tracking the capital improvement program. This section is charged with maintaining the Department’s as-built drawings & system maps as well as developing, implementing, and maintaining the Department’s Geographic Information System (GIS). This Section is also home to the One-Call Unit, which is responsible for implementing the State’s requirement that buried infrastructure, be field marked prior to excavation.
- 10/1996 to 2/2005** **Manager of Design Branch**
Responsible for managing a multidiscipline design-engineering unit for the Water Department consisting of architectural, civil, structural, electrical, and mechanical personnel. This unit is responsible for the design of the Water Department’s capital program, including the generation of biddable plans and specifications. In addition, this unit is responsible for managing numerous professional engineering services contracts. These firms provide engineering services to supplement the Water Department’s in-house staff in designing the annual capital program.
- 1/1988 to 10/1996** **Engineering Supervisor, Water & Sewer Section, Design Branch**
Supervised a group of design engineers and drafting technicians. Responsible for the oversight of the preparation of contract plans and specifications for the Water Department’s water main relay and sewer reconstruction capital program, using both in-house staff and engineering consulting firms.
- 8/1982 to 1/1988** **Civil Engineer, Structural Section, Design Branch**
Prepared contract plans and specifications and performed structural design as required to support various construction and/or rehabilitation projects of Water Department facilities.
- Licensure:** Registered Professional Engineer in the Commonwealth of Pennsylvania.

Trisha M. Grace

Education: **B.S. degree, Civil Engineering, Drexel University (1989-94)**

Experience:

06/2015 to Present **Water Engineering Projects Manager, Water Department**

Responsible for formulation and implementation of the department's capital improvement program and budget. Supervision of the public works construction contracting process and payment processing system.

06/2014 to 06/2015 **Water Engineering Projects Assistant Manager, Water Department**

Responsible for bid specification and plan review for constructability and procurement of said projects. Coordinated with other Departments regarding procurement issues, funding, right-of-way agreements. OEO participation and project work.

01/2008 to 06/2014 **Design and Construction Project Manager, Water Department**

Responsible for bid specification and plan review for constructability and procurement of said projects. Coordinated with other Departments regarding procurement issues, funding, right-of-way agreements. OEO participation and project work.

02/2006 to 01/2008 **Design and Construction Project Manager, Philadelphia International Airport**

Responsible for design, procurement and construction phase of airfield rehabilitation and building improvement projects. Supervised technical staff of engineers and inspectors. Managed contractor and consultant contracts.

06/2000 to 02/2006 **Construction Engineer 1, Water Department**

Resident construction engineer at the Southeast WPCP administering various public works construction projects. Supervised technical staff of 3. Provided computer support for office and field staff.

03/1998 to 06/2000 **Engineering Specialist, Water Department**

Managed energy efficient lighting project at various Water Dept. sites. Assisted in the design coordination and review of public works projects. Provided tech support for office and field staff. Developed and managed several Access databases for tracking of construction projects and estimates.

09/1996 to 03/1999 **Civil Engineer, Streets Department**

Responsible for design of various site improvement and maintenance projects for the Sanitation Engineering Unit, supervised vendors and contractors, coordinated hazardous waste removal contractor.

08/1994 to 09/1996 **Staff Engineer, Harding Lawson Associates**

Construction supervisor at superfund remediation site in Central NJ, assisted in producing cost estimates for successful environmental remediation projects, responsible for O&M of pump and treatment remediation systems as well as monthly sampling & reporting.

Vahe Hovsepian, PE
 (215) 908-9502
 Vahe.hovsepian@phila.gov

EDUCATION

New Jersey Institute of Technology	Newark, NJ
<i>Bachelor of Science, Mechanical Engineering</i>	May 1984

New Jersey Institute of Technology	Newark, NJ
<i>Master of Science, Mechanical Engineering</i>	May 1986

EXPERIENCE

Philadelphia Water Department	Philadelphia, PA
<i>Water Engineering Assistant Manager</i>	January 2022 – Present

- In charge of the Projects Control unit managing the Capital, Geographic Information System (GIS), Records, One Call, Sewer Connections, and Act 537 programs.

Philadelphia Water Department	Philadelphia, PA
<i>Water Engineering Projects Manager</i>	April 2016 – January 2022

- In charge of the Design Branch managing/directing design functions for the Water Department's capital improvement and expansion program including the linear and vertical assets. Responsible for over \$200 million in capital projects on annual basis. In addition, responsibilities include managing a staff of 67 employees and over 37 consultants retained to perform assigned tasks on call basis.

