COUNCIL COMMITTEE OF THE WHOLE
AGENDA

APRIL 12, 2016 - 6:00 P.M.

CITY HALL COUNCIL CHAMBERS
15 LOOCKERMAN PLAZA
DOVER, DELAWARE

PUBLIC COMMENTS ARE WELCOMED ON ANY ITEM AND WILL BE PERMITTED AT APPROPRIATE TIMES. WHEN POSSIBLE, PLEASE NOTIFY THE CITY CLERK (736-7008 OR E-MAIL AT CITYCLERK@DOVER.DE.US) SHOULD YOU WISH TO BE RECOGNIZED.

AGENDA ADDITIONS/DELETIONS

1. **REVIEW OF FY 2017 PRELIMINARY BUDGET AND CAPITAL INVESTMENT PLAN (CIP)**

2. **ADJOURNMENT BY 8:00 P.M.**

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THE AGENDA ITEMS AS LISTED MAY NOT BE CONSIDERED IN SEQUENCE. PURSUANT TO 29 DEL. C. §10004(E)(2), THIS AGENDA IS SUBJECT TO CHANGE TO INCLUDE THE ADDITION OR THE DELETION OF ITEMS, INCLUDING EXECUTIVE SESSIONS, WHICH ARISE AT THE TIME OF THE MEETING.

City of Dover
Office of City Manager
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MEMORANDUM

To: Council Committee of the Whole

From: Scott Koenig, City Manager & Donna Mitchell, Controller/Treasurer

Date: April 6, 2016

Subject: Fiscal Year 2016/2017 Preliminary Budget & Capital Investments Plans (5 Years)

For your review, we are providing the initial roll-up of the proposed FY17 Budgets for the three (3) major operating and capital funds. Our discussion on April 12, 2016 will focus on the General Fund, Water/Wastewater Fund, and the Electric Revenue Fund. After which, we will provide details on the five-year capital investment plans for each of these Funds.

As stated above, these results reflect the initial roll-up of the preliminary budgets; therefore, they have not yet been adjusted for policy compliance or budget balancing. Some of the contributing factors affecting the FY17 Budgets are as follows:

- The General Fund revenues are trending upwards; however, not enough to cover the projected increases in expenditures.
- State revenues are being kept to prior year levels at this time.
- Wage & Benefit increases as a result of collective bargaining agreements are included.
- Health Insurance premium increases of 7.7%.
- Civilian Pension Plan percentage increases for the General Fund and Water/Wastewater Fund (+16.5% General & +3.4% Water/Wastewater); Electric decreased -31.1%;
- OPEB percentages decreased across all Funds
    - General -2.2%, W/WW -4.6%, Electric -5.4%
- New debt service is proposed in the General Fund for a replacement to our Enterprise Resource Planning System and the construction of the storm water improvements at the PWII site, Tar Ditch, and Bay Health Medical Center property.
- New debt service is proposed for several Water/Wastewater projects using State Revolving Fund loans. This financing helped to reduce the transfers needed from the operating funds and therefore mitigated a rate increase for this fiscal year.

We look forward to hearing the Committee's thoughts on the initial draft of the FY17 Budget. We will be working towards a policy compliant budget over the next month, for consideration in May. Thank you.

Financial Policy Compliance

- Revenue Policy
  - #6 – The City will project current revenues on a conservative basis so the actual revenues will consistently meet or exceed budgeted revenues. Revenues greater or less than the original budget will flow through to the audited Ending Budget Balance.
- Expenditure Policy
  - #3 – The City will adopt a balanced budget, by fund, for all funds maintained by the City, in which total anticipated revenues must equal or exceed the budgeted expenditures. The Beginning Budget Balance will not be considered a revenue source.
- Budget Balance Policy – General Fund
  - #1 – The City will strive to maintain a minimum Budget Balance, of at least 8% and no greater than 12% of the current year operating revenues for the General Fund, excluding the carry forward balance. (8.33% = 1 month, 12% = 45 days)
- Budget Balance Policy – Water & Wastewater Fund
  - #1 – The City will strive to maintain a minimum Budget Balance, of at least 8% and no greater than 17% of the current year operating revenues for the General Fund, excluding the carry forward balance. (17% = 2 months)
- Budget Balance Policy – Electric Fund
  - #1 – The City will strive to maintain a minimum Budget Balance, of at least 12% of the current year operating revenues for the General Fund, excluding the carry forward balance and power cost adjustments.

Revenue Policy #6 & Expenditure Policy #3

	General Fund	Water Utility	Wastewater Utility	Water/Wastewater Fund	Electric Fund
Revenus	$42,370,300	$6,559,700	$9,257,500	$15,817,200	$81,312,900
Expenses	(43,548,100)	(5,792,800)	(8,539,000)	(14,331,800)	(79,177,400)
Surplus/(Deficit)	($1,177,800)	$766,900	$718,500	$1,485,400	$2,135,500
Ending Budget Balance	$3,272,400	$1,160,600	$1,187,900	$2,348,500	$14,751,900
% of Revenue	7.7%	17.7%	12.8%	14.8%	18.1%
Beginning Budget Balance	$4,450,200	$393,700	$469,400	$863,100	$12,616,400

FY 2017 PRELIMINARY ANNUAL OPERATING BUDGET - DOVER, DELAWARE

GENERAL FUND
CASH RECEIPT SUMMARY

		2014/15 ACTUAL	2015/16 BUDGET	2015/16 REVISED	2016/17 PROPOSED	$ DIFFERENCE FY 17 PP VS FY16 BUDGET	% CHG FY17 VS FY16
1	**BEGINNING BALANCE**	**4,362,491**	**3,977,500**	**4,820,400**	**4,450,200**	**472,700**	**11.9%**
2	FINES AND POLICE REVENUE	666,694	702,300	724,300	763,300	61,000	**8.7%**
3	LIBRARY REVENUES	68,056	72,000	72,000	70,300	(1,700)	**-2.4%**
4	KENT COUNTY BOOK REIMBURSEMENT	412,767	450,000	450,000	400,000	(50,000)	**-11.1%**
5	BUSINESS LICENSES	1,403,100	1,425,000	1,459,000	1,467,000	42,000	**2.9%**
6	PERMITS AND OTHER FEES	1,490,182	1,436,300	1,436,300	1,661,100	224,800	**15.7%**
7	MISCELLANEOUS CHARGES	135,415	22,700	22,700	40,500	17,800	**78.4%**
8	POLICE EXTRA DUTY	503,043	533,000	524,000	525,100	(7,900)	**-1.5%**
9	PROPERTY TAXES	11,176,763	12,894,200	12,894,200	12,932,900	38,700	**0.3%**
10	RECREATION REVENUE	149,318	149,000	149,000	159,000	10,000	**6.7%**
11	FRANCHISE FEE	683,354	672,300	672,300	672,300	-	**0.0%**
12	SANITATION FEES	2,578,892	2,580,000	2,580,000	2,538,300	(41,700)	**-1.6%**
13	RENT REVENUE - GARRISON FARM	92,294	93,700	93,700	93,700	-	**0.0%**
14	COURT OF CHANCERY FEES	1,118,680	1,065,100	1,065,100	1,174,600	109,500	**10.3%**
15	INVESTMENT INCOME	29,326	35,000	105,200	90,000	55,000	**157.1%**
16	**RECEIPTS SUBTOTAL**	**20,507,884**	**22,130,600**	**22,247,800**	**22,588,100**	**457,500**	**2.1%**
17	**INTERFUND SERVICE RECEIPTS**						
18	INTRAFUND SERVICE RECEIPTS W/WW	1,341,640	1,492,700	1,501,800	1,673,200	180,500	**12.1%**
19	INTRAFUND SERVICE RECEIPTS ELECTRIC	3,478,806	3,738,500	3,763,500	3,625,300	(113,200)	**-3.0%**
20	**INTERFUND SERVICE RECEIPTS SUBTOTAL**	**4,820,446**	**5,231,200**	**5,265,300**	**5,298,500**	**67,300**	**1.3%**
21	**GRANTS:**						
22	POLICE RELATED/EXTRA DUTY	127,130	74,400	148,400	275,000	200,600	**269.6%**
23	POLICE PENSION GRANT	629,910	500,000	500,000	500,000	-	**0.0%**
24	GREEN ENERGY GRANT	98,500	98,500	98,500	98,500	-	**0.0%**
26	MISC GRANT REVENUE	5,494	25,000	25,000	25,000	-	**0.0%**
27	VERIZON RESERVE	-	50,000	50,000	-	(50,000)	**-100.0%**
28	**GRANTS SUBTOTAL**	**861,034**	**747,900**	**821,900**	**898,500**	**150,600**	**20.1%**
29	**TRANSFERS FROM:**						
30	TRANSFER TAX	1,713,788	1,340,000	1,986,100	1,540,200	200,200	**14.9%**
31	MUNICIPAL STREET AID	664,266	564,200	673,100	673,100	108,900	**19.3%**
32	CIVIL TRAFFIC PENALTIES	495,182	450,000	450,000	496,900	46,900	**94.4%**
33	WATER/WASTEWATER	500,000	850,000	850,000	875,000	25,000	**0.0%**
34	ELECTRIC	10,000,000	10,000,000	10,000,000	10,000,000	-	**0.0%**
35	OTHER RESERVES	58,733	13,200	13,200	-	(13,200)	**-100.0%**
36	2003 GO BOND REDEMPTION	475,000	-	-	-	-	**0.0%**
37	**TRANSFERS FROM SUBTOTAL**	**13,906,969**	**13,217,400**	**13,972,400**	**13,585,200**	**367,800**	**2.8%**
38	**TOTAL REVENUES**	**40,096,333**	**41,327,100**	**42,307,400**	**42,370,300**	**1,043,200**	**2.5%**
39	**TOTAL BEGINNING BALANCE & REVENUE**	**44,458,824**	**45,304,600**	**47,127,800**	**46,820,500**	**1,515,900**	**3.3%**

FY 2017 PRELIMINARY ANNUAL OPERATING BUDGET - DOVER, DELAWARE

GENERAL FUND
EXPENSE SUMMARY

		2014/15 ACTUAL	2015/16 BUDGET	2015/16 REVISED	2016/17 PROPOSED	$ DIFFERENCE FY 17 PP VS FY16 BUDGET	% CHG FY17 VS FY16
1	**DEPARTMENT EXPENSES:**						
2	CITY CLERK	377,564	383,400	387,200	406,600	23,200	**6.1%**
3	COUNCIL	92,870	118,100	118,100	122,000	3,900	**3.3%**
4	TAX ASSESSOR	303,440	234,800	238,200	242,200	7,400	**3.2%**
5	FIRE	681,170	745,400	745,400	729,100	(16,300)	**-2.2%**
6	GROUNDS MAINTENANCE	952,159	1,210,300	1,212,000	1,235,700	25,400	**2.1%**
7	LIBRARY	1,380,437	1,510,000	1,516,000	1,631,100	121,100	**8.0%**
8	RECREATION	658,615	729,500	735,700	751,700	22,200	**3.0%**
9	LIFE SAFETY	504,840	482,200	483,000	483,300	1,100	**0.2%**
10	CODE ENFORCEMENT	392,859	419,400	421,800	441,600	22,200	**5.3%**
11	PLANNING	450,400	534,000	539,800	541,100	7,100	**1.3%**
12	INSPECTIONS	581,480	664,700	724,400	707,000	42,300	**6.4%**
13	ECONOMIC DEVELOPMENT	226,308	238,000	238,000	235,700	(2,300)	**-1.0%**
14	POLICE	14,789,684	15,159,000	15,882,400	16,376,500	1,217,500	**8.0%**
15	POLICE EXTRA DUTY	557,432	602,400	672,400	800,100	197,700	**32.8%**
16	STREETS	543,832	674,500	675,400	1,163,200	488,700	**72.5%**
17	SANITATION	2,185,408	2,157,900	2,176,600	2,066,800	(91,100)	**-4.2%**
18	CITY MANAGER	553,558	750,300	756,800	772,200	21,900	**2.9%**
19	INFORMATION TECHNOLOGY	730,046	704,800	711,900	746,900	42,100	**6.0%**
20	FINANCE	946,618	978,500	989,100	996,600	18,100	**1.8%**
21	PUBLIC WORKS - ADMINISTRATION	522,935	626,800	630,000	673,200	46,400	**7.4%**
22	FACILITIES MANAGEMENT	688,162	707,500	719,700	612,100	(95,400)	**-13.5%**
23	PUBLIC WORKS - ENGINEERING	26,996	181,400	181,400	202,700	21,300	**11.7%**
24	PROCUREMENT & INVENTORY	534,298	560,200	565,000	587,100	26,900	**4.8%**
25	FLEET MAINTENANCE	786,500	768,500	768,500	775,400	6,900	**0.9%**
26	CUSTOMER SERVICE	1,045,588	1,120,100	1,136,800	1,176,200	56,100	**5.0%**
27	HUMAN RESOURCES	361,384	383,900	390,700	388,700	4,800	**1.3%**
28	MAYOR	77,861	76,100	76,100	89,000	12,900	**17.0%**
29	**DEPARTMENT SUBTOTALS**	**30,952,444**	**32,721,700**	**33,692,400**	**34,953,800**	**2,232,100**	**6.8%**
30	**OTHER EXPENDITURES:**						
31	DEBT SERVICE	962,312	660,800	669,400	980,400	319,600	**48.4%**
32	CONTRIBUTION TO DDP	70,000	70,000	70,000	70,000	-	**0.0%**
33	MISCELLANEOUS GRANT RELATED EXP	-	25,000	25,000	25,000	-	**0.0%**
34	INSURANCE	674,775	690,000	690,000	700,000	10,000	**1.4%**
35	RETIREES HEALTH CARE	1,636,500	1,895,600	1,567,700	2,039,700	144,100	**7.6%**
36	OTHER EMPLOYMENT EXPENSES	-	520,100	178,600	514,800	(5,300)	**-1.0%**
37	BANK & CREDIT CARD FEES	-	15,000	10,600	15,000	-	**0.0%**
38	UNCOLLECTIBLES - TRASH AND OTHER	50,113	50,000	50,000	50,000	-	**0.0%**
39	STREET LIGHTS	775,197	797,700	797,700	804,000	6,300	**0.8%**
40	NEW STREET PROPERTIES ACQUISITIONS	-	-	240,400	-	-	**0.0%**
41	**OTHER EXPENSE SUBTOTAL**	**4,168,897**	**4,724,200**	**4,299,400**	**5,198,900**	**474,700**	**10.0%**
42	**TRANSFERS**						
43	TRANSFER TO CAPITAL ASSET RESERVE	60,000	-	229,600	-	-	**0.0%**
44	TRANSFER TO CAPITAL FUND - PROJECTS	2,196,000	2,625,400	2,625,400	2,215,400	(410,000)	**-15.6%**
45	APPROP. TO THE POLICE PENSION FUND	755,000	570,000	676,500	670,000	100,000	**17.5%**
46	APPROP. POLICE PENSION - STATE GRANT	629,910	500,000	500,000	500,000	-	**0.0%**
47	APPROP. TO THE GENERAL PENSION FUND	543,000	-	594,300	-	-	**0.0%**
48	TRANSFER TO CONTINGENCY RESERVE	300,000	-	-	-	-	**0.0%**
49	TRANSFER TO PARKLAND RESERVE	25,000	-	-	-	-	**0.0%**
50	TRANSFER TO OTHER/VERIZON RESERVE	-	50,000	50,000	-	(50,000)	**-100.0%**
51	TRANSFER TO INVENTORY WRITE-OFFS	-	10,000	10,000	10,000	-	**0.0%**
52	**TRANSFERS SUBTOTAL**	**4,508,910**	**3,755,400**	**4,685,800**	**3,395,400**	**(360,000)**	**-9.6%**
53	**TOTAL EXPENDITURES**	**39,630,251**	**41,201,300**	**42,677,600**	**43,548,100**	**2,346,800**	**5.7%**
54	**BUDGET BALANCE**	**4,828,573**	**4,103,300**	**4,450,200**	**3,272,400**	**(830,900)**	**-20.2%**
55	**TOTAL BUDGET BALANCE & EXPENDITURES**	**44,458,824**	**45,304,600**	**47,127,800**	**46,820,500**	**1,515,900**	**3.3%**
56	EXCEEDS/(REMAINS)TO MEET REQUIREMENT	1,620,900	797,100	1,065,600	(117,200)		

FY 2017 PRELIMINARY ANNUAL OPERATING BUDGET - DOVER, DELAWARE

WATER/WASTEWATER FUND SUMMARY

		2014/15 ACTUAL	2015/16 BUDGET	2015/16 REVISED	2016/17 PROPOSED	$ DIFFERENCE FY 17 PP VS FY16 BUDGET	% CHG FY17 VS FY16
1	BEGINNING BALANCE - WATER	550,768	861,600	1,072,900	393,700	(467,900)	**-54.3%**
2	BEGINNING BALANCE - WASTEWATER	69,989	293,400	206,900	469,400	176,000	**60.0%**
3	**TOTAL BEGINNING BALANCES**	**620,757**	**1,155,000**	**1,279,800**	**863,100**	**(291,900)**	**-25.3%**
4	**BASE REVENUE:**						
5	WATER SERVICES	4,889,046	6,200,000	5,366,600	5,900,000	(300,000)	**-4.8%**
6	WASTEWATER SERVICES	3,735,855	3,728,000	3,823,800	3,900,000	172,000	**4.6%**
7	WASTEWATER TREATMENT SERVICES	2,952,857	3,026,500	2,997,600	3,100,000	73,500	**2.4%**
8	GROUNDWATER INFLOW ADJUSTMENT	1,831,784	1,864,300	1,965,600	1,988,000	123,700	**6.6%**
9	WATER TANK SPACE LEASING	344,842	341,900	341,900	366,200	24,300	**7.1%**
10	SEWER IMPACT FEES	482,236	250,000	222,400	228,000	(22,000)	**-8.8%**
11	WATER IMPACT FEES	536,922	250,000	253,400	252,000	2,000	**0.8%**
12	INTEREST - WATER	(396)	1,000	10,000	10,000	9,000	**900.0%**
13	INTEREST - WASTEWATER	(620)	2,000	10,000	10,000	8,000	**400.0%**
14	MISCELLANEOUS SERVICE FEE	74,982	64,000	56,200	63,000	(1,000)	**-1.6%**
15	**TOTAL REVENUES**	**14,847,508**	**15,727,700**	**15,047,500**	**15,817,200**	**89,500**	**0.6%**
16	**TOTAL BEGINNING BALANCE & REVENUES**	**15,468,265**	**16,882,700**	**16,327,300**	**16,680,300**	**(202,400)**	**-1.2%**
17	**DIRECT EXPENSES:**						
18	ENGINEERING & INSPECTION	468,706	517,500	521,500	512,800	(4,700)	**-0.9%**
19	WATER CONSTRUCTION	260,383	-	-	-	-	**0.0%**
20	WATER DEPARTMENT	399,530	673,300	678,100	695,600	22,300	**3.3%**
21	WATER TREATMENT PLANT	1,452,318	1,910,000	1,918,100	1,787,200	(122,800)	**-6.4%**
22	WASTEWATER DEPARTMENT	790,525	968,600	968,600	1,012,700	44,100	**4.6%**
23	**DIRECT EXPENDITURE SUBTOTAL**	**3,371,462**	**4,069,400**	**4,086,300**	**4,008,300**	(61,100)	**-1.5%**
24	**OTHER EXPENSES:**						
25	DEBT SERVICE - WATER	486,635	545,200	521,100	578,300	33,100	**6.1%**
26	DEBT SERVICE - WASTEWATER	650,647	586,900	611,300	694,600	107,700	**18.4%**
27	RETIREES HEALTH CARE	200,000	178,600	60,200	192,400	13,800	**7.7%**
28	OTHER EMPLOYMENT EXPENSES	-	20,000	3,100	60,000	40,000	**200.0%**
29	KENT COUNTY TREATMENT CHARGE	4,127,919	4,130,000	4,225,000	4,225,000	95,000	**2.3%**
30	INTRAFUND SERVICE FEES	1,341,640	1,492,700	1,501,800	1,673,200	180,500	**12.1%**
31	BANK & CREDIT CARD FEES	-	46,200	25,000	25,000	(21,200)	**-45.9%**
32	**OTHER EXPENSES SUBTOTAL**	**6,806,841**	**6,999,600**	**6,947,500**	**7,448,500**	**448,900**	**6.4%**
33	**TRANSFER TO:**						
34	GENERAL FUND FROM WATER	250,000	550,000	550,000	500,000	(50,000)	**-9.1%**
35	GENERAL FUND FROM WASTEWATER	250,000	300,000	300,000	375,000	75,000	**25.0%**
36	WATER IMP AND EXT	1,205,285	1,800,000	1,800,000	1,000,000	(800,000)	**-44.4%**
37	WASTEWATER IMP AND EXT	1,803,104	1,500,000	1,500,000	1,000,000	(500,000)	**-33.3%**
38	SEWER IMPACT FEE RESERVE	275,279	-	-	-	-	**0.0%**
39	WATER IMPACT FEE RESERVE	226,485	-	-	-	-	**0.0%**
40	CONTINGENCY RESERVE WATER	-	32,000	32,000	-	(32,000)	**-100.0%**
41	GENERAL EMPLOYEES PENSION	-	-	248,400	-	-	**0.0%**
42	**TRANSFER TO SUBTOTAL**	**4,010,153**	**4,182,000**	**4,430,400**	**2,875,000**	**(1,307,000)**	**-31.3%**
43	**TOTAL EXPENSES**	**14,188,456**	**15,251,000**	**15,464,200**	**14,331,800**	**(919,200)**	**-6.0%**
44	**BUDGET BALANCES**						
45	BUDGET BALANCE WATER	1,072,915	1,048,600	393,700	1,160,600	112,000	**10.7%**
46	BUDGET BALANCE WASTEWATER	206,894	583,100	469,400	1,187,900	604,800	**103.7%**
47	**BUDGET BALANCE SUBTOTALS**	**1,279,809**	**1,631,700**	**863,100**	**2,348,500**	**716,800**	**43.9%**
48	**TOTAL BUDGET BALANCES & EXPENSES**	**15,468,265**	**16,882,700**	**16,327,300**	**16,680,300**	**(202,400)**	**-1.2%**
49	EXCEEDS/(REMAINS)TO MEET REQMNT	1,279,809	373,500	(340,700)	1,083,100		

