STATE OF NEW YORK
PUBLIC SERVICE COMMISSION
CASE 16-W-0130

IN THE MATTER OF A PROCEEDING ON MOTION
OF THE COMMISSION AS TO THE RATES, CHARGES,
RULES AND REGULATIONS OF

SUEZ WATER NEW YORK INC.

FOR WATER SERVICE

CASE NO. 16-W-0130

EXHIBITS OF DANIEL P. DUTHIE

On behalf of
The Municipal Consortium

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EXHIBIT --- (DPD-1)
DUTHIE CV

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PROFESSIONAL EXPERIENCE

DANIEL P. DUTHIE, ESQ. (1990 to Present)

Currently representing the Municipal Consortium in the Suez Water New York Inc. rate case that seeks 18.7% increases for average residential single family customer. Half of the increase is to recover abandoned desalination project expenditures.

Currently representing Saber Dobbs Ferry, LLC in a water main extension negotiation with United Water New Rochelle, leading to the filing of a Joint Petition seeking a waiver of PSC regulations that will save ratepayers almost $500,000.

Currently representing The Gateway Development Group negotiating electric service from Con Edison for a public-private development in Bronxville. Also representing Gateway in a network electric service dispute with Eversource in Greenwich Connecticut.

Currently representing the Town of Milan, the Town of Pleasant Valley and Farmers and Families for Livingston in the Competitive Alternating Transmission Proceeding before the New York PSC. This is an unprecedented Article VII (of the Public Service Law) proceeding that sees four applicants proposing AC Transmission line projects to alleviate the alleged Central – East constraint in the state's bulk power system. The proceeding was initiated as part of the Governor's Energy Highway proposal.

Recently completed working with a Municipal Consortium opposing the United Water New York 28.9% rate increase. The Municipal Consortium consists of all five towns in Rockland County, Rockland County itself, the Rockland County Solid Waste Management Authority, the Nyack Public Schools, and four villages and two school districts. Rate increase was less than half requested.

Recently represented Town of Ramapo against a proposed desalination facility that would have double United Water New York rates and working closely with citizen groups was able to have the project rejected by the Public Service Commission along with an associated $60 million surcharge.

Recently completed working with a Municipal Consortium opposing the United Water New Rochelle 22% rate increase. The MC consists of the following City of New Rochelle, Village of Dobbs Ferry, Village of Hastings, Village of Pelham, Village of Pelham Manor, Village of Bronxville, Village of Ardsley, Town of Eastchester and Village of Tuckahoe. Again the rate increase was less than half of that requested.

Currently working with the Towns of Clarkstown and Ramapo to acquire existing Orange and Rockland Utilities, Inc.'s overhead street lighting system under new SC-6 tariff (eff. July 1, 2012). Negotiations with O&R are completed for Clarkston and still underway for Ramapo to obtain a purchase price and other terms in the public interest pursuant to Section 70 of the New York Public Service Law.

Recently completed assignment from the Citizens for Local Power and the Municipal Consortium in Opposition to the Fortis acquisition of Central Hudson. Intervened after Joint Proposal had been filed. ALJs wrote a Recommended Decision against the acquisition. The Public Service Commission reversed the Recommended Decision and the acquisition was approved.

Recently completed representing East River Housing Corporation on a Petition for a Declaratory Order seeking a Public Service Commission determination that the Power Plant ERHC operates is not jurisdictional steam plant. Responsible for multi-year natural gas procurement via request for qualifications and request for proposals for Boiler Modernization Project, converting from No. 6 oil. Multi-million dollar project will pay back in less than two years due to gas/oil price differential and enhanced efficiency of new boiler and burner replacements in existing units. PSC Order issued granting ERHC a Certificate of Public Convenience and Necessity, along with a light-handed and incidental regulatory regime, retroactive to mid-1990, as a jurisdictional steam plant serving 2700 apartments in lower Manhattan.

Concluded negotiations on behalf of Wehran Energy Corporation in negotiations to obtain a long-term purchase power agreement with the Long Island Power Authority for output from the Brookhaven Landfill methane to electricity project.

Currently representing The Arker Companies and Progressive Management NY, Inc., in a petition to the PSC to modify a previously issued submetering order for Sea Park East, West and North (over 800 lower income apartments) that forbids the termination of electric service for non-payment.

Currently working with the St. Regis Mohawk Tribe to set up a regulatory commission that will oversee all telecommunication activities on the Akwesasne Reservation. Also assisting in the set-up of the wholesale broadband tribal business to be operated by Mohawk Networks. Starting to look at the economics of purchasing the electric system on the Reservation from Niagara Mohawk and set up a tribally owned and operated cooperative electric company

Represented the Municipal Consortium in Support of Reasonable Electric Rates in the recently completed Orange and Rockland Utilities, Inc., electric rate case before the Public Service Commission. The Municipal Consortium consists of the Towns of Clarkstown, Ramapo, Chester, Goshen, Highland Falls, Monroe, Tuxedo, Warwick, and Waywanda and the Villages of Chester, Florida, Monroe, Warwick and Haverstraw.

Represented the City of Buffalo, the City of Syracuse, Town of Amherst, the Town of Tonawanda and the Village of Kenmore in opposition to 2010 Niagara Mohawk Power

Corporation d/b/a National Grid rate increase pending before the New York Public Service Commission. Due to active intervention and development of expert testimony these five municipalities avoided $1.5 million in increased street lighting costs.

Represented The Willows Home Owners Association, Inc. before the New York Public Service Commission in opposition to water rate increases by Aqua New York.

Represented Broome County before the PSC in opposition to NYSEG electric and gas rate increases decided in September 2010.

Represented the St. Regis Mohawk Tribe on various energy matters and successfully concluded franchise negotiations with Niagara Mohawk Power Corporation. Also represented SRMT in the National Grid – KeySpan merger proceeding before the NY PSC and in Federal Energy Regulatory Commission merger proceeding concluded in August 2007. Completed a Department of Interior funded project to determine the feasibility of exiting NMPC electric service. Working on exiting NMPC electric service and creating Mohawk Electric Cooperative – first electric cooperative in New York in 70 years.

Represented Wehran Energy Corporation in negotiations for a new Interconnection Agreement with the Long Island Power Authority and in opposition to a proposed change in the buy-back rates.

Represented Heritage Hills Society Ltd., a 2600 plus customer condo association in opposition to a proposed water rate increase pending before the NY PSC. Delayed increase by six months and cut it in half.

Represented the City of Utica and the Village of Sherburne in the New York Regional Interconnection Article VII proceeding (transmission line siting proceeding) before the NY PSC. Instrumental in creating delay by filing motion for additional information. NYRI withdrew its petition before the PSC and ended the ill-advised project.

Represented several investment funds in the acquisition of Energy East by Iberdrola before the NY PSC which concluded in September of 2008.

Providing legal advice and assistance to AalonBay Communities, Inc., Cappelli Enterprises and The Trump Organization on various electric, gas and water utility issues associated with large scale residential and commercial real estate developments, including the redevelopment of the Concord.

Various matters for Strategic Power Management, Inc. before FERC and the NY PSC, including an anti- competitive complaint against Orange and Rockland Utilities, Inc.

Qualified and testified as an expert witness on law and regulation before the New York State Public Service Commission (NY PSC) in obtaining on behalf of Northrop Grumman a Certificate of Public Convenience and Necessity to enable Northrop Grumman to operate, in competition with LILCO, a steam and electric system at Northrop's Bethpage site. This was the first new electric company in New York State in

many decades.

Qualified as an expert witness developing and testifying on a $5.3 million refund claim for street lighting service on behalf of the City of Albany against Niagara Mohawk Power Corporation. Retained by Albany's counsel Nixon Peabody. Hearings concluded in early 2005. Case settled on terms favorable to Albany.

LEBOEUF, LAMB, LEIBY & MACRAE[1] (Partner 1983 – 1990; Associate Partner 1976 – 1982)

Extensive experience in the development and prosecution of rate applications of water, sewer, gas, electric and telecommunications utilities before federal and state public service commissions. This experience includes "first chair" responsibility for all aspects of administrative hearings, motion practice, brief writing, appellate advocacy and settlement procedures in multi-party proceedings.

Extensive experience with rate design, cost allocation and economic theory of pricing utility services.

Extensive experience representing major electric and gas utilities in various generic regulatory proceedings, including long range forecasting, nuclear performance standards, fuel clauses, management audits, performance based regulation and, most recently, electric industry restructuring initiatives.

Experience representing cogenerators and independent power producers in negotiations with utilities, contract disputes and litigation.

Extensive experience with state and federal jurisdictional issues in the natural gas and electric power industry.

Assistant Secretary and Counsel to an electric utility sponsored research, development and demonstration corporation (not for profit).

Special Counsel to clients on various privatization issues.

Special counsel to 22 municipal water districts on Long Island to lower electric power costs.

Co- or lead counsel in three condemnation proceedings representing the condemnees (three private water utilities companies).

Federal and state litigation experience.

Experience in complex arbitrations.

Pro-bono award --1994 from NYS Bar Association for work with

[1] LeBoeuf Lamb merged with Dewey Ballantine in 2007 and became known as Dewey LeBoeuf. In 2012 Dewey LeBoeuf filed for bankruptcy – the largest law firm to do so in US history. Both firms were founded in the 1920s.

Nassau/Suffolk Law Service Committee, Inc.

STRATEGIC POWER MANAGEMENT, Inc. - Vice President, Secretary and General Counsel (1995 – 2004)

Founded Strategic Power Management, Inc. and participated in the development of the first retail access pilot program in New York State. Secured New York State Public Service Commission approval to provide retail electric and gas service in New York. Obtained a Federal Energy Regulatory Commission wholesale power marketing license. Reviewed all wholesale and retail electric contracts as well as represented SPM on the Management Committee of the New York Independent System Operator from its inception in November of 1999 to December 2004. Handled all legal and regulatory matters before the NYS PSC and FERC. SPM developed a unique business relationship that substantially reduced credit requirements.

ENGINEERING

Licensed Professional Engineer -- New York State

Project Manager -- EBASCO Services - 1973 - 1976

Project Engineer -- Havens and Emerson - 1970 – 1973

EDUCATION

MBA (Finance) Baruch College (CUNY) -- 2002

JD Fordham University School of Law-- 1976 (Admitted to Practice in NYS – 1977; NJ - 1983)

MSCE (Env. Eng.) Manhattan College --1972

BCE (Civil Eng.) Manhattan College-- 1970

MEMBERSHIPS (current or former): American Bar Association, Public Utility Committee; Administrative Law Committee New York State Bar Association, Public Utility Committee, Municipal Law Section; Energy Bar Association; Association of the Bar of City of New York, Energy Committee; New Jersey State Bar Association, Public Utility Section; Edison Electric Institute, Legal Committee; Long Island Association, Energy Committee; Fordham Law Alumni Association

TEACHING

Participated in rate making Continuing Legal Education programs sponsored by the American Bar Association and the New York Bar Association; Lectured on land using planning and zoning for NBI. Presented in March, 2014 at NBI's Land Use Seminar on the importance and use of Comprehensive Planning. Will be presenting in July 2015 at NBI's municipal law program on zoning and eminent domain

CIVIC

Town of Warwick Conservation Board, Chairman since 2003 (recently completed major investigation into hydraulic fracturing and recommended that the Town Board of Warwick ban same. Local laws were recently enacted banning heavy industrial land uses and the use of production fluids on Town Roads)

Member of Warwick's Comprehensive Planning Committee

Member of Sterling Forest Partnership (2005 to 2006); Member of Warwick Historical Society; Member Orange County Citizens Foundation; Member of Sustainable Warwick; and member Orange County Conservation Advisory Council

