

## WATER AND SEWER CAPITAL PROJECTS FUND

This fund is used to account for the capital outlays for the water and sewer system. Its revenues come from several sources. First, a transfer is made annually from the Water and Sewer Fund to finance some of the capital outlays. Second, any grants or Revolving Fund Loans from the state or federal governments for capital outlay would be accounted for here. Finally, the proceeds from any bonds, certificates of participation, capital leases or other debt instruments would be accounted for here.

Appropriations from this fund for capital projects do not lapse at the end of a fiscal year. Those appropriations stay in place until the project is completed. A capital project ordinance can be amended by another capital project ordinance, should the project cost change.

This fund is used to finance the six-year capital improvements plan for the water and sewer system. In order to determine what can be financed and in what order, we need to make two determinations: 1) about how much income can be transferred from the Water and Sewer Fund each year, after the operating budget is met; and 2) the amount of debt service over the projected six-year period.

The Debt Service Repayment Schedule shows every long-term debt instrument outstanding. The bottom third of this schedule shows the projected debt service payments for any debt instruments to be issued as part of the 6-year Capital Improvements Plan. Note that even with this additional indebtedness, the debt service payments on the bottom line do not fluctuate greatly from one year to the next. That makes this a very stable financial situation for the water and sewer system.

The following pages contain the six-year Capital Improvement Plan for the water and sewer system, taking this debt service schedule and the transfers from the Water and Sewer Fund into account. Barring unforeseen circumstances, these are the projects that we should be able to complete in this six-year period. The pages following that summary are more detailed explanations of each individual project.

Bear in mind that as you expand the water and sewer system, you will also increase the customer base, thereby increasing annual revenues. But, we have been conservative in these projections until recently. As the economy continues to rebound from recent years, we expect a gradual increase in residential and commercial growth. The expectation of these revenues from water and sewer fees are to improve noticeably; as a result, additional funding for capital projects or early repayment of debt over the next few years.

**DEBT SERVICE REPAYMENT SCHEDULE  
WATER AND SEWER FUND**

		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
<b>PROJECTED EXPENSES</b>								
<b>2004 Federal Revolving Loan \$387,438</b>	Prin	\$ 22,791	\$ 22,791	\$ 22,791	\$ 22,791	\$ 22,791	\$ 22,791	\$ 22,784
Dated 5/1/06 – 5/1/22 2.66% Fixed Rate	Int	4,244	3,638	3,032	2,425	1,819	1,213	607
<b>2004 Federal Revolving Loan \$520,430</b>								
Dated 5/1/06 – 5/1/22 2.66% Fixed Rate	Prin	30,614	30,614	30,614	30,614	30,614	30,614	30,608
	Int	5,701	4,886	4,072	3,258	2,443	1,629	815
<b>2007 Federal Revolving Loan \$2,295,067</b>								
Dated 11/1/07 – 5/1/24 2.66% Fixed Rate	Prin	135,004	135,004	135,004	135,004	135,004	135,004	135,004
	Int	32,320	28,729	25,138	21,547	17,956	14,365	10,774
<b>2009 Sewer Revolving Loan \$17,500,000</b>								
Dated 7/31/10 – 5/1/30 2.48% Fixed Rate	Prin	875,000	875,000	875,000	875,000	875,000	875,000	875,000
	Int	347,200	325,500	303,800	282,100	260,400	238,700	217,000
<b>2012 Installment Financing \$2,706,000</b>								
Dated 7/18/12 - 1/17/22 2.65% Fixed Rate	Prin	259,387	266,310	273,414	280,707	288,195	295,883	303,742
	Int	50,435	43,516	36,412	29,119	21,631	13,943	6,084
<b>2013 Refunding of 2003 COPS</b>								
Dated 11/14/13 - 6/1/27 2.52% Fixed Rate	Prin	6,312	4,229	4,198	1,479	1,526	17,140	16,790
	Int	3,207	3,092	3,010	2,929	2,891	2,853	2,420
<b>TOTAL PRINCIPAL PAYMENTS</b>								
		1,329,108	1,333,948	1,341,021	1,345,595	1,353,130	1,376,432	1,383,928
<b>TOTAL INTEREST PAYMENTS</b>								
		443,107	409,361	375,464	341,378	307,140	272,703	237,700
<b>TOTAL EXPENSES</b>								
		1,772,215	1,743,309	1,716,485	1,686,973	1,660,270	1,649,135	1,621,628
<b>2016 Installment Purchase Contract \$4,500,000</b>								
Dated 6/30/16 - 12/31/35 4% Fixed Rate 20 years	Prin		225,000	225,000	225,000	225,000	225,000	225,000
	Int		177,750	168,750	159,750	150,750	141,750	132,750
	Prin							
	Int							
<b>PROJECTED TOTAL PRINCIPAL PAYMENTS</b>								
		1,329,108	1,558,948	1,566,021	1,570,595	1,578,130	1,601,432	1,608,928
<b>PROJECTED TOTAL INTEREST PAYMENTS</b>								
		443,107	587,111	544,214	501,128	457,890	414,453	370,450
<b>PROJECTED TOTAL EXPENSES</b>								
		\$ 1,772,215	\$ 2,146,059	\$ 2,110,235	\$ 2,071,723	\$ 2,036,020	\$ 2,015,885	\$ 1,979,378
<i>updated 3/24/15 - dlr</i>								

