

STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

IN THE MATTER OF THE
REVISION OF RATES FILED BY
PINELANDS WATER COMPANY

TESTIMONY

OF

BRIAN F. CARR

VICE PRESIDENT - OPERATIONS

SEPTEMBER 2022

1 **PINELANDS WATER COMPANY**

2 **STATEMENT OF THE DIRECTOR OF ENGINEERING**

3 **DIRECT TESTIMONY OF BRIAN F. CARR**

4

5 Q. PLEASE STATE FOR THE RECORD YOUR NAME, OCCUPATION
6 AND BUSINESS ADDRESS.

7 A. My name is Brian F. Carr. I am the Vice President – Operations of
8 Pinelands Water Company, (PWC or the Company). I am also the Director
9 of Engineering for Middlesex Water Company of which PWC is a
10 subsidiary. My business address is 485C Route 1 South, Suite 400, Iselin,
11 New Jersey.

12 Q. PLEASE STATE YOUR PROFESSIONAL AND EDUCATIONAL
13 BACKGROUND AND EXPERIENCE.

14 A. My professional qualifications and experience are set forth in Appendix A
15 attached hereto.

16 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

17 A. My testimony in this proceeding is to describe the water system facilities,
18 and the operation of PWC.

19 Q. ARE YOU FAMILIAR WITH THE SERVICE AREA, SYSTEM
20 FACILITIES, AND OPERATION OF PWC?

21 A. Yes. I have been employed by Middlesex Water Company since 2010.
22 Since that time, I have provided and continue to provide engineering and

1 project management support services to PWC on various projects and
2 operations. In addition, as part of these duties I have reviewed the books
3 and records of these facilities and have inspected facilities in the field. I
4 have recently been appointed Vice President – Operations of Pinelands
5 Water Company.

6 Q. WILL YOU BRIEFLY DESCRIBE THE FACILITIES OF THE PWC?

7 A. The PWC facilities pump, treat, and distribute water for domestic purposes
8 to approximately 2,400 customers located in the communities of
9 LeisureTowne and Hampton Lakes in Southampton Township, New Jersey.

10 The PWC water system consists of four gravel packed wells, a 1.2 million
11 gallon distribution storage standpipe, distribution mains, hydrants, services,
12 meters, and appurtenances. The water treatment provided is disinfection
13 through chlorination of the well supplies.

14 Q. ARE YOU FAMILIAR WITH THE UTILITY PLANT IN SERVICE FOR
15 PWC AS SET FORTH IN EXHIBIT P-1?

16 A. Yes. I am familiar with Exhibit P-1. These records set forth the original
17 cost of the Water Utility Plant classified in accordance with the Uniform
18 System of Accounts prescribed for water utilities.

19 Q. ARE YOU FAMILIAR WITH THE CAPITAL PROGRAM FOR
20 PINELANDS WATER COMPANY?

21 A. Yes. A Capital Program has been prepared and is under my responsibility
22 for PWC. This program is set forth in Exhibit P-2. This exhibit includes

1 the actual and estimated additions to Utility Plant in Service for the Test
2 Year through December 31, 2022, and for estimated additions through June
3 30, 2023.

4 Q. WILL YOU PLEASE DESCRIBE THE MAJOR PROJECTS SET FORTH
5 IN THIS CAPITAL PROGRAM?

6 A. The major projects set forth in the Capital Program include the
7 rehabilitation of Well #4, the rehabilitation and station improvements
8 including a building expansion and chlorine system changes at Well #2, the
9 installation of a leak detection system that will utilize hydrant cap
10 monitoring, and the capital portion of the Arc Flash electrical testing &
11 investigation project that I discuss in more detail later in this testimony.

12 Q. CAN YOU DESCRIBE THE METERS BLANKET COMPONENT OF
13 THE CAPITAL PROGRAM SHOWN ON EXHIBIT P-2?

14 A. The annual PWC capital program includes a provision to perform periodic
15 meter replacements of customer meters.

16 Q. DOES THE METER REPLACEMENT PROGRAM INCLUDE THE
17 INSTALLATION OF ELECTRONIC READING DEVICES?

18 A. Yes. As part of the Company's strategy to implement radio read capability,
19 under PWC's meter replacement program the meter installation will be
20 upgraded with the wiring and radio units inside the premise and in some
21 cases in meter pits during the meter replacement work.