FY 2017 PRELIMINARY ANNUAL OPERATING BUDGET - DOVER, DELAWARE

ELECTRIC REVENUE FUND SUMMARY

		2014/15 ACTUAL	2015/16 BUDGET	2015/16 REVISED	2016/17 PROPOSED	$ DIFFERENCE FY 17 PP VS FY16 BUDGET	% CHG FY17 VS FY16
1	**BEGINNING BALANCE**	**6,823,183**	**6,177,600**	**8,337,500**	**12,616,400**	**6,438,800**	**104.2%**
2	**BASE REVENUE:**						
3	DIRECT SALES TO CUSTOMER	77,011,592	78,279,200	78,279,200	78,991,200	712,000	**0.9%**
4	UTILITY TAX	1,266,872	1,281,100	1,281,100	1,292,800	11,700	**0.9%**
5	MISCELLANEOUS REVENUE	1,038,372	597,200	620,100	621,400	24,200	**4.1%**
6	RENT REVENUE	223,065	202,600	202,600	223,000	20,400	**10.1%**
7	GREEN ENERGY	128,090	128,000	128,000	136,000	8,000	**6.3%**
8	INTEREST EARNINGS	5,909	47,900	47,900	48,500	600	**1.3%**
9	TRANSFER FROM RATE STABILIZATION	3,000,000	3,000,000	750,000	-	(3,000,000)	**-100.0%**
10	**TOTAL REVENUES**	**82,673,900**	**83,536,000**	**81,308,900**	**81,312,900**	**(2,223,100)**	**-2.7%**
11	**TOTAL BEGINNING BALANCE & REVENUES**	**89,497,083**	**89,713,600**	**89,646,400**	**93,929,300**	**4,215,700**	**4.7%**
12	**EXPENSES:**						
13	POWER SUPPLY	26,170,504	23,402,600	23,402,600	16,557,600	(6,845,000)	**-29.2%**
14	SOLAR ENERGY	1,976,577	2,313,900	2,313,900	2,313,900	-	**0.0%**
15	SOLAR RENEWAL ENERGY CREDITS	372,329	363,400	363,400	363,400	-	**0.0%**
16	POWER SUPPLY MANAGEMENT	996,000	996,000	996,000	996,000	-	**0.0%**
17	REC'S (Renewable Energy Credits)	572,515	673,400	673,400	673,400	-	**0.0%**
18	PJM CHARGES - ENERGY	5,389,169	7,932,500	7,932,500	7,603,800	(328,700)	**-4.1%**
19	PJM CHARGES - TRANSMISSION & FEES	8,681,190	7,966,100	7,966,100	12,357,900	4,391,800	**55.1%**
20	CAPACITY CHARGES	9,617,562	10,225,100	10,225,100	10,160,600	(64,500)	**-0.6%**
21	**SUB-TOTAL POWER SUPPLY**	**53,775,846**	**53,873,000**	**53,873,000**	**51,026,600**	**(2,846,400)**	**-5.3%**
22	PLANT OPERATIONS	5,968,784	6,434,600	6,382,900	6,217,100	(217,500)	**-3.4%**
23	GENERATIONS FUELS	1,729,044	1,342,300	1,342,300	431,900	(910,400)	**-67.8%**
24	PJM SPOT MARKET ENERGY	(2,560,292)	(1,708,300)	(1,708,300)	(804,900)	903,400	**-52.9%**
25	PJM CREDITS	(560,450)	(360,000)	(360,000)	(360,000)	-	**0.0%**
26	CAPACITY CREDITS	(8,706,981)	(10,472,100)	(10,472,100)	(7,355,100)	3,117,000	**-29.8%**
27	**GENERATION SUBTOTAL**	**(4,129,895)**	**(4,763,500)**	**(4,815,200)**	**(1,871,000)**	**2,892,500**	**-60.7%**
28	**POWER SUPPLY & GENERATION SUBTOTAL**	**49,645,950**	**49,109,500**	**49,057,800**	**49,155,600**	**46,100**	**0.1%**
29	**DIRECT EXPENDITURES**						
30	TRANSMISSION/DISTRIBUTION	3,625,462	4,068,600	3,630,300	3,623,700	(444,900)	**-10.9%**
31	ELECTRICAL ENGINEERING	1,166,201	1,335,800	1,249,300	1,270,700	(65,100)	**-4.9%**
32	ADMINISTRATION	609,819	839,300	866,800	927,300	88,000	**10.5%**
33	METER READING	371,658	360,500	327,200	360,100	(400)	**-0.1%**
34	SYSTEMS OPERATIONS	703,431	679,800	612,700	651,700	(28,100)	**-4.1%**
35	**DIRECT EXPENDITURE SUBTOTALS**	**6,476,572**	**7,284,000**	**6,686,300**	**6,833,500**	**(450,500)**	**-6.2%**
36	**OTHER EXPENSES:**						
37	UTILITY TAX	1,266,872	1,281,100	1,281,100	1,292,800	11,700	**0.9%**
38	ALLOW FOR UNCOLLECTIBLES	200,000	200,000	200,000	250,000	50,000	**25.0%**
39	CONTRACTUAL SERVICES - RFP'S	266,856	-	-	-	-	**0.0%**
40	RETIREES HEALTH CARE	513,300	537,800	57,700	600,000	62,200	**11.6%**
41	OTHER EMPLOYMENT EXPENSES	-	72,000	40,300	128,200	56,200	**78.1%**
44	OPEB UNFUNDED LIABILITY	1,009,800	1,030,000	-	-	(1,030,000)	**-100.0%**
45	GREEN ENERGY PAYMENT TO DEMEC	128,161	128,000	128,000	128,000	-	**0.0%**
46	INTRAFUND SERVICE FEES	3,478,806	3,738,500	3,763,500	3,625,300	(113,200)	**-3.0%**
47	INTEREST ON DEPOSITS	18,098	20,500	20,500	21,000	500	**2.4%**
48	BANK & CREDIT CARD FEES	-	242,300	259,300	275,000	32,700	**13.5%**
49	DEBT SERVICE	3,405,202	3,402,000	1,617,700	1,618,000	(1,784,000)	**-52.4%**
50	**OTHER EXPENSES SUBTOTAL**	**10,287,095**	**10,652,200**	**7,368,100**	**7,938,300**	**(2,713,900)**	**-25.5%**
51	**TRANSFER TO:**						
52	IMPROVEMENT & EXTENSION	4,750,000	3,500,000	3,500,000	2,500,000	(1,000,000)	**-28.6%**
53	GENERAL FUND	10,000,000	10,000,000	10,000,000	10,000,000	-	**0.0%**
54	TRANSFER TO FUTURE CAPACITY RESERVE	-	-	-	750,000	750,000	**0.0%**
55	TRANSFER TO DEPRECIATION RESERVE	-	-	-	750,000	750,000	**0.0%**
55	TRANSFER INSURANCE RESERVE	-	10,000	10,000	-	(10,000)	**-100.0%**
56	TRANSFER CONTINGENCY RESERVE	-	13,000	13,000	-	(13,000)	**-100.0%**
57	RATE STABILIZATION RESERVE	-	-	394,800	1,250,000	1,250,000	**0.0%**
58	**TRANSFER TO SUBTOTAL**	**14,750,000**	**13,523,000**	**13,917,800**	**15,250,000**	**1,727,000**	**12.8%**
59	**TOTAL EXPENSES**	**81,159,617**	**80,568,700**	**77,030,000**	**79,177,400**	**(1,391,300)**	**-1.7%**
60	**BUDGET BALANCE - WORKING CAPITAL**	**8,337,466**	**9,144,900**	**12,616,400**	**14,751,900**	**5,607,000**	**61.3%**
61	**TOTAL BUDGET BALANCE & EXPENSES**	**89,497,083**	**89,713,600**	**89,646,400**	**93,929,300**	**4,215,700**	**4.7%**
62	EXCEEDS/(REMAINS)TO MEET REQUIREMENT	(1,071,334)	(365,700)	3,103,100	5,149,500		

FY 2017 PRELIMINARY ANNUAL OPERATING BUDGET - DOVER, DELAWARE

GOVERNMENTAL CAPITAL PROJECTS FUND SUMMARY

		2014/15 ACTUAL	2015/16 BUDGET	2015/16 REVISED	2016/17 PROPOSED	$ DIFFERENCE FY 17 PP VS FY16 BUDGET	% CHG FY17 VS FY16
1	**BEGINNING BALANCE - PROJECTS**	**2,654,625**	**154,800**	**2,926,700**	**390,800**	**236,000**	**152.5%**
2	**REVENUES**						
3	STATE GRANTS - Other	70,609	-	80,500	105,000	105,000	**0.0%**
4	BUDGET BOND/BANK PROCEEDS	3,660,000	-	-	8,200,000	8,200,000	**0.0%**
6	INCOME FROM SALE OF ASSETS	86,491	20,300	120,800	-	(20,300)	**-100.0%**
7	MISCELLANEOUS RECEIPTS	-	-	30,500	-	-	**0.0%**
8	INTEREST EARNINGS	1,773	5,000	5,000	5,000	-	**0.0%**
9	TRANSFER FROM GENERAL FUND	2,196,000	2,625,400	2,625,400	2,215,400	(410,000)	**-15.6%**
10	TRANSFER FROM PARKLAND RESERVE	104,000	-	-	80,000	80,000	**0.0%**
11	TRANSFER FROM CAPITAL ASSET RESERVE		-	-	300,000	300,000	**0.0%**
12	**SUBTOTAL CAPITAL PROJECT FUNDING SOURCES**	**6,118,873**	**2,650,700**	**2,862,200**	**10,905,400**	**8,254,700**	**311.4%**
13	**TOTAL BEGINNING BALANCE & FUNDING SOURCES**	**8,773,498**	**2,805,500**	**5,788,900**	**11,296,200**	**8,490,700**	**302.6%**
14	**EXPENDITURES**						
15	FIRE	526,617	145,600	445,800	219,100	73,500	**50.5%**
16	GROUNDS	65,947	201,100	188,800	58,200	(142,900)	**-71.1%**
17	LIBRARY	-	-	-	15,000	15,000	**0.0%**
18	RECREATION	207,323	-	73,900	165,000	165,000	**0.0%**
19	LIFE SAFETY	-	55,700	55,700	29,500	(26,200)	**-47.0%**
20	PLANNING	-	-	-	16,000	16,000	**0.0%**
21	INSPECTIONS	-	-	-	16,000	16,000	**0.0%**
22	POLICE	581,012	262,100	302,700	324,200	62,100	**23.7%**
23	STREETS	3,597,163	1,428,500	2,142,800	3,249,200	1,820,700	**127.5%**
24	STREETS - GARRISON FARM INFRASTRUCTURE	-	-	1,537,500	-	-	**0.0%**
25	SANITATION	247,858	449,000	449,000	261,500	(187,500)	**-41.8%**
26	CITY MANAGER	-	24,700	24,700	-	(24,700)	**-100.0%**
27	FINANCE	-	-	-	1,000,000	1,000,000	**0.0%**
28	FACILITIES MANAGEMENT	-	-	-	27,700	27,700	**0.0%**
29	PROCUREMENT & INVENTORY	49,672	-	-	-	-	**0.0%**
30	FLEET MAINTENANCE	-	84,000	84,500	31,000	(53,000)	**-63.1%**
31	**DEPARTMENT SUBTOTAL**	**5,275,592**	**2,650,700**	**5,305,400**	**5,412,400**	**2,761,700**	**104.2%**
32	**TRANSFERS & MISCELLANEOUS EXPENSES**						
33	BOND/LOAN ISSUANCE COST	60,668	-	-	60,000	60,000	**0.0%**
34	TRANSFER TO PARKLAND RESERVE	180,000	-	-	-	-	**0.0%**
35	TRANSFER TO CAPITAL ASSET RESERVE	330,500	-	92,700	-	-	**0.0%**
36	**TRANSFERS & MISCELLANEOUS SUBTOTAL**	**571,168**	**-**	**92,700**	**60,000**	**60,000**	**0.0%**
37	**TOTAL EXPENDITURES**	**5,846,760**	**2,650,700**	**5,398,100**	**5,472,400**	**2,821,700**	**106.5%**
38	BUDGET BALANCE - BONDED PROJECTS	-	-	-	5,433,000	-	**0.0%**
39	BUDGET BALANCE	2,926,738	154,800	390,800	390,800	236,000	**152.5%**
40	**TOTAL BUDGET BALANCE & EXPENDITURES**	**8,773,498**	**2,805,500**	**5,788,900**	**11,296,200**	**8,490,700**	**302.6%**

FY 2017 PRELIMINARY ANNUAL OPERATING BUDGET - DOVER, DELAWARE

WATER/WASTEWATER IMPROVEMENT & EXTENSION FUND SUMMARY

		2014/15 ACTUAL	2015/16 BUDGET	2015/16 REVISED	2016/17 PROPOSED	$ DIFFERENCE FY 17 PP VS FY16 BUDGET	% CHG FY17 VS FY16
1	BEGINNING BALANCE - WATER	7,178,064	833,500	4,990,300	1,179,900	346,400	**41.6%**
2	BEGINNING BALANCE - WASTEWATER	5,677,607	1,027,600	4,551,700	952,600	(75,000)	**-7.3%**
3	**TOTAL BEGINNING BALANCES**	**12,855,671**	**1,861,100**	**9,542,000**	**2,132,500**	**(5,419,735)**	**14.6%**
4	**REVENUES**						
5	STATE LOAN FUND - WATER	-	-	-	2,400,000	2,400,000	**0.0%**
6	STATE LOAN FUND - WASTEWATER		-	-	884,000	884,000	**0.0%**
8	TRANS FR OPERATING FUND - WATER	1,205,285	1,800,000	1,800,000	1,000,000	1,600,000	**-44.4%**
9	TRANS FR OPERATING FUND - WASTEWATER	1,803,104	1,500,000	1,500,000	1,000,000	1,800,000	**-33.3%**
10	TRANSFER FR WATER IMPACT FEE		-	-	190,800	190,800	**0.0%**
11	TRANSFER FR WASTEWATER IMPACT FEE	1,315,600	165,000	165,000	211,200	211,200	**28.0%**
12	FEDERAL/STATE GRANTS		-	20,300	-	-	**0.0%**
13	PROCEEDS FROM SALE OF ASSETS	27,283	-	-	-	-	**0.0%**
14	INTEREST INCOME	39,883	25,000	69,900	20,000	(5,000)	**-20.0%**
15	MISCELLANEOUS RECEIPTS	-	-	61,400	-	-	**0.0%**
16	**TOTAL REVENUES**	**4,391,155**	**3,490,000**	**3,616,600**	**5,706,000**	**2,216,000**	**63.5%**
17	**TOTAL BEGINNING BALANCES & REVENUES**	**17,246,826**	**5,351,100**	**13,158,600**	**7,838,500**	**2,487,400**	**46.5%**
18	**EXPENSES**						
19	WATER	3,392,546	2,028,600	5,442,600	1,338,800	(689,800)	**-34.0%**
20	WASTEWATER	4,277,921	1,822,100	5,299,100	2,021,200	199,100	**10.9%**
21	WATER TREATMENT PLANT	33,771	-	284,400	1,200,000	-	**0.0%**
22	W/WW ENGINEERING	-	-	-	30,400	30,400	**0.0%**
23	**TOTAL EXPENSES**	**7,704,238**	**3,850,700**	**11,026,100**	**4,590,400**	**739,700**	**19.2%**
24	BUDGET BALANCE - WATER	4,990,615	617,400	1,179,900	2,226,700	1,609,300	**260.7%**
25	BUDGET BALANCE - WASTEWATER	4,551,973	883,000	952,600	1,021,400	138,400	**15.7%**
26	**TOTAL ENDING BUDGET BALANCES**	**9,542,588**	**1,500,400**	**2,132,500**	**3,248,100**	1,747,700	**116.5%**
27	**TOTAL BUDGET BALANCES & EXPENSES**	**17,246,826**	**5,351,100**	**13,158,600**	**7,838,500**	**2,487,400**	**46.5%**

ELECTRIC IMPROVEMENT & EXTENSION FUND SUMMARY

		2014/15 ACTUAL	2015/16 BUDGET	2015/16 REVISED	2016/17 PROPOSED	$ DIFFERENCE FY 17 PP VS FY16 BUDGET	% CHG FY17 VS FY16 REV
1	**BEGINNING BALANCE**	**5,847,854**	**3,623,600**	**7,095,300**	**5,333,800**	**1,710,200**	**47.2%**
2	**REVENUES**						
3	TRANSFER FROM ELECTRIC	4,750,000	3,500,000	3,500,000	2,500,000	(1,000,000)	**-28.6%**
4	TRANSFER FROM BOND RESERVE		-	2,108,000		-	**0.0%**
5	GENERAL SERVICE BILLING	95,045	1,900,000	1,900,000	900,000	(1,000,000)	**-52.6%**
6	INCOME FROM SALE OF ASSETS	39,637	-	-	-	-	**0.0%**
7	INTEREST EARNINGS	1,047	26,700	57,900	25,700	(1,000)	**-3.7%**
8	**TOTAL REVENUES**	**4,885,729**	**5,426,700**	**7,565,900**	**3,425,700**	**(2,001,000)**	**-36.9%**
9							
10	**TOTALS**	**10,733,583**	**9,050,300**	**14,661,200**	**8,759,500**	**(290,800)**	**-3.2%**
11	**EXPENSES**						
12	ELECTRIC GENERATION	1,899,229	1,655,000	2,299,800	1,842,800	187,800	**11.3%**
13	TRANSMISSION AND DISTRIBUTION	1,078,077	2,887,600	3,602,900	1,650,000	(1,237,600)	**-42.9%**
14	ELECTRICAL ENGINEERING	851,740	1,724,300	3,401,700	910,700	(813,600)	**-47.2%**
14	METER READING	-	-	23,000	46,000	46,000	**0.0%**
15	**TOTAL EXPENSES**	**3,829,046**	**6,266,900**	**9,327,400**	**4,449,500**	**(1,817,400)**	**-29.0%**
16	**BUDGET BALANCE**	**6,904,537**	**2,783,400**	**5,333,800**	**4,310,000**	**1,526,600**	**54.8%**
17	**TOTAL BUDGET BALANCE & EXPENSES**	**10,733,583**	**9,050,300**	**14,661,200**	**8,759,500**	**(290,800)**	**-3.2%**