**DEBT SERVICE REPAYMENT SCHEDULE  
WATER AND SEWER FUND**

		FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
<b>PROJECTED EXPENSES</b>								
<b>2004 Federal Revolving Loan \$387,438</b>	Prin							
Dated 5/1/06 – 5/1/22 2.66% Fixed Rate	Int							
<b>2004 Federal Revolving Loan \$520,430</b>								
Dated 5/1/06 – 5/1/22 2.66% Fixed Rate	Prin							
Dated 5/1/06 – 5/1/22 2.66% Fixed Rate	Int							
<b>2007 Federal Revolving Loan \$2,295,067</b>	Prin	135,004	135,003					
Dated 11/1/07 – 5/1/24 2.66% Fixed Rate	Int	7,183	3,592					
<b>2009 Sewer Revolving Loan \$17,500,000</b>	Prin	875,000	875,000	875,000	875,000	875,000	875,000	875,000
Dated 7/31/10 – 5/1/30 2.48% Fixed Rate	Int	195,300	173,600	151,900	130,200	108,500	86,800	65,100
<b>2012 Installment Financing \$2,706,000</b>	Prin							
Dated 7/18/12 - 1/17/22 2.65% Fixed Rate	Int							
<b>2013 Refunding of 2003 COPS</b>	Prin	16,441	16,154	15,852	15,566	15,248		
Dated 11/14/13 - 6/1/27 2.52% Fixed Rate	Int	1,997	1,583	1,176	777	384		
<b>TOTAL PRINCIPAL PAYMENTS</b>		1,026,445	1,026,157	890,852	890,566	890,248	875,000	875,000
<b>TOTAL INTEREST PAYMENTS</b>		204,480	178,775	153,076	130,977	108,884	86,800	65,100
<b>TOTAL EXPENSES</b>		1,230,925	1,204,932	1,043,928	1,021,543	999,132	961,800	940,100
<b>2016 Installment Purchase Contract \$4,500,000</b>	Prin	225,000	225,000	225,000	225,000	225,000	225,000	225,000
Dated 6/30/16 - 12/31/35 4% Fixed Rate 20 years	Int	123,750	114,750	105,750	96,750	87,750	78,750	69,750
<b>PROJECTED TOTAL PRINCIPAL PAYMENTS</b>	Prin							
<b>PROJECTED TOTAL INTEREST PAYMENTS</b>	Int							
<b>PROJECTED TOTAL EXPENSES</b>		1,251,445	1,251,157	1,115,852	1,115,566	1,115,248	1,100,000	1,100,000
<b>updated 3/24/15 - dlr</b>		328,230	293,525	258,826	227,727	196,634	165,550	134,850
		\$ 1,579,675	\$ 1,544,682	\$ 1,374,678	\$ 1,343,293	\$ 1,311,882	\$ 1,265,550	\$ 1,234,850