1 Q: CAN YOU DESCRIBE THE SERVICE LINE BLANKET COMPONENT
2 OF THE CAPITAL PROGRAM SHOWN ON EXHIBIT P-2?

3 A: Replacement of leaking service lines remains an issue for PWC. Failure of
4 these assets typically involve the service saddles and tap on the main
5 requiring replacement. Service saddles are stainless steel strap assemblies
6 that allow connection of the service tap fitting to the water main pipe.
7 These are needed because asbestos cement or plastic pipe do not have the
8 thread holding power of metallic pipe. These saddles are prone to damage
9 from the acidic nature of the soils and are failing ahead of the mains
10 themselves.

11 Q: WHAT ARE THE PLANNED IMPROVEMENTS FOR WELL #2 AND
12 WELL #4?

13 A. Well #2's redevelopment was completed in 2021. With completion of this
14 redevelopment, Well #2's well building will be expanded to accommodate a
15 new chlorine feed system and a restroom, new LED lighting and a new
16 HVAC system. A major component of the project is the installation of a
17 new large diameter chlorine contact pipe in accordance with current
18 regulatory requirements. Substantial completion of this project is expected
19 in December 2022. Finally, additional site work for Well #2 will include
20 final restoration of the site and perimeter fence to be completed Spring
21 2023. With respect to Well #4, a redevelopment project for this well was

1 completed in May 2022 and this project included installation of a new pump
2 as well as a new motor and pitiless adaptor.

3 Q. PLEASE DESCRIBE THE CAPITAL COMPONENT OF THE ARC
4 FLASH PROJECT.

5 A. The Arc Flash Project includes work to determine safety parameters of the
6 existing electrical equipment at the various water facilities. As a part of this
7 determination of safety parameters, a single line diagram is created. This is
8 essentially an as-built of the electrical panels. This creation of the as-built
9 condition is capitalized and represents 30% of the cost of the study.

10 Q. PLEASE DESCRIBE THE HUNTINGTON WATER MAIN
11 REPLACEMENT AND WARWICK WATER MAIN REPLACEMENT
12 PROJECTS.

13 In July 2022, the Huntington Drive water main experienced a failure. This
14 was followed in August 2022 with a failure at the Warwick Way water
15 main. Emergency repairs were completed at both mains and the water
16 system restored. As a result of the main breaks, Southampton Township
17 required the Company to undertake a large pavement restoration project
18 covering the entire area impacted by these main breaks.

19 Q. IN YOUR OPINION, IS THE CAPITAL PROGRAM REASONABLE
20 AND NECESSARY, AND IN THE PUBLIC INTEREST?

1 A. Yes. The Capital Program sets forth the improvements necessary for the
2 continued operation and maintenance of the PWC system in a safe, proper
3 and efficient manner.

4 Q. DOES THAT CONCLUDE YOUR TESTIMONY?

5 A. Yes, it does.

PROFESSIONAL QUALIFICATIONS OF

Brian F. Carr, P.E.

SUMMARY: Licensed professional engineer in practice for 25 years. Experience in designing, estimating, writing specifications and administering a variety of water and sewer capital improvement projects, Federal Civil Works projects and military projects. Management of all aspects of work operations including budgets, scheduling, personnel, clients, subcontractors, agencies and other principals. Supervision of technical and nontechnical personnel.

EXPERIENCE:

08/2022 Vice President - Operations, Pinelands Water Company and Pinelands Wastewater
Present Company, Iselin, NJ: Overall responsibility for utility operations of Water and Sewer
Utilities serving approximately 2,400 customers in Southampton Township, NJ.

Projects of Note:

RBC Replacement Project Retreat Road Forcemain Relocation
Well #2 Station Improvements

06/2010- Director of Engineering, Middlesex Water Company:
Present Previously Manager of Engineering, Senior Project Engineer, Middlesex Water Company,
Iselin, New Jersey:
Directly responsible for the management for the New Jersey Company's Engineering Department, Capital Program and Special Projects. This includes planning, design, and supervision of construction in order to continually optimize system expansion, operations and provide proper utility service.

