

## ***Water Operations Division***

### **Division Overview**

The Water Operations staff is responsible for monitoring water quality leaving the plant and in the distribution system for the residents and visitors of Nags Head. The water plant is staffed two shifts per day, seven days a week and serves as an after-hours contact for Nags Head citizens wishing to report water problems or seeking information concerning other Town departmental activities.

Water Operations consists of the Eighth Street Water Treatment Plant and storage tank, the Gull Street Pump Station and storage tank, and two 500,000-gallon elevated water storage tanks, one in south Nags Head and the other behind the Public Works complex on Lark Avenue. In addition, Water Operations maintains a state certified laboratory for bacteriological testing to ensure that water quality is in compliance with all state and federal regulations.



### Goals:

Provide drinking water and fire flows in quantities and quality that meets, or exceeds, all federal and state standards. *(BOC Goals 2, 4 and 5)*

Maintain the town's water treatment and storage system in optimum operating condition and add needed system enhancements as required to meet increasing state and federal water quality standards. *(BOC Goals 1, 2, 4, 5 and 6)*

Continually improve customer service and department communications with the public, businesses and other Town departments. *(BOC Goals 1, 4 and 6)*

### Objectives:

- A. Improve water service through water quality enhancements.

#### Performance Indicators:

1. Purchase a Hach DR 2700 to better analyze water quality samples.
2. Install a mixer in the South Nags Head (SNH) Water Tower to improve water quality – specifically to reduce Total Trihalomethanes (TTHM's) in the water in SNH and to the customers at Oregon Inlet.
3. Continue monitoring and system operational adjustments to reduce TTHM concentration throughout the distribution system in order to meet the Stage 2 Disinfection/Disinfection By-Product Rule in December 2013.

- B. Perform scheduled system maintenance to maximize the life of critical system components.

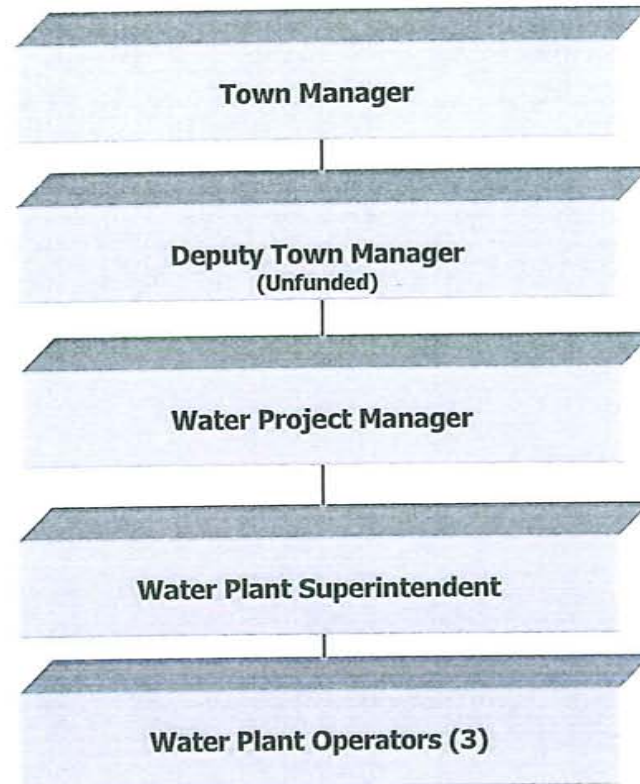
#### Performance Indicators:

1. Paint, and make necessary repairs on, the SNH Water Tower, as recommended following the 2012 inspection.
2. Inspect/Evaluate all pumps and water storage tanks (ground and elevated) to determine estimated service life and required maintenance.

- C. Plan for future Water Operations capital needs.

#### Performance Indicators:

1. Monitor proposed, and established, future water quality standard revisions.
2. Determine how the town can meet future revised standards.
3. Review/Identify water treatment methods to meet future water quality standards.
4. Prepare Water Operations CIP to include any future treatment needs/modifications.