**DEBT SERVICE REPAYMENT SCHEDULE  
WATER AND SEWER FUND**

		FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036
<b>PROJECTED EXPENSES</b>								
<b>2004 Federal Revolving Loan \$387,438</b>	Prin							
Dated 5/1/06 – 5/1/22 2.66% Fixed Rate	Int							
<b>2004 Federal Revolving Loan \$520,430</b>	Prin							
Dated 5/1/06 – 5/1/22 2.66% Fixed Rate	Int							
<b>2007 Federal Revolving Loan \$2,295,067</b>	Prin							
Dated 11/1/07 – 5/1/24 2.66% Fixed Rate	Int							
<b>2009 Sewer Revolving Loan \$17,500,000</b>	Prin	875,000	875,000					
Dated 7/31/10 – 5/1/30 2.48% Fixed Rate	Int	43,400	21,700					
<b>2012 Installment Financing \$2,706,000</b>	Prin							
Dated 7/18/12 - 1/17/22 2.65% Fixed Rate	Int							
<b>2013 Refunding of 2003 COPS</b>	Prin							
Dated 11/14/13 - 6/1/27 2.52% Fixed Rate	Int							
<b>TOTAL PRINCIPAL PAYMENTS</b>		875,000						
<b>TOTAL INTEREST PAYMENTS</b>		43,400						
<b>TOTAL EXPENSES</b>		918,400						
<b>2016 Installment Purchase Contract \$4,500,000</b>	Prin	225,000	225,000	225,000	225,000	225,000	225,000	212,500
Dated 6/30/16 - 12/31/35 4% Fixed Rate 20 years	Int	60,750	51,750	42,750	33,750	24,750	15,750	6,750
<b>PROJECTED TOTAL PRINCIPAL PAYMENTS</b>		1,100,000	225,000	225,000	225,000	225,000	225,000	212,500
<b>PROJECTED TOTAL INTEREST PAYMENTS</b>		104,150	51,750	42,750	33,750	24,750	15,750	6,750
<b>PROJECTED TOTAL EXPENSES</b>		\$ 1,204,150	\$ 276,750	\$ 267,750	\$ 258,750	\$ 249,750	\$ 240,750	\$ 219,250
<i>updated 3/24/15 - dlr</i>								

**DEBT SERVICE REPAYMENT SCHEDULE  
WATER AND SEWER FUND**

				<b>TOTALS</b>
				<b>FY 14-30</b>
PROJECTED EXPENSES				
<b>2004 Federal Revolving Loan \$387,438</b>	Prin			<b>\$ 159,530</b>
Dated 5/1/06 -- 5/1/22 2.66% Fixed Rate	Int			<b>16,978</b>
<b>2004 Federal Revolving Loan \$520,430</b>	Prin			<b>214,292</b>
Dated 5/1/06 -- 5/1/22 2.66% Fixed Rate	Int			<b>22,804</b>
<b>2007 Federal Revolving Loan \$2,295,067</b>	Prin			<b>1,215,035</b>
Dated 11/1/07 -- 5/1/24 2.66% Fixed Rate	Int			<b>161,604</b>
<b>2009 Sewer Revolving Loan \$17,500,000</b>	Prin			<b>14,000,000</b>
Dated 7/31/10 -- 5/1/30 2.48% Fixed Rate	Int			<b>2,951,200</b>
<b>2012 Installment Financing \$2,706,000</b>	Prin			<b>1,967,638</b>
Dated 7/18/12 - 1/17/22 2.65% Fixed Rate	Int			<b>201,140</b>
<b>2013 Refunding of 2003 COPS</b>	Prin			<b>130,935</b>
Dated 11/14/13 - 6/1/27 2.52% Fixed Rate	Int			<b>26,319</b>
<b>TOTAL PRINCIPAL PAYMENTS</b>				<b>17,687,430</b>
<b>TOTAL INTEREST PAYMENTS</b>				<b>3,380,045</b>
<b>TOTAL EXPENSES</b>				<b>20,170,775</b>
<b>2016 Installment Purchase Contract \$4,500,000</b>	Prin			<b>4,487,500</b>
Dated 6/30/16 - 12/31/35 4% Fixed Rate 20 years	Int			<b>1,845,000</b>
	Prin			-
	Int			-
<b>PROJECTED TOTAL PRINCIPAL PAYMENTS</b>		-	-	<b>19,962,430</b>
<b>PROJECTED TOTAL INTEREST PAYMENTS</b>		-	-	<b>5,027,845</b>
<b>PROJECTED TOTAL EXPENSES</b>	\$ -	\$ -	\$ -	<b>\$ 24,990,275</b>
updated 3/24/15 - dlr				

