

STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

IN THE MATTER OF THE
REVISION OF RATES FILED BY
MIDDLESEX WATER COMPANY
BPU DOCKET NO. WR23 _____

PREFILED TESTIMONY

OF

BRIAN F. CARR
DIRECTOR OF ENGINEERING

MAY 2023

MIDDLESEX WATER COMPANY
STATEMENT OF THE DIRECTOR OF ENGINEERING
TESTIMONY OF BRIAN F. CARR

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

A. My name is Brian F. Carr. I am the Director of Engineering for Middlesex Water Company (Middlesex or the Company). In addition, I am the Vice President of Operations for Pinelands Water Company and Pinelands Wastewater Company (Pinelands), subsidiaries of the Company in New Jersey. My business address is 485C Route 1 South, Suite 400, Iselin, New Jersey.

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

A. My professional qualifications and experience are set forth on Appendix A

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

A. Yes. I have been employed by Middlesex since 2010 and with the various positions I have held within the Company, I have a well-rounded understanding of the facilities and operation of the Company. My responsibilities during my tenure include the engineering and planning of the improvements in facilities necessary for the provision of safe, adequate and proper water service for our customers. Additionally, I am integrally involved in the development of the Capital Program and Capital Budget. This includes development of the program and management of projects for the Company's distribution, production systems and general plant.

Q. COULD YOU PLEASE HIGHLIGHT SOME OF THE MAJOR UTILITY PLANT IMPROVEMENTS COMPLETED AND IN PROGRESS SINCE THE LAST BASE RATE CASE?

A. For the period December 2021 to March 2023, the Company's capital program was completed in accordance with the policies and procedures described in the testimony of Mr. Andreasen, with several major projects completed and placed into service during this time period. The most significant project is the Park Avenue Water Treatment Plant (WTP) upgrade, which is described in detail later in this testimony. The Company's annual

distribution system upgrade program, referred to internally as RENEW, a program first established in 1995, continued during this period with the replacement of ~50,000 feet (RENEW 2021 & RENEW 2022) of distribution mains and associated services, hydrants, valves and meters. In addition to the RENEW program, the Company completed over 15 individual targeted distribution system projects of varying size, including the replacement of ~25,000 feet of distribution mains and the related services, valves and meters. The Company also completed various other treatment plant and pumping projects and the completion of these projects are included in Utility Plant in Service. The remaining expenditures represent the completion of “Blanket” items, which are described in Mr. Andreasen’s testimony. I am responsible for testifying to the utility plant that is in service, as well as utility plant projects at various stages of completion but not yet in service.

Q. HAVE YOU PREPARED A SCHEDULE OF PROPOSED ADDITIONS TO UTILITY PLANT FOR THE TEST YEAR SEPTEMBER 30, 2023?

A. Yes. I have provided the information for an Exhibit entitled “Middlesex Water Company – Projected Utility Plant in Service” designated herein as Exhibit P-2.

Q. WILL YOU EXPLAIN THE BASIS FOR THIS EXHIBIT?

A. Exhibit P-2 sets forth the actual and estimated additions to Utility Plant in Service for the Test Year through September 30, 2023, and for estimated additions through March 31, 2024.

Q. CAN YOU PLEASE PROVIDE AN OVERVIEW OF THE MAJOR CATEGORIES AND ITEMS IDENTIFIED IN EXHIBIT P-2?

A. The major categories identified on P-2 are Completed Projects, Current Projects, and Routine Capital Budget and Retirements. The entry for Completed Projects relates to projects that were in service as of December 31, 2022, but had additional charges to the project that delayed the transfer of final project costs into Utility Plant In Service for accounting purposes. Most of the projects on this list were awaiting final restoration or invoicing as of December 31, 2022. Within the Completed Projects is a grouping entitled Miscellaneous Projects in Closeout. This group of projects is comprised of mostly projects with subsequent permit escrow charges and a few projects that had a Construction Work in Progress (CWIP) balance under \$15,000 with no further expected charges.

The Current Projects are specific budgeted projects currently under construction that will be complete and placed into service by September 30, 2023. They include projects under construction as well as projects budgeted for 2023 which will start, and are expected to be complete and placed into service, by September 30, 2023. This group is separated into the

categories of Distribution Projects, Plant Projects and Miscellaneous Projects. The Routine Capital Budget category includes the Blanket projects. The Retirement category is a listing of the retirements that are projected during the Test Year, including completed replacement and retirement of Utility Plant through Blankets and other specific projects.