- Management and approval of all functions of the New Jersey Engineering Department. This included direct supervision of engineers, inspectors, drafters, and support personnel.
- Management and oversight of the Capital Program including the 1 year Capital Budget and 5 year Capital Program.
- Engineering and Project management responsibilities of projects totaling over \$50 million. Projects include facilities (mains) extensions, office buildings, pump stations, major transmission pipelines, wellfield improvements, treatment plant modifications and storage reservoir/tanks.
- Company representation and delivery of presentations at various regulatory, governmental, civic, industrial, and professional organizations.
- Preparation of applications support for regulatory (environmental and administrative) approvals.
- Review, analyses, and support on varied Company operations initiatives and projects.

Projects of Note:

CJO Plant Upgrade (\$60M) Western Transmission Main (\$52M)
Park Ave Treatment (\$50M) RENEW Water Main Rehab Program (~\$10 million/year)
Hatco 20" Main Relocation (\$1M) NJTA 12" Main Extension (\$4M)

07/2001-
05/2010 Project Manager CMX, Manalapan New Jersey

- Prepare Construction and Engineering cost estimates.
- Develop plans and specifications for water & sewer projects for the Water Resources Division
- Coordinate inspection on construction projects. Provide inspection on an as needed basis.
- Identify, estimate, negotiate and prepare contract modifications.
- Review project labor and material charges in preparation for invoicing
- Supervise Project Engineers on project design and admiration.

Projects of Note:

Ocean Acres WTP Ocean Acres Main Extension Phases 2-5B
500,000 Gallon Beachwood Elevated Tank, Ocean Acres 400,000 Gallon Elevated Tank
Clara Drive & Fawn Lakes Pump Station Rehabilitation

05/1992-
06/2001 Technical Engineer/Project Engineer US Army Corps of Engineers, New York District, New York, NY & Fort Monmouth, NJ

Engineering Division 1992-1994

- Wrote and edited project specifications
- Investigated and assessed sites prior to project design
- Prepared plans and specifications for advertisement

Construction Division 1994-2021

- Performed quality control/quality assurance inspections of contractor's performance to ensure compliance with construction plans and specifications.
- Developed in-house designs to resolve field changes quickly, in order to keep projects on schedule.
- Independently prepared cost estimates for construction modifications to establish Government negotiating positions.

Projects of Note:

Greenbrook Flood Control Project Westhampton Emergency Breach Closure
Monmouth County Beach Erosion Control Projects – Manasquan to Sea Bright
Renovation of Dorm #100 & North Star Inn, Thule AB Greenland
Fort Monmouth Laboratory Renovation Fort Hancock Building & Battery Demolition

EDUCATION: B.S. Civil Engineering; Rutgers University, New Brunswick, NJ

PROFESSIONAL LICENSES: New Jersey Professional Engineer

AFFILIATIONS: American Water Works Association (NJ Section Past Chair & Trustee).

PINELANDS WATER COMPANY
UTILITY PLANT IN SERVICE - CLASSIFIED (101)