City of Dover

FY2017 Preliminary Capital Investment Plan

FY17 thru FY21

General Fund Projects

City of Dover, Delaware

FY 2017 Capital Investment Plan

FY 17 thru FY 21

PROJECTS BY DEPARTMENT

Department	Project#	Priority	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Finance								
Enterprise Resource Planning (ERP) Solution	*FN1701*	1	1,000,000	1,000,000	300,000	0	0	*2,300,000*
Finance Total			**1,000,000**	**1,000,000**	**300,000**	**0**	**0**	***2,300,000***
Library								
Glass Security and Soundproofing Wall	*LB1701*	1	15,000					*15,000*
Library Total			**15,000**					***15,000***
Parks and Recreation								
Dover Park - Master Plan	*PR1701*	1	50,000					*50,000*
Schutte Park Land Improvements	*PR1702*	1	100,000	90,000				*190,000*
Park and Playground Improvement Program	*PR1703*	3		66,000		66,000		*132,000*
Small Park Improvements	*PR1704*	4	15,000	15,000	15,000	15,000		*60,000*
Silver Lake Park - Master Plan&Plan Implementation	*PR1801*	1		70,000		80,000		*150,000*
Parks and Recreation Total			**165,000**	**241,000**	**15,000**	**161,000**		***582,000***
Police								
Server Consolidation	*PD1801*	1		43,200	43,200			*86,400*
Police Total				**43,200**	**43,200**			***86,400***
Public Works - Streets								
Stormwater/Old PW2 Site Improvements	*ST1504*	1	2,067,000	2,067,000	2,067,000			*6,201,000*
Street, Concrete and Alley Program	*ST1701*	2	1,000,000	1,050,000	1,102,500	1,157,500	1,215,500	*5,525,500*
Silver Lake Dam Improvements	*ST1703*	3	50,000					*50,000*
Dover Library Conveyance System Improvements	*ST1803*	1		50,000	200,000			*250,000*
Water Street Flooding Improvements	*ST1904*	4			50,000	100,000		*150,000*
Public Works - Streets Total			**3,117,000**	**3,167,000**	**3,419,500**	**1,257,500**	**1,215,500**	***12,176,500***
GRAND TOTAL			**4,297,000**	**4,451,200**	**3,777,700**	**1,418,500**	**1,215,500**	***15,159,900***

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # FN1701

Project Name Enterprise Resource Planning (ERP) Solution

New Project: Yes

Account Number: 147-2300-517.40-28

Time-Line: FY17-FY21

Department Finance
Contact Controller/Treasurer
Type Technology
Useful Life 10 years
Category General
Priority 1
Status Active
Total Project Cost: $2,300,000

Description

This project involves consulting services and purchase of Enterprise Resource Planning (ERP) Solution to support the business processes of the City of Dover.

Justification

The City's current ERP software is Sungard Public Sector's Select/Naviline version 8.0.2.0. It is an IBM System powered environment (iSeries). This system is a legacy system that came out of the Y2K era, when previous systems were not programmed for the year 2000. The Sungard Public Sector system was purchased in April 1997.

The technology for ERP systems have evolved from mainframe based systems (AS400) to Personal Computer (PC) based systems either hosted by the software provider through the internet or hosted by the customer on file servers. The industry trend is to drive access to customers with web and app based delivery models.

Project Strategy & Objectives:
- The City requires an integrated environment where any user can access the data they need.
- The City will emphasize a self-service environment with technology enabling and not hindering the users to easily access data with the proper controls at the point of data entry.
- The City desires to utilize rational data base technology plus easy report and query writing tools to accomplish this.
- The City realizes that this goal will not be accomplished through new technology alone but also requires extensive process changes and organizational support.
- Management requires better access to data, information and reporting that is currently unavailable or significantly restricted.
- As a result of current limitations to functionallity and access to data, City personnel have developed work-around processes that are impacting City business.
- Third-party software integrations with the current system are extremely difficult, limited or unvailable.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Consulting	300,000	0	0	0	0	300,000
ERP System	700,000	1,000,000	300,000	0	0	2,000,000
Total	**1,000,000**	**1,000,000**	**300,000**	**0**	**0**	**2,300,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Capital Asset Reserve	300,000	0	0	0	0	300,000
Debt Issue	700,000	1,000,000	300,000	0	0	2,000,000
Total	**1,000,000**	**1,000,000**	**300,000**	**0**	**0**	**2,300,000**

Budget Impact/Other

Annual Operating impact is being evaluated to determine the net difference with the current ERP/ancillary systems and support versus the recommended solution. The current estimate for the new fully integrated ERP solution is approximately $300,000 annuallly. Current cost is being evaluated as above.

FY 2017 Capital Investment Plan

City of Dover, Delaware

FY 17 *thru* **FY 21**

Department Library
Contact Library Director

Project # **LB1701**
Project Name **Glass Security and Soundproofing Wall**

Type Improvement
Useful Life
Category General
Priority 1
Status Active

New Project: Yes
Account Number: 147-1500-523.40-31
Time-Line: FY17

Total Project Cost: **$15,000**

Description

Glass wall with locking door will be installed to enclose the Small Theater in the Periodicals area of the Library.

Justification

This will allow for the ability to secure the area, provide soundproofing, and allow the Library to use the space for programming activities.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	15,000					15,000
Total	**15,000**					**15,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
General Fund	15,000					15,000
Total	**15,000**					**15,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # PR1701

Project Name Dover Park - Master Plan

New Project: No

Account Number: 147-1500-525.40-31

Time-Line: FY16-FY18

Department Parks and Recreation

Contact Parks & Recreation Director

Type Improvement

Useful Life

Category General

Priority 1

Status Active

Total Project Cost: **$50,000**

Description

Hire a consultant to develop a master plan for Dover Park that includes a vegetation management plan and lighting plan, and also addresses the needs identified in the Recreation Needs Assessment, including walking paths, restrooms, a skate parks, splash pad, and reserves a location for a recreation center building in the event that one is constructed at a future date.

Justification

With the demolition of the old recreation center building and the concern about the need to improve access to recreation opportunities on the east side of Dover, the City Council allocated funds for improvements to Dover Park. The Recreation Needs Assessment identified a number of priorities and issues to be addressed. In order to appropriately allocate resources, a park plan that addresses the priorities and issues brought forth in the Recreation Needs Assessment is necessary. The planning process will include input from the public and address the phasing of improvements.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Planning/Design	50,000					50,000
Total	**50,000**					**50,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Parkland Reserve Fund	25,000					25,000
State Grant	25,000					25,000
Total	**50,000**					**50,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # PR1702

Project Name Schutte Park Land Improvements

New Project: No

Account Number: 147-1500-525.40-31

Time-Line: FY17

Department Parks and Recreation

Contact Public Works Director

Type Improvement

Useful Life 50 years

Category General

Priority 1

Status Active

Total Project Cost: $190,000

Description

This project includes a plan to develop multipurpose fields on the lands on the west side of the park and to complete the multipurpose pathway around the park's perimeter. It will also include other amenities that are consistent with the Recreation Needs Assessment. Once plans are complete, the improvements will be constructed in FY 17.

Justification

Currently, the Schutte Park addition is unusable. There is constant demand for field space, and we have 14 acres of unusable space.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	100,000	90,000				190,000
Total	**100,000**	**90,000**				**190,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Community Transportation Fund		30,000				30,000
General Fund	40,000					40,000
Parkland Reserve Fund	40,000					40,000
State Grant	80,000					80,000
Total	**160,000**	**30,000**				**190,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # PR1703

Project Name Park and Playground Improvement Program

New Project: No

Account Number: 147-1500-525.40-31

Time-Line: FY17-FY20

Department Parks and Recreation

Contact Public Works Director

Type Improvement

Useful Life 10-15 years

Category General

Priority 3

Status Active

Total Project Cost: **$132,000**

Description

This project provides for a regular replacement of playground equipment and other park amenities throughout the park system. It could also potentially include installation of playground equipment in parks without equipment. This is important to ensure that equipment is replaced as old equipment deteriorates and becomes less safe. All newly installed equipment will meet the standards of the Consumer Product Safety Commission.

Justification

As equipment ages it deteriorates and can become unsightly and/or unsafe. Replacement of dated equipment is important to ensure that our parks meet the needs of the population and provides a safe play environment.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance		66,000		66,000		132,000
Total		**66,000**		**66,000**		**132,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
General Fund		33,000		33,000		66,000
State Grant		33,000		33,000		66,000
Total		**66,000**		**66,000**		**132,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

City of Dover, Delaware

FY 17 *thru* **FY 21**

Department Parks and Recreation
Contact Parks & Recreation Director

Project # **PR1704**
Project Name **Small Park Improvements**

Type Improvement
Useful Life 10-15 years
Category General
Priority 4
Status Active

New Project: No
Account Number: 147-1500-525.40-31
Time-Line: FY17-FY20

Total Project Cost: **$60,000**

Description

Under this project, the City would fund small capital improvements in parks citywide. This could include improvements to pavilions, fencing and other structures in the park that require investment over time but exceed the thresholds for non-capital investments.

Justification

There are a number of amenities in the City's park that deteriorate over time and require small capital investments to be safe and attractive. As our park investments age, we need to make sure that we are maintaining the properties, which may require small capital projects.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	15,000	15,000	15,000	15,000		60,000
Total	**15,000**	**15,000**	**15,000**	**15,000**		**60,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Parkland Reserve Fund	15,000	15,000	15,000	15,000		60,000
Total	**15,000**	**15,000**	**15,000**	**15,000**		**60,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # PR1801

Project Name Silver Lake Park - Master Plan&Plan Implementation

New Project: No

Account Number: 147-1500-525.40-31

Time-Line: FY18-FY20

Department Parks and Recreation

Contact Parks & Recreation Director

Type Improvement

Useful Life

Category General

Priority 1

Status Active

Total Project Cost: **$150,000**

Description

Hire a consultant to develop a master plan for Silver Lake Park that includes a vegetation management plan and lighting plan, and also addresses the needs identified in the Recreation Needs Assessment, including paths, restrooms, a splash pad, and other general park improvements such as parking lot improvements and delineation and preservation of the African American Cemetery on the property. The Silver Lake Commission and DNREC would be part of the planning process.

Justification

The plan for Silver Lake Park needs to be updated based on current need as identified in the Recreation Needs Assessment.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Planning/Design		70,000		80,000		150,000
Total		**70,000**		**80,000**		**150,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Parkland Reserve Fund		35,000		40,000		75,000
State Grant		35,000		40,000		75,000
Total		**70,000**		**80,000**		**150,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # PD1801

Project Name Server Consolidation

New Project: Yes

Time-Line: FY18-FY19

Account Number: 147-1700-541.40-26

Department Police
Contact Capt Stump
Type Technology
Useful Life 5 years
Category General
Priority 1
Status Active
Total Project Cost: $86,400

Description

The Police Department regular server hardware currently consists of 9 physical server computers, with one of them serving as a virtualized host of 3 virtualized servers, totaling 11 windows server environments. This number is dynamic as the need for separate servers changes every few years. The cost of an individual server includes both the physical hardware as well as the operating system installed on such servers, and licenses for clients to connect to each of those operating systems. The idea behind virtualized server environments is to reduce operating costs over time by purchasing one robust physical server which can handle the virtualized load of operating systems normally housed on individual and less robust server hardware. The initial cost of the robust virtual host is a fraction of what would be spent in multiple years of physical server costs. This, combined with a Datacenter Edition of Windows Server allows for unlimited licenses of virtual servers, limited only by the hardware capabilities of that one robust host. There will be exceptions where a physical machine is required by a vendor or is necessary due to workload (such as SQL database host), but most environments can be of a virtual type.

Justification

The City's IT Department is also migrating the rest of the city computer systems to this type of set-up so we would like to follow their example. In addition, this project will simplify the internal server structure by:
1.Reducing the number of physical servers
2.Reducing costs of operating systems purchased over time
3.Reducing costs of multiple physical server purchases
4.Reducing electrical use of physical servers which in turn reduces electrical costs as well as increasing the run-time on our server battery backup unit
5.Reducing the amount of heat generated otherwise by multiple physical servers which in turn requires more cooling of server room
6.Reduces the necessary cabling/wiring necessary to control and network multiple servers
7.Allows us to duplicate the virtual machines to a future, identical machine to facilitate redundancy, reducing or eliminating downtime of server maintenance (FY18)

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Equip/Vehicle/Furnishings		43,200	43,200			86,400
Total		**43,200**	**43,200**			**86,400**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
General Fund		43,200	43,200			86,400
Total		**43,200**	**43,200**			**86,400**

Budget Impact/Other

The purchase price above includes a five year warranty period, which is the expected life cycle for these servers. As a result, we would hope to replace them every five years so there are no expected recurring budget costs for this project. However, it may be possible to extend the life of the systems, but maintenance costs would be incurred for additional years to keep the systems operational. We do not know what the maintenance cost would be for that point in time.

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # ST1504

Project Name Stormwater/Old PW2 Site Improvements

New Project:

Time-Line:

Account Number:

Department Public Works - Streets
Contact Public Works Director
Type Improvement
Useful Life 90+ years
Category General
Priority 1
Status Active
Total Project Cost: **$6,804,600**

Description

Due to the environmental concerns, the PW 2 site will be redeveloped to increase stormwater quality entering Silver Lake. The improvements include relocating the greenhouse, grounds office, equipment garage (including small engine repair) to Schutte Park. The existing water production well will remain on site. The site will be converted to a stabilized park with water quality improvements for stormwater.

Estimates provided by URS, Corp., Consulting Engineer.

Justification

Stringent environmental regulations will require improvements on the site. Relocation of existing city facility to Schutte Park.

Prior	Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
603,600	Construction/Maintenance	2,067,000	2,067,000	2,067,000			6,201,000
Total	**Total**	**2,067,000**	**2,067,000**	**2,067,000**			**6,201,000**

Prior	Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
603,600	Debt Issue	2,067,000	2,067,000	2,066,000			6,200,000
Total	General Fund			1,000			1,000
	Total	**2,067,000**	**2,067,000**	**2,067,000**			**6,201,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # ST1701

Project Name Street, Concrete and Alley Program

New Project: No

Account Number: 147-1800-554.40-31

Time-Line: FY17-FY21

Department Public Works - Streets

Contact Public Works Director

Type Improvement

Useful Life 20-25 years

Category General

Priority 2

Status Active

Total Project Cost: $5,525,500

Description

This project will rehabilitate approximately three to five percent (3-5%) of the street and alley network each year. The estimated capital maintenance costs are $33.7 million over a 20-year planning horizon in Fiscal Year 2005 dollars. This estimate is based on the needs survey conducted by Public Services in Fiscal Year 2004. Continuous maintenance on these assets will prevent more costly reconstruction in the future. This project combines the former Street Resurfacing Program, the Alley Program and the Barrier Free Access Ramp Program. Locations will be determined by the priority listing and by potential legislator contributions. Additionally, this program replaces and rehabilitates deteriorated sidewalks and curbs throughout the City using in-house labor and private contractors. This is in accordance with the ADA. Delaying or eliminated the project will result in continued complaints and insurance claims from citizens and visitors. In addition, further deterioration of the sidewalk network will occur.

Justification

The program identifies maintenance costs for the 84.79 miles of streets and 15.24 miles of alleys as of June 30, 2010. Replacement of deteriorated curbs, gutters, and sidewalks provides improved use, drainage, and the appearance of the pavement section. The Street and Alley Program schedule is driven by funding and road ratings. Total street mileage is growing as more roads and alleys are dedicated for public maintenance due to growth. Additionally, this program promotes the interconnection of the sidewalk network to conform to ISTEA (Intermodal Surface Transportation Efficiency Act) and rehabilitates sidewalks that have root damage from City street trees. This program also facilitates compliance with the Americans with Disabilities Act as it relates to the pedestrian network as well as improving localized drainage issues.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	1,000,000	1,050,000	1,102,500	1,157,500	1,215,500	5,525,500
Total	**1,000,000**	**1,050,000**	**1,102,500**	**1,157,500**	**1,215,500**	**5,525,500**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
General Fund	1,000,000	1,050,000	1,102,500	1,157,500	1,215,500	5,525,500
Total	**1,000,000**	**1,050,000**	**1,102,500**	**1,157,500**	**1,215,500**	**5,525,500**

Budget Impact/Other

FY 2017 Capital Investment Plan

City of Dover, Delaware

FY 17 *thru* **FY 21**

Department Public Works - Streets
Contact Public Works Director

Project # **ST1703**
Project Name **Silver Lake Dam Improvements**

Type Improvement
Useful Life 50 years
Category General
Priority 3
Status Active

New Project: Yes
Account Number: 147-1800-554.40-31
Time-Line: FY16-FY20
Total Project Cost: **$50,000**

Description

The proposed project, identified by the 2014 Silver Lake Dam Inspection report, will stabilize the east wing wall of the dam, remove large trees, repair the boat ramp, install stone rip rap on the upstream slope and repair the concrete supports of the pedestrian walkway. Preliminary estimates provided by JMT, Consulting Engineer

Justification

The improvements are necessary to maintain the existing dam in normal working conditions. Failure to maintain the dam could lead to failure and downstream flooding.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	50,000					50,000
Total	**50,000**					**50,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
General Fund	50,000					50,000
Total	**50,000**					**50,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # ST1803

Project Name Dover Library Conveyance System Improvements

New Project: Yes

Account Number: 147-2500-552.40-31

Time-Line: FY18

Department Public Works - Streets
Contact Public Works Director
Type Improvement
Useful Life 50 years
Category General
Priority 1
Status Active
Total Project Cost: **$250,000**

Description

This project, identified by staff, will upgrade the existing stormwater infrastructure that begins in the northeast corner of the Dover Public Library parking lot and travels due east to mirror lake and eventually St. Jones River.

Justification

This will provide improved capacity and conveyance of stormwater from the City owned parking lot. Failure to improve this system will result in continued flooding in the area.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Planning/Design		50,000				50,000
Construction/Maintenance			200,000			200,000
Total		**50,000**	**200,000**			**250,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
General Fund		50,000	200,000			250,000
Total		**50,000**	**200,000**			**250,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # ST1904

Project Name Water Street Flooding Improvements

New Project: Yes

Account Number: 147-1800-554.40-31

Time-Line: FY19

Department Public Works - Streets

Contact Public Works Director

Type Improvement

Useful Life 50 years

Category General

Priority 4

Status Active

Total Project Cost: **$150,000**

Description

This project, identified by staff, will upgrade the existing stormwater infrastructure that is in Water Street, near the intersection of Governors Avenue. This area consistently floods with a moderate rain event in the City.