EXHIBIT --- (DPD-2)
MC-10, ATTACHMENT B

Suez Water New York

Capital Expenditure Plan - List of Proposed Projects

Project ID	Project Title	HyperLink	Comments
C18Axxx	LDF Treatment Plant Upgrade	C18Axxx LDF Treatmnt Plt upgrad'!A1	SIC Project
C16A101	Blue Lake Dam Improvements	C15A104 Blue Lake Dam'!A1	
C16A102	DeForest Dam Stability/MPF/Inspection	DeForest Dam Stability'!A1	SIC Project
C16A103	New test and production wells	C16A103 New Test Wells'!A1	SIC Project
C16A104	Replace Production Wells	C16A104 replace production well'!A1	
C16A100	Maintain WS Capacity/WQ & Short Term WS	Maintain Water Supply Capacity'!A1	
C13A510	Well Site Improvement Projects	C16A501 Well Site Improvement'!A1	
C16A500	Indian Kill Dam/Outlet upgrades	Indian Kill Dam, Outlet'!A1	
C16A502	Dam Improvements	C16A502 Dam Improvements'!A1	
C16A503	Rehab Spalled Concrete at LDF Dam	C16A503 DeForest Dam concrete'!A1	
C16A504	Potake Pond Low Level Outlet Rehab	C16A504 Potake Pond Low Level o'!A1	
C17A502	RVWF Caisson Flood Protection	C17A502 RVWF Casisson'!A1	
C17A501	Stony Point Dam	C17A501 SP Dam'!A1	SIC Project
C17A503	Indian Kill Dam Improvement	C17A503 Indian Kill Dam'!A1	SIC Project
C18A500	Potake Pond Stability Upgrades	C18A500 Potake Pond S'!A1	
C20A100	LDF Watershed Restoration	C20A100 LDF Watershed'!A1	
C16B100	GWUDI Treatment at RVWF 97	GWUDI Treatment'!A1	
C16B101	GWUDI Treatment at Thiells 50	C19B101 GWUDI well 50'!A1	
C16B102	Sparkill Radionuclide Treatment	C16B102 Sparkill'!A1	SIC Project
C16B500	Repl. Chem. Feed Equipment	C16B500 Repl Chem Feed Equip'!A1	
C16B501	Replace Water Quality Monitoring Equ.	C16B501 Replace WQ Monit Equip'!A1	
C16B502	Indian Kill Sludge Drain	C16B502Indian Kill Sludge Drain'!A1	
C16B503	Upgrade Grandview Arsenic Treatment	C16B503 Grandview arsenic'!A1	
C16B504	Sludge Drying Bed Collection System	C16B504 Sludge drying bed'!A1	
C17B100	Iron/Manganese Treatment at select wells	C17B100 Iron Mang treatment'!A1	SIC Project
C17B110	LDF Sedimentation Basin Covers	C17B110 LDF sed basin cover'!A1	
C17B500	RVWF Facility Overhaul	C17B500 RVWF overhaul'!A1	
C17B501	LDF Hypo Storage Building	C17B504 Hypo building'!A1	
C17B502	LDF Overhaul Traveling Screens	C17B502 Traveling Screens'!A1	
C17B504	LDF Fish Deterrent	C17B503 Intake fish deterrent'!A1	
C17B503	Sludge handling	C17B503 Sludge Lagoons'!A1	SIC Project
C18B100	Well Deaeration Projects	C18B100 Well de-aeration'!A1	
C18B501	Blue Lake WTP Improvements	C18B501 Blue Lake Improvements'!A1	
C17C100	South County Facility Improvements	C17C100 SC improvements'!A1	
C16C500	SV Well Generator	C16C500 SV Generator'!A1	
C16C501	Electrical Upgrades at Spring Valley Well Field	C16C510 Elect improvements SV'!A1	
C16C502	Letchworth Pump Station Generator	C16C502 Letchworth Gen'!A1	
C16C503	Indian Kill Finished Water Pump & MCC Replacement	C16C503 Indian Kill MCC'!A1	
C16C504	LDF Projects	C16C504 LDF improvements'!A1	
C16C505	Replace Instrumentation	C15C505 Replace instrumentation'!A1	
C16C506	Well Instruments Low CL Cutoff	C16C506 Well Instruments Low Cl'!A1	
C16C507	Replace Well Pumps and Motors	C16C507 Repl Well Pumps and Mtr'!A1	
C16C508	Replace Booster Pumping Equipment	C16C508 REplace booster pumps'!A1	
C16C509	SCADA Repl. - Hardware & Software	C16C509 SCADA'!A1	
C16C510	kW Meters at Facilities	C16C511 kW meters'!A1	
C16C511	Blaisdale Improvements	C16C511 Blaisdale'!A1	
C18C500	Upgrades at Operating Facilities	C18C500 Upgrade at operating '!A1	
C18C501	Rep. PRV & add Electric Valves	C18C501 replace PRVs'!A1	
C19C500	Electrical Upgrades	C19C500 Electrical upgrades'!A1	
C16D001	New Hydrants	C16D001 new hydrants'!A1	
C16D002	New Short Mains & Valves	C16D002 short mains'!A1	
C16D100	New Mains - Company Funded - UIRP	C16D100 New Mains Company Fund'!A1	
C16D300	Extensions, Current Year Projects	C16D300 Extensions Current Year'!A1	
C16D300	Extensions & Refunds, Prior Year Projects	C16D301 Exten & Refnds Prior YR'!A1	
C16D501	Replacement Fire Hydrants	C16D501 replace hyd'!A1	
C16D502	Replacement Short Mains & Valves	C16D502 Replace short mains'!A1	
C16D503	Subdistrict Metering /DMAs	C16D503 DMA'!A1	
C16D504	Pressure reduction	C16D504 Pressure reduction'!A1	
C16D600	Main Replacement - UIRP	C16D600 Main Repl UIRP'!A1	
C16D700	Highway Related Main Replacement	C16D700 Highway Related Main Re'!A1	
C16E500	New Haverstraw Tank (Monsey Tank) (2MG)	C16E500 New Hstraw Tank (2 MG)'!A1	SIC Project
C16E502	Tank Safety Improvements	Tank Safety Imps'!A1	
C16E501	New 3 MG Haverstraw Tank	C16E502 3MG Haverstraw Tank'!A1	SIC Project
C16E503	New Sterling Lakes Tank	C16E503 Sterling Tank'!A1	
C16E504	Rebuild Valve Vault and roadway at Indian Kill Tank	C16E505 IK Valve Vault'!A1	
C20E501	Remote Controlled Valves	C20E501 Remote valve'!A1	
C16F001	New Domestic Services (Company Only)	C16F001 new Dom'!A1	
C16F003	New Fire Services (Company Only)	C16F003 new fire'!A1	
C16F501	Replacement Domestic Services	C16F501 repl services'!A1	
C16G001	New Customer Meters	C16G001 new meters'!A1	
C16G002	New RF Units	c16g002 new RFs'!A1	
C16G501	Replacement Customer Meters	C16G501 repl meters'!A1	
C16G502	Replacement RF Devices	C16G502 repl RFs'!A1	
C16G503	Fixed Meter Reading System	C16G503 Fixed meter system'!A1	
C16G504	Production Flow Meter Repl	C16G504 Production meters'!A1	
C16J101	Water Level Monitoring Devices at Wells	C16J101 Water Level Monitoring'!A1	
C16J100	GIS	C16J100 GIS'!A1	
C16J102	Blue Lake Regulator SCADA	C16J102 Blue Lake SCADA'!A1	
C16J103	Maplebrook Regulator SCADA	C16J103 Maplebrook SCADA'!A1	
C17J100	SCADA/Flow Meters at Interconnections	C16J100 SCADA Interconnections'!A1	
C17J101	IT Server Upgrade	C17J101 IT server'!A1	
C16J501	Printers and Plotters	C16J501 Printer'!A1	
C18J101	Hydraulic Modeling	C18J101 Hydraulic Model'!A1	
C16K100	Leak Detection	C16K100 Leak detection'!A1	
C16K101	Arc Flash Improvements	C16K101 Arc Flash'!A1	
C16K102	Facilities Safety and Security	C16K102 Facilities Safety & Sec'!A1	
C16K103	LDF Security Fence	C16K103 LDF fence'!A1	
C16K104	New Tools and Work Equipment	C16K104 New Tools'!A1	
C16K500	General Building Improvements	C16K500 Building Imp'!A1	
C16K502	Repl Tools and Work Equipment	C16K502 Repl Tools'!A1	
C17K101	Heated Meter Storage Shed	C17K101 Meter storage shed'!A1	
C18K500	WN Building Improvements	C18K500 WN Building Improvem'!A1	
C18K501	Underground Vaults Safety Improvements	C19K500 Underground vault'!A1	
C16M100	Water supply / UIRP Design	C16M100 Design'!A1	
C16M101	Ramapo River Basin Optimization non SIC portion	C16M101 Ramapo Opt non SIC '!A1	
C16M101	Ramapo River Basin Optimization SIC Portion	C16M101 Ramapo Opt SIC'!A1	
C17M100	UWNY System Surge Analysis	C17M100 Surge analysis'!A1	

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Cost Estimate Sheet

2015

Project ID: C15A104

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: Blue Lake Dam

Year Initiated: 2016

Year in-service: 2018

Major Milestones: 2016 Begin Pilot Plant

2017 Begin design and permitting of plant

2018 Construction

2019 Completion

UW Project Classification: Water Supply

Priority/Category: Compliance

	2016	2017	2018	2019	2020	Total
Expenditures	110	2000	15000	15000	5,000.0	37,110.0
(Advances/CIAC)						0.0
Net	110	2000	15000	15000	5000	37110

Cost estimate Available Cost estimate not completed yet

Cost Estimate Sheet

2015

Project ID: C15A104

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: Blue Lake Dam

Year Initiated: 2015

Year in-service: 2016

Major Milestones: 2015 Agreement with Watchtower

2015 Construction at Dam

2016 Payment

UW Project Classification: Water Supply

Priority/Category: Compliance

	2015	2016	2017	2018	2019	Total
Expenditures		924				924.0
(Advances/CIAC)						0.0
Net	0	924	0	0	0	924

Cost estimate Available Yes

Cost Estimate	
Payment to Watchtower	$823,888
Company time	$456
Overheads	$99,278
Total	**$923,622**

Cost Estimate Sheet

2915

Project ID: C16M101

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: LDF Dam Stability

Year Initiated: 2007

Year in-service: 2020

Major Milestones: 2012 Complete EA for DEC

2016 Install new piezometer at Dam at DEC's recommendation

2017 - 2019 Design

2020 - 2021 Construction

UW Project Classification: Water Supply

Priority/Category: Compliance

	2016	2017	2018	2019	2020	2021	Total
Expenditures	43.7	82.2	218.6	164.3	5542.3	10729.8	16781.0
(Advances/CIAC)							0.0
Net	43.7	82.2	218.6	164.3	5542.3	10729.8	16781.0

Cost estimate Available Cost estimate not completed yet

Cost Estimate Sheet
2015
Project ID: C16A100

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Maintain WS Capacity

Year Initiated: 2016

Year in-service: 2017

Major Milestones:
- 2017 - Design CT pipe at Monsey 30, Wesel Road 32, & Norge 64
- 2017 -Design CT pipe at Cherry Lane 68, & Pine brook 69
- 2018 - Begin design of 2nd well in NYU system
- 2018 - Install CT pipe at Monsey Wesel, Norge and Cherry Lane
- 2018 - Design Eckerson, Rustic, Lake Shore and Westgate
- 2019 - Install 2nd well in NYU system

UW Project Classification: Water Supply

Priority/Category: Compliance

	2017	2018	2019	2020	2021	Total
Expenditures	326.2	799.1	219.1	542.9	806.2	2693.4
(Advances/CIAC)						0.0
Net	326.2	799.1	219.1	542.9	806.2	2693.4

Cost estimate Available Yes

CT Piping Engineering estimate per site. Multiple projects may be completed in a year	
Design	$40,000
Materials	$18,800
Construction	$125,000
Company time	$5,000
Inspection	$15,000
Contingency	$20,768
Overheads	$33,685
Total	**$258,253**

NYU Well - Engineering estimate	
Design/Permit	$40,000
Materials	$15,000
Construction	$70,000
Electrical	$20,000
Company time	$10,000
Inspection	$15,000
Contingency	$20,150
Overheads	$28,523
Total	**$218,673**

Cost Estimate Sheet
2015
Project ID: C16A103

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: New Test Wells & Production Wells

Year Initiated: 2017

Year in-service: 2018

Major Milestones: 2016 Evaluations & start permits

2016- 2017 Drill test wells and evaluate water quality

2017 Begin permitting new production well

2018 - begin permitting test well for production wells

2019 begin installation of new production wells from test wells

2020 Continue installation of new production wells

UW Project Classification: Water Supply

Priority/Category: Environmental Compliance

	2016	2017	2018	2019	2020	2021	Total
Expenditures	50	101	225	3,274	3,050	3,054	9,754
(Advances/CIAC)							0.0
Net	50	101	225	3,274	3,050	3,054	9,754

Cost estimate Available See June 2015 Report on the Feasibility of Incremental Water Supply Projects and Conservation Opportunities in Rockland County, New York

Cost Estimate Sheet

2015

Project ID: C16A104

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: New Test Wells & Replace Production Wells

Year Initiated: 2017

Year in-service: 2018

Major Milestones: 2017 Permit replacement of Catamount Well

2018 - permit new Ramapo well

2019 begin installation of new Catamount Well

2020 Complete Catamount and being new RVWF well

2021 Complete construction of horizontal well at RVWF or replace production well at RVWF

UW Project Classification: Water Supply

Priority/Category: Environmental Compliance

	2017	2018	2019	2020	2021	Total
Expenditures	219.3	336.3	575.2	570.0	564.3	2,265.1
(Advances/CIAC)						0.0
Net	219.3	336.3	575.2	570.0	564.3	375.0

Cost/Benefit Analysis Available: Not Completed yet

Cost Estimate Sheet

2015

Project ID: C16A500

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: Indian Kill Dam Outlet

Year Initiated: 2017

Year in-service: 2017

Major Milestones: 2016 - Design & Permit

2017 - Rehabilitate outlet, joints and access

2018 - replace sluice gates

UW Project Classification: Water Supply

Priority/Category: Safety Compliance

UW Project Classification: Water Supply

Priority/Category: Safety Compliance

	2016	2017	2018	2019	2020	Total
Expenditures	289.4	115.1				404.6
(Advances/CIAC)						0
Net	289.4	115.1	0.0	0.0	0.0	404.6

Cost Estimate Available: Yes

Indian Kill Dam outlet - Engineering estimate	
Design/Permit	$40,000
Survey	$8,000
Construction	$210,000
Material	$15,000
Diver	$20,000
Company time	$10,000
Inspection	$15,000
Contingency	$30,300
Overheads	$52,245
Total	**$400,545**