Philadelphia Water Department	Philadelphia, PA
<i>Water Engineering Assistant Projects Manager</i>	April 2008 - April 2016

- Planned, directed and coordinated the work of in-house staff consisting of different engineering disciplines and also outside consultants for all capital (improvement and expansion) projects associated with the Philadelphia Water Department water and waste water facilities. Assigned projects to individual squad leaders, organized monthly progress meetings and prepared outside consultant contracts and task orders.

Philadelphia Water Department	Philadelphia, PA
<i>Supervisor 2- Mechanical Squad</i>	August 1999 - April 2008

- In charge of the Mechanical Squad directing and supervising the mechanical design functions for the Water Department's capital improvement and expansion program. In addition, responsibilities include direct the preparation of design drawings, technical specifications, cost estimates and technical reports.

Philadelphia Water Department	Philadelphia, PA
<i>Supervisor 1- Mechanical Squad</i>	October 1997 - August 1999

- Reporting directly to the supervisor of the Mechanical Design Squad. Responsibilities include review the design work and technical reports prepared by members of the Mechanical Squad and design projects submitted by consultants. Interact on a daily basis with subordinates and provide guidance and direction.

Philadelphia Water Department	Philadelphia, PA
<i>Engineering Specialist- Mechanical Squad</i>	July 1996 - October 1997

- Engineering specialist reporting directly to assistant supervisor of the Mechanical Squad. Responsibilities include the design of complex mechanical projects including pumping, plumbing and HVAC systems. Prepare cost estimates and review shop drawings submitted by contractors.

Philadelphia Water Department

Mechanical Engineer 2- Mechanical Squad

Philadelphia, PA

March 1993 - July 1996

- Mechanical Engineer 2 reporting directly to assistant supervisor of the Mechanical Squad. Responsibilities include the design of mechanical projects including pumping, plumbing and HVAC systems. Prepare cost estimates and review shop drawings submitted by contractors.

Camden County College

Adjunct Faculty-Mathematics Department

Blackwood, NJ

September 1990 – December 2021

- Adjunct faculty teaching college level mathematics course. Course taught include: Mathematics for Liberal Arts, Statistics, College Algebra and Trigonometry and Pre-Calculus.

LICENSES

Licensed Professional Engineer in the Commonwealth of Pennsylvania, (PE) 1998.

William E. Dobbins, P.E.

Education: B.S. degree, Civil Engineering, Pennsylvania State University (1996-01)

Experience: Philadelphia Water Department (December 2001 – present)

1/2022 to present

Manager, Facilities and Water & Sewer Sections, Design Unit

Responsible for managing a multidiscipline design-engineering unit for the Water Department consisting of architectural, civil, structural, electrical, and mechanical personnel. This unit is responsible for the design of the Water Department's capital program, including the generation of biddable plans and specifications. In addition, this unit is responsible for managing numerous professional engineering services contracts. These firms provide engineering services to supplement the Water Department's in-house staff in designing the annual capital program

4/2017 to 1/2022

Assistant Manager, Water & Sewer Section, Design Unit

Responsible for managing the Water and Sewer Section design-engineering unit for the Water Department. This section is responsible for the design of the Water Department's water main and sewer capital program, including the generation of biddable plans and specifications.

10/2008 to 4/2017

Engineering Supervisor, Water & Sewer Section, Design Unit

Supervised a group of design engineers and drafting technicians. Responsible for the oversight of the preparation of contract plans and specifications for the Water Department's water main relay and sewer reconstruction capital program, using both in- house staff and engineering consulting firms.

12/2001 to 10/2008

Civil Engineer, Water & Sewer Section, Design Unit

Prepared contract plans and specifications to support various construction and/or rehabilitation projects of Water Department water mains and sewers.

Licensure:

Registered Professional Engineer in the Commonwealth of Pennsylvania.

APPENDIX 1

CAPITAL PROGRAM

AND

BUDGET PROCESS



The Director of Finance is the chief financial and budget officer of the City and is responsible for the financial functions of the City, including the development of the annual operating budget, the capital budget, and capital program as well as other financial functions. The Budget Office within the Office of the Director of Finance oversees the preparation of the operating and capital budgets. Once the operating and capital budgets are adopted, the Budget Office is responsible for monitoring operating spending by expenditure class code, department, and fund, and the capital budget by projects, budget lines, funding, historical records of bid awards, cost overruns, as well as other fiscal and project information.