**SUMMARY OF PROJECTS BY FISCAL YEAR:  
WATER AND SEWER CAPITAL PROJECTS FUND**

Project Number	Project	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	TOTALS
PW-WAT-14	NC 73 Water Line & Tank			\$ 1,800,000	\$ 1,200,000			\$ 3,000,000
PW-WAT-17	Kidville Road Water Line		1,200,000					\$ 1,200,000
PW-WAT-38	Replace NC 16 Waterline - Phase II	350,000						\$ 350,000
PW-WAT-41	SCADA Equipment & Controls							\$ -
PW-WAT-45	Raw Water Intake at Water Plant	90,000						\$ 90,000
PW-WAT-47	Relocate Water Main Hwy 150 & Dellinger Rd							\$ -
PW-WAT-48	WTP Expansion	250,000	8,613,000	1,040,000				\$ 9,903,000
PW-WAT-49	Chloride Treatment at Water Pump Stations							\$ -
PW-WAT-52	Shea Homes Waterline Construction	350,000						\$ 350,000
	MUNIS Software Conversion	50,000						\$ 50,000
								\$ -
PW-SEW-23	Lowesville Area Sewer Line Redirection	1,800,000						\$ 1,800,000
PW-SEW-24	Facility Improvements - WWTP Expansion	3,251,140						\$ 3,251,140
PW-SEW-25	Relocate Sewer Force Main Hwy 150 & Dellinger Rd							\$ -
PW-SEW-26	Lift Station 18 Surge Valve							\$ -
	<b>Total Proposed Projects</b>	<b>6,141,140</b>	<b>9,813,000</b>	<b>2,840,000</b>	<b>1,200,000</b>	<b>-</b>	<b>-</b>	<b>19,994,140</b>
	Other Uses of Cash	-	-	-	-	-	-	-
	<b>Total Uses of Cash</b>	<b>6,141,140</b>	<b>9,813,000</b>	<b>2,840,000</b>	<b>1,200,000</b>	<b>-</b>	<b>-</b>	<b>19,994,140</b>
Project Number	Project	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	TOTALS
	<b>Sources of Cash</b>							
	Operating Income	1,571,112	750,000	750,000	750,000			3,821,112
	Special Purpose Bonds							-
	Certificates of Participation	4,570,028	9,063,000	2,090,000	450,000			16,173,028
	Installment Purchase Contracts							-
	Earned Interest							-
	<b>Total Sources of Cash</b>	<b>6,141,140</b>	<b>9,813,000</b>	<b>2,840,000</b>	<b>1,200,000</b>	<b>-</b>	<b>-</b>	<b>19,994,140</b>
	<b>Net Increase (decrease) in Cash</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

## LINCOLN COUNTY, NORTH CAROLINA

## CAPITAL IMPROVEMENTS PROGRAM

954

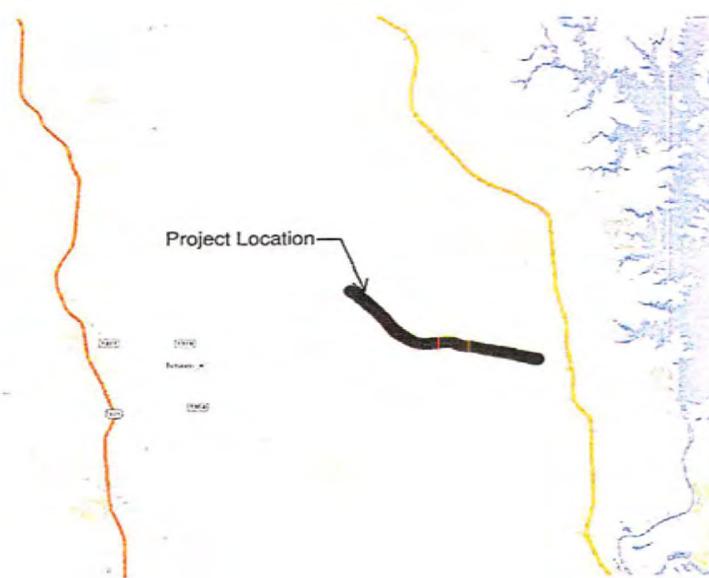
PROJECT		Capital Improvement Project					
PW-WAT-14 NC73 - Water line and Tank							
DEPARTMENT	Public Works Water Distribution	FUNCTION To increase reliability					
DESCRIPTION	To install a 16" water main from Highway 16 to Amity Church Road along Highway 73 To install a booster pump station and tank.						
STATUS	New construction						
PROJECT BUDGET	PROPOSED FY2016	PROJECTED FOR FUTURE YEARS					
		FY2017	FY2018	FY2019	FY2020	FY2021	TOTAL
EXPENDITURE ALLOCATION Design & Permitting Construction		\$ 200,000 \$ 1,600,000	\$ 1,200,000				\$ 200,000 \$ 2,800,000 \$ - \$ - \$ - \$ - \$ - \$ -
TOTAL ALLOCATION	\$ -	\$ -	\$ 1,800,000	\$ 1,200,000	\$ -	\$ -	\$ 3,000,000
SOURCES OF FUNDS Water System Revenues COPS		\$ 800,000 \$ 1,000,000	\$ 1,200,000				\$ - \$ 2,000,000 \$ 1,000,000 \$ - \$ - \$ -
TOTAL FUNDS	\$ -	\$ -	\$ 1,800,000	\$ 1,200,000	\$ -	\$ -	\$ 3,000,000

## LINCOLN COUNTY, NORTH CAROLINA

### JUSTIFICATION

The Highway 150 12" water main is the only water main that distributes water from the eastern zone to the central zone. In order to system reliability and to potential customer base the installation of a booster pump station and a 12" water main Highway 73 is required.