Cost Estimate Sheet

2015

Project ID: C16A501

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: Well Site Improvements

Year Initiated: 2016

Year in-service: 2016

Major Milestones: Summer 2016 - 2016 projects in service

Summer 2017 - 2017 projects in service

Summer 2018 - 2018 projects in service

Summer 2019 - 2019 projects in service

UW Project Classification: Water Supply

Priority/Category: Safety Compliance

	2016	2017	2018	2019	2020	Beyond	Total
Expenditures	55.6	54.8	111.9	82.2	114.0	112.9	531.3
(Advances/CIAC)							0.0
Net	55.6	54.8	111.9	82.2	114.0	112.9	531.3

Cost Estimate Available: Yes

Engineering cost estimate for typical improvement work	
Roof Replacement	$15,000
Relief Valve	$12,000
Electrical work	$5,000
Flow meters	$5,000
Heaters	$1,500
Driveway Improvements	$10,000
Building Improvements	$7,500
Total	**$56,000**

Cost Estimate Sheet
2015
Project ID: C16A502

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Dam Improvements

Year Initiated: 2016

Year in-service: 2016

Major Milestones: Summer 2016 - 2016 projects in service

Summer 2017 - 2017 projects in service

Summer 2018 - 2018 projects in service

Summer 2019 - 2019 projects in service

UW Project Classification: Water Supply

Priority/Category: Safety Compliance

	2016	2017	2018	2019	2020	Beyond	Total
Expenditures	55.1	54.8	54.7	54.8	54.3	53.7	327.4
(Advances/CIAC)							0.0
Net	55.1	54.8	54.7	54.8	54.3	53.7	327.4

Cost Estimate Available: Yes

Engineering cost estimate	
Consultant	$25,000
Company Time	$20,000
Contingency	$2,250
Overheads	$6,750
Total	**$54,000**

Cost Estimate Sheet
2015
Project ID: C16A503

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: DeForest Dam concrete

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 work at Howell Bundger vault

2017 complete spalled concrete work

UW Project Classification: Water Supply

Priority/Category: Safety Compliance

	2016	2017	2018	2019	2020	Total
Expenditures	150.0	109.7				259.7
(Advances/CIAC)						0

Cost Estimate Available: Yes

LDF Concrete Engineering estimate	
Design	$12,000
Survey	$5,000
Construction	$175,000
Company time	$5,000
Inspection	$10,000
Contingency	$19,700
Overheads	$34,005
Total	**$260,705**

Cost Estimate Sheet

2015
Project ID: C16A504

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Potake Pond Low Level Outlet

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - Construction

UW Project Classification: Water Supply

Priority/Category: Safety Compliance

	2016	2017	2018	2019	2020	Total
Expenditures	221.0					221.0
(Advances/CIAC)						0

Cost Estimate Available: Yes

Potake Pond Engineering estimate	
Design	$15,000
Permitting	$5,000
Survey	$15,000
Construction	$115,000
Company time	$5,000
Inspection	$20,000
Contingency	$15,500
Overheads	$28,575
Total	**$219,075**

Cost Estimate Sheet
2015
Project ID: C17A503

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Indian Kill Dam Improvements

Year Initiated: 2015

Year in-service: 2016

Major Milestones: 2015 Submit EA to DEC Dam Safety

2017 Begin Design

2021 Construction

UW Project Classification: Water Supply

Priority/Category: Safety Compliance

	2017	2018	2019	2020	2021	Total
Expenditures	148.6	160.1	127.0	108.6	5,239.2	5783.5
(Advances/CIAC)						0
Net	148.6	160.1	127.0	108.6	5239.2	5783.5

Cost estimate Available Cost estimate not completed yet

Cost Estimate Sheet

2015

Project ID: C17A503

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: Indian Kill Dam Improvement

Year Initiated: 2017

Year in-service: 2019

Major Milestones: 2017 Submittal to DEC and begin design

2018 Begin Construction

2019 Complete Design

UW Project Classification: Water Supply

Priority/Category: Safety Compliance

	2016	2017	2018	2019	2020	Total
Expenditures	-	207.0	1,048.0	167.0		1422.0
(Advances/CIAC)						0
Net	0.0	207.0	1048.0	167.0	0.0	1422.0

Cost estimate Available Cost estimate not completed yet

Cost Estimate Sheet
2015
Project ID: C17A502

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: RVWF Casisson work

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2017 permitting 97, 99 qnd 100

2018 Construction 97, 99 and 100

2019 Permitting 93, 95 and 96

2020 Construction 93, 95 and 96

UW Project Classification: Water Supply

Priority/Category: Safety Compliance

	2016	2017	2018	2019	2020	Total
Expenditures	-	-	273.3	-	325.7	0.0
(Advances/CIAC)						0
Net	0.0	0.0	273.3	0.0	325.7	599.0

Cost Estimate Available: Yes

RVWF Caisson Engineering estimate	
Design	$30,000
Survey	$10,000
Construction	$150,000
Company time	$5,000
Inspection	$25,000
Contingency	$19,500
Overheads	$35,925
Total	**$275,425**

Cost Estimate Sheet
2015
Project ID: C18A500

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Potake Pond Stability Improvements

Year Initiated: 2018

Year in-service: 2019

Major Milestones: 2015- Submit EA to DEC

2018 Start design

2018 Construction Starts

2019 Complete Construction

UW Project Classification: Water Supply

Priority/Category: Safety Compliance

	2016	2017	2018	2019	2020	Total
Expenditures	-	-	273.3	-	325.7	0.0
(Advances/CIAC)						0
Net	0.0	0.0	273.3	0.0	325.7	599.0

Cost estimate Available Cost estimate not completed yet

Cost Estimate Sheet
2015
Project ID: C20A100

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: LDF Watershed Improvements

Year Initiated: 2020

Year in-service: 2020

Major Milestones: 2019 - design and permitting

2020 - Construction

UW Project Classification: Water Supply

Priority/Category: Water Quality

	2016	2017	2018	2019	2020	Total
Expenditures	-	-			217.1	217.1
(Advances/CIAC)						0
Net	0.0	0.0	0.0	0.0	217.1	217.1

Cost Estimate Available: Yes

Watershed Engineering estimate	
Design	$5,000
Survey	$20,000
Installation	$150,000
Company time	$10,000
Overheads	$27,750
Total	**$212,750**

Cost Estimate Sheet

C16M101

Ramapo River Supply Optimization

Cost Estimate Sheet
2015
Project ID: C16B100

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: GWUDI treatment well 97

Year Initiated: 2014

Year in-service: 2017

Major Milestones: 2012 Revieve GWUDI notice from DOH

2014 Begin design

2017 Complete Design

2018 Complete construction

UW Project Classification: Water Treatment

Priority/Category: Regulator Commission Compliance

	2014	2015	2016	2017	2018	Total
Expenditures	75.0	10.0	110.3	548.3	1,311.8	2,055.3
(Advances/CIAC)						0.0
Net	75.0	10.0	110.3	548.3	1311.8	2055.3

Cost Estimate Available: Yes

RVWF 97 GWUDI Engineering estimate	
Design	$75,000
Survey	$20,000
Building	$411,061
Electrical	$267,190
Well Pump	$61,659
Equipment	$739,910
Instrumentation	$205,531
Overheads	$267,053
Total	**$2,047,404**

Cost Estimate Sheet
2015
Project ID: C19B101

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: GWUDI treatment well 50

Year Initiated: 2019

Year in-service: 2020

Major Milestones: 2012 Revieve GWUDI notice from DOH

2019 Begin design

2019 Complete Design

2020 Construction

UW Project Classification: Water Treatment

Priority/Category: Regulator Commission Compliance

	2016	2017	2018	2019	2020	Total
Expenditures				164.3	1,194.3	1,358.6
(Advances/CIAC)						0.0
Net	0.0	0.0	0.0	164.3	1194.3	1358.6

Cost Estimate Available: Yes

Thiells 50 GWUDI Engineering estimate	
Design	$60,000
Survey	$8,000
Building	$271,723
Electrical	$176,620
Well Pump	$40,758
Equipment	$489,101
Instrumentation	$135,861
Overheads	$177,310
Total	**$1,359,373**

Cost Estimate Sheet
2015
Project ID: C16B102

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Sprarkill

Year Initiated: 2016

Year in-service: 2019

Major Milestones: 2016 Design

2017 Complete design and start planning board permit

2017 Permit with DOH

2018 Order equipment and bid construction

2019 Complete construction

SW Project Classification: Water Treatment

	2016	2017	2018	2019	2020	Total
Expenditures	75.0	109.7	109.3	2,215.0		2,509.0
(Advances/CIAC)						0.0
Net	75.0	109.7	109.3	2215.0	0.0	2509.0

Cost estimate Available Cost estimate not completed yet

Cost Estimate Sheet

2015

Project ID: C16B500

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: Replace chemical feed equipment

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

UW Project Classification: Water Treatment

Priority/Category: Regulator Commission Compliance

	2016	2017	2018	2019	2020	Total
Expenditures	29.2	40.1	37.3	38.3	38.0	183.0
(Advances/CIAC)						0.0
Net	29.2	40.1	37.3	38.3	38.0	183.0

Cost Estimate Available: Yes

Repl Chem Feed Equipment Engineering estimate per project per site. Multiple projects are completed each year. Costs vary by project	
Equipment	$5,000
Electrical	$1,000
Company time	$500
Overheads	$975
Total	**$7,475**

Cost Estimate Sheet

2015

Project ID: C16B501

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: Replace WQ Monitoring

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

UW Project Classification: Water Treatment

Priority/Category: Regulator Commission Compliance

	2016	2017	2018	2019	2020	Total
Expenditures	27.6	54.8	54.7	54.8	54.3	246.1
(Advances/CIAC)						
Net	27.6	54.8	54.7	54.8	54.3	246.1

Cost Estimate Available: Yes

Repl WQ Equipment Engineering estimate per project per site. Multiple projects are completed each year. Costs vary by project	
Equipment	$5,000
Electrical	$1,000
Company time	$500
Overheads	$975
Total	**$7,475**

Cost Estimate Sheet

2015

Project ID: C16B502

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: Indian Kill Sludge Drain

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 Design and construction

UW Project Classification: Water Supply

Priority/Category: Safety Compliance

	2016	2017	2018	2019	2020	Total
Expenditures	22.0					22.0
(Advances/CIAC)						0

Cost Estimate Available: Yes

Indian Kill Sludge Drain Engineering estimate	
Design	$1,000
Survey	$2,000
Equipment	$2,000
Electrical	$1,000
Contractor	$12,000
Company Time	$1,500
Overheads	$2,925
Total	**$22,425**

Cost Estimate Sheet

2015

Project ID: C16B503

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: Grandview Arsenic

Year Initiated: 2014

Year in-service: 2017

Major Milestones: 2014 - Begin design

2016 Complete design and Planning Board approval

2017 Permit with DOH

2017 Receive Equipment and award construction

2018 construction completed

UW Project Classification: Water Treatment

	Previous	2016	2017	2018	Beyond	Total
Expenditures		55.1	822.4	218.6		1,096.2
(Advances/CIAC)						0.0
Net	0.0	55.1	822.4	218.6	0.0	1,096.2

Cost estimate Available Cost estimate not completed yet

Cost Estimate Sheet

2015

Project ID: C16C504

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: Sludge drying bed

Year Initiated: 2016

Year in-service: 2017

Major Milestones: 2016 Design and permit

Q4 2016 bid and award construction

2017 Construction

UW Project Classification: Water Treatment

Priority/Category: Environmental Compliance

	2015	2016	2017	2018	Beyond	Total
Expenditures		100.0	2,741.4			2,841.4
(Advances/CIAC)						0.0
Net	0.0	100.0	2,741.4	0.0	0.0	2,841.4

Cost/Benefit Analysis Available: Yes

Sludge Drying Bed and Baffles Engineering estimate	
Design	$20,000
Survey	$5,000
Permitting	$10,000
Grading	$20,000
Material	$275,000
Equipment Replace liner	$200,000
Equipment Replace baffles	$250,000
Replace drainage & Install liner	$700,000
Install Baffles	$500,000
Inspection	$100,000
Company Time	$75,000
Contingency	$323,250
Overheads	$371,738
Total	**$2,849,988**

Cost Estimate Sheet

2015

Project ID: C17B100

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: Iron and Manganese

Year Initiated: 2016

Year in-service: 2017

Major Milestones: Spring 2017 - Design Iron/Manganese removal Garnerville

Fall 2017 - Permit Iron/Manganese removal Garnerville

2018 - Construct treatment Garnerville

Spring 2019 - Design Iron/Manganese removal Bardonia

Fall 2019 - Permit Iron/Manganese removal Bardonia

2020 - Construct treatment at one well

	2017	2018	2019	2020	Beyond	Total
Expenditures	198.0	194.6	199.6	432.0		1,024.2
(Advances/CIAC)						0.0
Net	198.0	194.6	199.6	432.0	0.0	1,024.2

Cost estimate Available Cost estimate not completed yet

Cost Estimate Sheet
2015
Project ID: C17B110

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Sedimentation Basin Cover

Year Initiated: 2017

Year in-service: 2017

Major Milestones: 2017 Design and construction

UW Project Classification: Water Treatment

Priority/Category: Environmental Compliance

	2015	2016	2017	2018	Beyond	Total
Expenditures			65.8			65.8
(Advances/CIAC)						0.0
Net	0.0	0.0	65.8	0.0	0.0	65.8