The Charter requires that, at least 30 days before the end of each fiscal year, City Council must adopt by ordinance an Operating Budget and Capital Budget for the ensuing fiscal year and a Capital Program for the next six years. There are no consequences for budget passed during the final 30 days of the fiscal year, but passage must occur prior to any spending

The Operating Budget and Capital Budget bills must be signed into law by the Mayor like any other ordinance, although the Charter does authorize a line item veto for budget bills. A budget process timeline is shown below:

CITY OF PHILADELPHIA ANNUAL BUDGET PROCESS

The City of Philadelphia’s fiscal year (FY) runs from July 1 to June 30

JULY

July 1st - Fiscal Year Begins

Controller provides opinions on the Five Year Plan to PICA
PICA votes on the Five Year Plan within 30 days of passage

Capital and Operating
Budget calls and meetings



OCTOBER - DECEMBER

October: Capital Budget call

November: Capital Budget meetings held with departments and Current Fiscal Year Q1 QCMR released

December: Operating Budget call and meetings held with departments

Capital and Operating Budget adjustments made by Council
PICA Budget Meetings
City Council Budget Hearings
City Council passes Budget



MARCH - JUNE

May: City Council holds Capital and Operating Budget hearings and Current Fiscal Year Q3 QCMR released; PICA conducts meetings with City departments on the upcoming budget

June: City Council Budget hearings end; City Council passes annual Budget



Normal Business Operations

JULY - SEPTEMBER

August: Prior Fiscal Year Q4 Quarterly City Manager’s Report (QCMR) released



Operating Budget meetings continue
Gather public input from community stakeholders to understand the requests and community needs
Capital and Operating Budget formulation
Recommendations prepared for the Mayor
Mayor’s Budget Address
City Council Budget Hearings

JANUARY - APRIL

January: Operating Budget meetings with departments continue

February: Current Fiscal Year Q2 QCMR released

February/March: Internal deliberations for Capital and Operating Budget. Recommendations prepared for the Mayor

April: Mayor delivers proposed Operating Budget, Five Year Plan, and Capital Budget and Program¹

JUNE

June 30th - Fiscal Year Ends

The chart below notes the differences between the operating budget versus the capital budget:

OPERATING BUDGET AND FIVE YEAR PLAN	CAPITAL PROGRAM AND BUDGET
Annual budget, which is included in five year plan for longer-term fiscal stability	Annual budget, which is included in six-year program for future planning purposes
Appropriations do not carry forward from prior years	Carryforward funding from year to year
Includes all City departments	Only includes City departments with capital projects
Funding by expenditure classes as well as fund types (for example, General Fund and Grants Revenue Fund)	One class with different funding sources (for example, GO funds and private funds)

With Program-Based Budgeting, coordination of operating-related costs with capital investments has been made stronger. For example, staffing increases in Class 100 have a direct impact on capital investments. If the City is increasing the number of firefighters or paramedics, then this should be timed with any future engine or medic unit vehicle purchases. Similarly, when assets are being decommissioned or acquired, utility costs should be factored in the Operating Budget during the transition period. Transfers of appropriations between budget lines must be approved by City Council, and the overall amount appropriated by the budget in any fiscal year cannot be increased absent special circumstances. Any capital appropriations that are not spent or encumbered at year-end must be either carried forward to the next fiscal year (for upcoming use) or are canceled.

RACIAL EQUITY IN THE BUDGET PROCESS

To embed racial equity in the internal budget process, the Budget Office in coordination with the Office of Diversity, Equity, and Inclusion incorporates a racial equity lens into the budget process. This includes:

- ▲ **Minority Contracting Goals:** Operating budget meetings include goal setting for spending with minority, women, and disabled-owned businesses. Goal setting previously was independent of the budget process.
- ▲ **Revenue Impact Disparity Analysis:** As the City considers any new revenue streams or changes to existing rates, the anticipated impacts on communities of color, low-wealth communities, and diverse businesses are evaluated and considered as part of the decision-making process.

- ▲ **Connecting Funding Requests & Racial Equity:** Departments requesting new operating or capital funding are asked about the impacts on racial disparities, looking for both quantitative and qualitative information. These questions have been refined and expanded and apply to requests for new funding, existing funding, and spending reduction scenarios and are included in the [Budget Detail](#).
- ▲ **Budget Equity Committee:** This committee reviews budget proposals with the goal of assessing the equity impact of proposals on Philadelphia’s communities of color and low-wealth communities.
- ▲ **More opportunities for People Outside City Government to Influence Budget Proposals:** In partnership with the Mayor’s Office of Public Engagement and staff throughout City government, feedback is gathered early in the budget development process through focus groups with community organizations, business leadership, the City’s frontline employees, and other groups with the goal of hearing from more voices and perspective during the budget process.