<u>UTILITY PLANT ACCOUNT</u>	BALANCE AS OF <u>12/31/2021</u>	<u>ADDITIONS</u>	<u>RETIREMENTS</u>	BALANCE AS OF <u>3/31/2022</u>
<u>INTANGIBLE PLANT</u>				
301 ORGANIZATION	444	-	-	444
303 MISC. INTANGIBLE PLANT	4,750	-	-	4,750
TOTAL INTANGIBLE PLANT	5,194	-	-	5,194
<u>SOURCE OF SUPPLY PLANT</u>				
310 LAND AND LAND RIGHTS	1,485	-	-	1,485
311 STRUCTURES AND IMPROVEMENTS	29,894	-	-	29,894
312 COLLECT & IMPOUND RESERVOIRS	875	-	-	875
314 WELLS AND SPRINGS	402,046	-	-	402,046
TOTAL SOURCE OF SUPPLY PLANT	434,299	-	-	434,299
<u>PUMPING</u>				
321 STRUCTURES AND IMPROVEMENTS	288,435	6,787	-	295,222
323 OTHER POWER PRODUCTION EQUIP	37,062	-	-	37,062
325 ELECTRIC PUMPING EQUIPMENT	651,097	351	-	651,449
328 OTHER PUMPING EQUIPMENT	3,629	-	-	3,629
TOTAL PUMPING	980,224	7,138	-	987,362
<u>WATER TREATMENT PLANT</u>				
330 LAND AND LAND RIGHTS	2,000	-	-	2,000
332 WATER TREATMENT AND EQUIPMENT	372,409	157	-	372,567
TOTAL WATER TREATMENT	374,409	157	-	374,567
<u>TRANSMISSION AND DISTRIBUTION</u>				
342 DISTRIB. RES. & STANDPIPES	273,812	-	-	273,812
343 TRANS. & DISTRIB. MAINS	1,750,564	165	-	1,750,728
345 SERVICES	910,214	2,097	-	912,311
346 METERS	862,297	-	1,193	861,104
347 METER INSTALLATIONS	766,859	50,867	390	817,336
348 HYDRANTS	193,423	-	-	193,423
TOTAL T & D PLANT	4,757,169	53,128	1,583	4,808,715
<u>GENERAL PLANT</u>				
389 LAND AND LAND RIGHTS	15,759	-	-	15,759
390 STRUCTURES AND IMPROVEMENTS	20,685	-	-	20,685
391 OFFICE FURNITURE AND EQUIPMENT	29,026	-	-	29,026
392 TRANSPORTATION EQUIPMENT	41,005	-	-	41,005
394 TOOLS, SHOP & GARAGE EQUIP.	45,823	4,270	-	50,093
396 POWER OPERATED EQUIPMENT	3,004	-	-	3,004
397 COMMUNICATION EQUIPMENT	236,073	-	-	236,073
398 MISCELLANEOUS EQUIPMENT	3,859	-	-	3,859
399 OTHER TANGIBLE PROPERTY	879	-	-	879
TOTAL GENERAL PLANT	396,114	4,270	-	400,384
TOTAL UTILITY PLANT IN SERVICE	6,947,409	64,694	1,583	7,010,521

PROJECTED UTILITY PLANT IN SERVICE

Description	U.P.I.S. at 3/31/2022	C.W.I.P at 03/31/22	Expenditures Actual Apr-Jun	Expenditures Projected Jul-Dec	Total U.P.I.S. 12/31/22	Post Test Year Projections Jan-Jun	Total U.P.I.S. 06/30/23
<u>UTILITY PLANT IN SERVICE AT MARCH 31, 2022</u>	\$7,010,521				\$7,010,521		\$ 7,010,521
<u>CONSTRUCTION WORK IN PROGRESS</u>							
<u>Distribution System</u>							
Hydrant Cap Leak Detection System		-	-	10,000	10,000	-	10,000
Blanket-T&D Mains & Valves		15,665	6,685	16,000	38,350	-	38,350
Blanket-Service Lines		38,744	45,659	44,000	128,403	-	128,403
Blanket-Hydrants		8,047	33,737	12,000	53,784	-	53,784
Blanket-Meters		(19,468)	4,159	30,000	14,690	-	14,690
Blanket-Meter Pits		-	-	15,000	15,000	-	15,000
Total Distribution Systems		42,988	90,240	127,000	260,227	-	260,227
<u>Production and Treatment</u>							
Well #2 Station Improvements		68,490	(9,736)	1,140,000	1,198,753	40,000	1,238,753
Well #4 Rehabilitation		-	6,109	64,500	70,609	-	70,609
Arc Flash Project		-	-	14,310	14,310	-	14,310
Huntington Water Main Replacement		-	-	50,000	50,000	-	50,000
Warwick Way Water Main Replacement		-	-	50,000	50,000	-	50,000
Blanket-Pumping Equipment		2,325	16,301	-	18,626	-	18,626
Blanket-Water Treatment Equipment		21,634	3,811	-	25,446	-	25,446
Blanket-Production Structures		21,302	11,735	2,000	35,037	-	35,037
Total Pumping & Treatment Projects		113,751	28,219	1,320,810	1,462,781	40,000	1,502,781
<u>Transportation, General Equipment and IT</u>							
Transportation Equipment		-	-	-	-	-	-
GIS Blanket		-	-	4,000	4,000	-	4,000
Miscellaneous General Equipment		-	484	1,100	1,584	-	1,584
Total General Equipment Projects		-	484	5,100	5,584	-	5,584
Subtotal Additions		156,739	118,943	1,452,910	1,728,592	40,000	1,768,592
<u>RETIREMENTS</u>							
Estimated / Actual Retirements			(76,242)	(18,510)	(94,752)		(94,752)
	\$7,010,521	\$156,739	\$42,701	\$1,434,400	\$8,644,361	\$40,000	\$8,684,361