



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

March 19, 2026

RE: Hanover Municipal Water Works
Annual Asset Optimization Plan for Year Ended December 31, 2025

Dear Secretary Chiavetta:

We are the consultant representing the Borough of Hanover – Hanover Municipal Water Works (HMWW) and, in accordance with Section 1358 of the Public Utility Code, are submitting, via electronic filing with this letter, HMWW's Annual Asset Optimization Plan for the Year Ended December 31, 2025. Please contact me with any questions about this matter.

Sincerely,

MICHAEL J. MEHAFFEY, PE*

Vice President

Water Business Line

**Registered in PA, OH*

I, Michael Mehaffey, hereby state that the facts above set forth are true and correct to the best of my knowledge, information and belief, and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of Pa. C.S 4904 (relating to unsworn falsification to authorities)

Michael J. Mehaffey

Vice President



BOROUGH OF HANOVER – HANOVER MUNICIPAL WATER WORKS

Annual Asset Optimization Plan for Year Ended December 31, 2025

The Borough of Hanover – Hanover Municipal Water Works (HMWW) is submitting its third Annual Asset Optimization Plan (AAOP) in accordance with Section 1356 of the Public Utility Code. Its Long-Term Infrastructure Improvement Plan (LTIIIP) was approved by Order entered on November 18, 2021 at Docket No. P-2021-3026854.

This AAOP provides information on the reporting period ended on December 31, 2025, and projections for the upcoming year ending December 2026.

INTRODUCTION

HMWW currently serves a population of approximately 42,400 customers in Hanover Borough, Township of Heidelberg and Penn Township, York County and McSherrystown Borough and Conewago Township, Adams County.

The water system is supplied primarily by two surface water sources and by a secondary water source. The primary water sources include the Sheppard Myers Dam and Lawrence Baker Sheppard Myers Dam. From the Sheppard Myers Dam, water flows northwesterly in the South Branch of the Little Conewago Creek for 2.9 miles where it converges with the Long Arm Creek. From the Lawrence Baker Sheppard Myers Dam, water flows northwesterly in the Long Arm Creek into the South Branch of the Conewago Creek. Once the flow from the two dams converge, the water continues to flow northwesterly in the South Branch of the Conewago Creek until it reaches the Kitzmiller Diversion Dam, 1.8 miles downstream. The intake at the Kitzmiller Diversion Dam allows water to be conveyed through two 36-inch concrete pipes to a pre-sedimentation basin at the water treatment plant.

The secondary source is provided by the Slagle Run Intake and Pump Station. This source is available to HMWW when the adjacent quarry is in operation. This flow is pumped to a manmade pre-sedimentation basin at the water treatment plant.

The water treatment plant consists of two parallel process trains. The treatment process includes chemical mixing, flocculation basins, sedimentation basins, filtration, and disinfection. A high service pump station, located at the water treatment plant, pumps treated water to the distribution system.

HMWW provides water service within a fully integrated, two-pressure zone distribution system. The pressure zones are identified as the “high pressure zone” and the “main pressure zone”. The Parr’s Hill Reservoirs and Pump Station provide storage and boosts flow to the high-pressure zone. HMWW’s distribution system consists of two elevated storage tanks with a total storage capacity of 750,000 gallons (main pressure zone) and 13,000,000 gallons (main/high pressure zone).

The HMWW distribution system consists of approximately 205 miles of main ranging in size from 1-inch to 24-inch and consists primarily of cast iron pipe (CIP) and ductile iron pipe (DIP). The HMWW distribution system dates to 1885, although over 50% of mains were installed since the 1970s.



Section 1356 of the Public Utility Code provides that a utility with an approved distribution system improvement charge and LTIP shall file an AAOP. Section 121.6 of Title 52 of the Pennsylvania Code, 52 Pa. Code 121.6, states that an AAOP must include the following:

- A description that specifies all the eligible property repaired, improved, and replaced in the prior 12-month period under its LTIP and prior year's AAOP.
- A description of the eligible property to be repaired, improved, and replaced in the upcoming 12-month period.

1.0 ELIGIBLE PROPERTY REPAIRED, IMPROVED, AND REPLACED IN THE PRIOR 12-MONTH PERIOD

The information presented below compares HMWW's budgeted LTIP expenditures versus actual expenditures in 2025.