Justification

This will provide improved capacity and conveyance of stormwater from this intersection. Failure to improve this system will result in continued flooding in the area.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Planning/Design			50,000			50,000
Construction/Maintenance				100,000		100,000
Total			**50,000**	**100,000**		**150,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
General Fund			50,000	100,000		150,000
Total			**50,000**	**100,000**		**150,000**

Budget Impact/Other

City of Dover

FY2017 Preliminary Capital Investment Plan

FY17 thru FY21

Water/Wastewater Utility Projects

City of Dover, Delaware

FY 2017 Capital Investment Plan

FY 17 thru FY 21

PROJECTS BY DEPARTMENT

Department	Project#	Priority	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Wastewater Management								
Rolling Acres Pump Station Replacement	*WW1603*	1	372,000					*372,000*
Meter Replacement Program	*WW1700*	1	200,000	200,000	200,000	200,000	200,000	*1,000,000*
Inflow/Infiltration Removal	*WW1701*	1	1,121,000	1,173,000	1,171,000	1,169,000	1,167,000	*5,801,000*
Miscellaneous Emergency Sanitary Sewer Repairs	*WW1702*	2	75,000	77,000	79,000	81,000	83,000	*395,000*
Lepore Road Sanitary Sewer Upgrade	*WW1704*	4	50,000	250,000				*300,000*
Delaware Tech Pump Station Replacement	*WW1705*	5	52,000	384,000				*436,000*
Silver Lake Pump Station Replacement	*WW1706*	6	52,000		396,000			*448,000*
Walker Woods Pump Station Replacement	*WW1707*	7	52,000			408,000		*460,000*
Tar Ditch Interceptor	*WW1805*	5		250,000				*250,000*
College Road Pump Station Replacement	*WW2004*	4				55,000	420,000	*475,000*
Turnberry Pump Station Replacement	*WW2104*	4					60,000	*60,000*
Wastewater Management Total			**1,974,000**	**2,334,000**	**1,846,000**	**1,913,000**	**1,930,000**	***9,997,000***
Water Management								
Future Well Installation	*WD1605*	5	100,000	1,098,300				*1,198,300*
Meter Replacement Project	*WD1700*	1	200,000	200,000	200,000	200,000	200,000	*1,000,000*
Wellhead Redevelopment Program	*WD1701*	1	85,000	87,500	90,000	92,500	95,000	*450,000*
SCADA Equipment Technology Upgrade	*WD1705*	5	88,000					*88,000*
Water Quality Improvements	*WQ1702*	2	645,800	265,800	881,000	919,000	1,167,000	*3,878,600*
Miscellaneous Emergency Water Repairs	*WQ1703*	3	75,000	77,000	79,000	81,000	83,000	*395,000*
Water Management Total			**1,193,800**	**1,728,600**	**1,250,000**	**1,292,500**	**1,545,000**	***7,009,900***
Water Treatment Plant								
Water Treatment Plant Process Improvements	*WD1503*	4	1,200,000	1,200,000				*2,400,000*
Water Treatment Plant Total			**1,200,000**	**1,200,000**				***2,400,000***
GRAND TOTAL			**4,367,800**	**5,262,600**	**3,096,000**	**3,205,500**	**3,475,000**	***19,406,900***

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # WW1603

Project Name Rolling Acres Pump Station Replacement

New Project: No

Account Number: 417-6900-569.40-31

Time-Line: FY16-FY17

Department Wastewater Management
Contact Public Works Director
Type Improvement
Useful Life 20-25 years
Category Water/Wastewater
Priority 1
Status Active
Total Project Cost: $372,000

Description

This project calls for replacement of the Smith & Loveless package pumping station installed in 1973 in order to handle the commercial areas from Harrington Realty Shopping Center to the Howard Johnson Hotel. The station has exceeded its life anticipated expectancy of 20-25 years and is in need of a capacity upgrade due to the high peak inflow rates. This station experiences periods of high inflow rates due to the hotel occupancy and is susceptible to possible inflow/infiltration. Staff has observed numerous pump high wet well alarms due to high inflows and increased runtimes during wet months.

Justification

Replace the aged station with a completely new station to prevent the need for costly unbudgeted repairs to maintain operation. Pump failure resulting in a sewage spill into waterway or backup in a residence. Due to the age of the station, certain parts are no longer obtainable, and replacement of equipment is costly. Design and bid in Fiscal 2016; construction in Fiscal 2017

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	372,000					372,000
Total	**372,000**					**372,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Impact Fee Reserve	148,800					148,800
Water/Wastewater Fund	223,200					223,200
Total	**372,000**					**372,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # WW1700

Project Name Meter Replacement Program

New Project: Yes

Account Number: 417-6900-569.40-31

Time-Line: FY17-FY21

Department Wastewater Management

Contact Public Works Director

Type Improvement

Useful Life 20 years

Category Water/Wastewater

Priority 1

Status Active

Total Project Cost: $1,000,000

Description

This project will be an ongoing project to replace our aged water meters in the system. A portion of water meters will be replaced each year. A majority of the water meters have exceeded their life expectancy of 15-20 years. The industry standard is to replace 20% of the meter inventory for five years. The City will benefit from this project by having a more efficient system which will recover maximum revenue to the water utility. Additionally, expenses of maintaining, stocking and operating the out dated meters are greatly reduced. This project will begin in Fiscal 2016.

Justification

This project will provide the City of Dover with accurate readings of our water users, thus creating accurate revenue from the customers. Delaying or eliminating this project would result in the age of the water meters increasing, and consequently the meters will not read the correct volume of water being consumed. Additionally, older water meters typically require more maintenance.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Equip/Vehicle/Furnishings	200,000	200,000	200,000	200,000	200,000	1,000,000
Total	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**	**1,000,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Water/Wastewater Fund	200,000	200,000	200,000	200,000	200,000	1,000,000
Total	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**	**1,000,000**

Budget Impact/Other

Over time, the capabilities of a water meter to read accurate volumes of water deteriorates, typically registering less water than actually being consumed. With installation of new meters, accurate readings will increase the actual revenue from this utility.

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # WW1701

Project Name Inflow/Infiltration Removal

New Project: No

Account Number: 417-6900-569.40-31

Time-Line: FY17-FY21

Department Wastewater Management

Contact Public Works Director

Type Improvement

Useful Life 50-80

Category Water/Wastewater

Priority 1

Status Active

Total Project Cost: $5,801,000

Description

This project identifies and corrects areas in the sanitary sewer collection system that are deteriorating and allowing groundwater to enter the sanitary sewer system through cracked pipes and/or joints. Video investigations of the lines are performed by in-house crews to determine the condition of subject pipes which may also help with the identification of sump pumps and other illicit connections to the system which will have to be removed by individual property owners. Investigations are occurring systematically through the sewer basins to establish projects for the following year. Sanitary sewer lines are also being inspected in conjunction with water quality improvement project areas to determine main condition. Smoke testing, pipe relining and or replacement are to occur each year.

The wet weather which was experienced in both 2003 and 2009/2010/2011, exemplified the fact that the aging and deteriorating sanitary sewer system allows groundwater and rain water to enter the system. This in turn results in higher treatment charges from Kent County. In FY 2011 a new groundwater inflow adjustment charge was established as a result. It is critical to continue making improvements on a regular and planned basis to improve the integrity of the wastewater system. Weather occurs in a cyclical fashion and discrepancies between fees collected and charges received will likely happen again when groundwater and precipitation levels rise. FY 16 projects include rehabilitating the White Oak Farms Basin #5.

Justification

The wet weather experienced in both 2003 and 2009/2010/2011, highlighted the fact that we have an aging wastewater system that requires more attention to the condition of the old pipe network and more monitoring of illicit connections to the system. Inflow and infiltration are problems that all customers pay for since they are costs that are not assigned to an individual customer. Therefore, all customers are affected by expenses related to inflow and infiltration.

Delaying or eliminating this project will result in continued higher treatment charges for wastewater flow to Kent County than is necessary. In addition, the reduction in available capacity in the City and county systems due to inflow and infiltration will reduce the capacity available for future growth.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	1,121,000	1,173,000	1,171,000	1,169,000	1,167,000	5,801,000
Total	**1,121,000**	**1,173,000**	**1,171,000**	**1,169,000**	**1,167,000**	**5,801,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Water/Wastewater Fund	1,121,000	1,173,000	1,171,000	1,169,000	1,167,000	5,801,000
Total	**1,121,000**	**1,173,000**	**1,171,000**	**1,169,000**	**1,167,000**	**5,801,000**

Budget Impact/Other

The project will reduce the operating budget over time due to the reduction in costs for sewage treatment paid to Kent County. All savings are cumulative.

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # WW1702

Project Name Miscellaneous Emergency Sanitary Sewer Repairs

New Project: Yes

Account Number: 417-6900-569.40-31

Time-Line: FY17-FY21

Department Wastewater Management

Contact Public Works Director

Type Improvement

Useful Life 50-80

Category Water/Wastewater

Priority 2

Status Active

Total Project Cost: $395,000

Description

This project will repair failing sanitary sewer infrastructure. The work will focus on emergency repair situations on City owned infrastructure. No specific locations for this work have been identified.

Justification

This project is necessary to address failing or deteriorated infrastructure in the City. If these repairs are not conducted, significant impacts to property, life and environment could arise. Delaying these repairs could result in road failure, sink holes and environmental contamination.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	75,000	77,000	79,000	81,000	83,000	395,000
Total	**75,000**	**77,000**	**79,000**	**81,000**	**83,000**	**395,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Water/Wastewater Fund	75,000	77,000	79,000	81,000	83,000	395,000
Total	**75,000**	**77,000**	**79,000**	**81,000**	**83,000**	**395,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # WW1704

Project Name Lepore Road Sanitary Sewer Upgrade

New Project: No

Account Number: 417-6900-569.40-31

Time-Line: FY17-FY18

Department Wastewater Management

Contact Public Works Director

Type Improvement

Useful Life 90+ years

Category Water/Wastewater

Priority 4

Status Active

Total Project Cost: **$300,000**

Description

This project calls for the replacement of approximately 374 linear feet of 8 inch gravity sewer main. Currently, the sewer main operates in a reverse slope condition, which overloads the pipe. The proposed upgrade will provide slope and adequate capacity for current flow to be carried to discharge. Estimates provided by Pennoni Associates, Consulting Engineer.

Justification

This project will allow for proper capacity and slope to handle the current flow. Delaying or eliminating this project could result in overflow of wastewater material. Design and bid in Fiscal 2017; construction in Fiscal 2018.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Planning/Design	50,000					50,000
Construction/Maintenance		250,000				250,000
Total	**50,000**	**250,000**				**300,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
DE Sewer Revolving Loan Fund		250,000				250,000
Water/Wastewater Fund	50,000					50,000
Total	**50,000**	**250,000**				**300,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # WW1705

Project Name Delaware Tech Pump Station Replacement

New Project: No

Account Number: 417-6900-569.40-31

Time-Line: FY17-FY18

Department Wastewater Management

Contact Public Works Director

Type Improvement

Useful Life 20-25 years

Category Water/Wastewater

Priority 5

Status Active

Total Project Cost: **$436,000**

Description

This project calls for replacement of the Smith & Loveless package pumping station installed in 1975 in order to handle the increased flows from the area. The station has exceeded its life anticipated expectancy of 20-25 years and is in need of a capacity upgrade due to anticipated increase flow. Estimates provided by Pennoni Associates, Consulting Engineer.

Justification

Replace the aged station with a completely new station to prevent the need for costly unbudgeted repairs to maintain operation. Pump failure resulting in a sewage spill into waterway or backup in a residence. Due to the age of the station, certain parts are no longer obtainable, and replacement of equipment is costly. Design in Fiscal 2017; construction in Fiscal 2018

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Planning/Design	52,000					52,000
Construction/Maintenance		384,000				384,000
Total	**52,000**	**384,000**				**436,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
DE Sewer Revolving Loan Fund		384,000				384,000
Impact Fee Reserve	20,800					20,800
Water/Wastewater Fund	31,200					31,200
Total	**52,000**	**384,000**				**436,000**

Budget Impact/Other

The construction phase of this project has a potential to be funded by a Clean Water State Revolving Fund Loan.

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # WW1706

Project Name Silver Lake Pump Station Replacement

New Project: No

Account Number: 417-6900-569.40-31

Time-Line: FY17 - FY19

Department Wastewater Management

Contact Public Works Director

Type Improvement

Useful Life 20-25 years

Category Water/Wastewater

Priority 6 --

Status Active

Total Project Cost: **$448,000**

Description

This project calls for replacement of the Smith & Loveless package pumping station installed in 1982 in order to handle development in the area, as well as completely rehabilitate the wet well side of the pump station using a poly-triplex system liner. The station has exceeded its life expectancy of 20-25 years and is in need of a capacity upgrade to handle anticipated growth in the basin.

Justification

Replace the aged station with a completely new station to prevent the need for costly unbudgeted repairs to maintain operation. Pump failure resulting in a sewage spill into waterway or backup in a residence. Due to the age of the station, certain parts are no longer obtainable and replacement of equipment is costly. Design in Fiscal 2017; construction in Fiscal 2019.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Planning/Design	52,000					52,000
Construction/Maintenance			396,000			396,000
Total	**52,000**		**396,000**			**448,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Impact Fee Reserve	20,800		158,400			179,200
Water/Wastewater Fund	31,200		237,600			268,800
Total	**52,000**		**396,000**			**448,000**

Budget Impact/Other

The construction phase of this project has a potential to be funded by a Clean Water State Revolving Fund Loan.

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # WW1707

Project Name **Walker Woods Pump Station Replacement**

New Project: Yes

Account Number: 417-6900-569.40-31

Time-Line: FY19-FY20

Department Wastewater Management

Contact Public Works Director

Type Improvement

Useful Life 20-25 years

Category Water/Wastewater

Priority 7 --

Status Active

Total Project Cost: **$460,000**

Description

This project calls for replacement of the Smith & Loveless package pumping station installed in 1989 in order to handle development in the area, as well as completely rehabilitate the wet well side of the pump station using a poly-triplex system liner. The station has exceeded its life expectancy of 20-25 years and is in need of a capacity upgrade to handle anticipated growth in the basin.

Justification

Replace the aged station with a completely new station to prevent the need for costly unbudgeted repairs to maintain operation. Pump failure resulting in a sewage spill into waterway or backup in a residence. Due to the age of the station, certain parts are no longer obtainable and replacement of equipment is costly. Design in Fiscal 2017; construction in Fiscal 2020.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Planning/Design	52,000					52,000
Construction/Maintenance				408,000		408,000
Total	**52,000**			**408,000**		**460,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
DE Sewer Revolving Loan Fund				244,800		244,800
Impact Fee Reserve	20,800			163,200		184,000
Water/Wastewater Fund	31,200					31,200
Total	**52,000**			**408,000**		**460,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # WW1805

Project Name Tar Ditch Interceptor

New Project: Yes

Time-Line: FY18

Account Number: 417-6900-569.40-31

Department Wastewater Management

Contact Public Utilities Director

Type Improvement

Useful Life 20-25 years

Category Water/Wastewater

Priority 5

Status Active

Total Project Cost: $250,000

Description

This project, identified in the 2009 Wastewater Master Plan, requires approximately 300 linear feet of fifteen (15") gravity sanitary sewer replacement. It has been identified that the subject pipe is flowing with a reverse slope, which can cause a surcharge during peak flow periods. Estimates provided by AECOM, Corp., Consulting Engineer.

Justification

Delaying this project will result in preventing growth, as well as environmental issues with sewage surcharging onto the ground. Additionally, not addressing this issue could result in sewage backups to residences. Construction in Fiscal 2018.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance		250,000				250,000
Total		**250,000**				**250,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
DE Sewer Revolving Loan Fund		250,000				250,000
Total		**250,000**				**250,000**

Budget Impact/Other

The construction phase of this project has a potential to be funded by a Clean Water State Revolving Fund Loan.

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # WW2004

Project Name College Road Pump Station Replacement

New Project: Yes

Account Number: 417-6900-569.40-31

Time-Line: FY20-FY21

Department Wastewater Management

Contact Public Works Director

Type Improvement

Useful Life 20-25 years

Category Water/Wastewater

Priority 4

Status Active

Total Project Cost: **$475,000**

Description

This project calls for replacement of the Smith & Loveless package pumping station installed in 1987 in order to handle development in the area, as well as completely rehabilitate the wet well side of the pump station using a poly-triplex system liner. The station has exceeded its life expectancy of 20-25 years and is in need of a capacity upgrade to handle anticipated growth in the basin.

Justification

Replace the aged station with a completely new station to prevent the need for costly unbudgeted repairs to maintain operation. Pump failure resulting in a sewage spill into waterway or backup in a residence. Due to the age of the station, certain parts are no longer obtainable and replacement of equipment is costly. Design and bid in Fiscal 2020; construction in Fiscal 2021.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Planning/Design				55,000	420,000	475,000
Total				**55,000**	**420,000**	**475,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Impact Fee Reserve				22,000	168,000	190,000
Water/Wastewater Fund				33,000	252,000	285,000
Total				**55,000**	**420,000**	**475,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # WW2104

Project Name Turnberry Pump Station Replacement

New Project: Yes

Account Number: 417-6900-569.40-31

Time-Line: FY21

Department Wastewater Management

Contact

Type Improvement

Useful Life 20-25 years

Category Water/Wastewater

Priority 4

Status Active

Total Project Cost: $60,000

Description

This project calls for replacement of the Smith & Loveless package pumping station installed in 1989 in order to handle development in the area, as well as completely rehabilitate the wet well side of the pump station using a poly-triplex system liner. The station has exceeded its life expectancy of 20-25 years and is in need of a capacity upgrade to handle anticipated growth in the basin.

Justification

Replace the aged station with a completely new station to prevent the need for costly unbudgeted repairs to maintain operation, thus reducing pump failure resulting in a sewage spill into waterway or backup in a residence. Due to the age of the station, certain parts are no longer obtainable and replacement of equipment is costly. Design and bid in Fiscal 2021; construction in Fiscal 2022.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Planning/Design					60,000	60,000
Total					**60,000**	**60,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Impact Fee Reserve					24,000	24,000
Water/Wastewater Fund					36,000	36,000
Total					**60,000**	**60,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # WD1605

Project Name Future Well Installation

New Project: Yes

Account Number: 417-6800-568.40-31

Time-Line: FY16-FY18

Department Water Management

Contact Public Works Director

Type Improvement

Useful Life 100+

Category Water/Wastewater

Priority 5

Status Active

Total Project Cost: **$1,198,300**

Description

The proposed project, identified by staff will drill a new well to increase production capacity for the Water Department. Estimates provided by URS, Consulting Engineer

Justification

To meet increased water demand and fire suppression requirements. Delaying or eliminating this project would result in the continued reduction in our production capabilities under our permitted allocation, as well as limiting the City's growth. Initial planning is proposed for FY15, site procurement planned for FY16 and construction in FY17.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Land Acquisition	100,000					100,000
Construction/Maintenance		1,098,300				1,098,300
Total	**100,000**	**1,098,300**				**1,198,300**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Impact Fee Reserve	100,000					100,000
Water/Wastewater Fund		1,098,300				1,098,300
Total	**100,000**	**1,098,300**				**1,198,300**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # WD1700

Project Name Meter Replacement Project

New Project: Yes

Account Number: 417-6800-568.40-31

Time-Line: FY17-FY21

Department Water Management

Contact Public Works Director

Type Improvement

Useful Life 20 years

Category Water/Wastewater

Priority 1

Status Active

Total Project Cost: $1,000,000

Description

This project will be an ongoing project to replace our aged water meters in the system. A portion of water meters will be replaced each year. A majority of the water meters have exceeded their life expectancy of 15-20 years. The industry standard is to replace 20% of the meter inventory for five years. The City will benefit from this project by having a more efficient system which will recover maximum revenue to the water utility. Additionally, expenses of maintaining, stocking and operating the out dated meters are greatly reduced. This project will begin in Fiscal 2016.

Justification

This project will provide the City of Dover with accurate readings of our water users, thus creating accurate revenue from the customers. Delaying or eliminating this project would result in the age of the water meters increasing, and consequently the meters will not read the correct volume of water being consumed. Additionally, older water meters typically require more maintenance.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Equip/Vehicle/Furnishings	200,000	200,000	200,000	200,000	200,000	1,000,000
Total	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**	**1,000,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Water/Wastewater Fund	200,000	200,000	200,000	200,000	200,000	1,000,000
Total	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**	**1,000,000**

Budget Impact/Other

Over time, the capabilities of a water meter to read accurate volumes of water deteriorates, typically registering less water than actually being consumed. With installation of new meters, accurate readings will increase the actual revenue from this utility.