### LOCATION MAP



### ANNUAL OPERATING BUDGET IMPACT:

	Personnel No additional
	Operations and Maintenance
	Other Capital Outlay
\$ -	Total Operating Expenses
	Sources of Revenue to Cover Expenses
\$ -	Total Revenues

## LINCOLN COUNTY, NORTH CAROLINA

## CAPITAL IMPROVEMENTS PROGRAM

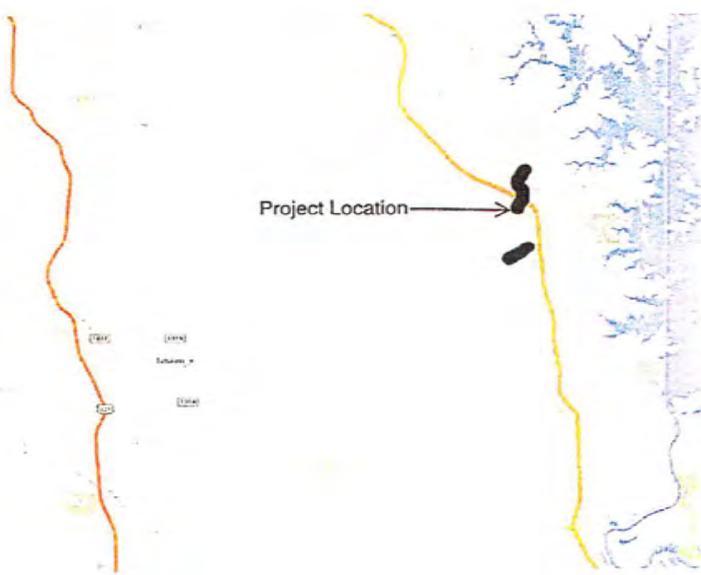
PROJECT	PW-WAT-17 St James Kidville						Capital Improvement Project						
DEPARTMENT	Public Works Water Distribution	FUNCTION To construct water system improvements on Kidville and St. James Roads											
DESCRIPTION	Kidville and St. James Church Road water line installation.												
STATUS	New construction												
PROJECT BUDGET		PROPOSED FY2016	PROJECTED FOR FUTURE YEARS										
			FY2017	FY2018	FY2019	FY2020	FY2021						
<b>EXPENDITURE ALLOCATION</b> Construction			\$1,200,000				\$ 1,200,000 \$ - \$ - \$ - \$ - \$ - \$ -						
<b>TOTAL ALLOCATION</b>			\$1,200,000	\$ -	\$ -	\$ -	\$ - \$ 1,200,000						
<b>SOURCES OF FUNDS</b> Water System Revenues			\$1,200,000				\$ - \$ 1,200,000 \$ - \$ - \$ - \$ - \$ -						
<b>TOTAL FUNDS</b>			\$1,200,000	\$ -	\$ -	\$ -	\$ - \$ 1,200,000						

## LINCOLN COUNTY, NORTH CAROLINA

### JUSTIFICATION

To meet NCDENR permit requirements for water quality an interconnection is required between St. James Church Road and the existing Kidville Road water main. Additionally to improve system reliability an upgrade to the existing 6" water main is required.

### LOCATION MAP



### PIN

### ANNUAL OPERATING BUDGET IMPACT:

	Personnel No additional
	Operations and Maintenance
	Other Capital Outlay
\$ -	Total Operating Expenses
	Sources of Revenue to Cover Expenses
\$ -	Total Revenues

## LINCOLN COUNTY, NORTH CAROLINA

## CAPITAL IMPROVEMENTS PROGRAM

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PROJECT	PW-WAT-38 NC 16 and NC73 - Phase II							Capital Improvement Project
DEPARTMENT	Public Works Water Distribution	FUNCTION	Management					
DESCRIPTION	This project is to replace the undersized and old PVC water line along Highway 16 from Highway 73 North to the Denver Water Tank. This is intended to be a phased project to replace sections of the water line over a period of years.							
STATUS								
PROJECT BUDGET	PROPOSED FY2016	PROJECTED FOR FUTURE YEARS						
		FY2017	FY2018	FY2019	FY2020	FY2021	TOTAL	
EXPENDITURE ALLOCATION Construction	FY 2015 (\$850,000)	\$ 350,000					\$ 1,200,000	\$ -
TOTAL ALLOCATION		\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ 1,200,000	\$ -
SOURCES OF FUNDS							\$ -	\$ -
Water System Revenues		\$ 350,000					\$ 1,200,000	\$ -
TOTAL FUNDS		\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ 1,200,000	\$ -