Cost estimate Available Yes

Sed Basin Engineering estimate	
Design	$1,000
Survey	$2,000
Equipment	$20,000
Contractor	$30,000
Company Time	$4,000
Overheads	$8,550
Total	**$65,550**

Cost Estimate Sheet
2015
Project ID: C17B500

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: RVWF Overhaul

Year Initiated: 2017

Year in-service: 2019

Major Milestones: Spring 2017 Begin Design

2017 Design new High Lift Pumps and evaluate VFDs

2018 Complete permitting of High Lifts & order equipment

Spring 2019 Begin replacing meters and installing power meters

Fall 2019 Begin replacing High Lift pumps install VFDs

2020 Complete replacing High Lift pumps install VFDs

	2017	2018	2019	2020	Beyond	Total
Expenditures	54.8	82.0	547.8	542.9	430.0	1,657.4
(Advances/CIAC)						0.0
Net	54.8	82.0	547.8	542.9	430.0	1,657.4

Cost estimate Available Yes

Engineering estimate for improvements. Multiple projects may be completed in a year		Total for Well Field
Design	$75,000	$75,000
High Lift Pump (per pump)	$240,000	960000
VFD for High Lifts (per VFD)	$70,000	280000
Power Meters	$3,500	$28,000
Company time	$20,000	$20,000
Inspection	$15,000	$15,000
Contingency	$31,080	$67,150
Overheads	$68,187	$216,773
Total	**$522,767**	$1,661,923

Cost Estimate Sheet

2015
Project ID: C17B504

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Hypo Building

Year Initiated: 2017

Year in-service: 2017

Major Milestones: 2017 - Construction

UW Project Classification: Water Treatment

Priority/Category: Infrastructure Replacement

	2015	2016	2017	2018	Beyond	Total
Expenditures		0.0	260.0			260.0
(Advances/CIAC)						0.0
Net	0.0	0.0	260.0	0.0	0.0	260.0

Cost estimate Available Yes

Hypo Building Engineering estimate	
Design	$10,000
Survey	$2,000
Permitting	$5,000
Building	$75,000
Electrical	$15,000
Piping	$15,000
Contractor	$100,000
Company Time	$5,000
Overheads	$34,050
Total	**$261,050**

Cost Estimate Sheet

2015
Project ID: C17B503

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: LDF Intake Screen

Year Initiated: 2017

Year in-service: 2017

Major Milestones: 2017 Q design and permit

2017 Q4 Construction

UW Project Classification: Water Treatment

Priority/Category: Infrastructure Replacement

	2016	2017	2018	2019	2020	Total
Expenditures	0	247.8	-			247.8
(Advances/CIAC)						0.0
Net	0.0	247.8	0.0	0.0	0.0	247.8

Cost estimate Available Yes

Intake Engineering estimate	
Design	$10,000
Diver	$20,000
Permitting	$10,000
Material	$5,000
Installation	$160,000
Company Time	$10,000
Overheads	$32,250
Total	**$247,250**

Cost Estimate Sheet

2015

Project ID: C17B502

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: LDF Travelng Screens

Year Initiated: 2019

Year in-service: 2020

Major Milestones: 2019 Q1 Design & Permit

2019 - Q3 Order equipement

Fall 2019 bid work

Spring 2020 Begin Construction

UW Project Classification: Water Treatment

Priority/Category: Infrastructure Replacement

	2016	2017	2018	2019	2020	Total
Expenditures	0	-	-	115.0	1,628.6	1,743.6
(Advances/CIAC)						0.0
Net	0.0	0.0	0.0	115.0	1,628.6	1,743.6

Cost estimate Available Cost estimate not completed yet

Cost Estimate Sheet

2015
Project ID: C17B503

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Sludge Lagoons

Year Initiated: 2020

Year in-service: 2021

Major Milestones: 2020 Q1 Design & Permit

2020 - Q3 Order equipement

Fall 2020 bid work

Spring 2021 Begin Construction

UW Project Classification: Water Treatment

Priority/Category: Infrastructure Replacement

	2017	2018	2019	2020	2021	Total
Expenditures	0	-	-	108.0	3,092.4	3,200.4
(Advances/CIAC)						0.0
Net	0.0	0.0	0.0	108.0	3,092.4	3,200.4

Cost estimate Available Cost estimate not completed yet

Cost Estimate Sheet

2015

Project ID: C18B100

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: Well De-aeration Projects

Year Initiated: 2018

Year in-service: 2018

Major Milestones: 2018 Install De-areation at Birchwood 70

2020 Install De-areation at Lakeshore 73

UW Project Classification: Water Treatment

Priority/Category: Infrastructure Replacement

	2017	2018	2019	2020	2021	Total
Expenditures	0	532.7	-	542.9		1,075.5
(Advances/CIAC)						0.0
Net	0.0	532.7	0.0	542.9	0.0	1,075.5

Cost estimate Available Yes

Engineering estimate per site	
Design	$25,000
Permitting	$15,000
Equipment	$150,000
Construction	$200,000
Inspection	$30,000
Company Time	$10,000
Contingency	$43,000
Overheads	$64,500
Total	**$537,500**

Cost Estimate Sheet

2015
Project ID: C18B501

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Blue Lake Improvements

Year Initiated: 2019

Year in-service: 2020

Major Milestones: 2019 Design and permitting

2020 bid and begin construction

2021-2022 construction

UW Project Classification: Water Treatment

Priority/Category: Infrastructure Replacement

	2017	2018	2019	2020	2021	Total
Expenditures	0	-	109.6	217.1	1,000.0	1,326.7
(Advances/CIAC)						0.0
Net	0.0	0.0	109.6	217.1	1,000.0	1,326.7

Cost estimate Available Yes

Engineering estimate per Project	
Design	$75,000
Roof	$20,000
MCC	$150,000
Door Replacement	$10,000
Safety Improvements	$35,000
Replace retaining wall	$18,000
Electrical Improvements	$20,000
Fencing and cameras	$75,000
Treatment Improvements	$500,000
Replace driveway	$75,000
Inspection	$75,000
Company Time	$20,000
Contingency	$107,300
Overheads	$160,950
Total	**$1,341,250**

Cost Estimate Sheet

2015
Project ID: C17C100

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: SC Improvements

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

2020 - 2020 projects in service

UW Project Classification: Water Treatment

	2016	2017	2018	2019	2020	Total
Expenditures	55.1	54.8	159.8	219.1	217.1	706.0
(Advances/CIAC)						0.0
Net	55.1	54.8	159.8	219.1	217.1	706.0

Cost estimate Available Yes

Engineering estimate for various Projects. Multiple projects completed at different sites per year	
Cameras and fencing	$35,000
Window replacement	$60,000
Cathodic Protection	$25,000
Replace windows and doors	$20,000
Concrete Rehabilitation	$5,000
Heater	$3,000
Hot Water unit	$2,500
Replace eye wash	$1,000
Company Time	$5,000
Contingency	$15,650
Overheads	$21,910
Total	**$194,060**

Cost Estimate Sheet
2015
Project ID: C16C500

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: SV Generator

Year Initiated: 2018

Year in-service: 2019

Major Milestones: 2018 Evaluate and design generator

2019 Install new transfer switch and electrical connections

UW Project Classification: Water Treatment

Priority/Category: Infrastructure Replacement

	2016	2017	2018	2019	2020	Total
Expenditures	0	-	54.7	109.6		164.2
(Advances/CIAC)						0.0
Net	0.0	0.0	54.7	109.6	0.0	164.2

Cost estimate Available Yes

Engineering estimate	
Design	$25,000
Permits	$2,000
Equipment	$75,000
Installation	$25,000
Company Time	$3,000
Contingency	$13,000
Overheads	$19,500
Total	**$162,500**

Cost Estimate Sheet

2015
Project ID: C16C510

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Electrical Improvements SV

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 Evaluate and replace Transformer

2017 Replace electrical service as needed

2018 - Replace Panels

2018 Replace electrical service within well field

2019 - upgrade feeders

UW Project Classification: Water Treatment

	2016	2017	2018	2019	2020	Total
Expenditures	55.1	104.1	103.3	103.5		366.1
(Advances/CIAC)						0.0
Net	55.1	104.1	103.3	103.5	0.0	366.1

Cost estimate Available Yes

Engineering estimate for various Projects. Multiple projects may be completed per year	
Electric panel	$10,000
Electric meter	$10,000
Replace underground electric	$50,000
Replace electric within building	$20,000
replcate electric panel	$15,000
Company Time	$5,000
Contingency	$11,000
Overheads	$15,400
Total	**$136,400**

Cost Estimate Sheet

2015
Project ID: C16C502

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Letworth Generator

Year Initiated: 2016

Year in-service: 2016

Major Milestones: Q1 2016 Design & order equipment

Q3 2016 Construction

UW Project Classification: Water Treatment

Priority/Category: Infrastructure Replacement

	2015	2016	2017	2018	Beyond	Total
Expenditures		55.1				55.1
(Advances/CIAC)						0.0
Net	0.0	55.1	0.0	0.0	0.0	55.1

Cost estimate Available Yes

Engineering estimate for Letchworth Gen	
Equipment	$25,000
Installation	$15,000
permits	$2,000
Company Time	$5,000
Overheads	$7,050
Total	**$54,050**

Cost Estimate Sheet

2015
Project ID: C16C503

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Indian Kill MCC

Year Initiated: 2016

Year in-service: 2017

Major Milestones: 2016 Design

Q4 2016 bid work and order equipment

2017 - Construction

UW Project Classification: Infrastructure Improvement

Priority/Category: Infrastructure Replacement

	2015	2016	2017	2018	2019	Total
Expenditures		55.1	219.3			274.4
(Advances/CIAC)						0.0
Net	0.0	55.1	219.3	0.0	0.0	274.4

Cost estimate Available Yes

Engineering estimate for Letchworth Gen	
Design	$15,000
Permits	$5,000
Equipment	$125,000
Installation	$75,000
Inspection	$15,000
Company Time	$5,000
Overheads	$36,000
Total	**$276,000**

Cost Estimate Sheet

2015

Project ID: C16C504

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title:	LDF Improvements
Year Initiated:	2016
Year in-service:	2016
Major Milestones:	2016 - 2016 projects in service
	2017 - 2017 projects in service
	2018 - 2018 projects in service
	2019 - 2019 projects in service
	2020 - 2020 projects in service
UW Project Classification:	Water Treatment

	2016	2017	2018	2019	2020	Total
Expenditures	98.0	99.1	109.3	164.3	162.9	633.7
(Advances/CIAC)						0.0
Net	98.0	99.1	109.3	164.3	162.9	633.7

Cost estimate Available Yes

Engineering estimate for various Projects. Multiple projects completed per year. Additional projects added as needed	
Door Alrams and Motion Sensors	$7,000
Repalce railing	$20,000
Chemical storage	$56,000
replace sump pumps	$3,000
Concrete Rehabilitation	$5,000
Replace CO2 Piping	$150,000
DAF Instrumentation	$25,000
Replace DAF Compressors	$25,000
CO2 Valve	$20,000
Company Time	$30,000
Overheads	$43,540
Total	**$384,540**

- Tamper proof hinges to backwash tank hatch - $0.5K
- Alarm/motion sensor - $3.5K
- Door Alarm - $3.5K
- Replace railing- $20K
- - Cover Floc basins - $350K
- Additional Storage for Caustic and Coagulant - $56K
- Replace hydraulic flocculators with mechanical mixers - $417K
- Replace sump pumps (2) - $3K

A number of other projects were identified for further evaluation:
- Implement additional Lake Aeration stages (if needed)
- Install dedicated intake, currently split between river and plant
- Add third DAF train (increase flow and/or reliability)
- Replace CO2 piping

For 2016 we will look to do the following projects:
- Add additional DAF instruments - $25K
- Replace DAF compressors - $25K
- Install door alarms and motion sensors - $7
-Repl the CO2 valve - $20k

Cost Estimate Sheet
2015
Project ID: C16C505

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Replace Instrumentation

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

UW Project Classification: Pumping

Priority/Category: Other prevention of service deficiencies

	2016	2017	2018	2019	2020	Total
Expenditures	27.6	49.6	48.9	49.8	54.3	230.1
(Advances/CIAC)						0.0
Net	27.6	49.6	48.9	49.8	54.3	230.1

Cost Estimate Available: Yes

Repl Chem Instrumentation Engineering estimate per project per site. Multiple projects are completed each year. Costs vary by project	
Equipment	$5,000
Electrical	$1,000
Company time	$500
Overheads	$975
Total	**$7,475**

Cost Estimate Sheet
2015
Project ID: C16C510

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: kW Meters at Facilities

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

UW Project Classification: Pumping

Priority/Category: Other prevention of service deficiencies

	2016	2017	2018	2019	2020	Total
Expenditures	27.6	49.6	49.7	49.8		176.7
(Advances/CIAC)						0.0
Net	27.6	49.6	49.7	49.8	0.0	176.7

Cost Estimate Available: Yes

Install kW meters Engineering estimate per project per site. Multiple projects are completed each year. Costs vary by project	
Equipment	$2,000
Electrical	$1,000
SCADA	$1,500
Company time	$500
Overheads	$750
Total	**$5,750**