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # WD1701

Project Name Wellhead Redevelopment Program

New Project: No

Account Number: 417-6800-568.40-31

Time-Line: FY17-FY21

Department Water Management
Contact Public Works Director
Type Improvement
Useful Life 20-25 years
Category Water/Wastewater
Priority 1
Status Active
Total Project Cost: **$450,000**

Description

This project will provide for rehabilitation and repair of each deep wellhead in an effort to maintain operations and/or increase/maintain the yield of each well as it relates to the permitted allocation. FY 2008; total well inspection and testing performed. FY 2009: Motors at Wells #6A and #9 were rebuilt, and wells #13R and #15 were redeveloped. FY 2010: Well #10. FY 2011: Well #4 redevelopment and well piping improvements at various well locations, as well as continued well testing. FY 2012: Well #1 redevelopment. FY2013: complete repair of Well #10. FY2014: complete repair of well #14. FY2015 inspected: 2, 3, 11, 13R, 15, PW2 & PW4B. FY 2016 scheduled: 4, 6, 8R, 9, 10, PW6A & PW8A.

Justification

The well screening and gravel pack requires cleaning over time due to a buildup of mineral deposits and foreign materials such as clay and silt. This maintenance effort is critical to ensure that production can continue to meet demand. It is also necessary to maintain the operational aspects of each well and provide repairs as needed to minimize downtime to maintain system capacity. Delaying or eliminating this project would result in the continued deterioration of the well screen, gravel pack, and well yield over time. It would also result in increased well downtime, emergency repairs, and decreased capacity. These issues can lead to increased flow pattern changes and water quality concerns.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	85,000	87,500	90,000	92,500	95,000	450,000
Total	**85,000**	**87,500**	**90,000**	**92,500**	**95,000**	**450,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Water/Wastewater Fund	85,000	87,500	90,000	92,500	95,000	450,000
Total	**85,000**	**87,500**	**90,000**	**92,500**	**95,000**	**450,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # WD1705

Project Name SCADA Equipment Technology Upgrade

New Project: No

Account Number: 417-6800-568.40-31

Time-Line: FY17

Department Water Management

Contact Public Works Director

Type Improvement

Useful Life 10-12 years

Category Water/Wastewater

Priority 5

Status Active

Total Project Cost: **$88,000**

Description

This project involves the replacement of antiquated and/or obsolete equipment related to the SCADA (Supervisory Control and Data Acquisition) system, which controls water production. This equipment includes, but is not limited to, Remote Telemetry Units (RTUs), Master Telemetry Unit (MTU) and Radios. SCADA is used for reporting, on a constant basis, the status of the City of Dover's water production wells as well as the Water Treatment Plant. The equipment being replaced would be outdated, or unable to be repaired. It is estimated that upgrades will be made at deep well sites and the Water Treatment Plant, as part of this program.

Justification

Replace failing and antiquated equipment to improve monitoring ability and system control to comply with regulatory and reporting requirements and to prevent the need for costly non budgeted emergency repairs. Due to the age of some of the equipment, only used parts are available. Lack of alarms regarding problems at water production wells and the water treatment plant. Failures would provide no advance warnings of failures in the field at water production sites.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Equip/Vehicle/Furnishings	88,000					88,000
Total	**88,000**					**88,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Water/Wastewater Fund	88,000					88,000
Total	**88,000**					**88,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # WQ1702

Project Name Water Quality Improvements

New Project: No

Account Number: 417-6800-568.40-31

Time-Line: FY17-FY21

Department Water Management

Contact Public Works Director

Type Improvement

Useful Life 90+ years

Category Water/Wastewater

Priority 2

Status Active

Total Project Cost: **$3,878,600**

Description

This project was first identified by staff and the 2006 Water Master Plan Update, and has since become further refined with the FY 2006 Water Quality Evaluation. Projects to be included under this category primarily consist of replacement or relining of old unlined cast iron water main within the City's water distribution system; system upgrades to improve system control; and utilization of a consultant to provide additional design and evaluation services, as needed. Recent research and data collection has produced a Water Main Rehabilitation Priority List, based on several criteria to identify water mains that are in need of replacement or relining. Pipes will be upgraded according to the severity of the pipe condition, as well as coordination with the City of Dover's Public Services Street Rehabilitation Program. Between FY 2008 and FY 2010, the deep well contact chambers were designed and installed. Between FY 2008 and FY 2011 the water mains that were replaced include, Washington Street, Pennsylvania Avenue, South Street, Pear Street, West Street, Hazel Road, Maryland Avenue, American Avenue, Bayard Avenue, Greenhill Avenue, Bayard Avenue Alley and Loockerman Street. Operational efforts, such as flushing, will continue to occur on a routine basis. FY 2012 improvements include, N. Pennsylvania Ave., American Ave. Ext., Madison St., Rodney Rd., New Street, Ross Street and Bradford Street (near Wesley College). FY 2013 improvements included North Street. As part of the Water Main Rehabilitation Priority List, water lines were identified throughout the City that requires replacement/relining. FY 2014 improvements included West Dover Connector. Using this as a guide, FY 2015 roads include New Street, William Street and West Street Alley.

Justification

Water quality complaints have eroded consumer confidence in the City's water supply as the water is perceived to be aesthetically unpleasant. In order to reduce complaints and potentially alleviate this problem, it is necessary to implement the improvements identified by staff, the 2006 Water Master Plan Update, and the FY 2006 Water Quality Evaluation. Delaying or eliminating this project will prolong customer dissatisfaction and further erode confidence in the City's water supply. In addition, main rehabilitation and replacement, ensuring pipes do not significantly exceed the expected life cycle, is critical to provide a reliable supply of water for our customers and for fire suppression. Water leaks and breaks on older lines can have a significant impact on our ability to serve over time. Addressing the brown water and associated water quality concerns of the City's water system will not only require capital improvements to the system but also operational changes. Some operation changes will result in no net effect on the operating budget, while others will need to be addressed in the development of future operating budgets. Such items include tools and supplies necessary to improve system sampling and monitoring as well as tools and supplies necessary to improve system-wide flushing operations.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	645,800	265,800	881,000	919,000	1,167,000	3,878,600
Total	**645,800**	**265,800**	**881,000**	**919,000**	**1,167,000**	**3,878,600**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Impact Fee Reserve	90,800	48,700	86,400			225,900
Water/Wastewater Fund	555,000	217,100	794,600	919,000	1,167,000	3,652,700
Total	**645,800**	**265,800**	**881,000**	**919,000**	**1,167,000**	**3,878,600**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # WQ1703

Project Name **Miscellaneous Emergency Water Repairs**

New Project: Yes

Account Number: 417-6800-568.40-31

Time-Line: FY17-FY21

Department Water Management

Contact Public Works Director

Type Improvement

Useful Life 50-80

Category Water/Wastewater

Priority 3

Status Active

Total Project Cost: **$395,000**

Description

This project will repair failing water infrastructure. The work will focus on emergency repair situations on City owned infrastructure. No specific locations for this work have been identified.

Justification

This project is necessary to address failing or deteriorated infrastructure in the City. If these repairs are not conducted, significant impacts to property, life and environment could arise. Delaying these repairs could result in road failure, sink holes and environmental impacts.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	75,000	77,000	79,000	81,000	83,000	395,000
Total	**75,000**	**77,000**	**79,000**	**81,000**	**83,000**	**395,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Water/Wastewater Fund	75,000	77,000	79,000	81,000	83,000	395,000
Total	**75,000**	**77,000**	**79,000**	**81,000**	**83,000**	**395,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # WD1503

Project Name Water Treatment Plant Process Improvements

New Project: No

Account Number: 417-7600-576.40-31

Time-Line: FY15-FY18

Department Water Treatment Plant
Contact Public Works Director
Type Improvement
Useful Life 20-25 years
Category Water/Wastewater
Priority 4
Status Active
Total Project Cost: **$2,400,000**

Description

This project, identified in the 2006 Water Master Plan Update, proposes process improvements to the existing Water Treatment Plant. Due to limitations with the Ozone Contactors, the capacity at the Water Treatment Plant is below the original design capacity. A consultant will be utilized to determine the best means and improvements necessary to rehabilitate the infrastructure. Planning is proposed for Fiscal Year 2015-2016; construction to begin in Fiscal 2017.

Justification

Process improvements will allow for improved ability to meet regulatory requirements. Delaying or eliminating this project can result in deteriorating infrastructure, which could limit growth, and/or cause regulatory incompliance.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	1,200,000	1,200,000				2,400,000
Total	**1,200,000**	**1,200,000**				**2,400,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
DE Water Revolving Loan Fund	1,200,000	1,200,000				2,400,000
Total	**1,200,000**	**1,200,000**				**2,400,000**

Budget Impact/Other

City of Dover

FY2017 Preliminary Capital Investment Plan

FY17 thru FY21

Electric Utility Projects

City of Dover, Delaware

FY 2017 Capital Investment Plan

FY 17 thru FY 21

PROJECTS BY DEPARTMENT

Department	Project#	Priority	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Engineering								
Townpoint Development ~ Distribution Feeders	*EE1513*	1	350,000	350,000	350,000	350,000	350,000	*1,750,000*
69 kV Cable Replacement North Street	*EE1605*	1	0	480,700				*480,700*
Fault Indicators	*EE1610*	2	10,000	10,000	10,000	10,000		*40,000*
SCADA Master Hardware Replacement	*EE1700*	1	150,000					*150,000*
UPS System Replacement	*EE1701*	1	25,000					*25,000*
Transmission Line Maintenance Program	*EE1703*	2	75,000	75,000	75,000	75,000	75,000	*375,000*
Lighting Project and Rehabilitation	*EE1704*	1	50,000	50,000	50,000	50,000	50,000	*250,000*
Distribution Capacitors and Controls	*EE1706*	2	50,000	50,000	50,000	50,000	50,000	*250,000*
LED Lighting Upgrade	*EE1707*	1	17,500					*17,500*
Ampacity Standardization	*EE1708*	2	25,000	25,000	25,000	25,000	25,000	*125,000*
Substation Relay Upgrade	*EE1709*	2	125,000	150,000	75,000			*350,000*
Garrision Oak / Sun Park Substation	*EE1801*	5		50,000		6,000,000		*6,050,000*
College Road Consolidation	*EE1809*	6		120,000				*120,000*
Distribution Upgrades	*EE1810*	1	0	0	300,000	600,000		*900,000*
Ann Avenue Underground Upgrade	*EE1811*	2		126,000				*126,000*
Beechwood Avenue Underground Upgrade	*EE1812*	3		80,000				*80,000*
System Automation	*EE1813*	4	0	150,000	150,000	150,000	150,000	*600,000*
System Operations Voice Recorder	*EE1900*	1			18,000			*18,000*
Farmview Underground Upgrade	*EE1901*	2			110,000			*110,000*
The Greens Underground Upgrade	*EE1902*	3			90,000			*90,000*
Electric Engineering Total			**877,500**	**1,716,700**	**1,303,000**	**7,310,000**	**700,000**	***11,907,200***
Electric T & D								
New Developments	*EE1717*	1	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	*7,500,000*
Electric T & D Total			**1,500,000**	**1,500,000**	**1,500,000**	**1,500,000**	**1,500,000**	***7,500,000***
Power Plant								
McKee Run Unit #3 Boiler Systems	*EG1504*	1	382,000	160,000	299,000	80,000	235,000	*1,156,000*
McKee Run Building Equipment Replacement	*EG1601*	3	59,000	99,000	27,000	66,000	175,000	*426,000*
McKee Run Unit 3 Auxiliary System Components	*EG1607*	2	128,000	261,000	277,000	213,000	65,000	*944,000*
Van Sant Unit 11 Component Replacements	*EG1609*	4			89,000	305,000	90,000	*484,000*
Plant Systems Safety & Compliance Improvements	*EG1610*	6	112,000	37,000				*149,000*
McKee Run & VanSant - Preservation of Structures	*EG1611*	5	131,000	130,000	100,000	100,000	125,000	*586,000*
Van Sant Unit 11 Major Inspection	*EG1701*	2	400,000	1,548,000	0	150,000		*2,098,000*
McKee Run Unit 3 Hydrogen Purity Analyzer	*EG1704*	1	96,000					*96,000*
Unit #3 Fast Start Upgrade	*EG1706*	2		200,000				*200,000*
Unit 3 Cooling Water Line Repairs	*EG1709*	3	469,000					*469,000*
VanSant Fire Suppression System Upgrade	*EG1711*	4		285,000				*285,000*
Hydrogen Generator	*EG1807*	1		50,000				*50,000*
McKee Run Unit #3 Turbine Repairs - Generator	*EG1901*	1			438,000	25,000	25,000	*488,000*
McKee Run Unit 3 Turbine Repairs Intercept Valves	*EG1902*	2			438,000	25,000		*463,000*
Power Plant Total			**1,777,000**	**2,770,000**	**1,668,000**	**964,000**	**715,000**	***7,894,000***

Department	Project#	Priority	FY 17	FY 18	FY 19	FY 20	FY 21	Total
GRAND TOTAL			4,154,500	5,986,700	4,471,000	9,774,000	2,915,000	*27,301,200*

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # EE1513

Project Name Townpoint Development ~ Distribution Feeders

New Project: Yes

Account Number: 487-8300-563.90-25

Time-Line: Multi-year

Department Electric Engineering

Contact Electric Director

Type Improvement

Useful Life 20-25 years

Category Electric

Priority 1

Status Active

Total Project Cost: $2,350,000

Description

FY17 - This project will continue to remove troublesome overhead distribution wiring and replace with underground installations. Current plan is broken into 4 phases dependent on rate structure of boring, electrician services and landscaping fees and was initially approved for a four year completion. Due to changes in prices, this request will be for a funding out to 2021 at the same $350,000 per year allocated. Current activity has completed 75% of the first of five phases planned across the next five years (FY17-21). Phases will be completed as funding dictates during the associated FY accounting for contractor costs and associated expenses.

FY16 - This project involves the systemic replacement of overhead lines with underground lines. Whenever services are being moved, wire is damaged, trees cause a high number of outages, or development is in progress, and when it is beneficial to the Utility to convert to underground. This can involve a single line section or an entire residential neighborhood. Annual outage records are reviewed and selected areas are scheduled for upgrade to underground service. Additionally, this program funds the replacement of existing underground conductors and equipment that have reached their useful life and have started failing and require replacement.

Justification

FY17 - The conversion from overhead to underground will improve reliability and stability of electric service to the residents of the subdivision.

FY16 - The number of storm and tree-related outages has been greatly reduced under this program and further improvements can be made to insure the most reliable electric service possible. Reliability has become one of most important factors to electric customers, second only to safety. The utility has responded by attempting to provide the most reliable system possible. Underground cable replacements are necessary as the useful, reliable, life of the original underground cable was 20-30 years. By proactively replacing this cable we will minimize outages and improve system reliability. In addition to cable replacement, overhead lines are replaced with underground to minimize outages caused by tree growth or animal contact. Lastly, overhead lines that have reached the end of their useful life are replaced with underground instead of rebuilding the overhead.

CONSEQUENCES OF DELAYING OR ELIMINATING THIS PROJECT: Continued outages lead to increased complaints from our customers and will lead to customer dissatisfaction. There will be increased costs for repairs made under outage conditions as well as loss of electric revenue.

Prior	Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
600,000	Construction/Maintenance	350,000	350,000	350,000	350,000	350,000	1,750,000
Total	**Total**	**350,000**	**350,000**	**350,000**	**350,000**	**350,000**	**1,750,000**

Prior	Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
600,000	Electric Revenue	350,000	350,000	350,000	350,000	350,000	1,750,000
Total	**Total**	**350,000**	**350,000**	**350,000**	**350,000**	**350,000**	**1,750,000**

Budget Impact/Other

FY17 - Previously approved for $1,350,000 over 4 years starting FY2015 ($250,000/$350,000/$350,000/$350,000) with approximately $600,000 spent on initial installation and phased in progress through the development. This request would extend initial request from 4 years to 7 years for an additional $1,050,000 in funding from FY 2019-2021.

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # EE1605

Project Name 69 kV Cable Replacement North Street

New Project: No

Account Number: 487-8300-563.50-83

Time-Line: FY15-FY18

Department Electric Engineering

Contact Electric Director

Type Improvement

Useful Life 30+ years

Category Electric

Priority n/a

Status Active

Total Project Cost: $615,700

Description

Replace the aging 69 KV underground cables from North Street switching yard to Kraft's and Proctor & Gamble's (customer owned) substations.

TIME-LINE/CURRENT STATUS: Engineering is scheduled for FY15/FY16 with completion in FY18.

COMMENTS: Proactively replacing cables that have reached their anticipated life.

Justification

Proctor & Gamble and Kraft are two (2) of the City of Dover's 69 KV customers and it is our obligation to provide them with adequate and reliable service. The cables were installed in 1973 and have had two repairs. The first repair was in 1986 and the second repair was in 1992.

CONSEQUENCES OF DELAYING OR ELIMINATING THIS PROJECT: Customer outages due to failing conductor. Additionally, the limited capacity of a single circuit could restrict the possible generation of NRG and the production of Proctor & Gamble and Kraft Foods. This project will take some time as the old cable is buried in concrete which will require rerouting.

Prior	Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
135,000	Construction/Maintenance	0	480,700				480,700
Total	**Total**	**0**	**480,700**				**480,700**

Prior	Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
135,000	Electric Revenue	0	480,700				480,700
Total	**Total**	**0**	**480,700**				**480,700**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # EE1610

Project Name Fault Indicators

New Project: Yes

Account Number: 487-8300-563.90-25

Time-Line: FY16-FY20

Department Electric Engineering

Contact Electric Director

Type Improvement

Useful Life 15-20 years

Category Electric

Priority 2

Status Active

Total Project Cost: **$40,000**

Description

Replacing fault indicators for overhead and underground primaries.

Justification

Aids in restoring power during an outage and finding the causes of said outages.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	10,000	10,000	10,000	10,000		40,000
Total	**10,000**	**10,000**	**10,000**	**10,000**		**40,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue	10,000	10,000	10,000	10,000		40,000
Total	**10,000**	**10,000**	**10,000**	**10,000**		**40,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* **FY 21**

City of Dover, Delaware

Project # EE1700

Project Name SCADA Master Hardware Replacement

New Project: Yes

Time-Line: FY17

Account Number: 487-8300-563.80-38

Department Electric Engineering

Contact Electric Director

Type Equipment

Useful Life 5 years

Category Electric

Priority 1

Status Active

Total Project Cost: **$150,000**

Description

This project will replace the Master Station hardware and associated enclosures/desks. The Master Station receives all the analog data, door alarms, and control for all electrical substations and wastewater lift stations. The Master Station is comprised of dual host servers, dual operator consoles, paging systems, web server, two firewalls for DMZ and one remote access/support firewall. The Master Station also allows the operators to modify and control the city's electrical grid remotely reducing the amount of time outages affect the residents and reduce harm to the city's populace. Requested amount includes $130,000 for master hardware replacement and associated training for 2 personnel who are tasked with the day to day maintenance of the SCADA system. This also accounts for modifications to the workstation enclosures to account for new equipment.

TIME-LINE/CURRENT STATUS: Equipment will be ordered and replaced during the FY17 budget year.

Justification

The equipment will reach the end of its life expectancy. It should be noted that the systems runs continuously 24 hours a day seven days a weeks to monitor and track anomalies in the electrical and wastewater systems. The additional firewalls will be required to conform to upcoming implementations of NERC CIP Cyber Security Standards.

CONSEQUENCES OF DELAYING OR ELIMINATING THIS PROJECT: If the system fails, we will not be able to monitor or control electrical substations and view alarms for wastewater lift stations. This could result in prolonged outages and/or outages in wastewater removal as well as overflows.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	150,000					150,000
Total	**150,000**					**150,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue	150,000					150,000
Total	**150,000**					**150,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* **FY 21**

City of Dover, Delaware

Project # EE1701

Project Name UPS System Replacement

New Project: Yes

Account Number: 487-8300-563.40-25

Time-Line: FY17

Department Electric Engineering

Contact Electric Director

Type Equipment

Useful Life 5-10 years

Category Electric

Priority 1

Status Active

Total Project Cost: **$25,000**

Description

Uninterruptible Power Supplies (UPS) is an electrical device that provides emergency power to a load when the input power source, typically main power fails. The primary role of the UPS is to provide short term power unitl the back up generator comes on when the input power source fails.