Q. CAN YOU GENERALLY DISCUSS THE BLANKET ITEMS AS LISTED IN EXHIBIT P-2?

A. The Blanket items listed in P-2 include the items for distribution system mains, valves, service lines, meters, meter installations, and hydrants; for the production and treatment plant, pumping equipment, treatment equipment and plant structures; and for general plant, transportation equipment, computer-related equipment and general equipment. The Transportation Blanket is based on a scheduled replacement program for vehicles and equipment, together with additional equipment requirements. We know these items will be installed, but the timing and sizing of any particular item during the year is difficult to specifically project. For example, the Company plans to put into service a certain number of new hydrants throughout the distribution system, but how many might specifically be installed in the Borough of Carteret or the Township of Edison on a particular date during the year is dependent on many factors. Similar to the above other blankets, the line item for General Equipment Blanket is based on functional requirements for items such as office equipment, miscellaneous operations equipment and tools. These items have been included as estimates in the test year period outlined on the exhibit, based on the approved Capital Budget.

Q. CAN YOU DESCRIBE THE COMPANY'S RENEW PROGRAM SET FORTH IN EXHIBIT P-2?

A. Middlesex's RENEW program is a continuation of a successful program that has been described in previous rate case proceedings beginning in 1995. Middlesex has approximately 746 miles of transmission and distribution mains in its service area. RENEW has resulted over time in successfully upgrading distribution system infrastructure including renewal and replacement of distribution mains, service lines, fire hydrants and other distribution system assets. The program also includes installation of meter pits for services up to 2" and readying the installation for removal of water meters from customer's homes/businesses into outside meter installations.

The goal of any individual RENEW project is to leave an area with a more reliable water distribution system that is less likely to experience a disruptive and costly failure. For

RENEW 2023, the planned water main replacement quantity is 26,500 linear feet between the Port Reading section of Woodbridge Township and the adjacent section of the Borough of Carteret.

Q. DOES THE COMPANY UTILIZE PIPELINE ASSESSMENTS AND CRITICALITY OF PIPELINES IN PRIORITIZING WORK FOR PIPELINE RENEWAL AND REPLACEMENT?

A. Yes, Middlesex conducted an evaluation of the distribution system water main inventory with the purpose of prioritizing this asset class for use in developing programs and projects for distribution system upgrades including the RENEW and pipeline replacement projects. The evaluation analyzed and ranked the pipeline segments in the distribution system with regard to overall risk using a comprehensive and structured process for prioritization of the Company's pipeline assets. A risk score, also generally referred to as "criticality," was used which is determined based on Probability of Failure (POF) and Consequence of Failure (COF) scoring according to a comprehensive collection of specific criteria for probability and consequence factors. This evaluation resulted in a Pipeline Prioritization Ranking Tool (PPT) that contains these scores and can be used for quickly referencing the "criticality" of pipeline segments, and the supporting factors, for planning and overall asset management purposes.

The PPT utilizes multiple factors, including asset age and lining status, to determine a pipe's criticality. Overall, more than a total of 40 factors for POF and COF are used to score and then determine the ranking for each segment.

The Company's Geographic Information System (GIS) is used to store the data for operational use. Adopted in 2017, PPT is regularly used as one of the initial tools in assessing and prioritizing pipelines to be considered and further evaluated for project development. While the PPT is used for the initial assessments, other factors are also used in validating the initial selections and determining that that project should proceed in development.

The Pipeline Prioritization Ranking Tool is being updated in 2023 with the most current information to allow for continued use of this program. The new Tool is expected to be updated by July 2023.