## LINCOLN COUNTY, NORTH CAROLINA

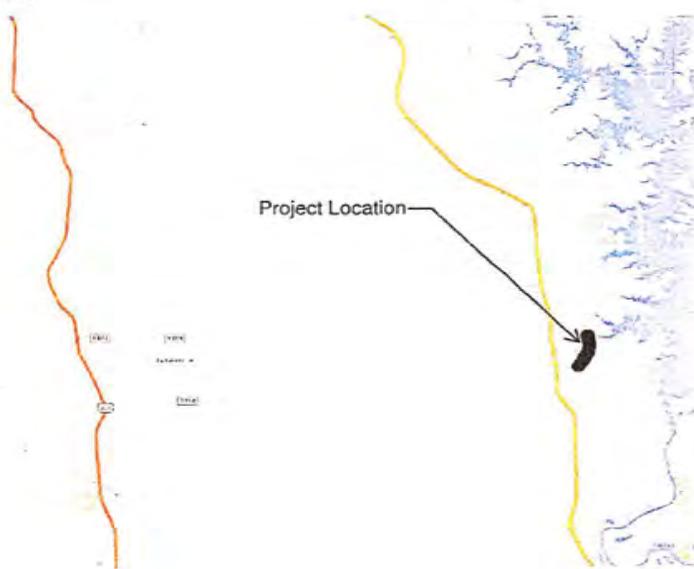
### JUSTIFICATION

This phase of the project is to replace the existing 12" PVC water main under Business Highway 16 pavement from the intersection of Highway 73 to Forest Oak Drive.

The overall project is to replace in phases the 12" PVC waterline on Highway 16 with a 24" ductile iron line.

Upon completion of the entire project, the water line along Highway 16 from Highway 73 north to the Denver water Tank will be replaced with ductile Iron pipe

### LOCATION MAP



### PIN

### ANNUAL OPERATING BUDGET IMPACT:

	Personnel
	No additional
	Operations and Maintenance
	Other Capital Outlay
\$ -	Total Operating Expenses
	Sources of Revenue to Cover Expenses
\$ -	Total Revenues

LINCOLN COUNTY, NORTH CAROLINA

## CAPITAL IMPROVEMENTS PROGRAM

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## LINCOLN COUNTY, NORTH CAROLINA

### JUSTIFICATION

In order to provide redundancy and reliability at the water treatment plant a new raw water pump is required to be installed in the existing intake structure to be able to provide raw water in the event of a pump failure.

### LOCATION MAP



### PIN

### ANNUAL OPERATING BUDGET IMPACT:

	Personnel
	No additional
	Operations and Maintenance
	Other Capital Outlay
\$ -	Total Operating Expenses
	Sources of Revenue to Cover Expenses
\$ -	Total Revenues