Justification

The existing system is 12 years old and will be due for replacement as the unit has reached it's life expectancy.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Equip/Vehicle/Furnishings	25,000					25,000
Total	**25,000**					**25,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue	25,000					25,000
Total	**25,000**					**25,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* **FY 21**

City of Dover, Delaware

Project # EE1703

Project Name Transmission Line Maintenance Program

New Project: No

Account Number: 487-8300-563.70-35

Time-Line: On Going Maint.

Department Electric Engineering

Contact Electric Director

Type Maintenance

Useful Life 20-25 years

Category Electric

Priority 2

Status Active

Total Project Cost: **$375,000**

Description

FY17 Note – While there has been no major maintenance required this FY due to higher priority projects, this funding can be critical to restoration of power due to storm loss or catastrophic component failure. Certain areas have 795 ASCR cable in overhead applications and have one wire per phase. Unit of issue for the wire is by the spool and each spool is 3,470 feet so to replace 3 phases of 795 cable across 3,470 feet would cost approximately $18,600 not including associated hardware.

FY16 - Replace aging porcelain insulators and related components on the transmission system with new polymer insulators and components.

Justification

IInsulators have a defined equipment life due to sun and weather conditions breaking down the porcelain and base bonding cement. Insulators installed in 1960's and 1970's are due for replacement because of this deterioration. We have experienced several transmission outages due to insulator failure. Replacing the insulators should extend the life an additional 30 years.

CONSEQUENCES OF DELAYING OR ELIMINATING THIS PROJECT: Outages may occur if insulators are not replaced and fail due to deterioration.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	75,000	75,000	75,000	75,000	75,000	375,000
Total	**75,000**	**75,000**	**75,000**	**75,000**	**75,000**	**375,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue	75,000	75,000	75,000	75,000	75,000	375,000
Total	**75,000**	**75,000**	**75,000**	**75,000**	**75,000**	**375,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # EE1704

Project Name Lighting Project and Rehabilitation

New Project: No

Account Number: 487-8300-563.50-76

Time-Line: Continuous

Department Electric Engineering

Contact Electric Director

Type Maintenance

Useful Life 10-12 years

Category Electric

Priority 1

Status Active

Total Project Cost: $250,000

Description

FY17 - Continual replacement of existing lighting and upgrade of lighting to more energy efficient LED lights. There were 25 lights on RT 13 that were converted to LED. Coordinating with Dover Police Department to install LEDs in several alleys to provide better lighting for residents and emergency responders.

FY16 -This fund was developed to replace and repair existing street lights or install new lights upon customer request.

COMMENTS: This fund will remain active as long as there are improvements to be made. Private area lighting requests are a source of revenue for the City. Areas completed are White Oak Apartments, Westfield, Fairview, Cranberry Run, Millcreek, Independence Village and Governors Avenue (South 100 Block), Deerfield, Central Middle School, Fox Hall, Hidden Oaks, a portion of North Governors Ave, The Meadows, Turnberry, Baltray,
Bicentennial, The Overlook and Woodcrest. Areas to be completed this budget year include Old Mill Acres and Eagles Nest.

Justification

FY17 -radual conversion of existing lights to LED lights will provide a longer useful life and reduce replacement costs as well as monthly electric consumption for the City.

FY16 - The Electric Division receives numerous requests for lighting improvements. These requests are due to the lights aging, and as they age they put out less light and become unreliable. There are many developments that are in need of street light improvements. This fund would also provide funding for new private security light requests.

CONSEQUENCES OF DELAYING OR ELIMINATING THIS PROJECT: Constant complaints of poor street lighting and multiple failures due to antiquated lights.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	50,000	50,000	50,000	50,000	50,000	250,000
Total	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**250,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue	50,000	50,000	50,000	50,000	50,000	250,000
Total	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**250,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* **FY 21**

City of Dover, Delaware

Project # EE1706

Project Name Distribution Capacitors and Controls

New Project: No

Account Number: 487-8300-563.60-82

Time-Line: Continuous

Department Electric Engineering
Contact Electric Director
Type Improvement
Useful Life 15-20 years
Category Electric
Priority 2
Status Active
Total Project Cost: **$250,000**

Description

Install distribution capacitors throughout the system to correct poor power factor on distribution circuits. Install capacitor controllers capable of two-way communication to provide real-time monitoring and remote control operation. These controllers will be capable of switching the capacitors on and off to comply with system requirements. This project will also replace outdated substation equipment, capable of advanced metering such as power factor and harmonics to further analyze system performance remotely. Lastly, distribution line recorders will be purchased and installed to provide power factor recordings to fine tune this operation.

COMMENTS: The required substation equipment installation will be completed in two phases. FY2016 will upgrade the required communication equipment installed 20 years ago. FY2017 will install equipment capable of extracting system data, for enhanced performance analyzing. The completion of these two phases will ultimately reduce engineering time and costs because of remote access to all substations. In addition to this advanced metering, event report extraction and analysis, relay settings review and installation, and advancements to our 24 hour system operation center will be also be realized. FY2016 -FY2020 will be the addition of capacitor banks and controllers into the distribution system.

Justification

Additional capacitance is required in order to meet system power factor requirements at the Delmarva Power and Light interchange point. This was substantiated through a load-flow study conducted by Shaw in early 2004 and distribution study by Wilson & Wilson in 2006. The current capacitor controls are not providing the granularity required to turn them off and on as required to meet both the power quality requirements of our customers and DP&L requirements. Additional controls are required to fine tune the systems operation.

CONSEQUENCES OF DELAYING OR ELIMINATING THIS PROJECT: Without the additional capacitor banks and more importantly controls, the City may experience a low/high voltage problem at the customer level and/or the possibility of having to pay power factor penalties to Delmarva Power and Light.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	50,000	50,000	50,000	50,000	50,000	250,000
Total	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**250,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue	50,000	50,000	50,000	50,000	50,000	250,000
Total	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**250,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

City of Dover, Delaware

FY 17 *thru* **FY 21**

Department Electric Engineering
Contact Electric Director

Project # EE1707
Project Name LED Lighting Upgrade

Type Improvement
Useful Life 7 - 10 years
Category Electric
Priority 1
Status Active

New Project: Yes
Account Number: 487-8300-563.40-31
Time-Line: FY17

Total Project Cost: $17,500

Description

Replace selected alley way lighting from mercury vapor & high pressure sodium lights to LED lights.

Justification

In coordination with the Dover Police Department, specific alleys were designated for a test program using LED lights to replace existing mercury vapor & high pressure sodium lights. The utilization of LED lighting will produce more illumination in the alley at a reduced cost to the City. Current reduction in wattage would be from 100 to 400 watt conventional fixtures to 91 watt LED fixtures. The end goal of the project is to replace the lighting in 4 alleys and then evaluate the impact of the lighting on criminal activity. This could lead to more alleys being changed over but further maintenance actions will be driven at the request of the Police Department.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	17,500					17,500
Total	**17,500**					**17,500**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue	17,500					17,500
Total	**17,500**					**17,500**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* **FY 21**

City of Dover, Delaware

Project # EE1708

Project Name Ampacity Standardization

New Project: Yes

Time-Line: FY17-FY21

Account Number: 487-8300-563.40-31

Department Electric Engineering

Contact Electric Director

Type Improvement

Useful Life 15-20 years

Category Electric

Priority 2

Status Active

Total Project Cost: **$125,000**

Description

Standardize the primary overhead and underground distribution wiring to allow consistent ampacity throughout the City's feeders.

Justification

This project will replace segments of overhead and underground wiring to allow for a consistent ampacity rating throughout the City. Currently there are several sections of primary distribution wiring that lower the overall ampacity of the circuit which can hinder growth, cause equipment failure and cause outages due to increased demand. This project will be worked in conjunction with other projects to increase reliability and stability of the City's infrastructure.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	25,000	25,000	25,000	25,000	25,000	125,000
Total	**25,000**	**25,000**	**25,000**	**25,000**	**25,000**	**125,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue	25,000	25,000	25,000	25,000	25,000	125,000
Total	**25,000**	**25,000**	**25,000**	**25,000**	**25,000**	**125,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* **FY 21**

City of Dover, Delaware

Department Electric Engineering
Contact Electric Director

Project # EE1709
Project Name Substation Relay Upgrade

Type Improvement
Useful Life 25 - 30 years
Category Electric
Priority 2
Status Active

New Project: Yes
Account Number: 487-8300-563.40-31
Time-Line: FY17 - FY19

Total Project Cost: **$350,000**

Description

Replacement of selected relay components to standardize the entire COD system by converting to an all Schweitzer relaying and protection configuration. Replace out dated substation Relaying (protection) equipment and upgrade RTAC (Real-Time Automation Controller)

Justification

This upgrade will greatly improve the monitoring capabilities of the city's distribution system and add the capability of monitoring power factor at all substations. This upgrade will also help in analyzing the fault and determining the causes of outages and anomalies. It will also improve the system reliability with the upgrade to the RTAC by providing more dependable and real time monitoring of the COD power grid through the SCADA system.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Planning/Design	50,000	50,000				100,000
Construction/Maintenance	75,000	100,000	75,000			250,000
Total	**125,000**	**150,000**	**75,000**			**350,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue	125,000	150,000	75,000			350,000
Total	**125,000**	**150,000**	**75,000**			**350,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # EE1801

Project Name Garrision Oak / Sun Park Substation

New Project: Yes

Account Number:

Time-Line: FY18-FY20

Department Electric Engineering

Contact Electric Director

Type Equipment

Useful Life 30 Years

Category Electric

Priority n/a

Status Active

Total Project Cost: **$6,050,000**

Description

FY18 - Requested funding for initial planning and engineering for design and construction of a new electric substation located at Garrison Oak Park. Amount includes $50,000 for engineering service and associated costs with design and estimation of layout and capabilities of new substation.

Justification

FY18 - As occupancy of Garrison Oak Technology Park increases, the amount of power drawn will exceed the capabilities of the current City of Dover Transmission and Distribution system. We currently have 2 megawatts of reserve power for contingency situations for Calpine and we estimate approximately 500 to 2000 kilowatts of demand per lot. This additional load will not be attainable without a new substation to dedicate to the park and allow distribution to a limited amount of customers outside the park in residential areas.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Planning/Design		50,000				50,000
Construction/Maintenance				6,000,000		6,000,000
Total		**50,000**		**6,000,000**		**6,050,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue		50,000		6,000,000		6,050,000
Total		**50,000**		**6,000,000**		**6,050,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* **FY 21**

City of Dover, Delaware

Project # EE1809

Project Name College Road Consolidation

New Project: Yes

Time-Line: FY18

Account Number: 487-8300-563.40-31

Department Electric Engineering

Contact Electric Director

Type Improvement

Useful Life 25 - 30 years

Category Electric

Priority 6 --

Status Active

Total Project Cost: **$120,000**

Description

The high-side of the substation will be upgraded to include transmission line protection breakers.

Justification

This project will consolidate the College Road substation into one existing building instead of the current configuration taking up two buildings. The metal clad switchgear has eight distribution circuits breakers and all the distribution protection relays. All the 69kv transmission line protection relays are in the old College Road building, which is about 25 years old. We would like to move the 69kv transmission line protection relays in to the metal clad switchgear with all the other relays so we will have all the protection relays in one location. By keeping all the relays in one location, this will help us reduce the restoration time during an outage as well as cut down the maintenance cost by eliminating the extra building. Subsequent removal of the unused building will also allow for further expansion of the substation as required.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Planning/Design		60,000				60,000
Construction/Maintenance		60,000				60,000
Total		**120,000**				**120,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue		120,000				120,000
Total		**120,000**				**120,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* **FY 21**

City of Dover, Delaware

Project # EE1810

Project Name Distribution Upgrades

New Project: No

Account Number: 487-8300-563.90-25

Time-Line: On Going Maint.

Department Electric Engineering

Contact Electric Director

Type Improvement

Useful Life 20-25 years

Category Electric

Priority 1

Status Active

Total Project Cost: **$900,000**

Description

This project involves the systemic replacement of overhead lines with underground lines whenever services are being moved, wire is damaged, trees cause a high number of outages, or development is in progress, and when it is beneficial to the Utility to convert to underground. This can involve a single line section or an entire residential neighborhood. Annual outage records are reviewed and selected areas are scheduled for upgrade to underground service. Additionally, this program funds the replacement of existing underground conductors and equipment that have reached their useful life and have started failing and require replacement.

This account is used to upgrade any trouble areas during the year.

Justification

The number of storm and tree-related outages have been greatly reduced under this program and further improvements can be made to insure the most reliable electric service possible. Reliability has become one of most important factors to electric customers, second only to safety. The utility has responded by attempting to provide the most reliable system possible. Underground cable replacements are necessary as the useful, reliable, life of the original underground cable was 20-30 years. By proactively replacing this cable we will minimize outages and improve system reliability. In addition to cable replacement, overhead lines are replaced with underground to minimize outages caused by tree growth or animal contact. Lastly, overhead lines that have reached the end of their useful life are replaced with underground instead of rebuilding the overhead.

CONSEQUENCES OF DELAYING OR ELIMINATING THIS PROJECT: Continued outages lead to increased complaints from our customers and will lead to customer dissatisfaction. There will be increased costs for repairs made under outage conditions as well as loss of electric revenue.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	0	0	300,000	600,000		900,000
Total	**0**	**0**	**300,000**	**600,000**		**900,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue	0	0	300,000	600,000		900,000
Total	**0**	**0**	**300,000**	**600,000**		**900,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* **FY 21**

City of Dover, Delaware

Project # EE1811

Project Name Ann Avenue Underground Upgrade

New Project: Yes

Account Number: 110-2700-571.40-31

Time-Line: FY18

Department Electric Engineering

Contact Electric Director

Type Improvement

Useful Life 15-20 years

Category Electric

Priority n/a

Status Active

Total Project Cost: **$126,000**

Description

Replace the original underground primary cabling in the Ann Avenue Development and convert from direct bury to bored installation.

Justification

This project will replace the original direct buried primary cable and replace it with new cable installed by boring. The underground wiring and equipment has been in place for over 15 years and is direct buried. Utilizing boring the new cable will be placed in conduit and better protected from the elements and unintentional damage. The original cable also has an external neutral wrapped around the cable while the new cable has the neutral internal to the cable offering a more stable and dependable system to the customer.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance		126,000				126,000
Total		**126,000**				**126,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue		126,000				126,000
Total		**126,000**				**126,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* **FY 21**

City of Dover, Delaware

Project # EE1812

Project Name Beechwood Avenue Underground Upgrade

New Project: Yes

Time-Line: FY18

Account Number: 487-8300-563.40-31

Department Electric Engineering

Contact Electric Director

Type Improvement

Useful Life 15-20 years

Category Electric

Priority n/a

Status Active

Total Project Cost: **$80,000**

Description

Replace the original underground primary cabling in the Beechwood Development and convert from direct bury to bored installation.

Justification

This project will replace the original direct buried primary cable and replace it with new cable installed by boring. The underground wiring and equipment has been in place for over 15 years and is direct buried. Utilizing boring the new cable will be placed in conduit and better protected from the elements and unintentional damage. The original cable also has an external neutral wrapped around the cable while the new cable has the neutral internal to the cable offering a more stable and dependable system to the customer.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance		80,000				80,000
Total		**80,000**				**80,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue		80,000				80,000
Total		**80,000**				**80,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

City of Dover, Delaware

FY 17 *thru* **FY 21**

Project # EE1813
Project Name System Automation

New Project: No
Time-Line: FY17-FY21
Account Number: 487-8300-563.70-28

Department Electric Engineering
Contact Electric Director
Type Improvement
Useful Life 5-10 years
Category Electric
Priority n/a
Status Active
Total Project Cost: **$600,000**

Description

Design, develop, and install a self-healing or "smart" distribution system.

Justification

This project will include an engineering study to be performed using a system model to develop a scheme that will allow the distribution system to be self-healing in the event of a fault. Following the study, automation equipment will be purchased to detect problems on the system, isolate the affected area, and reenergize lines not affected. This will improve the reliability of the city's local electric grid, minimize customer outages, and increase customer satisfaction.

Prior	Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
0	Planning/Design	0	150,000	150,000	150,000	150,000	600,000
Total	**Total**	**0**	**150,000**	**150,000**	**150,000**	**150,000**	**600,000**

Prior	Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
0	Electric Revenue	0	150,000	150,000	150,000	150,000	600,000
Total	**Total**	**0**	**150,000**	**150,000**	**150,000**	**150,000**	**600,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* **FY 21**

City of Dover, Delaware

Project # EE1900

Project Name System Operations Voice Recorder

New Project: Yes

Time-Line: FY19

Account Number: 487-8300-563.40-25

Department Electric Engineering

Contact Electric Director

Type Equipment

Useful Life 5-10 years

Category Electric

Priority n/a

Status Active

Total Project Cost: **$18,000**

Description

Replace aging System Operations voice recorder

Justification

The voice recorder is used to tape all System Operations phone calls and radio traffic. These recordings contain switching schedule and outage radio traffic which may be required for litigation purposes.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Equip/Vehicle/Furnishings			18,000			18,000
Total			**18,000**			**18,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue			18,000			18,000
Total			**18,000**			**18,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # EE1901

Project Name Farmview Underground Upgrade

New Project: Yes

Time-Line: FY19

Account Number: 487-8300-563.40-31

Department Electric Engineering

Contact Electric Director

Type Improvement

Useful Life 15-20 years

Category Electric

Priority n/a

Status Active

Total Project Cost: $110,000

Description

Replace the original underground primary cabling in the Farmview Development and convert from direct bury to bored installation.

Justification

This project will replace the original direct buried primary cable and replace it with new cable installed by boring. The underground wiring and equipment has been in place for over 15 years and is direct buried. Utilizing boring the new cable will be placed in conduit and better protected from the elements and unintentional damage. The original cable also has an external neutral wrapped around the cable while the new cable has the neutral internal to the cable offering a more stable and dependable system to the customer.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance			110,000			110,000
Total			**110,000**			**110,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue			110,000			110,000
Total			**110,000**			**110,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

City of Dover, Delaware

FY 17 *thru* **FY 21**

Department Electric Engineering
Contact Electric Director

Project # EE1902
Project Name The Greens Underground Upgrade

Type Improvement
Useful Life 15-20 years
Category Electric
Priority n/a
Status Active

New Project: Yes
Account Number: 487-8300-563.40-31
Time-Line: FY19

Total Project Cost: $90,000

Description

Replace the original underground primary cabling in the Greens Development and convert from direct bury to bored installation.

Justification

This project will replace the original direct buried primary cable and replace it with new cable installed by boring. The underground wiring and equipment has been in place for over 15 years and is direct buried. Utilizing boring the new cable will be placed in conduit and better protected from the elements and unintentional damage. The original cable also has an external neutral wrapped around the cable while the new cable has the neutral internal to the cable offering a more stable and dependable system to the customer.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance			90,000			90,000
Total			**90,000**			**90,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue			90,000			90,000
Total			**90,000**			**90,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # EE1717

Project Name New Developments

New Project: No

Time-Line: Continuous

Account Number: 4878200-562.Several

Department Electric T & D

Contact Public Works Director

Type Improvement

Useful Life 30+ years

Category Electric

Priority 1

Status Active

Total Project Cost: **$7,500,000**

Description

This project purchases materials and equipment that are used to provide electric service to new housing developments, businesses, and industrial developments. Additionally, a portion of this expense is offset by the extension payments whereby new developers pay a $1,600 per residential lot connection fee, or business and industrial developers pay the total material expense for line extensions.

This is an ongoing project and affects three separate accounts:
487-8200-562.60-31
487-8200-562.60-34
487-8200-562.60-46

COMMENTS: Not all new development projects are known during budget preparation, as some will arise during the year.