Cost Estimate Sheet
2015
Project ID: C16C506

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Well Instrumentation Low CL Cutoff

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

UW Project Classification: Pumping

Priority/Category: Other prevention of service deficiencies

	2016	2017	2018	2019	2020	Total
Expenditures	33.1	76.8	109.3	109.6		328.7
(Advances/CIAC)						0.0
Net	33.1	76.8	109.3	109.6	0.0	328.7

Cost Estimate Available: Yes

Well Instrumentation - Low Cl Engineering estimate per project per site. Multiple projects are completed each year. Costs vary by project	
Equipment	$5,000
Electrical	$1,500
SCADA	$1,500
Company time	$1,000
Overheads	$1,350
Total	**$10,350**

Cost Estimate Sheet
2015
Project ID: C16C507

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Replace Well Pumps and Motors

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

2020 - 2020 projects in service

UW Project Classification: Pumping

	2016	2017	2018	2019	2020	Total
Expenditures	275.7	383.8	327.9	383.5	380.0	1,750.8
(Advances/CIAC)						0.0
Net	275.7	383.8	327.9	383.5	380.0	1,750.8

Cost Estimate Available: Yes

Well Pumps & Motors Engineering estimate per project per site. Multiple projects are completed each year. Costs vary by project	
Equipment	$20,000
Electrical	$3,500
SCADA	$2,000
Company time	$4,000
Overheads	$4,425
Total	**$33,925**

Cost Estimate Sheet
2015
Project ID: C16C508

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Replace Booster Pumps

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

2020 - 2020 projects in service

UW Project Classification: Pumping

	2016	2017	2018	2019	2020	Total
Expenditures	64.0	73.1	86.1	86.3	85.5	395.0
(Advances/CIAC)						0.0
Net	64.0	73.1	86.1	86.3	85.5	395.0

Cost Estimate Available: Yes

Repl Booster pumps Engineering estimate per project per site. Multiple projects are completed each year. Costs vary by project	
Equipment	$20,000
Electrical	$3,500
SCADA	$2,000
Company time	$4,000
Overheads	$4,425
Total	**$33,925**

Cost Estimate Sheet
2015
Project ID: C16C509

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title:	SCADA
Year Initiated:	2016
Year in-service:	2016
Major Milestones:	2016 - 2016 projects in service
	2017 - 2017 projects in service
	2018 - 2018 projects in service
	2019 - 2019 projects in service
UW Project Classification:	Pumping
Priority/Category:	Other prevention of service deficiencies

	2016	2017	2018	2019	2020	Total
Expenditures	165.4	548.3	546.6	547.8	542.9	2,350.9
(Advances/CIAC)						0.0
Net	165.4	548.3	546.6	547.8	542.9	2,350.9

Cost estimate Available Cost estimate not completed yet

Cost Estimate Sheet

2015
Project ID: C16C511

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Blaisdale

Year Initiated: 2016

Year in-service: 2016

Major Milestones: Q2 2016 Design and evaluation Blaisdale improvements

Q3 Permit

Q4 2016 Construction

2017 - Permit for normal supply from NJ

UW Project Classification: Water Treatment

Priority/Category: Infrastructure Replacement

	2015	2016	2017	2018	Beyond	Total
Expenditures		110.3	164.5			274.7
(Advances/CIAC)						0.0
Net	0.0	110.3	164.5	0.0	0.0	274.7

Cost estimate Available Yes

Engineering estimate for Blaisdale 2016	
Design	$15,000
Permits	$5,000
Equipment	$25,000
Installation	$35,000
Inspection	$10,000
Company Time	$5,000
Overheads	$14,250
Total	**$109,250**

Engineering estimate for Blaisdale 2017	
Interstate Water transfer permitting	$75,000
Modeling	$5,000
Equipment upgrades	$25,000
Company Time	$40,000
Overheads	$21,750
Total	**$166,750**

Cost Estimate Sheet

2015
Project ID: C18C500

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Upgrades at Operating Facilities

Year Initiated: 2018

Year in-service: 2018

Major Milestones: 2018 - 2018 projects in service

2019 - 2019 projects in service

2020 - 2020 projects in service

UW Project Classification: Water Treatment

Priority/Category: Infrastructure Replacement

	2017	2018	2019	2020	Beyond	Total
Expenditures		218.6	219.1	325.7	100.0	863.5
(Advances/CIAC)						0.0
Net	0.0	218.6	219.1	325.7	100.0	863.5

Cost estimate Available Yes

Engineering estimate for various Projects. Multiple projects completed at different sites per year	
Replace Driveway	$20,000
Electrical Improvements	$9,000
Safety Improvements	$85,000
Replace chemical feed lines and tank	$100,000
Replace Electrical metering	$15,000
Air Stripper modifications	$22,000
Replace VFD	$25,000
Vault Improvements	$15,000
Roof Replacement	$15,000
Contingency	$30,600
Overheads	$42,840
Total	**$379,440**

Cost Estimate Sheet

2015

Project ID: C18C501

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: Replace PRVs and Electric Valves

Year Initiated: 2018

Year in-service: 2018

Major Milestones: 2018 - 2018 projects in service

2019 - 2019 projects in service

2020 - 2020 projects in service

UW Project Classification: Water Treatment

Priority/Category: Infrastructure Replacement

	2017	2018	2019	2020	Beyond	Total
Expenditures	0	53.6	54.8	54.3	54.3	216.9
(Advances/CIAC)						0.0
Net	0.0	53.6	54.8	54.3	54.3	216.9

Cost Estimate Available: Yes

Repl PRVs Engineering estimate per project per site. Multiple projects are completed each year. Costs vary by project	
Equipment	$10,000
Installation	$10,000
Company time	$4,000
Overheads	$3,600
Total	**$27,600**

Cost Estimate Sheet

2015
Project ID: C19C500

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Electrical Upgrades

Year Initiated: 2019

Year in-service: 2019

Major Milestones: 2019 - 2019 projects in service

2020 - 2020 projects in service

UW Project Classification: Water Treatment

Priority/Category: Infrastructure Replacement

	2017	2018	2019	2020	Beyond	Total
Expenditures	0		328.7	217.1		545.8
(Advances/CIAC)						0.0
Net	0.0	0.0	328.7	217.1	0.0	545.8

Cost estimate Available Cost estimate not completed yet

Cost Estimate Sheet

Cost Estimate Sheet

2015

Project ID: C16D001

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: New Hydrants

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

UW Project Classification: Distribution

Priority/Category: Infrastructure Replacement

Cost Estimate Available: Yes

New Hydrant Engineering estimate per job per site. Multiple jobs are completed each year. Costs vary signifcantly by job	
Material	$2,000
Installation	$10,000
Paving	$2,000
Company time	$1,000
Overheads	$2,250
Total	**$17,250**

Cost Estimate Sheet
2015
Project ID: C16D002

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: New Short Mains

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

UW Project Classification: Distribution

Priority/Category: Infrastructure Replacement

	2016	2017	2018	2019	2020	Total
Expenditures	3,087.4	3,378.4	3,388.7	3,396.3	3,707.7	16,958.6
(Advances/CIAC)						0.0
Net	3,087.4	3,378.4	3,388.7	3,396.3	3,707.7	16,958.6

Cost Estimate Available: Yes

New short main Engineering estimate per job per site. Multiple jobs are completed each year. Costs vary signifcantly by job	
Material	$500
Installation	$10,000
Paving	$1,500
Overheads	$1,800
Total	**$13,800**

Cost Estimate Sheet
2015
Project ID: C16D501

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title:	Replace Hydrants
Year Initiated:	2016
Year in-service:	2016
Major Milestones:	2016 - 2016 projects in service
	2017 - 2017 projects in service
	2018 - 2018 projects in service
	2019 - 2019 projects in service
UW Project Classification:	Distribution
Priority/Category:	Infrastructure Replacement

	2016	2017	2018	2019	2020	Total
Expenditures	310.3	328.1	327.9	328.7	359.1	1,654.1
(Advances/CIAC)						0.0
Net	310.3	328.1	327.9	328.7	359.1	1,654.1

Cost Estimate Available: Yes

Replace Hydrant Engineering estimate per job	
Material	$500
Installation	$10,000
Overheads	$1,575
Total	**$12,075**

Cost Estimate Sheet

2015

Project ID: C16D502

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: Replace Short Mains

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

UW Project Classification: Distribution

Priority/Category: Infrastructure Replacement

	2016	2017	2018	2019	2020	Total
Expenditures	992.4	1,263.1	1,282.1	1,306.8	1,272.2	6,116.6
(Advances/CIAC)						0.0
Net	992.4	1,263.1	1,282.1	1,306.8	1,272.2	6,116.6

Cost Estimate Available: Yes

Repl short main Engineering estimate per job per	
Material	$500
Installation	$7,500
Paving	$1,500
Overheads	$1,425
Total	**$10,925**

Cost Estimate Sheet
2015
Project ID: C16D100

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title:	New Transmission Mains/Dead End closures
Year Initiated:	2016
Year in-service:	2016
Major Milestones:	2016 - 2016 projects in service
	2017 - 2017 projects in service
	2018 - 2018 projects in service
	2019 - 2019 projects in service
SW Project Classification:	Transmission & Distribution
Priority/Category:	Infrastructure Replacement
Cost Estimate Available:	Cost estimates done on a per job basis

Normal installations are $225-$275/foot

Cost Estimate Sheet
2016
Project ID: C16D300

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title:	Developer Projects
Year Initiated:	2016
Year in-service:	2016
Major Milestones:	2016 - 2016 projects in service
	2017 - 2017 projects in service
	2018 - 2018 projects in service
	2019 - 2019 projects in service
UW Project Classification:	Transmission & Distribution
Priority/Category:	Extensions to new customers
Cost Estimate Available:	Developer Cost estimates done on a per job basis

Cost Estimate Sheet
2015
Project ID: C16D300

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title:	Developer Projects
Year Initiated:	2016
Year in-service:	2016
Major Milestones:	2016 - 2016 projects in service
	2017 - 2017 projects in service
	2018 - 2018 projects in service
	2019 - 2019 projects in service
UW Project Classification:	Transmission & Distribution
Priority/Category:	Extensions to new customers
Cost Estimate Available:	Developer Cost estimates done on a per job basis

Cost Estimate Sheet

2016

Project ID: C16D600

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: Main Replacements

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

UW Project Classification: Transmission & Distribution

Priority/Category: Infrastructure Improvements

Cost Estimate Available: Cost estimates done on a per job basis

Normal installations are $225-$275/foot

Cost Estimate Sheet
2016
Project ID: C16D700

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Highway Projects

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

UW Project Classification: Transmission & Distribution

Priority/Category: Highway Projects

Cost Estimate Available: Cost estimates done on a per job basis

Installation costs vary by job (realigning main under drainage pipe or full replacement)

Cost Estimate Sheet
2016
Project ID: C16D503

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: DMAs

Year Initiated: 2015

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

UW Project Classification: Transmission & Distribution

Priority/Category: Infrastructure Improvements

	2015	2016	2017	2018	2019	Total
Expenditures	100.0	3,307.9	3,289.6	3,279.4	2,191.2	12,168.1
dvances/CIAC)						0.0
Net		3,307.9	3,289.6	3,279.4	2,191.2	12,168.1

Cost Estimate Available: Yes

Install DMA Engineering estimate per project per meter site. Multiple meter sites are completed each year. Costs vary significantly by project due to size of mains and complexity of installation	
Design	$15,000
Permits	$5,000
Equipment	$45,000
Installation	$75,000
Company time	$10,000
Inspection	$15,000
Contingency	$24,750
Overheads	$19,500
Total	**$209,250**

Cost Estimate Sheet
2016
Project ID: C16D504

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title:	Pressure Reduction
Year Initiated:	2015
Year in-service:	2016
Major Milestones:	2016 Design
	2017 - 2017 projects in service
	2018 - 2018 projects in service
	2019 - 2019 projects in service
UW Project Classification:	Transmission & Distribution
Priority/Category:	Infrastructure Improvements
Cost Estimate Available:	Cost estimates done on a per job basis

Installation costs vary by job (installing pressure reducing valve vaults vs VFDs onn wells)

Cost Estimate Sheet
2013
Project ID: C16E502

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Tank Safety Improvements

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

UW Project Classification: Distribution Storage

Priority/Category: Safety Compliance

	2016	2017	2018	2019	2020	Total
Expenditures	551.3	329.0	191.3	520.4	190.0	486.3
(Advances/CIAC)						0.0
Net	551.3	329.0	191.3	520.4	190.0	486.3

Cost estimate Available Yes

Engineering estimate for various tank safety improvements. Multiple projects completed at each tank and multiple tanks can be painted per year	
Safety improvements	$20,000
Additional Manways	$15,000
Structural improvements	$50,000
Contingency	$8,500
Overheads	$11,900
Total	$105,400

Tank Safety Improvements This is to perform structural and safety upgrades after tank inspections have been completed to improve our tank safety and reliability.