Table 1A presents 2025 Capital Improvements projected to be completed versus the actual improvements implemented. Table 1B presents the projected quantities of main, valves, fire hydrants and meters replaced in 2025. Table 1C presents the projected cost associated with the replacement of the quantities noted in Table 1B.

These tables, much like was noted in 2024, continue to display that HMWW committed significant financial resources in 2025 to replace aged residential meters within the service area as part of a multi-year, broad meter modernization effort. As a new challenge in 2025, HMWW was forced to position the Borough for large scale efforts in 2026 related to PennDOT's Eisenhower Drive Extension Project (a large scale highway construction project impacting water mains at several locations) and an Elm Avenue (a large scale resurfacing project that causes various impacts to an existing HMWW 12" water main). Both project sites are located "outside of Borough". These projects are described in additional detail in Section 2.0.

Recognizing that the capital outlay for 2025 for water main replacement was subpar, and that structural changes are needed in how the Borough generates and allocates funding for critical outside of Borough capital improvements, two major efforts occurred in 2025. Initially, the Water Resources Department (which manages HMWW), proposed that the current way of budgeting for projects be adjusted. In lieu of an operational budget line item ("Repairs – Infrastructure"), the Department proposed the establishment of a dedicated (annual) capital project fund. This is a much better means by which to allocate and track the expenses related to large-scale infrastructure efforts. For 2026, this item (016-44802-448-00271, "CAP EXP – WATER INFRASTRUCTURE") was populated with an approved initial budget of \$ 530,000.

More significantly, in addition to this accounting improvement, Borough leadership advocated to Council that the "in-Borough" water rates should be increased to match the "out of Borough" water rates. This is a significant shift in Borough rate payer ideology and is expected to generate an additional \$600,000 of water revenue. Council, in their reluctant approval of the change to the fee schedule, requested that the additional funding be focused on meter modernization and water main relay/lining efforts. As such, it is expected that 2026 will be a fund building year, with the hope of setting a larger balance in 2027 for capital projects.

These two efforts are a direct, strategic and focused recognition by the HMWW and Borough leadership that additional means (outside of a rate case) are needed to increase the spend on capital water projects.



Additional funding will also put the HMWW on a projected path to engage the DSIC fee, as was approved in the last rate case. This fee mechanism would add additional water revenues to be able to be applied as new capital funding.

Table 1A – Outside Borough Projected Annual Capital Improvements for 2025 vs. Actual

Improvement		Actual Quantity	Projected Quantity
1	Annual Main Replacement	49 LF	976 LF
2	Valve Replacement	3	7
3	Fire Hydrant	\$ 7,355	\$ 14,978
4	Meter Replacement Plan	\$ 535,167	\$ 537,072

Table 1B – Quantities of Improvements for Year Ending December 31, 2025

Improvement		Quantity	
1	Annual Main Replacement	49	LF
2	Valve Replacement	3	EA
3	Fire Hydrant	2	EA
4	Meter Replacement Plan	877	EA

Table 1C – Cost of Improvements for Year Ending December 31, 2025

Improvement		Cost
1	Annual Main Replacement	\$ 15,295
2	Valve Replacement	\$ 4,254
3	Fire Hydrant	\$ 7,355
4	Meter Replacement Plan	\$ 535,167

2.0 ELIGIBLE PROPERTY TO BE REPAIRED, IMPROVED, AND REPLACED IN THE UPCOMING 12-MONTH PERIOD

In the upcoming 12-month period, ending December 31, 2026, HMWW will be engaged in several significant efforts.

Eisenhower Drive Extension Project – The HMWW has been notified by PennDOT that the HMWW water system is in direct conflict with the proposed alignment of a new four (4) lane limited access highway. These



conflicts range from minor relocations to entire displacement of the existing water main requiring relocation and the installation of casing pipes (for future maintenance). An exact cost estimate has not yet been determined, but design is nearing completion and the project is expected to be let for bidding in 4Q of 2026. It is noted that, with the current schedule, this project may not incur costs on the part of HMWW until 2027. Portions of the work may be “incorporated” making them eligible for partial reimbursement. HMWW will need to reserve capital funding for the portions not covered by PennDOT. Other sections of the project, outside of the right-of-way, will likely be considered “betterment” and will be the sole responsibility of HMWW to fund/build.