Justification

During the course of each budget year, new developers request line extensions for new electric projects. Some are new projects, while other projects may have received plan approval previously but were not completed for any number of reasons.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	7,500,000
Total	**1,500,000**	**1,500,000**	**1,500,000**	**1,500,000**	**1,500,000**	**7,500,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Developer Contribution	900,000	900,000	900,000	900,000	900,000	4,500,000
Electric Revenue	600,000	600,000	600,000	600,000	600,000	3,000,000
Total	**1,500,000**	**1,500,000**	**1,500,000**	**1,500,000**	**1,500,000**	**7,500,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

City of Dover, Delaware

FY 17 *thru* **FY 21**

Department	Power Plant
Contact	Power Plant Manager
Type	Maintenance
Useful Life	Unknown
Category	Electric
Priority	1
Status	Active
Total Project Cost:	**$1,156,000**

Project # **EG1504**

Project Name **McKee Run Unit #3 Boiler Systems**

New Project: No

Account Number: 487-8101-591.40-31

Time-Line: Multi-year

Description

This Project was developed to perform inspections and repairs to the Unit 3 boiler on a predetermined frequency based on unit operating hours, required regulatory inspection intervals, and known equipment condition. In general, most work activities are those requiring planned outages and therefore will be scheduled to coincide with planned outages. The work identified includes the following:

Replacement of water wall tubes as needed.

Replacement of super heater and re-heater boiler clips.

Air preheater inspection and repairs.

De-aerator heater and storage tank inspection.

Note: Project costs in years beyond 2018 are shown for expense planning purposes and represent future projects related to this equipment that are anticipated based on expected operation.

Justification

Critical system equipment represents components that, if they fail, will result in loss of generation and or capacity. Routine evaluation of the condition of critical components will allow for proper prioritization of maintenance activities and resources. Delaying this project could result in the failure of critical unit equipment and subsequent loss of generation and or capacity. More importantly, component failure could also result in safety risk to personnel.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	382,000	160,000	299,000	80,000	235,000	1,156,000
Total	**382,000**	**160,000**	**299,000**	**80,000**	**235,000**	**1,156,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue	382,000	160,000	299,000	80,000	235,000	1,156,000
Total	**382,000**	**160,000**	**299,000**	**80,000**	**235,000**	**1,156,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* **FY 21**

City of Dover, Delaware

Project # EG1601

Project Name McKee Run Building Equipment Replacement

New Project: No

Account Number: 487-8101-591.40-31

Time-Line: Multi-year

Department Power Plant

Contact Power Plant Manager

Type Maintenance

Useful Life Unknown

Category Electric

Priority 3

Status Active

Total Project Cost: **$426,000**

Description

This project includes the replacement of certain building support systems that are expected to reach the end of their useful life. The specific building systems to be addressed in 2017 include:

-Supervisor's Office roof top Air Conditioners
Contractor rebuild for the 2A Air Compressor
-Administrative Building heating and cooling systems.
Roof repairs.
DI Room modifications.

Note: Project costs in years beyond 2017 are shown for expense planning purposes and represent future projects related to this equipment that are anticipated based on expected operation.

Justification

This project is required to fund the replacement of equipment that has reached the end of its design life. Continued increases in the costs to maintain this equipment will result if the listed equipment is not kept up to date or replaced in a timely manner. In addition, critical temperature control is necessary to keep plant instrumentation located in the control room at acceptable operating conditions. Replacement of the control room air conditioners is scheduled for 2017. Waiting for the air conditioning to fail and allowing the temperatures in the control room to exceed control conditions could contribute to reduced control equipment life and reduced unit reliability.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	59,000	99,000	27,000	66,000	175,000	426,000
Total	**59,000**	**99,000**	**27,000**	**66,000**	**175,000**	**426,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue	59,000	99,000	27,000	66,000	175,000	426,000
Total	**59,000**	**99,000**	**27,000**	**66,000**	**175,000**	**426,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # EG1607

Project Name McKee Run Unit 3 Auxiliary System Components

New Project: No

Account Number: 487-8101-591.40-31

Time-Line: Multi-year

Department Power Plant

Contact Power Plant Manager

Type Maintenance

Useful Life

Category Electric

Priority 2

Status Active

Total Project Cost: **$944,000**

Description

This project will perform inspections and repairs of Unit 3 auxiliary system components focusing on critical components. Components identified that will be addressed in 2017 include the #3 and 4 service water pumps, heat exchanger and piping safety valves.
Hot water system circulating pumps.
Cooling water booster pump.
Unit #3 vacuum pump inspections.
Unit #3 vacuum pump motive air valve replacement.
Unit #3 vacuum pump seal water pump inspections.
Unit #3 lube oil cooler piping and temperature control valve refurbishment.

Note: Project costs in years beyond 2017 are shown for expense planning purposes and represent future projects related to this equipment that are anticipated based on expected operation.

Justification

Critical auxiliary systems components are those components that, if they were to fail, their failure could result in unit load reduction or outage with consequential loss of capacity and / or generation although they would not individually affect the long range financial viability of the unit. Addressing these assets in a systematic fashion will result in minimizing forced outages and eliminating major maintenance expenses associated with component failure. Performing work as scheduled will also levelize maintenance expenditures. Delaying this project could result in the failure of critical unit equipment and subsequent loss of generation and/ or capacity.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	128,000	261,000	277,000	213,000	65,000	944,000
Total	**128,000**	**261,000**	**277,000**	**213,000**	**65,000**	**944,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue	128,000	261,000	277,000	213,000	65,000	944,000
Total	**128,000**	**261,000**	**277,000**	**213,000**	**65,000**	**944,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* **FY 21**

City of Dover, Delaware

Project # EG1609

Project Name Van Sant Unit 11 Component Replacements

New Project: No

Account Number: 487-8101-591.40-31

Time-Line: Multi-year

Department Power Plant

Contact Power Plant Manager

Type Maintenance

Useful Life Unknown

Category Electric

Priority 4

Status Active

Total Project Cost: **$484,000**

Description

This fund was developed to perform inspections and repairs to the VanSant Unit 11 auxiliary equipment on a predetermined frequency based on unit operating hours, required regulatory inspection intervals, and known equipment condition. Work to be performed would include the following equipment:
2017 - Fuel flow divider refurbishment, fuel nozzle refurbishment and an upgrade to the site gas supply skid to keep pace with Eastern Shore expected improvements and modifications.

Note: Project costs in years beyond 2016 are shown for expense planning purposes and represent future projects related to this equipment that are anticipated based on expected operation.

Justification

This project is required to fund the replacement of capital items that are expected to reach their useful life and will need to be replaced or refurbished to maintain plant system and unit reliability. Extended equipment and /or unit outage time will result from lack of funding this project. This will have a direct effect on the cost of energy during the extended outage time as well as increase future energy capacity charges.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance			89,000	305,000	90,000	484,000
Total			**89,000**	**305,000**	**90,000**	**484,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue			89,000	305,000	90,000	484,000
Total			**89,000**	**305,000**	**90,000**	**484,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* **FY 21**

City of Dover, Delaware

Project # EG1610

Project Name Plant Systems Safety & Compliance Improvements

New Project: No

Account Number: 487-8101-591.40-31

Time-Line: Multi-year

Department Power Plant

Contact Power Plant Manager

Type Maintenance

Useful Life

Category Electric

Priority 6 --

Status Active

Total Project Cost: **$149,000**

Description

This project will install video cameras to replace outdated cameras and upgrade installed security cameras at McKee Run. The project will also install cameras at VanSant Generating Station where there are no current cameras installed. Additionally, the project will include replacement of outdated radios and replace deteriorating boundary fencing at the McKee Run and VanSant Generating Stations. The installation of this equipment will aid in improving plant security at both sites and improve personnel safety at both sites.

Justification

This project is required to improve overall surveillance coverage and security at both McKee Run and VanSant generating plant sites. Currently, VanSant Generating Station does not have any video surveillance and the installed cameras at McKee Run are old and antiquated. Boundary line fencing is original and deteriorated.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	112,000	37,000				149,000
Total	**112,000**	**37,000**				**149,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue	112,000	37,000				149,000
Total	**112,000**	**37,000**				**149,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # EG1611

Project Name McKee Run & VanSant - Preservation of Structures

New Project: No

Account Number: 487-8101-591.40-31

Time-Line: Multi-year

Department Power Plant
Contact Power Plant Manager
Type Maintenance
Useful Life Unknown
Category Electric
Priority 5
Status Active
Total Project Cost: **$586,000**

Description

This project involves the preservation of plant structures in order to prevent deterioration of building structural steel and equipment subject to corrosion due to the past operations and environment. Refurbishment costs include be the sandblasting and painting of identified structures and equipment, along with the removal or demolition of equipment that has been retired in place. This work is an ongoing effort spanning multiple years. Work identified includes the following:

2017 - Unit #3 boiler support beams, sandblast, prime and paint.
2017 - Unit #3 condenser inlet piping inspection and refurbishment or repairs based on inspection findings.

Note: Project costs in years beyond 2017 are shown for expense planning purposes and represent future projects related to this equipment that are anticipated based on expected operation.

Justification

Structural steel painting is needed in various areas throughout the plant proper as well as various outbuildings on the plant property to maintain the physical building structures and equipment in an acceptable condition and prevent further deterioration. This project represents a minimum preservation and maintenance of structures consistent with the expected life of the stations. Consequences of delaying or eliminating this project will result in the accelerated deterioration of plant structures and larger future costs associated with structural repairs.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	131,000	130,000	100,000	100,000	125,000	586,000
Total	**131,000**	**130,000**	**100,000**	**100,000**	**125,000**	**586,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue	261,000	0	100,000	100,000	125,000	586,000
Total	**261,000**	**0**	**100,000**	**100,000**	**125,000**	**586,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # EG1701

Project Name Van Sant Unit 11 Major Inspection

New Project: No

Account Number: 487-8101-591.40-31

Time-Line:

Department Power Plant

Contact Power Plant Manager

Type Improvement

Useful Life 20 years

Category Electric

Priority 2

Status Active

Total Project Cost: **$2,098,000**

Description

This project will perform a major overhaul on the turbine generator based on Original Equipment Manufacturer (OEM) recommended repair frequency which is based on factored starts of the Unit from first commissioning and from last inspection/repair interval. This project will be implemented in 2017 with long lead material purchases in 2017 and installation in 2018. The project was revised to include the replacement of the exhaust plenum.

Justification

This project is required to fund the purchase of all parts needed to perform a major overhaul on the unit based on estimated factored starts since unit was first commissioned and since last the Hot Gas Path inspection. This project will span the course of two years. In Year 1, the majority of the long lead parts will be purchased. Services will be identified in year 2 and the actual installation will be performed in Year 2. Extended equipment and /or unit outage time will result from lack of funding this project. This will have a direct effect on the cost of energy during the extended outage time as well as increase future energy capacity charges. In addition, gradual degradation of the unit's output could occur which would have a negative effect on the capacity rating of the unit and reliability of the unit.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	400,000	1,548,000	0	150,000		2,098,000
Total	**400,000**	**1,548,000**	**0**	**150,000**		**2,098,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue	400,000	1,548,000	0	150,000		2,098,000
Total	**400,000**	**1,548,000**	**0**	**150,000**		**2,098,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* **FY 21**

City of Dover, Delaware

Project # EG1704

Project Name McKee Run Unit 3 Hydrogen Purity Analyzer

New Project: Yes

Time-Line: FY17

Account Number: 487-8101-591.40-31

Department Power Plant

Contact Power Plant Manager

Type Maintenance

Useful Life

Category Electric

Priority 1

Status Active

Total Project Cost: **$96,000**

Description

This project will replace the current Hydrogen Purity Analyzer on Unit 3 with newer equipment. Hydrogen Analyzers monitor hydrogen purity in power generators which use hydrogen gas for cooling. It also monitors CO2 in hydrogen and CO2 in air during shutdown and startup purge procedure. Hydrogen is the media by which cooling of the generator(s) is achieved. Great importance is placed on the assurance that system is 100% pure hydrogen and not contaminated. In addition, the analyzers also monitor the CO2 content when the generator is taken out of service for equipment and personnel safety reasons.

Justification

Critical system components that, if they fail, will result in loss of generation and/or capacity. Parts and repair facilities are becoming rare. Newer equipment enables the facility to secure improved equipment reliability and vendor support in the repair, acquisition of replacement parts and in the overall maintenance of the analyzers.

CONSEQUENCES OF DELAYING OR ELIMINATING THIS PROJECT: Delaying this project could result in the failure of critical unit equipment and subsequent lose of generation and or capacity

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance	96,000					96,000
Total	**96,000**					**96,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue	96,000					96,000
Total	**96,000**					**96,000**

Budget Impact/Other

We would expect this project to be funded outside the normal operating budget.

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # EG1706

Project Name Unit #3 Fast Start Upgrade

New Project: Yes

Time-Line: FY18

Account Number: 487-8101-591-40-31

Department Power Plant

Contact Power Plant Manager

Type Maintenance

Useful Life

Category Electric

Priority 2

Status Active

Total Project Cost: **$200,000**

Description

An alternative engineered method for starting up the unit 3 steam turbine generator in a reduced start time will reduce start up time and costs. The benefits are reduced start up time, increased revenue through faster online times, potential increased unit dispatch, reduced startup costs, increased equipment life, reduced maintenance (both O&M and Capital) and reduced environmental impact.

Justification

Major objective is to increase the number of starts on the unit while minimizing start-up costs, reduce the time to dispatch the unit, reduce boiler degradation due to differential temperature induced stress on thick walled system and equipment components.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance		200,000				200,000
Total		**200,000**				**200,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue		200,000				200,000
Total		**200,000**				**200,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # EG1709

Project Name Unit 3 Cooling Water Line Repairs

New Project: Yes

Time-Line: FY17

Account Number: 487-8101-591.40-31

Department Power Plant

Contact Power Plant Manager

Type Maintenance

Useful Life Unknown

Category Electric

Priority 3

Status Active

Total Project Cost: $469,000

Description

This project will inspect and repair the underground cooling water line from the Unit 3 condenser to the cooling tower. A condition assessment and life evaluation was performed on this pipe in 2012 to develop a repair/replace action plan to address the suitability for continued operation as well as extending the life of the piping beyond 2016. The actual repairs will be completed in 2016.

Justification

The condition of the underground cooling water line has required numerous repairs over the life of the plant and is expected to reach its useful life in the 2012-2016 time period. It is expected that the repair frequency will accelerate over the next several years as the internal pipe coating continues to degrade unless a repair process can extend the life of the piping and reduce the need for frequent inspections. Delaying this project beyond 2016 will increase the risk of a failure causing an extended unit outage to repair or replace the failed pipe as well incur water spillage to the ground. Additional budget dollars will need to be allocated to repair/ replace sections of piping.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Planning/Design	8,000					8,000
Equip/Vehicle/Furnishings	429,000					429,000
Other	32,000					32,000
Total	**469,000**					**469,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue	469,000					469,000
Total	**469,000**					**469,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # EG1711

Project Name VanSant Fire Suppression System Upgrade

New Project: Yes

Time-Line: FY17

Account Number: 487-8101-591.40-31

Department Power Plant

Contact Power Plant Manager

Type Maintenance

Useful Life Unknown

Category Electric

Priority 4

Status Active

Total Project Cost: $285,000

Description

This project is to replace the installed CARDOX® fire suppression system for the Van Sant combustion turbine generator. The current system has been installed since original commercial operation began in 1991.This system has been inadvertently activated three times since installation and there have been many improvements including more reliable fire suppression systems. The system selected is a water misting system and is the one of the newer preferred suppression systems using a water mist/injection as the extinguishing agent instead of CO2.

Justification

This critical system can directly impact the Unit operation. Its failure to operate would result in a loss of generation and capacity due to the damage incurred from a fire. Upgrading this system will result in reduced system maintenance costs, and eliminating major maintenance expenses associated with the system or component failure.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance		285,000				285,000
Total		**285,000**				**285,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue	285,000					285,000
Total	**285,000**					**285,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

City of Dover, Delaware

FY 17 *thru* **FY 21**

Department Power Plant
Contact

Project # EG1807
Project Name Hydrogen Generator

Type Maintenance
Useful Life
Category Electric
Priority 1
Status Active

New Project: Yes
Account Number: 487-5101-591.40-31
Time-Line: FY18

Total Project Cost: **$50,000**

Description

Purchase and installation of a Hydrogen generator to supply hydrogen gas cooling medium for the Unit #3 Steam Turbine Generator. .

Justification

During periods of maintenance and operations it is required to purge the hydrogen seals in order to perform work on the turbine unit. After maintenance is completed it is necessary to restore the hydrogen seals for cooling purpose s prior to operations. The hydrogen generator would offer significant savings in the gas expenses for the generating station at McKee Run. It would also eliminate bottle rental from the gas provider and reduce those monthly savings as well. This equipment would pay for itself in 3-4 years reducing the need to purchase hydrogen gas and the bottle rental costs. This makes for a safer work environment when employees no longer are required to manually move or manage the bottles the gas is stored in.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance		50,000				50,000
Total		**50,000**				**50,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue		50,000				50,000
Total		**50,000**				**50,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # EG1901

Project Name McKee Run Unit #3 Turbine Repairs - Generator

New Project: Yes

Time-Line: Multi-year

Account Number: 487-8101-591.40-31

Department Power Plant

Contact Power Plant Manager

Type Maintenance

Useful Life Unknown

Category Electric

Priority 1

Status Active

Total Project Cost: **$488,000**

Description

This project will inspect the Unit 3 turbine control and stop valves and auxiliary equipment. This inspection is scheduled on a predetermined frequency based on Unit operating hours, time since last valve inspection, required regulatory intervals, original equipment manufacturer and insurance company recommendations. In 2018 all turbine control, stop, and intercept valves will be fully disassembled, and inspected. If the condition found requires repairs the necessary repairs will be performed as needed and the unit reassembled.
Note: Project costs in years beyond 2018 are shown for expense planning purposes and represent future projects related to this equipment that are anticipated based on expected operation and insurance company recommendations.

Justification

The valve inspections included in the scope are all related to the normal and emergency turbine generator control and shutdown systems. Industry standard inspection guidelines are followed in order to minimize the risk of mechanical failure which could result in extended forced outage of the unit, or the potential indefinite loss of unit availability from damage resulting from the failure of the scope components.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance			438,000	25,000	25,000	488,000
Total			**438,000**	**25,000**	**25,000**	**488,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue			438,000	25,000	25,000	488,000
Total			**438,000**	**25,000**	**25,000**	**488,000**

Budget Impact/Other

FY 2017 Capital Investment Plan

FY 17 *thru* FY 21

City of Dover, Delaware

Project # EG1902

Project Name McKee Run Unit 3 Turbine Repairs Intercept Valves

New Project: No

Account Number: 487-8101-591.40-31

Time-Line: FY19-FY20

Department Power Plant
Contact Power Plant Manager
Type Maintenance
Useful Life Unknown
Category Electric
Priority 2
Status Active
Total Project Cost: **$463,000**

Description

This project will inspect the Unit 3 turbine control and stop valves and auxiliary equipment. This inspection is scheduled on a predetermined frequency based on Unit operating hours, required regulatory intervals, original equipment manufacturer and insurance company recommendations. In 2018 all turbine control, stop, and intercept valves will be fully disassembled, inspected and repaired if needed.

Note: Project costs in years beyond 2018 are shown for expense planning purposes and represent future projects related to this equipment that are anticipated based on expected operation and insurance company recommendations.

Justification

The valve inspections included in the scope are all related to the normal and emergency turbine generator control and shutdown systems. Industry standard inspection guidelines are followed in order to minimize the risk of mechanical failure which could result in extended forced outage of the unit, or the potential indefinite loss of unit availability.