UWNY has 16 tanks in the system. Either after inspection or prior to painting, various safety upgrades are generally performed (e.g., replace ladder components, add safety/security features to ladders, alternate access hatch, replace venting screens, etc...).
Since 9/11/01, it is apparent that many of SWNY's tanks need security upgrades to protect the system. SWNY will identify about 2 tanks per year to provide these upgrades.
Individual CEAs will be prepared and submitted for approval prior to each purchase and replacement
2016 Tank Painting and Safety Improvements:
In 2016 the Rosman Road Tank in Theills, the LDF backwash tank and Clausland are scheduled for painting and safety improvements.
2017 Tank Painting and Safety Improvements:
In 2017 the Post Road tank is scheduled for painting and safety improvements.
2018 Tank Painting and Safety Improvements:
In 2018 the Valley Cottage Elevated tank is scheduled for painting and safety improvements
2019 Tank Painting and Safety Improvements
In 2019 the Indian Kill tank is scheduled for painting and safety improvements.
2020 Tank Painting and Safety Improvements
In 2020 the Spring Valley Standpipe is scheduled for painting and safety improvements.

Cost Estimate Sheet

2015

Project ID: C16E505

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: Indian Kill Valve Vault and Road rehab

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 construction

UW Project Classification: Distribution Storage

Priority/Category: Prevention of service deficiencies

	2016	2017	2018	2019	2020	2021	Total
Expenditures	33.0						33.0
(Advances/CIAC)							0.0
Net	33.0	0.0	0.0	0.0	0.0	0.0	33.0

Cost Estimate Available: Yes

IK Valve Vault Engineering Estimate	
Material	$5,000
Installation	$22,000
Company time	$1,500
Overheads	$4,275
Total	**$32,775**

Cost Estimate Sheet
2015
Project ID: C16E503

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Sterling Tank

Year Initiated: 2016

Year in-service: 2017

Major Milestones: 2016 Design and permitting

2017 Q 1 bid work

2017 Q3 start construction

2018 Complete Construction

UW Project Classification: Distribution Storage

Priority/Category: Prevention of service deficiencies

	2016	2017	2018	2019	2020	2021	Total
Expenditures	110.3	548.3	710.5		0.0		1,369.1
(Advances/CIAC)							0.0
Net	110.3	548.3	710.5	0.0	0.0	0.0	1,369.1

Cost Estimate Available: Yes

Engineering estimate for Sterling Tank	
Design	$85,000
Permits	$15,000
Survey	$5,000
Material	$450,000
Installation	$600,000
Inspection	$50,000
Company Time	$5,000
Overheads	$181,500
Total	**$1,391,500**

Cost Estimate Sheet
2015
Project ID: C16E500

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Haverstraw Tank

Year Initiated: 2016

Year in-service: 2020

Major Milestones: 2013 Start Design

2016-2017 Complete Design, obtain Planning Board and DOH approval

2018 Construction

2019 - Complete construction, In-Service

UW Project Classification: Distribution Storage

Priority/Category: Prevention of service deficiencies

	2016	2017	2018	2019	2020	2021	Total
Expenditures	110.3	109.7	2,424.9	1,623.2	0.0		4,268.0
(Advances/CIAC)							0.0
Net	110.3	109.7	2,424.9	1,623.2	0.0	0.0	4,268.0

Cost Estimate Available: Yes

Engineering estimate for 3 MG Haverstraw	
Design	$200,000
Permits	$15,000
Survey	$5,000
Material	$900,000
Installation	$2,500,000
Inspection	$75,000
Company Time	$15,000
Overheads	$556,500
Total	**$4,266,500**

Cost Estimate Sheet
2015
Project ID: C16E500

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: 2 MG Haverstraw Tank (Monsey)

Year Initiated: 2016

Year in-service: 2020

Major Milestones: 2013 Start Design

2016-2018 Complete Design, obtain Planning Board and DOH approval

2019 Construction

2020 - Complete construction, In-Service

UW Project Classification: Distribution Storage

Priority/Category: Prevention of service deficiencies

	2016	2017	2018	2019	2020	2021	Total
Expenditures	220.5	219.3	218.6	38.6	2,232.0		2,929.0
(Advances/CIAC)							0.0
Net	220.5	219.3	218.6	38.6	2,232.0	0.0	2,929.0

Cost Estimate Available: Yes

Engineering estimate for 3 MG Haverstraw	
Design	$100,000
Permits	$15,000
Survey	$5,000
Material	$600,000
Installation	$1,750,000
Inspection	$60,000
Company Time	$15,000
Overheads	$381,750
Total	**$2,926,750**

Cost Estimate Sheet

2015

Project ID: C20E501

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: Remote Motorized Valves at Tanks

Year Initiated: 2020

Year in-service: 2020

Major Milestones: 2020 - 2020 projects in service

2021 - 2021 projects in service

UW Project Classification: Water Storage

Priority/Category: Infrastructure Replacement

	2017	2018	2019	2020	Beyond	Total
Expenditures	0			108.6	108.6	217.1
(Advances/CIAC)						0.0
Net	0.0	0.0	0.0	108.6	108.6	217.1

Cost Estimate Available: Yes

Remote Valve Engineering estimate	
Equipment	$25,000
Installation	$35,000
Inspection	$7,500
Electrical	$5,000
SCADA	$7,500
Company time	$4,000
Contingency	$8,400
Overheads	$12,600
Total	**$105,000**

Cost Estimate Sheet

Cost Estimate Sheet
2015
Project ID: C16F001

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: New Domestic Services

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

UW Project Classification: Distribution

Priority/Category: New Customer Connection

	2016	2017	2018	2019	2020	Total
Expenditures	477.4	614.1	642.8	676.5	704.0	3,114.8
(Advances/CIAC)						0.0
Net	477.4	614.1	642.8	676.5	704.0	3,114.8

Cost Estimate Available: Yes

New domestic service Engineering estimate per job per site. Multiple jobs are completed each year. Costs vary significantly by job	
Material	$500
Installation	$5,500
Paving	$750
Overheads	$1,013
Total	**$7,763**

Cost Estimate Sheet

2015

Project ID: C16F003

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: New Fire Services

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

UW Project Classification: Distribution

Priority/Category: New Customer Connection

	2016	2017	2018	2019	2020	Total
Expenditures	462.4	482.8	505.5	531.9	553.4	2,536.0
(Advances/CIAC)						0.0
Net	462.4	482.8	505.5	531.9	553.4	2,536.0

Cost Estimate Available: Yes

New fire service Engineering estimate per job per site. Multiple jobs are completed each year. Costs vary significantly by job	
Material	$2,000
Installation	$6,500
Paving	$750
Overheads	$1,388
Total	**$10,638**

Cost Estimate Sheet

2015

Project ID: C16F501

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: Replace Services

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

UW Project Classification: Distribution

Priority/Category: Infrastructure Replacement

	2016	2017	2018	2019	2020	Total
Expenditures	1,323.2	1,381.6	1,442.9	1,424.3	1,520.0	7,092.0
(Advances/CIAC)						0.0
Net	1,323.2	1,381.6	1,442.9	1,424.3	1,520.0	7,092.0

Cost Estimate Available: Yes

Rerp service Engineering estimate per job per site. Multiple jobs are completed each year. Costs vary significantly by job	
Material	$1,000
Installation	$7,500
Paving	$750
Overheads	$1,388
Total	**$10,638**

Cost Estimate Sheet
2015
Project ID: C16G001

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title:	New Meters
Year Initiated:	2016
Year in-service:	2016
Major Milestones:	2016 - 2016 projects in service
	2017 - 2017 projects in service
	2018 - 2018 projects in service
	2019 - 2019 projects in service
UW Project Classification:	Customer Meters
Priority/Category:	New Customer Connection
Cost Estimate Available:	Yes

Please refer to IR-75

New Customer Meters - This is to purchase and install approximately 660 new customer meters in 2016.

This project would provide approximately 660 new meters for the anticipated new customer connections next year. SWNY allows lock-wing meter setups where multiple meters can be installed off a single service line.

Based on cost history, each new meter installation would cost about $130 including materials and labor charges. There have been several large developments on line in recent years and this trend is expected to continue for the next few years.

Cost Estimate Sheet
2015
Project ID: C16G002

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title:	New RFs
Year Initiated:	2016
Year in-service:	2016
Major Milestones:	2016 - 2016 projects in service
	2017 - 2017 projects in service
	2018 - 2018 projects in service
	2019 - 2019 projects in service
UW Project Classification:	Customer Meters
Priority/Category:	New Customer Connection
Cost Estimate Available:	Yes

Please refer to IR-75

Cost Estimate Sheet
2015
Project ID: C16G501

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title:	Replace Meters
Year Initiated:	2016
Year in-service:	2016
Major Milestones:	2016 - 2016 projects in service
	2017 - 2017 projects in service
	2018 - 2018 projects in service
	2019 - 2019 projects in service
UW Project Classification:	Customer Meters
Priority/Category:	Infrastructure Replacement
Cost Estimate Available:	Yes

Please refer to IR-75

Cost Estimate Sheet
2015
Project ID: C16G502

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title:	Replace RFs
Year Initiated:	2016
Year in-service:	2016
Major Milestones:	2016 - 2016 projects in service
	2017 - 2017 projects in service
	2018 - 2018 projects in service
	2019 - 2019 projects in service
UW Project Classification:	Customer Meters
Priority/Category:	Infrastructure Replacement
Cost Estimate Available:	Yes

Please refer to IR-75

Cost Estimate Sheet

2015

Project ID: C16G503

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: Fixed Meter System

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2015 Complete Design and start Installation

2016 Install collectors and SWNY assets

2017 Install collectors and O&R assets if needed

2018 Complete installations

2019 - If needed, install additional collectors

UW Project Classification: Customer Meters

	2015	2016	2017	2018	2019	Total
Expenditures	275.7	274.1	273.3			823.1
(Advances/CIAC)						0.0
Net	275.7	274.1	273.3	0.0	0.0	823.1

Cost Estimate Available: Yes

Fixed meter system Engineering estimate per job per site. Multiple jobs are completed each year.	
Material	$45,000
Installation	$30,000
Company time	$5,000
Overheads	$12,000
Total	**$92,000**

Cost Estimate Sheet

2015

Project ID: C16G504

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: Production meters

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

UW Project Classification: Water Treatment

Priority/Category: Infrastructure Replacement

	2016	2017	2018	2019	2020	Total
Expenditures	55.1	82.2	82.0	82.2	108.6	410.1
(Advances/CIAC)						0.0
Net	55.1	82.2	82.0	82.2	108.6	410.1

Cost Estimate Available: Yes

Fixed meter system Engineering estimate per job per site. Multiple jobs are completed each year.	
Material	$8,000
Installation	$12,000
Company time	$2,000
Overheads	$3,300
Total	**$25,300**

Cost Estimate Sheet
2015
Project ID: C16J101

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Water level monitoring

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

UW Project Classification: Water Treatment

Priority/Category: Infrastructure Replacement

	2016	2017	2018	2019	2020	Total
Expenditures	25.6	26.4	56.2	17.3	17.1	142.6
(Advances/CIAC)						0.0
Net	25.6	26.4	56.2	17.3	17.1	142.6

Cost Estimate Available: Yes

Water level monitoring Engineering estimate per job per site. Multiple jobs are completed each year.	
Material	$2,500
Installation	$5,000
Company time	$1,000
Overheads	$1,275
Total	**$9,775**

Cost Estimate Sheet

2015

Project ID: C16J100

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: GIS

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

UW Project Classification: IT

Priority/Category: Infrastructure Replacement

	2016	2017	2018	2019	2020	Total
Expenditures	21.6	22.0	21.9	21.9	27.1	114.6
(Advances/CIAC)						0.0
Net	21.6	22.0	21.9	21.9	27.1	114.6

Cost Estimate Available: Costs are assoiciated with software charges

Cost Estimate Sheet

2015

Project ID: C16J100

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: SCADA Connections

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2018 - 2018 projects in service

2019 - 2019 projects in service

UW Project Classification: IT

Priority/Category: Infrastructure Replacement

	2016	2017	2018	2019	2020	Total
Expenditures	-	-	101.7	104.1		205.7

Cost Estimate Available: Yes

SCADA Interconnection Engineering estimate per job per site. Multiple jobs are completed each year.	
Material	$15,000
Electrical	$10,000
SCADA Instrumentation	$10,000
Construction	$45,000
Paving	$5,000
Company time	$3,000
Overheads	$13,200
Total	**$101,200**

Cost Estimate Sheet
2015
Project ID: C16J102

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Blue Lake SCADA

Year Initiated: 2017

Year in-service: 2017

Major Milestones: 2017 - Construction

UW Project Classification: IT

Priority/Category: Productivity Improvement

	2015	2016	2017	2018	2019	Total
Expenditures			109.7			109.7
(Advances/CIAC)						0.0

Cost Estimate Available: Yes

Blue Lake SCADA Engineering estimate per job	
Material	$15,000
Electrical	$10,000
SCADA Instrumentation	$10,000
Construction	$45,000
Paving	$5,000
Company time	$3,000
Overheads	$13,200
Total	**$101,200**

Cost Estimate Sheet

2015

Project ID: C16J103

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: Maplebrook SCADA

Year Initiated: 2018

Year in-service: 2018

Major Milestones: 2018 construction

UW Project Classification: IT

Priority/Category: Productivity Improvement

	2015	2016	2017	2018	2019	Total
Expenditures				164.0		164.0
(Advances/CIAC)						0.0