Q. CAN YOU PLEASE PROVIDE HIGHLIGHTS OF THE MAJOR PIPELINE PROJECTS SET FORTH IN EXHIBIT P-2?

A. Yes, the major pipeline projects, include:

- 48” Main at Old Post and Mill Brook: This project was undertaken in response to a leak discovered in January 2023 on the 48” transmission main from the Company’s surface water treatment plant to the distribution system. The pipeline was taken out of service and an inspection was performed. Several areas of pipe degradation were identified which need to be addressed based on our POF and COF evaluation criteria. Inspection also found additional pipe and valves at the 48”/36”/30” interconnection which need repair/replacement and which are part of this project.
- Saints Field 24” Main Replacement: This project was undertaken to address the failure of a 24” transmission main under the Woodbridge Creek. The main, part of the transmission system supplying one of the three New Jersey Turnpike crossings, was found to be leaking in a very difficult to reach wetlands area. A design to replace the main by directional drilling is nearly complete and construction will begin in 2023. The replacement will be 900 linear feet of new main crossing under the Woodbridge Creek and associated wetlands area.
- St. Georges Avenue Water Main Replacement: This is the replacement of the main on St. Georges Avenue (State Highway 35) from Avenel Street to Woodbine Avenue in Woodbridge Township. The project includes approximately 2,000 feet of 8” and 6” main in addition three fire hydrants and 10 services of up to 2” in diameter where several must be installed by trenchless installation across the four lane State Highway 35.
- Metuchen Avenue Main Replacement: This is a 1,600 foot 12” main with some 8” main replacement on Metuchen Avenue from Main Street to Peyser Street. The work is scheduled for completion ahead of Woodbridge Township’s planned resurfacing of this roadway. The project originally was designed and scheduled for construction at a later date, but the Township added the road resurfacing to their 2023 planned resurfacing project ahead of their original schedule. Based upon the Company’s PPT, the project is a feasible candidate to be accelerated in order to coordinate with the Township’s project. This project will consist of the installation of pipe prior to the Township’s final paving of Metuchen Avenue, resulting in restoration cost savings and less disruption to customers. The project includes 22 services and meter pits and 2 hydrants.
- Red Root Creek Main Replacement: This is a 500 foot replacement of a 12” water main due to construction of a new bridge over the Red Root Creek in Woodbridge. The replacement includes the creek crossing as well as two jack and bore crossings of an existing railroad. The project will reactivate three fire hydrants.

Q CAN YOU PLEASE PROVIDE A GENERAL DESCRIPTION OF THE METER AND METER INSTALLATION BLANKETS

A. The Company has an ongoing initiative to move the customer meters out of all commercial and residential structures, to installations in pits, or above ground meter enclosures at the property line. This Blanket is for the work being done as part of this overall conversion initiative outside of a specifically identifiable project. The work consists of several programs to construct the installations. This includes meter pits associated with services installed as part of the Service Lines Blanket, pits to be installed at locations where curb stops or curb boxes need to be replaced, customer requests for meter changes, meter pits to be installed as part of the overall targeted meter replacement program and locations where the service line is being inspected as part of New Jersey's required lead service line and connecting pipe assessment/replacement program. This assessment program is complementary to requirements promulgated by the U.S. Environmental Protection Agency as part of the revised Lead & Copper Rule under the Federal Safe Drinking Water Act.

Q. CAN YOU DESCRIBE THE PARK AVENUE WTP PROJECT?

A. The project is for a major upgrade to the treatment process at the Park Avenue WTP in South Plainfield. Mr. Robert K. Fullagar has sponsored testimony that supports the need for this treatment process upgrade.

The Company conducted an extensive alternatives analysis and pilot testing, and the end result of these actions is the construction of a 20 vessel Granular Activated Carbon (GAC) system, treatment building and other improvements nearing completion at the Park Avenue WTP. This project includes realignment of raw and finished water mains to make room for the new building, an intermediate pump station to push water through the 20 vessels, a set of pre-GAC bag filters to prevent media clogging, new chemical feed equipment, and a new control room. The 20 vertical steel vessels are housed in a new 150'x110'x40' building that also contains the pump station, bag filters, surge tank, control room, chemical feed room and electrical room. Modifications were also made to the existing treatment facilities chemical feed room. The first phase of the project including eight GAC vessels was placed into service in April 2023. The second phase including a second group of eight GAC vessels is expected to be in service at the end of May 2023. Phase three, including 4 vessels which have been used for temporary treatment, is expected to be in service at the end of June 2023.

Q. HAVE YOU SPONSORED PROPOSED NON-RATE CHANGES TO THE MIDDLESEX WATER COMPANY TARIFF FOR WATER SERVICE (TARIFF)?

A. Yes. I am proposing changes to Section 12 of the Tariff. Specifically, I am proposing changes to Sections 12.1 and 12.3 of the Tariff. The proposed change to Section 12.1 is the addition of a reference to New Jersey Board of Public Utilities (NJBPU) regulation N.J.A.C 14:3-8.9 in order to provide a direct link for the applicants for costs associated with extension of service. While N.J.A.C 14:3-8 is included by reference in Section 12.3, the proposed reference will make it easier for an applicant to find the proper regulation. The proposed change to Section 12.3 of the Tariff is the removal of reference to N.J.A.C 14:3-10. This subchapter and its seven sections are currently a “Reserved” subchapter in the regulations and does not have any text.

Q. DOES THAT CONCLUDE YOUR TESTIMONY?

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 Force main 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).