Expenditures	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Construction/Maintenance			438,000	25,000		463,000
Total			**438,000**	**25,000**		**463,000**

Funding Sources	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Electric Revenue			438,000	25,000		463,000
Total			**438,000**	**25,000**		**463,000**

Budget Impact/Other

City of Dover

FY2017 Preliminary Capital Investment Plan

FY17 thru FY21

Vehicle Replacements

City of Dover, Delaware

FY 2017 Capital Investment Plan

FY 17 thru FY 21

PROJECTS BY DEPARTMENT

Department	Project#	Priority	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Code Enforcement								
2007 Dodge Pick Up	*16Veh# 17*	n/a					17,000	*17,000*
1998 Ford Crown Victoria	*18Veh# 11*	n/a		23,800				*23,800*
Code Enforcement Total				**23,800**			**17,000**	***40,800***
Electric Admin								
2008 Ford Escape (#701)	*Veh #701*	1		30,000				*30,000*
Electric Admin Total				**30,000**				***30,000***
Electric Engineering								
2008 Dodge Avenger (7)	*Veh# 007*	n/a		28,200				*28,200*
2005 Dodge Stratus (8)	*Veh# 008*	n/a		25,500				*25,500*
2007 Dodge Pickup (9)	*Veh# 009*	n/a		29,500				*29,500*
2006 Ford Pickup (790)	*Veh# 790*	1	33,200					*33,200*
Electric Engineering Total			**33,200**	**83,200**				***116,400***
Electric Meter Reading								
#154 & #158	*TrucksFY17*	1	46,000					*46,000*
Electric Meter Reading Total			**46,000**					***46,000***
Electric T & D								
1995 Case Backhoe (733)	*Veh #733*	1	125,000					*125,000*
2004 International Altec Aerial Device	*Veh #751*	1				150,000		*150,000*
2002 Chevrolet Dump Truck	*Veh #753*	1					150,000	*150,000*
2006 International Bucket Truck	*Veh #759*	1					160,000	*160,000*
2007 Dodge Pick Up	*Veh #771*	1		33,000				*33,000*
2008 International Dueco Line Truck	*Veh #772*	1				250,000		*250,000*
2001 Freightliner Knuckleboom	*Veh #776*	1		350,000				*350,000*
2008 Ford Dump F350 (796)	*Veh #796*	1		45,000				*45,000*
1989 Smith SM160 (716)	*Veh# 716*	1	25,000					*25,000*
2001 Freightliner (750)	*Veh# 750*	1			300,000			*300,000*
2005 Ford Pick Up Truck	*Veh# 770*	1			25,500			*25,500*
Electric T & D Total			**150,000**	**428,000**	**325,500**	**400,000**	**310,000**	***1,613,500***
Facilities Management								
1996 Ford Van #436	*17Veh #436*	n/a	27,700					*27,700*
2003 Dodge Van (438)	*18Veh# 438*	n/a		28,200				*28,200*
2004 Ford Van #439	*19Veh# 439*	3			28,800			*28,800*
2005 Ford F150 #433	*20Veh#433*	n/a				32,200		*32,200*
Facilities Management Total			**27,700**	**28,200**	**28,800**	**32,200**		***116,900***

Department	Project#	Priority	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Fire/Robbins Hose								
Engine 7 - 1997 Pierce Dash Pumper	FR1700	1	73,400	73,400	73,400	73,400	73,400	367,000
Ladder 1 - 2011 Pierce Quantum PUC	FR1800	1	145,700	145,700	145,700	0	0	437,100
Engine 3 - 2003 Pierce Lance Pumper	FR1900	1		76,100	76,100	76,100	76,100	304,400
Engine 6 - 2003 Pierce Lance Pumper	FR2000	1				76,800	76,800	153,600
Fire/Robbins Hose Total			**219,100**	**295,200**	**295,200**	**226,300**	**226,300**	**1,262,100**
Fleet Maintenance								
1998 Ford F150 #129	17Veh #129	n/a	31,000					31,000
2001 Dodge Ram 150 #130	18Veh #130	n/a		38,000				38,000
2003 Chevrolet 1500 HD Flat Bed #119	19Veh# 119	n/a			60,000			60,000
Fleet Maintenance Total			**31,000**	**38,000**	**60,000**			**129,000**
Life Safety (Fire Marshal)								
2008 Dodge Durango	17Veh# 12	n/a	29,500					29,500
Life Safety (Fire Marshal) Total			**29,500**					**29,500**
Permtting and Inspections								
2001 Dodge Pick Up	16Veh# 19	n/a					17,000	17,000
2001 Dodge Pick Up	16Veh# 22	n/a					17,000	17,000
2005 Ford F150	17Veh# 13	n/a	16,000					16,000
Permtting and Inspections Total			**16,000**				**34,000**	**50,000**
Planning								
2004 Ford Station Wagon	17Veh# 3	n/a	16,000					16,000
Planning Total			**16,000**					**16,000**
Police								
2017 Dodge Charger PPV (203)	17Veh# 203	n/a	26,500					26,500
2017 Dodge Charger Admin (206)	17Veh# 206	n/a	24,400					24,400
2017 Dodge Charger Admin (212)	17Veh# 212	n/a	24,400					24,400
2017 Dodge Charger PPV (227)	17Veh# 227	n/a	26,500					26,500
2017 Dodge Charger PPV (238)	17Veh# 238	n/a	26,500					26,500
2017 Dodge Charger PPV (252)	17Veh# 252	n/a	26,500					26,500
2017 Dodge Charge PPV (253)	17Veh# 253	n/a	26,500					26,500
2017 Dodge Charger (254)	17Veh# 254	n/a	26,500					26,500
2017 Harley FLHTP (256)	17Veh# 256	n/a	24,400					24,400
2017 Dodge Charger PPV (259)	17Veh# 259	n/a	26,500					26,500
2017 Dodge Charger PPV (271)	17Veh# 271	n/a	26,500					26,500
2017 Dodge Charger PPV (275)	17Veh# 275	n/a	26,500					26,500
2018 Dodge Charger PPV (208)	18Veh# 208	n/a		26,500				26,500
2018 Dodge Charger PPV (209)	18Veh# 209	n/a		26,500				26,500
2000 Ford Taurus (210)	18Veh# 210	n/a		24,400				24,400
2018 Chev Tahoe PPV (222)	18Veh# 222	n/a		33,600				33,600
2018 Chev Tahoe PPV (223)	18Veh# 223	n/a		33,600				33,600
2018 Chev Tahoe PPV (226)	18Veh# 226	n/a		33,600				33,600
2018 Dodge Charger PPV (234)	18Veh# 234	n/a		26,500				26,500
2018 Dodge Charger PPV (255)	18Veh# 255	n/a		26,500				26,500
2018 Dodge Charger Admin (260)	18Veh# 260	n/a		24,400				24,400
2018 Dodge Charger Admin (261)	18Veh# 261	n/a		24,400				24,400
2018 HD Motorcycle FLHTP (266)	18Veh# 266	n/a		24,400				24,400

Department	Project#	Priority	FY 17	FY 18	FY 19	FY 20	FY 21	Total
2018 Dodge Charger PPV (272)	*18Veh# 272*	n/a		26,500				*26,500*
2018 Dodge Charger PPV (273)	*18Veh# 273*	n/a		26,500				*26,500*
2018 Dodge Charger PPV (276)	*18Veh# 276*	n/a		26,500				*26,500*
2019 Dodge Charger PPV (205)	*19Veh# 205*	n/a			26,500			*26,500*
2019 Chevy Express (207)	*19Veh# 207*	n/a			20,400			*20,400*
2019 Dodge Charger PPV (216)	*19Veh# 216*	n/a			26,500			*26,500*
2019 Dodge Charger Admin (221)	*19Veh# 221*	n/a			24,400			*24,400*
2019 Dodge Charger Admin (230)	*19Veh# 230*	n/a			24,400			*24,400*
2019 Dodge Charger PPV (232)	*19Veh# 232*	n/a			26,500			*26,500*
2019 Dodge Charger PPV (239)	*19Veh# 239*	n/a			26,500			*26,500*
2019 Dodge Charger Admin (240)	*19Veh# 240*	n/a			24,400			*24,400*
2019 Harley Davidson FLHTP (244)	*19Veh# 244*	n/a			24,400			*24,400*
2019 Dodge Charger PPV (250)	*19Veh# 250*	n/a			26,500			*26,500*
2019 Harley FLHTP (267)	*19Veh# 267*	n/a			24,400			*24,400*
2019 Dodge Charger PPV (269)	*19Veh# 269*	n/a			26,500			*26,500*
2019 Dodge Ram 1500 Crew 4X4 (296)	*19Veh# 296*	n/a			28,000			*28,000*
2019 Dodge Charger PPV (297)	*19Veh# 297*	n/a			26,500			*26,500*
2020 Harley FLHTP (211)	*20Veh# 211*	n/a				24,400		*24,400*
2020 Dodge Charger PPV (219)	*20Veh# 219*	n/a				26,500		*26,500*
2020 Dodge Charger PPV (220)	*20Veh# 220*	n/a				26,500		*26,500*
2020 Dodge Charger Admin (237)	*20Veh# 237*	n/a				24,400		*24,400*
2020 Dodge Charger PPV (258)	*20Veh# 258*	n/a				26,500		*26,500*
2020 Dodge Charger PPV (262)	*20Veh# 262*	n/a				26,500		*26,500*
2020 Dodge Charger PPV (263)	*20Veh# 263*	n/a				26,500		*26,500*
2020 Dodge Charger PPV (264)	*20Veh# 264*	n/a				26,500		*26,500*
2020 Dodge Charger PPV (265)	*20Veh# 265*	n/a				26,500		*26,500*
2020 Harley FLHTP (268)	*20Veh# 268*	n/a				24,400		*24,400*
2020 Dodge Charger PPV (278)	*20Veh# 278*	n/a				26,500		*26,500*
2020 Dodge Charger PPV (282)	*20Veh# 282*	n/a				26,500		*26,500*
2020 Dodge Charger PPV (283)	*20Veh# 283*	n/a				26,500		*26,500*
2020 Dodge Charger PPV (284)	*20Veh# 284*	n/a				26,500		*26,500*
2021 Dodge Charger Admin (201)	*21Veh# 201*	n/a					24,400	*24,400*
2021 Dodge Charger Admin (204)	*21Veh# 204*	n/a					24,400	*24,400*
2021 Chev Ram 1500 Crew 4X4 (215)	*21Veh# 215*	n/a					28,000	*28,000*
2021 Chevy Tahoe PPV (229)	*21Veh# 229*	n/a					33,600	*33,600*
2021 Dodge Charger Admin (231)	*21Veh# 231*	n/a					24,400	*24,400*
2021 Dodge Charger Admin (235)	*21Veh# 235*	n/a					24,400	*24,400*
2021 Dodge Charger PPV (241)	*21Veh# 241*	n/a					26,500	*26,500*
2021 Dodge Charger PPV (242)	*21Veh# 242*	n/a					26,500	*26,500*
2021 Dodge Charger Admin (243)	*21Veh# 243*	n/a					24,400	*24,400*
2021 Dodge Ram 1500 Crew 4X4 (245)	*21Veh# 245*	n/a					28,000	*28,000*
2021 Dodge Charger Admin (249)	*21Veh# 249*	n/a					24,400	*24,400*
2021 Dodge Charger Admin (290)	*21Veh# 290*	n/a					24,400	*24,400*
2021 Chevy Tahoe PPV (293)	*21Veh# 293*	n/a					33,600	*33,600*
2021 Chevy Express (295)	*21Veh# 295*	n/a					20,400	*20,400*
Police Total			**311,700**	**383,900**	**355,900**	**364,700**	**367,400**	***1,783,600***
Power Plant								
2017 Ford F250XL 4X4 Reg Cab (727)	*17PPVeh# 727*	1	32,900					*32,900*
2017 Ford F250XL 4X4 Reg Cab (729)	*17PPVeh# 729*	1	32,900					*32,900*
Power Plant Total			**65,800**					***65,800***
Public Works - Grounds								
2001 Kubota 80" Utility Tractor (569)	*17Veh# 569*	3	27,000					*27,000*
1999 Dodge Ram 2500 Truck #558	*17Veh#558*	n/a	31,200					*31,200*

Department	Project#	Priority	FY 17	FY 18	FY 19	FY 20	FY 21	Total
2003 Ex-Mark 52" Zero Turn Mower (568)	*18Veh# 568*	3		15,000				*15,000*
2004 Kubota Tractor w/Front Loader/Backhoe #572	*18Veh# 572*	3		44,800				*44,800*
1995 International Bucket Truck #589	*19Veh#589*	2			188,000			*188,000*
2001 Dodge Ram 2500 Truck #580	*20 VEH#580*	n/a				33,000		*33,000*
2006 Kubota Mower #581	*20Veh #581*	n/a				60,000		*60,000*
2009 Toro Mower #561	*20Veh#561*	n/a				60,000		*60,000*
1994 Vermeer Chipper #588	*21Veh #588*	n/a					89,000	*89,000*
2012 Toro Mower #562	*21Veh#562*	n/a					62,000	*62,000*
Public Works - Grounds Total			**58,200**	**59,800**	**188,000**	**153,000**	**151,000**	***610,000***
Public Works - Sanitation								
2008 Peterbilt Automated Trash Truck (441)	*17Veh# 441*	3	261,500					*261,500*
2008 Intn't Rear Loader (445)	*18Veh# 445*	4		165,000				*165,000*
2010 Peterbilt Automated Trash Truck #455	*18Veh# 455*	3		266,700				*266,700*
2009 International Bulk Trash Truck #446	*19Veh# 446*	3			155,100			*155,100*
2003 Peterbilt Automated Trash Truck #444	*19Veh#444*	n/a			272,000			*272,000*
2002 Hurst Trailer #453	*19Veh#453*	n/a			2,000			*2,000*
2008 Ford F150 #440	*20Veh#440*	n/a				32,200		*32,200*
2008 International Rear Loader #452	*20Veh#452*	n/a				172,700		*172,700*
2011 Peterbilt Automated Trash Truck #450	*21Veh#450*	n/a					332,000	*332,000*
2008 International Rear Loader Trash Truck #452	*21Veh#452*	n/a					295,000	*295,000*
Public Works - Sanitation Total			**261,500**	**431,700**	**429,100**	**204,900**	**627,000**	***1,954,200***
Public Works - Streets								
2001 Int'l Dump Truck (321)	*17Veh# 321*	3	132,200					*132,200*
2001 Case Front-End Loader #316	*18Veh #316*	2		168,300				*168,300*
1992 International Dump Truck (326)	*18Veh# 326*	1		134,900				*134,900*
2001 Int'l Dump Truck (322)	*19Veh# 322*	2			137,600			*137,600*
2002 Airman Air Compressor (382)	*19Veh# 382*	2			26,600			*26,600*
2003 Chevrolet Silverado 1500 #330	*19Veh#330*	n/a			32,200			*32,200*
2001 Case Front-End Loader #312	*20Veh #312*	2				175,100		*175,100*
2001 Int'l Dump Truck (324)	*20Veh# 324*	2				140,400		*140,400*
2002 Old Dominion Leaf Vac #361	*20Veh#361*	n/a				70,000		*70,000*
1969 Caterpillar Grader #301	*21Veh#301*	n/a					477,000	*477,000*
2006 International Sweeper #356	*21Veh#356*	n/a					180,000	*180,000*
Public Works - Streets Total			**132,200**	**303,200**	**196,400**	**385,500**	**657,000**	***1,674,300***
Public Works Admin								
2008 Toyota Camry Hybrid #6	*21Veh# 6*	n/a					42,000	*42,000*
Public Works Admin Total							**42,000**	***42,000***
W/WW Engineering								
2008 Chevrolet Pickup (421)	*17Veh# 421-2*	n/a	30,400					*30,400*
2008 Ford F150 Pick-Up (420)	*18Veh# 420-2*	1		31,000				*31,000*
2008 Dodge Avenger (427)	*19Veh# 427-2*	n/a			23,000			*23,000*
2008 Dodge Avenger SE #5	*20Veh#5-2*	n/a				28,000		*28,000*
W/WW Engineering Total			**30,400**	**31,000**	**23,000**	**28,000**		***112,400***
Wastewater Management								
1987 Empire Generator (603)	*17Veh# 603*	n/a	34,400					*34,400*
2000 Airman Air Compressor #683 (split)	*17Veh#683*	n/a	12,800					*12,800*
2008 Chevy 3/4-Ton Utility Truck #667 (Split)	*18Veh #667*	n/a		16,500				*16,500*

Department	Project#	Priority	FY 17	FY 18	FY 19	FY 20	FY 21	Total
2006 Sidekick Easement Machine (690)	*18Veh# 690*	n/a		36,000				*36,000*
2008 Ford 1-Ton Utility Truck with crane #665	*18Veh#665*	n/a		50,000				*50,000*
2008 Ford 1/2 Ton Utility Truck #698 (split)	*18Veh#698*	n/a		16,500				*16,500*
2008 Case 590 Backhoe #672 (Split)	*19Veh #672*	n/a			59,400			*59,400*
2008 International Dump Truck 14' #681 (Split)	*19Veh #681*	n/a			78,000			*78,000*
2009 Chevrolet CUES Camera Truck #684	*19Veh #684*	5			300,000			*300,000*
2005 Case Backhoe #682 (split)	*20Veh#682*	n/a				61,900		*61,900*
2012 Chevrolet Silverado 1500 WT #695(split)	*20Veh#695*	n/a				16,500		*16,500*
2013 Ford 1-Ton Utilty Truck with Crane #655	*21Veh#655*	n/a					55,000	*55,000*
2013 Ford 1-Ton Utility Truck with crane	*21Veh#664*	n/a					55,000	*55,000*
Wastewater Management Total			**47,200**	**119,000**	**437,400**	**78,400**	**110,000**	***792,000***
Water Management								
2002 Sterling STE #424	*17Veh#424*	n/a	132,200					*132,200*
2000 Airman air compressor #683 (split)	*17Veh#683-2*	n/a	12,800					*12,800*
2008 Chevy 3/4-Ton Utility Truck #667 (Split)	*18Veh #667-2*	n/a		16,500				*16,500*
1995 Caterpillar Excavator #400	*18Veh# 400*	n/a		62,700				*62,700*
1995 Caterpillar Loader #402	*18Veh#402*	n/a		189,000				*189,000*
2008 Ingersoll Air Compressor #407	*18Veh#407*	n/a		29,000				*29,000*
2008 Ford 1/2 Ton Utility Truck #698 (split)	*18Veh#698-2*	n/a		16,500				*16,500*
2008 Case 590 Backhoe #672 (Split)	*19Veh #672-1*	n/a			59,400			*59,400*
2008 International Dump Truck 14' #681 (Split)	*19Veh #681-1*	n/a			78,000			*78,000*
2009 Wacker RT820 Vibratory Trench Roller #401	*19Veh#401*	n/a			36,900			*36,900*
2005 Case Backhoe #682 (Split)	*20Veh# 682*	n/a				61,900		*61,900*
2012 Ford F250 Super Duty XL #403	*20Veh#403*	n/a				40,000		*40,000*
2012 Ford F250 Super Duty XL #426	*20Veh#426*	n/a				40,000		*40,000*
2012 Chevrolet Silverado 1500 WT #695 (split)	*20Veh#695-2*	n/a				16,500		*16,500*
1997 Kruger Trailer #415	*21Veh#415*	n/a					25,000	*25,000*
Water Management Total			**145,000**	**313,700**	**174,300**	**158,400**	**25,000**	***816,400***
Water Treatment Plant								
2008 GMC Cargo Van (662)	*18Veh# 662*	n/a		26,000				*26,000*
2007 Kohler Generator Trailer Mounted (604)	*19Veh# 604*	n/a			50,000			*50,000*
2010 Ford 1-Ton Utility Truck w/ Gate 3620	*20Veh# 620*	n/a				56,300		*56,300*
2011 Ford Ranger #621	*20Veh#621*	n/a				26,000		*26,000*
Water Treatment Plant Total				**26,000**	**50,000**	**82,300**		***158,300***
GRAND TOTAL			**1,620,500**	**2,594,700**	**2,563,600**	**2,113,700**	**2,566,700**	***11,459,200***