Cost Estimate Available: Yes

Maplebrook SCADA Engineering estimate per job per site. Multiple jobs are completed each year.	
Material	$20,000
Electrical	$25,000
SCADA Instrumentation	$15,000
Construction	$65,000
Paving	$10,000
Company time	$5,000
Overheads	$21,000
Total	**$161,000**

Cost Estimate Sheet

2015

Project ID: C17J101

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: IT Server

Year Initiated: 2017

Year in-service: 2017

Major Milestones: 2017 - purchase equipment and install

UW Project Classification: IT

Priority/Category: Productivity Improvement

	2015	2016	2017	2018	2019	Total
Expenditures			30.0			30.0
(Advances/CIAC)						0.0

Cost Estimate Available: Yes

Engineering estimate	
Equipment	$25,000
Company time	$1,000
Overheads	$3,900
Total	**$29,900**

Cost Estimate Sheet
2015
Project ID: 18J500 router

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Router

Year Initiated: 2018

Year in-service: 2017

Major Milestones: 2017 - purchase equipment and install

UW Project Classification: IT

Priority/Category: Productivity Improvement

	2015	2016	2017	2018	2019	Total
Expenditures				16.4		16.4
(Advances/CIAC)						0.0

Cost Estimate Available: Yes

Engineering estimate	
Equipment	$13,800
Company time	$500
Overheads	$2,145
Total	**$16,445**

Cost Estimate Sheet
2015
Project ID: C16J501

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Printers and Plotters

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

UW Project Classification: IT

Priority/Category: Infrastructure Replacement

	2016	2017	2018	2019	2020	Total
Expenditures	12.1	13.2	14.2	15.3	16.3	71.1
(Advances/CIAC)						0.0
Net	12.1	13.2	14.2	15.3	16.3	71.1

Cost Estimate Available: Yes

Engineering estimate	
Equipment	$11,000
Overheads	$1,650
Total	**$12,650**

Cost Estimate Sheet
2015
Project ID: C18J101

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Hydraulic Modeling update

Year Initiated: 2018

Year in-service:

Major Milestones: 2018 - Update hydraulic model

UW Project Classification: IT

Priority/Category: Infrastructure

	2016	2017	2018	2019	2020	Total
Expenditures			150.0			150.0
(Advances/CIAC)						0.0
Net	0.0	0.0	150.0	0.0	0.0	150.0

Cost Estimate Available: Yes

Engineering estimate	
Consulting	$115,000
Company time	$15,000
Overheads	$19,500
Total	**$149,500**

Cost Estimate Sheet

Cost Estimate Sheet
2015
Project ID: C16K100

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Leak Detection Equipment

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2018 - Purchase equipment

2020 - Purchase equipment

UW Project Classification: Tools

Priority/Category: NRW Reduction

	2016	2017	2018	2019	2020	Total
Expenditures		-	62.3	-	73.8	136.1
(Advances/CIAC)						0.0
Net	0.0	0.0	62.3	0.0	73.8	136.1

Cost Estimate Available: Yes

Engineering estimate	
Equipment	$54,000
Overheads	$8,100
Total	**$62,100**

Leak Detection - Purchase leak detection equipment

This projects is to purchase acoustic leak monitoring / leak locating equipment to assist our distribution staff in locating system leaks on mains, valves, hydrants and services. Such leak locating efforts will ultimately help to drive both non-revenue producing and unaccounted for water levels downward.

We will purchase two sets of acoustical monitoring equipment every other year, or as the budget allows. This equipment will allow UWNY to drive and listen to long lengths of pipe (1-2 miles).

Cost Estimate Sheet
2015
Project ID: C16K101

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: ArcFlash

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

UW Project Classification: Equipment

Priority/Category: Safety and Security

	2016	2017	2018	2019	2020	Total
Expenditures	27.6	27.4	27.3	27.4	27.1	136.8
(Advances/CIAC)						0.0
Net	27.6	27.4	27.3	27.4	27.1	136.8

Cost Estimate Available: Yes

ArcFlash Engineering estimate per job per site. Multiple jobs are completed each year.	
Material	$10,000
Electrical	$12,000
Company time	$1,500
Overheads	$3,525
Total	**$27,025**

Cost Estimate Sheet

2015

Project ID: C16K102

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: Safety and Security

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

UW Project Classification: General Plant

Priority/Category: Safety compliance

		2016	2017	2018	2019	2020	Total
Expenditures		48.7	50.1	48.6	82.2	81.4	311.1
(Advances/CIAC)							0.0
Net		48.7	50.1	48.6	82.2	81.4	311.1

Cost Estimate Available: Yes

Safety Engineering estimate per job per site. Multiple jobs are completed each year.	
Fencing	$15,000
Cameras	$5,000
Access locks	$3,500
Lighting	$5,000
Replace doors	$2,000
replace windows	$2,000
Company time	$5,000
Overheads	$4,875
Total	**$42,375**

Cost Estimate Sheet

2015
Project ID: C16K103

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Lake DeForest Reservoir fencing

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

UW Project Classification: General Plant

Priority/Category: Safety compliance

	2016	2017	2018	2019	2020	Total
Expenditures	55.1	54.8	54.7	54.8	54.3	273.7
(Advances/CIAC)						0.0
Net	55.1	54.8	54.7	54.8	54.3	273.7

Cost Estimate Available: Yes

Engineering estimate	
Fence	$48,000
Overheads	$7,200
Total	**$55,200**

Cost Estimate Sheet

2015

Project ID: C16K104

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: New Tools and Equipment

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

UW Project Classification: Equipment

Priority/Category: Tools and Equipment

	2016	2017	2018	2019	2020	Beyond	Total
Expenditures	14.6	20.1	21.9	21.9	21.7	20.0	120.1
(Advances/CIAC)							0.0
Net	14.6	20.1	21.9	21.9	21.7	20.0	120.1

Cost Estimate Available: Yes

Engineering estimate	
Equipment	$18,000
Overheads	$2,700
Total	**$20,700**

Cost Estimate Sheet

2015
Project ID: C16K500

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Building Improvements

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

UW Project Classification: General Plant

Priority/Category: Compliance

	2016	2017	2018	2019	2020	Total
Expenditures	48.6	75.2	74.3	76.7	108.6	383.4
(Advances/CIAC)						0.0
Net	48.6	75.2	74.3	76.7	108.6	383.4

Cost Estimate Available: Yes

Building Improvement Engineering estimate per job per site. Multiple jobs are completed each year.	
doors	$2,000
railing	$10,000
paving	$15,000
fencing	$15,000
Company time	$5,000
Overheads	$7,050
Total	**$54,050**

Cost Estimate Sheet

2015

Project ID: C16K502

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: Replace tools and Equipment

Year Initiated: 2016

Year in-service: 2016

Major Milestones: 2016 - 2016 projects in service

2017 - 2017 projects in service

2018 - 2018 projects in service

2019 - 2019 projects in service

UW Project Classification: Equipment

Priority/Category: Tools and Equipment

	2016	2017	2018	2019	2020	Total
Expenditures	29.8	36.2	39.4	40.5	41.3	187.1
(Advances/CIAC)						0.0
Net	29.8	36.2	39.4	40.5	41.3	187.1

Cost Estimate Available: Yes

Engineering estimate	
Equipment	$30,000
Overheads	$4,500
Total	**$34,500**

Cost Estimate Sheet

2015

Project ID: C17K101

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: Meter shop storage shed

Year Initiated: 2018

Year in-service: 2018

Major Milestones: 2018 Purchase and Install

UW Project Classification: General Plant

Priority/Category: Infrastructure

	2015	2016	2017	2018	2019	Total
Expenditures				25.1		25.1
(Advances/CIAC)						0.0

Cost Estimate Available: Yes

Meter building Engineering estimate	
Permitting	$2,000
Survey	$1,500
material	$8,000
Install	$10,000
Company time	$1,000
Overheads	$3,375
Total	**$25,875**

Cost Estimate Sheet
2015
Project ID: C18K500

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: West Nyack Building Improvements

Year Initiated: 2017

Year in-service: 2018

Major Milestones: 2017 permit new access road

2018 Construct access road and design new storage area

2019 complete storage area

Construct conference area

UW Project Classification: General Plant

Priority/Category: Compliance

	2017	2018	2019	2020	2021	Total
Expenditures	54.8	218.6	328.7	108.6		710.7
(Advances/CIAC)						0.0
Net	54.8	218.6	328.7	108.6	0.0	710.7

Cost Estimate Available: Yes

Building Improvement Engineering estimate per job per site.	
Design	$20,000
Permitting	$5,000
Survey	$3,500
Construction/clearing	$155,000
Paving	$45,000
Company time	$10,000
Overheads	$35,775
Total	**$274,275**

Cost Estimate Sheet

2015

Project ID: C19k500

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: Underground Vault Improvements

Year Initiated: 2018

Year in-service: 2018

Major Milestones: 2018 Assess vaults

2019 - 2019 projects in service

2020 - 2020 projects in service

UW Project Classification: General Plant

Priority/Category: Safety

	2017	2018	2019	2020	Beyond	Total
Expenditures	0	53.6	54.8	54.3		162.6
(Advances/CIAC)						0.0
Net	0.0	53.6	54.8	54.3	0.0	162.6

Cost Estimate Available: Yes

Undergound Engineering estimate per job per site.	
Ladder up	$3,500
Structural Improvement	$10,000
Ventalation	$10,000
Hoist	$20,000
hatch	$5,000
Company time	$5,000
Overheads	$8,025
Total	**$61,525**

Cost Estimate Sheet
2015
Project ID: C16M100

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: UIRP and Water supply design

Year Initiated: 2016

Year in-service:

Major Milestones: 2016 - Design 2016 and beyond projects

2017 - Design 2017 and beyond projects

2018 - Design 2018 and beyond projects

UW Project Classification: Preliminary Design

Priority/Category: Various

	2016	2017	2018	2019	2020	Total
Expenditures	97.4	100.2	107.1	109.6	108.6	522.8
(Advances/CIAC)						0.0
Net	97.4	100.2	107.1	109.6	108.6	522.8

Cost Estimate Available: Yes

Engineering estimate	
Consulting	$80,000
Company time	$10,000
Overheads	$13,500
Total	**$103,500**

Cost Estimate Sheet

2015
Project ID: C16M101

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Ramapo River Supply Optimization

Year Initiated: 2016

Year in-service:

Major Milestones: 2016 Begin Groundwater/surface water model

2017 Compplete model and develop wellfield optimization tool

UW Project Classification: Preliminary Design

Priority/Category: Supply

	2016	2017	2018	2019	2020	2021	Total
Expenditures	330.8	548.3					879.1
(Advances/CIAC)							0.0
Net	330.8	548.3	0.0	0.0	0.0	0.0	879.1

Cost estimate Available See June 2015 Report on the Feasibility of Incremental Water Supply Projects and Conservation Opportunities in Rockland County, New York

Cost Estimate Sheet

2015
Project ID: C16M101

Suez Water New York
Business Unit # 200

Table of Contents'!A1

Project Title: Ramapo River Supply Optimization

Year Initiated: 2016

Year in-service:

Major Milestones: 2016 Begin Groundwater/surface water model

2017 Compplete model and develop wellfield optimization tool

UW Project Classification: Preliminary Design

Priority/Category: Supply

	2016	2017	2018	2019	2020	2021	Total
Expenditures			546.6	1,249.3	4,257.1	2,200.0	8,253.0
(Advances/CIAC)							0.0
Net	0.0	0.0	546.6	1,249.3	4,257.1	2,200.0	8,253.0

Cost estimate Available See June 2015 Report on the Feasibility of Incremental Water Supply Projects and Conservation Opportunities in Rockland County, New York

Cost Estimate Sheet

2015

Project ID: C17M100

Suez Water New York

Business Unit # 200

Table of Contents'!A1

Project Title: System Surge Analysis

Year Initiated: 2018

Year in-service:

Major Milestones: 2018 - Perform Surge Analysis

UW Project Classification: Preliminary Design

Priority/Category: Infrastructure

	2016	2017	2018	2019	2020	Total
Expenditures			99.5			99.5
(Advances/CIAC)						0.0
Net	0.0	0.0	99.5	0.0	0.0	99.5

Cost Estimate Available: Yes

Engineering estimate	
Consulting	$76,500
Company time	$10,000
Overheads	$12,975
Total	**$99,475**

EXHIBIT --- (DPD-3)
RECOMMENDED CAPEX PLAN

RECOMMENDED CAPEX PROGRAM
Case 16-W-0130

Exhibit ____(DPD-3)