## LINCOLN COUNTY, NORTH CAROLINA

## CAPITAL IMPROVEMENTS PROGRAM

464

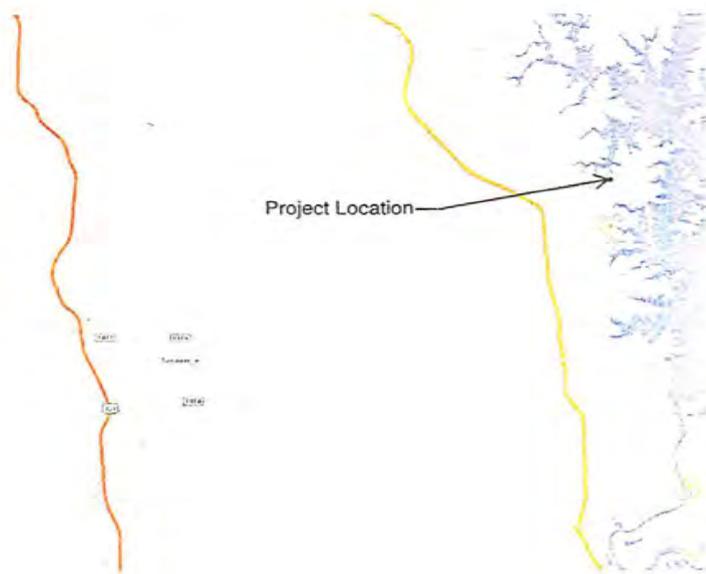
PROJECT	W0048 Expansion of Water Treatment Plant							
DEPARTMENT	Public Works WTP	FUNCTION	Water distribution					
DESCRIPTION	This project is to upgrade and expand the Water Treatment Plant to allow the plant to process and distribute more water. Currently the Plant is rated at 3.9 MGD. This project could double the capacity at the Plant.							
STATUS								
PROJECT BUDGET	PROPOSED FY2016	PROJECTED FOR FUTURE YEARS						
		FY2017	FY2018	FY2019	FY2020	FY2021	TOTAL	
<b>EXPENDITURE ALLOCATION</b>	FY 2015							
Study	\$ 60,000	\$ 709,000	\$ 40,000				\$ 60,000	
Design							\$ 709,000	
Right of Way							\$ 40,000	
Permitting							\$ -	
Plant Construction		\$ 8,154,000					\$ 8,154,000	
Line Extension			\$ 1,000,000				\$ 1,000,000	
CEI							\$ -	
<b>TOTAL ALLOCATION</b>	<b>\$ 60,000</b>	<b>\$ 8,863,000</b>	<b>\$ 1,040,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 9,963,000</b>	
<b>SOURCES OF FUNDS</b>								
Reserve Fund							\$ -	
Debt Financing		\$ 8,863,000	\$ 1,040,000				\$ 9,903,000	
<b>TOTAL FUNDS</b>	<b>\$ -</b>	<b>\$ 8,863,000</b>	<b>\$ 1,040,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 9,903,000</b>	

## LINCOLN COUNTY, NORTH CAROLINA

### JUSTIFICATION

Based on projected growth within the eastern and central zones in the County the existing plant capacity of 4 MGD will not be sufficient to support new growth. The 2015 budget year is for design and permitting fees only.

### LOCATION MAP



### PIN

### ANNUAL OPERATING BUDGET IMPACT:

	Personnel
	No additional
	Operations and Maintenance
	Other Capital Outlay
\$ -	Total Operating Expenses
	Sources of Revenue to Cover Expenses
\$ -	Total Revenues

Client: Lincoln County, NC

Project: Water Treatment Plant Expansion - Scenario 1 - additional 4 mgd - 8 mgd total

KHA No.: 018911000

Date: 12/7/2014

Prepared By: M. Shoesmith

Checked By: M. Shelton

Sheet 1 of 1

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
1	Mobilization	1	LS	\$338,000	\$338,000
2	Raw Water Pump (2,100 gpm with VFD)	2	EA	\$130,000	\$260,000
3	Raw Water Line (900-ft of 30-inch)	900	LF	\$320	\$288,000
4	Rapid Mix (Mixers)	2	EA	\$13,000	\$26,000
5	Flocculation (Flocculators)	4	EA	\$40,500	\$162,000
6	Sedimentation (Plate Settlers, and Sludge Collection System)	2	EA	\$262,000	\$524,000
7	Existing Sedimentation Rehabilitation (Plate Settlers)	2	EA	\$176,000	\$352,000
8	Structural (Basin for Rapid Mix, Floc, and Sedimentation and Gates)	1	LS	\$1,227,000	\$1,227,000
9	Filtration (Media, Underdrains, Piping, and Valves)	4	EA	\$224,000	\$896,000
10	Structural (Basin for Filtration)	1	LS	\$201,000	\$201,000
11	Piping and Valves	1	LS	\$223,000	\$223,000
12	Yard Piping	1	LS	\$72,000	\$72,000
13	Clearwell Storage (1.0 mg Ground Storage Tank)	1	EA	\$720,000	\$720,000
14	High Service Pump (2,800 gpm with VFD)	1	EA	\$110,000	\$110,000
15	Backwash System (none in this scenario)	0	EA	\$0	\$0
16	Solids Handling (Screw Press, and Sludge Pump)	1	EA	\$324,000	\$324,000
17	Chemical Feed (Metering Pumps, Day Tanks)	1	LS	\$195,000	\$195,000
18	Power Systems (Electrical, SCADA, Backup Generator)	1	EA	\$747,000	\$747,000
19	Site Work (Pavement, Earthwork, Drainage)	1	LS	\$425,000	\$425,000

## Basis for Cost Projection:

- No Design Completed
- Preliminary Design
- Final Design

Subtotal:	\$7,090,000
Contingency ( $\pm 15\%$ )	\$1,064,000
Permitting / Design ( $\pm 10\%$ )	\$709,000
<b>Total Base Cost:</b>	<b>\$8,863,000</b>

The Consultant has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Consultant at this time and represent only the Consultant's judgment as a design professional familiar with the construction industry. The Consultant cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