MIDDLESEX WATER COMPANY
Utility Plant in Service

Exhibit P-2
ver 05/15/2023

Witness: Carr

	UPIS at		Expenditures			UPIS Transfers		Actual/Proj		Post Test Year		
	12/31/22	CWIP Balance	Jan-Feb	Jan-Feb	CWIP Balance	UPIS at	Mar-Sept	UPIS Transfers	UPIS at	Projected	Projected	
	12/31/22	12/31/22	2023	2023	02/28/23	02/28/23	2023	2023	09/30/23	Expenditures Mar	UPIS Transfer Oct-Dec	UPIS at
UTILITY PLANT IN SERVICE: 12/31/22	\$ 751,794,491					\$ 751,794,491			\$ 751,794,491			\$ 751,794,491
COMPLETED PROJECTS												
CONRAIL Track Connection		195,306	241,618		436,924	-	2,500	439,424	439,424	-	-	439,424
CJO Plant Upgrade		64,069	24,909		88,978	-	60,000	148,978	148,978	-	-	148,978
Distribution Sampling Stations		14,310	-		14,310	-	10,000	24,310	24,310	-	-	24,310
JRT Center Renovations		234,471	393		234,863	-	3,000	237,863	237,863	-	-	237,863
Inman Ave Main Replacement		12,694	(3)		12,692	-	50,000	62,692	62,692	-	-	62,692
Railway Ave Paddock to Randolph Main Replacement		62,347	-		62,347	-	50,000	112,347	112,347	-	-	112,347
Production Way Main Replacement		2,779	(15,257)		(12,478)	-	50,000	37,522	37,522	-	-	37,522
Flowwatch Upgrades 2020		30,000			30,000	-	2,000	32,000	32,000	-	-	32,000
Main Street & Route 9 Main Replacement		40,642	44,776		85,418	-	1,500	86,918	86,918	-	-	86,918
Ridgedale Ave Main Replacement		163,126	31,829		194,955	-	203,500	398,455	398,455	-	-	398,455
New Electrical Service for Well #21		60,047	-		60,047	-	5,000	65,047	65,047	-	-	65,047
Cellular Communication for Remote Sites		15,275	-		15,275	-	10,000	25,275	25,275	-	-	25,275
RENEW 2022		396,996	324,853		721,849	-	1,528,500	2,250,349	2,250,349	-	-	2,250,349
Miscellaneous Projects in Closeout		26,360	9,192	2,250	33,303	2,250	19,170	52,472	54,722	-	-	54,722
Subtotal Completed Projects		1,318,421	662,311	2,250	1,978,482	2,250	1,995,170	3,973,651	3,975,901			3,975,901
CURRENT PROJECTS												
Distribution System Projects												
RENEW 2023		442,278	69,307	-	511,585	-	8,750,000	9,261,585	9,261,585	-	-	9,261,585
Replacement of 30" PCCP on South Main St.		-	276,408	-	276,408	-	20,000	296,408	296,408	-	-	296,408
48-in Main At Old Post and Mill Creek		-	991,865	-	991,865	-	6,010,000	7,001,865	7,001,865	-	-	7,001,865
Saints Blvd 24" Main Replacement		419,188	12,505	-	431,693	-	271,530	-	-	1,548,307	2,251,530	2,251,530
Clive St Main Replacement		47,423	1,938	-	49,362	-	660,638	710,000	710,000	-	-	710,000
Lead & Copper Compliance		226,170	7,050	-	233,220	-	105,000	338,220	338,220	-	-	338,220
Rt 35 6" Main Replacement		51,132	44,900	-	96,032	-	781,368	877,400	877,400	-	-	877,400
St. Georges Ave Water Main Replacement		152,438	-	-	152,438	-	988,562	1,141,000	1,141,000	-	-	1,141,000
Metuchen Ave Main Replacement		93,266	22,836	-	116,103	-	1,558,897	1,675,000	1,675,000	-	-	1,675,000
Harding Ave Main Replacement		7,885	422,276	-	430,161	-	179,339	609,500	609,500	-	-	609,500
Red Root Creek Main Replacement		2,771	4,887	-	7,658	-	820,000	-	-	750,000	1,577,658	1,577,658
Decker Place Main Replacement		4,895	4,978	-	9,873	-	275,000	284,873	284,873	-	-	284,873
15 Park Place Main Extension		-	-	-	-	-	80,000	80,000	80,000	-	-	80,000
CJO RW Pipe Improvements		674,663	8,239	-	682,902	-	5,000	-	-	72,500	760,402	760,402
Rt 27 16" Valve Replacement		89,489	4,560	-	94,049	-	656,651	750,700	750,700	-	-	750,700
Woodbridge Drainage Relocations		-	570	-	570	-	80,000	80,570	80,570	-	-	80,570