Project Title	Purpose	Category	Priority	2017 Cost w/o overheads	Total Cost w/overheads	Cost Estimate	Benefit/Cost Analysis	Recommendation	Reference Page MC-10 Attach B
Blue Lake Demand	Pilot Plant	Water Supply	Compliance	$ 2,000	$ 37,110	Not Available	Not Available	Include	2
Blue Lake Dam	Agreement with Watchtower	Water Supply	Complaince		$ 923,622	Yes	Not Available	include	3
LDF Dam Stability	New Piezomer at DEC recommendation	Water Supply	Compliance	$ 82,200	$ 16,781	Not Available	Not Available	Include	4
Maintain WS Capacity	Design and Install Misc Projects	Water Supply	Compliance	$ 292,515	$ 2,693,400	Yes	Not Availalble	Include	5
New Test Wells & Production Wells	Permitting and Installation	Water Supply	Compliance	$ 101,000	$ 9,754,000	Not Available	Not Available	Exclude	6
New Test Wells & Replace Production Wells	Repl. Catamount well, New Ramapo Well	Water Supply	Compliance	$ 219,300	$ 2,265,100	Not Available	Not Available	Exclude	7
Indian Kill Dam Outlet	Replace Sluice Gates	Water Supply	Compliance	$ 62,855	$ 405,600	Yes	Not Available	Include	8
Well Site Improvements	Various Projects	Water Supply	Compliance	$ 54,800	$ 531,300	Yes	Not Available	Include	9
Dam Improvements	Various Projects	Water Supply	Compliance	$ 48,050	$ 327,400	Yes	Not Available	Include	10
DeForest Dam Concrete	Spalled Concrete Work	Water Supply	Compliance	$ 75,695	$ 259,700	Yes	Not Available	Include	11
Potake Pond Low Level Outlet	Construction	Water Supply	Compliance		$ 221,000	Yes	Not Available	Include	12
Indian Kill Dam Improvements	Construction	Water Supply	Compliance	$ 148,600	$ 5,783,500	Not Available	Not Available	Include	13
Indian Kill Dam Improvement	Construction	Water Supply	Compliance	$ 207,000	$ 1,422,000	Not Available	Not Available	Include	14
RVWF Caissonn Work	Construction	Water Supply	Compliance	$ -	$ 599,000	Yes	Not Available	Include	15
Potake Pond Stability Improvements	Construction	Water Supply	Compliance	$ -	$ 599,000	Not Available	Not Available	Include	16
LDF Watershed Improvements	Construction	Water Supply	Compliance	$ -	$ 217,100	Yes	Not Available	Include	17
GWUDI Treatment Well 97	Construction	Water Supply	Compliance	$ 281,247	$ 2,055,300	Yes	Not Available	Include	19
GWUDI Treatment Well 50	Construction	Water Supply	Compliance	$ -	$ 1,358,600	Yes	Not Available	Include	20
Sparkill	Construction	Water Supply	Compliance	$ 109,700	$ 2,509,000	Not Available	Not Available	Include	21
Replace Chemical Feed Equipment	Misc Projects	Water Treatment	Compliance	$ 39,125	$ 183,000	Yes	Not Available	Include	22
Replace Water Quality Monitoring	Misc Projects	Water Treatment	Compliance	$ 53,825	$ 246,100	Yes	Not Available	Inclilude	23
Indian Kill Sludge Drain	Construction	Water Supply	Compliance		$ 22,425	Yes	Not Available	Include	24
Grandview Arenic	Construction	Water Treatment	???	$ 822,400	$ 1,096,200	Not Available	Not Available	Include	25
Sludge Drying Bed	Construction	Water Treatment	Compliance	$ 2,369,662	$ 2,841,400	Yes	Yes	Include	26
Iron and Manganese	Construction	???	???	$ 198,000	$ 1,024,200	Not Available	Not Available	Include	27
Sedimentation Basin Cover	Construction	Water Treatment	Compliance	$ 57,250	$ 65,800	Yes	Not Available	Include	28
RVWF Overhaul	High Lift Pumps, VFDs	???	???	$ 54,800	$ 1,657,400	Yes	Not Available	Include	29
Hypo Building	Construction	Water Treatment	Infrastructure Replacement	$ 225,950	$ 260,000	Yes	Not Available	Include	30
LDF Intake Screen	Construction	Water Treatment	Infrastructure Replacement	$ 215,550	$ 247,800	Yes	Not Available	Include	31
LDF Traveling Screens	Construction	Water Treatment	Infrastructure Replacement	$ -	$ 1,743,600	Not Available	Not Available	Include	32
Sludge Lagoons	Construction	Water Treatment	Infrastructure Replacement	$ -	$ 3,200,400	Not Available	Not Available	Include	33
Well De-aeration Projects	Install Equipment	Water Treatment	Infrastructure Replacement	$ -	$ 1,075,500	Yes	Not Available	Include	34
Blue Lake Improvements	Construction	Water Treatment	Infrastructure Replacement	$ -	$ 1,326,700	Yes	Not Available	Include	35
SC Improvements	Various Projects	Water Treatment	???	$ 32,890	$ 706,000	Yes	Not Available	Include	36
SV Generator	Evaluate and Install Generator	Water Treatment	Infrastructure Replacement	$ -	$ 164,200	Yes	Not Available	Include	37
Electrical Improvement SV	Various Projects	Water Treatment	???	$ 88,700	$ 366,100	Yes	Not Available	Include	38
Letchworth Generator	Equipment and Construction	Water Treatment	Infrastructure Replacement		$ 55,100	Yes	Not Available	Include	39
Indian Kill MCC	Equipment and Construction	Infrastructure Improvement	Infrastructure Replacement	$ 183,300	$ 274,400	Yes	Not Available	Include	40
LDF Improvements	Various Projects	Water Treatment	???	$ 55,560	$ 633,700	Yes	Not Available	Include	41
Replace Instrumentation	Various Projects	Pumping	Other prevention of service deficiences	$ 48,625	$ 230,100	Yes	Not Available	Include	42
kW Meters at Facilities	Various Projects	Pumping	Other prevention of service deficiences	$ 48,850	$ 176,700	Yes	Not Available	Include	43
Well Instrumentation Low CL Cutoff	Various Projects	Pumping	Other prevention of service deficiences	$ 75,450	$ 328,700	Yes	Not Available	Include	44
Replace Well Pumps and Motors	Various Projects	Pumping	???	$ 44,550	$ 1,750,800	Yes	Not Available	Include	45
Replace Booster Pumps	Various Projects	Pumping	???	$ 68,675	$ 395,000	Yes	Not Available	Include	46
SCADA	Various Projects	Pumping	Other prevention of service deficiences	$ 548,300	$ 2,350,900	Not Available	Not Available	Include	47
Blaisdale	Supply from NJ	Water Treatment	Infrastructure Replacement	$ 150,250	$ 274,700	Yes	Not Available	Include	48
Upgrades at Operating Facilities	Various Projects	Water Treatment	Infrastructure Replacement	$ -	$ 863,500	Yes	Not Available	Include	49
Replace PRVs and Electric Valves	Various Projects	Water Treatment	Infrastructure Replacement	$ -	$ 216,900	Yes	Not Available	Include	50
Electrical Upgrades	Various Projects	Water Treatment	Infrastructure Replacement	$ -	$ 545,800	Not Available	Not Available	Include	51
New Hydrants	Various Projects	Distribution	Infrastructure Replacement	???	???	Yes	Not Available	Include	53
New Short Mains	Various Projects	Distribution	Infrastructure Replacement	$ 2,937,400	$ 16,958,600	Yes	Not Available	Include	54
Replace Hydrants	Various Projects	Distribution	Infrastructure Replacement	$ 285,575	$ 1,654,100	Yes	Not Available	Include	55
Replace Short Mains	Various Projects	Distribution	Infrastructure Replacement	$ 1,097,800	$ 6,116,600	Yes	Not Available	Include	56
New Transmission Mains/Dead End closures	Various Projects	Transmission & Distribution	Infrastructure Replacement		???	Not Available	Not Available	Include	57
Developer Projects	Various Projects	Transmission & Distribution	Extensions to New Customers	???	???	Not Available	Not Available	Include	58
Developer Projects	Various Projects	Transmission & Distribution	Extensions to New Customers	???	???	Not Available	Not Available	Include	59
Main Replacements	Various Projects	Transmission & Distribution	Infrastructure Improvements		???	Not Available	Not Available	Include	60
Highway Projects	Various Projects	Transmission & Distribution	Highway Projects	???	???	Not Available	Not Available	Include	61
DMAs	Various Projects	Transmission & Distribution	Infrastructure Improvements	$ 2,977,600	$ 12,168,100	Yes	Not Available	Include	62
Pressure Reduction	Various Projects	Transmission & Distribution	Infrastructure Improvements	???	???	Not Available	Not Available	Include	63
Tank Safety Improvements	Various Projects	Distribution Storage	Compliance	$ 293,900	$ 486,300	Yes	Not Available	Include	64
Indian Kill Valve Vault and Road rehab	Construction	Distribution Storage	Prevention of service deficiences		$ 33,000	Yes	Not Available	Include	65
Sterling Tank	Construction	Distribution Storage	Prevention of service deficiences	$ 475,613	$ 1,369,100	Yes	Not Available	Include	66

Haverstraw Tank	Construction	Distribution Storage	Prevention of service deficiences	$ 109,686	$ 4,268,000	Yes	Not Available	Include	67
2 MG Haverstraw Tank (Monsey)	Construction	Distribution Storage	Prevention of service deficiences	$ 190,718	$ 2,929,000	Yes	Not Available	Include	68
Remote Motorized Valves at Tanks	Various Projects	Water Storage	Infrastructure Replacement	$ -	$ 217,100	Yes	Not Available	Include	69
New Domestic Services	Various Projects	Distribution	New Customer Connection	$ 534,152	$ 3,114,800	Yes	Not Available	Include	71
New Fires Services	Various Projects	Distribution	New Customer Connection	$ 420,340	$ 2,536,000	Yes	Not Available	Include	72
Replace Services	Various Projects	Distribution	Infrastructure Replacement	$ 1,201,160	$ 7,092,000	Yes	Not Available	Include	73
New Meters	Various Projects	Customer Meters	New Customer Connection			Yes	Not Available	Include	74
New RFs	Various Projects	Customer Meters	New Customer Connection			Yes	Not Available	Include	75
Replace Meters	Various Projects	Customer Meters	Infrastructure Replacement			Yes	Not Available	Include	76
Replace RFs	Various Projects	Customer Meters	Infrastructure Replacement			Yes	Not Available	Include	77
Fixed Meter System	Install Collectors - SWNY and O&R assets	Customer Meters	???	$ 237,300	$ 823,100	Yes	Not Available	Include	78
Production Meters	Various Projects	Water Treatment	Infrastructure Replacement	$ 72,300	$ 410,100	Yes	Not Available	Include	79
Water Level Monitoring	Various Projects	Water Treatment	Infrastructure Replacement	$ 22,575	$ 142,600	Yes	Not Available	Include	80
GIS	Various Projects	IT	Infrastructure Replacement	$ 22,000	$ 114,600	Yes	Not Available	Include	81
SCADA Connections	Various Projects	IT	Infrastructure Replacement	-	$ 205,700	Yes	Not Available	Include	82
Blue Lake SCADA	Construction	IT	Productivity Improvement	$ 96,500	$ 109,700	Yes	Not Available	Include	83
Maplebrook SCADA	Construction	IT	Productivity Improvement		$ 164,000	Yes	Not Available	Include	84
IT Server	Equipment and Installation	IT	Productivity Improvement	$ 26,100	$ 30,000	Yes	Not Available	Include	85
Router	Equipment and Installation	IT	Productivity Improvement		$ 16,400	Yes	Not Available	Include	86
Printers and Plotters	Equipment and Installation	IT	Productivity Improvement	$ 11,550	$ 71,100	Yes	Not Available	Include	87
Hydraulic Modeling Update	Update Hydraulic Model	IT	Productivity Improvement		$ 150,000	Yes	Not Available	Include	88
Leak Detection Equipment	Purchase Equipment	Tools	NRW Reduction	$ 136,100	$ 136,100	Yes	Not Available	Accelerate	90
ArcFlash	Various Projects	Equipment	Safety	$ 23,875	$ 136,800	Yes	Not Available	Include	91
Safety and Security	Various Projects	General Plant	Compliance	$ 45,225	$ 311,100	Yes	Not Available	Include	92
Lake DeForest Reservoir Fencing	Various Projects	General Plant	Compliance	$ 47,600	$ 273,700	Yes	Not Available	Include	93
New Tools and Equipment	Various Projects	Equipment	Tools and Equipment	$ 17,400	$ 120,200	Yes	Not Available	Include	94
Building Improvements	Various Projects	General Plan	Compliance	$ 68,150	$ 383,400	Yes	Not Available	Include	95
Replace Tools and Equipment	Various Projects	Equipment	Tools and Equipment	$ 31,700	$ 187,100	Yes	Not Available	Include	96
Meter Shop Storage Shed	Purchase and Install	General Plant	Infrastructure	$ -	$ 25,100	Yes	Not Available	Include	97
West Nyack Building Imrprovements	Construction	General Plant	Compliance	$ 52,041	$ 710,700	Yes	Not Available	Include	98
Underground Vault Improvements	Various Projects	General Plant	Safety	$ -	$ 162,600	Yes	Not Available	Include	99
UIRP and Water Supply Design	Various Projects	Prelininary Design	Various	$ 86,700	$ 522,800	Yes	Not Available	Include	100
Ramapo River Supply Optimization	Develop Ground and Surfact Water Model	Prelininary Design	Supply	$ 548,300	$ 879,100	Yes	Not Available	Include	101
Ramapo River Supply Optimization	Develop Ground and Surfact Water Model	Prelininary Design	Supply	$ -	$ 8,253,000	Yes	Not Available	Include	102
System Surge Analysis	Analysis	Prelininary Design	Infrastructure		$ 99,500	Yes	Not Available	Include	103
				$ 19,136,033	$ 117,663,738				

Add some amount to increase main replacement to achieve 1% --TBD