Elm Avenue – The HMWW has been in final design efforts with PennDOT for a large-scale resurfacing project. While resurfacing typically does not entail utility conflicts, this project is also scoped to reconstruct sanitary sewer, natural gas and stormwater piping. As such, the new utility designs will conflict with the HMWW 12” water main that currently resides under Elm Avenue. This project will occur in Conewago Township, Adams County. The subject water main was previously put on the HMWW priority list to be replaced (given its age, size and history of previous main breaks). As such, this is a unique opportunity whereby HMWW has opted to not just avoid the conflicts, but to fully relocate approximately 2,000 lineal feet of the main outside of the conflicted areas (with an entirely new main). Final design is in review and cost estimates are being prepared to determine what this will cost the Borough. Much like the Eisenhower Drive Extension Project described above, portions of the work may be eligible for reimbursement. In both PennDOT projects, the HMWW is looking to leverage funding to take advantage of cost sharing and secure new infrastructure for its customers/ratepayers. This project is set to be let in 2Q 2026 and be completed by 4Q 2026, with costs incurred by HMWW in 2026.

Blackrock Road – The HMWW has completed the design of the necessary main improvements for the replacement and upsizing of a portion of water main extending from the Parrs Hill Reservoir to Bowman Road. A legal agreement has been drafted for a joint effort project with a local developer who needs an extension of that main to serve the “Mustang Pointe” development (118 new residential customers), as was noted in the 2024 annual report. Work is occurring now to secure the necessary highway occupancy permits, while HMWW waits to see if residual funding is available (in 2026), after completion of the items above, which are mandated efforts by PennDOT and take priority.

Ancillary Projects – The HMWW has two other projects being loosely pursued at this time. The first project, York Street, remains an active area of concern with a history of water main breaks in close proximity to one another. The second project is a connection of the HMWW system, along Gitts Run Road. The design was completed in late 2024 with a permit application made to First Energy (who owns the right-of-way). They have been reviewing the project for close to a year now, causing significant delays for advancing this in-house water main construction project. The connection will improve system pressures and water quality. Both projects reside in Penn Township (York County).

Table 2 below shows the projected quantities of main, valves, fire hydrants and meters to be replaced.

Table 3 below shows the projected cost associated with the replacement of the quantities noted in Table 2.

Table 2 – Projected Quantities of Improvements for Year Ending December 31, 2026

Improvement		Projected Quantity	
1	Annual Main Replacement	2,574	LF



2	Valve Replacement	25	EA
3	Fire Hydrant	8	EA
4	Meter Replacement Plan	1,400	EA

Table 3 – Projected Cost of Improvements for Year Ending December 31, 2026

Improvement		Projected Cost
1	Annual Main Replacement	\$ 350,000
2	Valve Replacement	\$ 18,000
3	Fire Hydrant	\$ 25,000
4	Meter Replacement Plan	\$ 300,000

3.0 UPDATED NON-REVENUE WATER AND MAIN BREAK OCCURANCE RATES FOR 2025

To reduce non-revenue water, HMWW invested resources to address/repair the following water main break in 2025.

Table 4 – Main Break Occurrence for 2025

Date	Location	Main Diameter
1/7/2025	301 North St.	6"
1/8/2025	75 Laurel Dr.	6"
1/9/2025	702 York St.	8"
1/11/2025	1155 Carlisle St.	8"
1/14/2025	16 Beck Mill Rd.	6"
1/17/2025	305 South St.	4"
1/18/2025	620 York St.	8"
1/30/2025	204 S. Jefferson St.	4"
1/31/2025	872 York St.	6"
5/2/2025	824 York St.	8"
8/11/2025	160 Wappler Dr.	6"
9/22/2025	160 Ram Dr.	12"
10/15/2025	200 Bragg St.	6"
11/7/2025	60 Blooming Grove Rd.	12"
12/9/2025	623 York St.	8"



12/24/2025	777 Edgegrove Rd.	8"
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As part of the Commission Order approving Hanover’s Long-Term Infrastructure Improvement Plan, HMWW is required to provide details regarding non-revenue water rate. During 2025, a total of 1,719,910,000 gallons of water was treated and pumped to the service area. Throughout that same service area, billing to customers recognized a total of 1,566,508,000 gallons supplied to customers. As a result, the non-revenue water rate in 2025 was 9.79%.