Plant Projects												
Park Ave WTP		31,060,787	6,203,213	-	37,264,000	-	7,542,000	44,806,000	44,806,000	-	-	44,806,000
Filters 1-8 Install New Railings & Control Panels		18,503	-	-	18,503	-	5,000	23,503	23,503	-	-	23,503
Spring Lake Abandonment		17,285	44,028	-	61,313	-	10,000	71,313	71,313	-	-	71,313
CJO 36" Victaulic Joint Replacement		-	-	-	-	-	25,000	25,000	25,000	-	-	25,000
CJO Elevator		109,076	1,432	-	110,508	-	350,000	460,508	460,508	-	-	460,508
Water Suite 2021 Capital Upgrades		65,737	-	-	65,737	-	10,000	75,737	75,737	-	-	75,737
CJO Plant Operator Training Simulator		109,372	26,643	-	136,015	-	-	136,015	136,015	-	-	136,015
RWPS Overhead Upgrade		2,849	130,602	-	133,450	-	70,000	203,450	203,450	-	-	203,450
Well #23 Stabilization		13,146	658	-	13,804	-	205,000	218,804	218,804	-	-	218,804
Miscellaneous Projects												
SD-WAN		13,594	28,440	-	42,033	-	10,000	52,033	52,033	-	-	52,033
Pipeline Prioritization Update		27,647	13,480	-	41,127	-	42,700	83,827	83,827	-	-	83,827
GIS Roadmap Strgie Plan		52,725	2,287	-	55,012	-	20,000	75,012	75,012	-	-	75,012
Install Flushing Device at JRT Center		36,818	331	-	37,149	-	10,000	47,149	47,149	-	-	47,149
Smart Hydrant Installation		37,427	-	-	37,427	-	5,000	42,427	42,427	-	-	42,427
Electric Vehicle Charging Stations		8,943	20,827	-	29,770	-	195,230	225,000	225,000	-	-	225,000
JRT Center Fence & Gate Installation		-	-	-	-	-	300,000	300,000	300,000	-	-	300,000
Subtotal Current Projects		33,785,507	8,344,260	-	42,129,767	-	30,041,915	69,952,899	69,952,899	2,370,807	4,589,591	74,542,489
ROUTINE CAPITAL BUDGET												
T&D Main & Valves Blanket		169,859	300,792	116,606	354,045	116,606	1,151,375	1,505,420	1,622,026	-	-	1,622,026
Service Line Blanket		(58,729)	386,859	155,834	172,296	155,834	1,417,404	1,589,700	1,745,534	-	-	1,745,534
Hydrants Blanket		18,743	128,532	56,466	90,810	56,466	966,798	1,057,607	1,114,073	-	-	1,114,073
Meters & Meter Installation Blanket		430,946	741,838	672,795	499,989	672,795	4,480,952	4,980,941	5,653,736	-	-	5,653,736
Pmpng Equip. Water Trmt Struct & Equip Blkt		37,329	378,201	126,956	288,574	126,956	39,008	327,582	454,538	-	-	454,538
Transportation Blanket		-	19,486	-	19,486	-	1,327,705	1,428,886	1,428,886	-	-	1,428,886
IT/GIS/ERP Blanket		(3,896)	38,383	15,938	18,548	15,938	228,207	263,161	279,099	-	-	279,099
General Equipment/Lab Equipment Blanket		2,223	27,614	1,499	28,338	1,499	284,004	312,343	313,841	-	-	313,841
Subtotal Routine Capital Budget		596,473	2,021,706	1,146,093	1,472,087	1,146,093	9,895,454	11,465,641	12,611,733			12,611,733
Subtotal Additions		35,700,401	11,028,277	1,148,343	45,580,336	1,148,343	41,932,538	85,392,190	86,540,533	2,370,807	4,589,591	91,130,124
Subtotal	\$751,794,491	\$35,700,401	\$11,028,277	\$1,148,343	\$45,580,336	\$752,942,834	\$41,932,538	\$85,392,190	\$838,335,024	\$2,370,807	\$4,589,591	\$842,924,615
RETIREMENTS												
General Retirements (Blankets)		-	(33,729)	(33,729)	-	(33,729)	(462,600)	(462,600)	(\$496,329)	-	-	(496,329)
Project Retirements		-	-	-	-	-	(1,265,000)	(1,265,000)	(1,265,000)	(20,000)	(20,000)	(1,285,000)
Subtotal Retirements		-	(33,729)	(33,729)	-	(33,729)	(1,727,600)	(1,727,600)	(1,761,329)	(20,000)	(20,000)	(1,781,329)
TOTAL	\$751,794,491	\$35,700,401	\$10,994,548	\$1,114,613	\$45,580,336	\$752,909,105	\$40,204,938	\$83,664,590	\$836,573,695	\$2,350,807	\$4,569,591	\$841,143,286