FY23 BUDGET CALL RACIAL INQUIRY

These principles and procedures were incorporated in the FY23 Operating Budget Call. Departments are asked to submit information about costs related to continuing existing service, provide justifications for requests for funding for new or expanded programs, and develop spending reduction scenarios. To meet the City’s vision where race is not a determinant of success, and everyone thrives, including LGBTQ+ individuals, women, people with disabilities, low-income households and other historically marginalized and underrepresented groups in Philadelphia, departments were provided a set of questions about racial equity as part of the FY23 Budget Call. These measures were put in place for the City to aim to be more diligent and intentional about creating conditions to dampen historic inequities and improving outcomes for all residents.

Racially equitable budget requests may include:

- Those that support programs or services designed to advance equity
- Increase transit and mobility options
- Improve access to facilities and programs
- Increase diverse representation at all leadership levels and advance a more inclusive workspace
- Minimize negative impacts for communities of color, and other marginalized groups.

FY23 BUDGET CALL RACIAL INQUIRY

Building off the inquiry surrounding City department budgets and racial equity, the City engaged in a comprehensive community engagement process. The City replaced last year's Budget survey process to engage with focus groups to be more demographically representative of Philadelphia communities. While this approach did not allow for as many people to engage in this deeper process of engagement, it did better reflect a wider representation of Philadelphians' preferences and priorities.

The City adjusted outreach approaches to better engage Black and Brown Philadelphians by holding focus group sessions that were more demographically representative than past outreach efforts, and by hosting a budget-focused virtual town hall. This approach provided deeper quality engagement with a demographically representative group of Philadelphians, but this also meant that fewer individuals were involved in the process because the nature of running community focus groups requires more in-depth preparation versus blanketed online surveys. COVID-19 required focus groups to occur online, with outreach reliant primarily on social media accounts and targeted in person flyer and material drop offs.

Emphasis on accessibility, community outreach, equitable engagement, providing more sessions for residents, as well as financial compensation were key focuses of the FY23 Budget Engagement Plan. Although the sessions had to be held virtually due to COVID-19 health concerns, this year's engagement provided more opportunities for residents to have their voice heard, City employees to reflect their experiences and share insight, and grass-top leaders to share their expertise. In addition to adjusting strategies to increase equitable engagement, the City utilized strategies to increase language, digital, and disability access in the engagement process.

FY23 BUDGET COMMUNITY ENGAGEMENT PLAN

The City held over 20 community engagement sessions with 500+ community members. Participants ranged from residents, leaders from businesses, non-profits, arts and cultural organizations, as well as City employees across departments to share their thoughts, concerns, and ideas.

Community focus group sessions covered citywide concerns, perspective, lived experiences, providing the public with insight to how the City budget works and idea sharing for citywide issues. Overall, this process was an advancement in terms of garnering more diverse perspectives, identities, experiences and ideas of Philadelphian resident. However, further effort is needed to engage members of immigrant communities, hourly workers, and others who have been left out of these conversations. Below is an overview of the variety of engagement sessions conducted by the Budget Office followed by the priorities and concerns voices by each group.

ENGAGEMENT CONDUCTED

- ▲ Nine Community Focus Groups with 94 community members and One Virtual Town Hall with 188 community members. *Community Focus groups compared to FY22 efforts, tripled the share of Black Philadelphian's participating to 36 percent overall.*
- ▲ Five Grasstops Focus Groups with 70+ representatives from business, arts, and City boards present
- ▲ Six Employee Focus Groups with 140+ City employees

PRIORITIES, PREFERENCES AND OVERALL CONCERNS

The most common themes from all the sessions were: public spaces, public safety, streets and sanitation, and racial equity. A breakdown by engagement type is shown below.

▲ Community Focus Groups & Town Hall

- Public Safety
- Public Spaces & Parks
- Street & Sanitation
- Racial Equity

▲ Grasstops Focus Groups

- Arts & Culture
- Public Safety
- Racial Equity
- Streets & Sanitation

▲ City Employee Focus Groups

- Education
- Racial Equity
- Public Safety
- Streets & Sanitation

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