LINCOLN COUNTY, NORTH CAROLINA  
FY 2016

## CAPITAL IMPROVEMENTS PROGRAM

PROJECT	PW-WAT-52	Capital Improvement Project											
DEPARTMENT	Public Works Utilities	FUNCTION Agreement with Shea Homes for water line construction											
DESCRIPTION	Agreement with Shea Homes to upgrade 12-inch water line near Trilogy development to 24-inch water line												
STATUS													
PROJECT BUDGET	PROPOSED	PROJECTED FOR FUTURE YEARS											
		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	TOTAL					
EXPENDITURE ALLOCATION Construction	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -					
	\$ 350,000							\$ 350,000					
TOTAL ALLOCATION	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 350,000					
SOURCES OF FUNDS Water and Sewer Fund	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -					
								\$ 350,000					
TOTAL FUNDS	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 350,000					

LINCOLN COUNTY, NORTH CAROLINA

JUSTIFICATION

LOCATION MAP

ANNUAL OPERATING BUDGET IMPACT:

Total Operating Expenses

\$0.00 Total Revenues

## LINCOLN COUNTY, NORTH CAROLINA

## CAPITAL IMPROVEMENTS PROGRAM

694

PROJECT	S23 Lowesville Area Sewer												
DEPARTMENT	Public Works Sewer Collections	FUNCTION Sewer Collection Improvements											
DESCRIPTION	This project is to install approximately 7,000 lf of 12" forcemain and upgrade existing lift station #15 to meet NCDENR flow requirements.												
STATUS													
PROJECT BUDGET	PROPOSED FY2016	PROJECTED FOR FUTURE YEARS											
EXPENDITURE ALLOCATION	FY 2015 \$ 200,000	\$ 1,800,000	FY2017	FY2018	FY2019	FY2020	FY2021						
Design and Permitting													
Plant Construction													
TOTAL ALLOCATION	\$ -	0	\$ -	\$ -	\$ -	\$ -	\$ -						
SOURCES OF FUNDS													
Water and Sewer Fund	\$ 200,000	\$ 1,800,000											
TOTAL FUNDS	\$ 200,000	1,800,000	\$ -	\$ -	\$ -	\$ -	\$ -						

## LINCOLN COUNTY, NORTH CAROLINA

### JUSTIFICATION S0023 Lowesville Area Sewer

In order to meet NCDENR flow requirements and to allow additional customers to connect to the Lincoln County Sewer System an upgrade to Lift Station #15 and an additional forcemain is need to accommodate additional flow to the WWTP.

#### LOCATION MAP



#### ANNUAL OPERATING BUDGET IMPACT:

	Personnel No additional
	Operations and Maintenance
	Other Capital Outlay
\$ -	Total Operating Expenses
	Sources of Revenue to Cover Expenses
\$ -	Total Revenues

## LINCOLN COUNTY, NORTH CAROLINA

## CAPITAL IMPROVEMENTS PROGRAM

147

PROJECT	S0024 Expansion of Wastewater Treatment Plant									
DEPARTMENT	Public Works WWTP	FUNCTION	Sewer Collection							
DESCRIPTION	This project is to upgrade and expand the Wastewater Treatment Plant to allow the plant to process more wastewater. Currently the Plant is rated at 1.6 MGD. This project will increase the capacity of the plant to 3.3 MGD.									
STATUS										
PROJECT BUDGET		PROPOSED FY2016	PROJECTED FOR FUTURE YEARS							
			FY2017	FY2018	FY2019	FY2020	FY2021	TOTAL		
<b>EXPENDITURE ALLOCATION</b>		FY 2015 \$200,000	\$ 3,251,140							
Design and Permitting								\$ 200,000		
Plant Construction								\$ 3,251,140		
Engineering								\$ -		
								\$ -		
<b>TOTAL ALLOCATION</b>				\$ 3,251,140	\$ -	\$ -	\$ -	\$ 3,451,140		
<b>SOURCES OF FUNDS</b>		\$200,000	\$ 3,251,140							
Reserve Fund								\$ 200,000		
Debt Financing								\$ 3,251,140		
								\$ -		
								\$ -		
<b>TOTAL FUNDS</b>				\$ 200,000	\$ 3,251,140	\$ -	\$ -	\$ 3,451,140		

## LINCOLN COUNTY, NORTH CAROLINA

### JUSTIFICATION

In order to meet NCDENR flow requirements and to allow additional customers to connect to the Lincoln County Sewer System a capacity upgrade is required to the WWTP. The 2015 budget year is for design and permitting fees only.

### LOCATION MAP



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