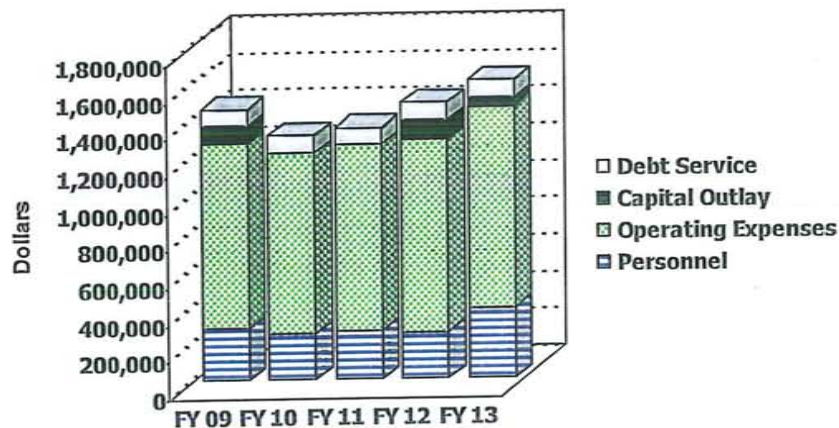
## Highlights

- Debt Service includes the 9<sup>th</sup> year payment of a loan, financed over 15 years, for the new Eighth Street water tower.
- Capital outlay funds of \$50,000 are included for a new mixer at the south Nags Head water tank.
- Budgetary capital in the amount of \$2,900 is included for a replacement spectrophotometer for lab analysis.
- Funds in the amount of \$96,000 are included in maintenance and repair to re-paint the south Nags Head water tank.

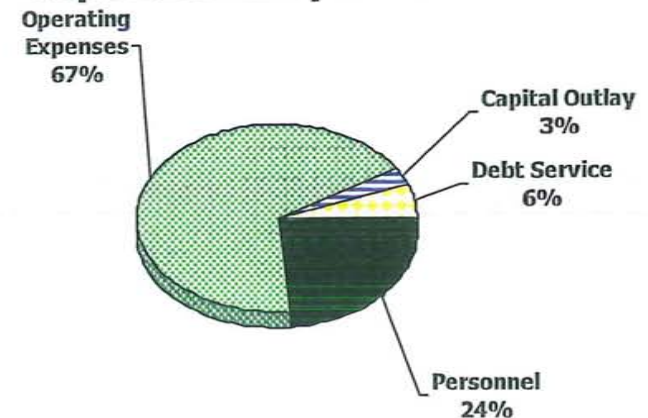
## Expenditures by Function

	FY 2011-2012 <u>Adopted</u>	FY 2012-2013 <u>Recommended</u>	<u>Percent Change</u>
<b>Personnel Services</b>	\$ 251,487	\$ 378,309	50.43%
<b>Operating Expenses</b>	\$ 1,036,494	\$ 1,084,135	4.60%
<b>Capital Outlay</b>	\$ 106,500	\$ 50,000	-53.05%
<b>Debt Service</b>	\$ 93,875	\$ 93,874	0.00%
<b>Total</b>	<b>\$ 1,488,356</b>	<b>\$ 1,606,318</b>	<b>7.93%</b>

## Adopted Expenditure History



## Recommended FY 2012-2013 Expenditures by Function









Description Budget Account Number	2010		2011		2012		***** Year 2013 *****			%PY
	Approp Actual	Actual	Approp Actual	Actual	Approp Actual	Actual	Requested	Admin. Recmnd	Budgeted	
CLASS : 3-61-810-6-0000-00										
OPER Funding 3-61-810-6-5552-00	S	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	_____	_____	_____	0.00
DUES AND SUBSCRIPTIONS 3-61-810-6-5553-00	S	0.00 0.00	0.00 0.00	0.00 0.00	2,328.00 2,312.36	2,433.00	2,433.00	_____	_____	0.00
INSURANCE 3-61-810-6-5554-00	S	0.00 0.00	0.00 0.00	0.00 0.00	56,804.00 49,472.54	_____	61,510.00	_____	_____	0.00
COST REIMBURSEMENT 3-61-810-6-5699-00	S	0.00 0.00	0.00 0.00	0.00 0.00	190,077.00 190,077.00	_____	_____	_____	_____	0.00
CAPITAL OUTLAY LAND 3-61-810-6-5771-00	S	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	_____	_____	_____	_____	0.00
CAPITAL OUTLAY BUILDINGS 3-61-810-6-5772-00	S	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	_____	_____	_____	_____	0.00
CAPITAL OUTLAY OTHER 3-61-810-6-5773-00	S	0.00 0.00	0.00 0.00	0.00 0.00	151,824.00 150,056.57	_____	_____	_____	_____	0.00
CAPITAL OUTLAY EQUIPMENT 3-61-810-6-5774-00	S	0.00 0.00	0.00 0.00	0.00 0.00	6,500.00 0.00	50,000.00	50,000.00	_____	_____	0.00
CAPITAL OUTLAY BUDGETARY 3-61-810-6-5774-33	S	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	2,900.00	2,900.00	_____	_____	0.00
L/P PRINCIPAL 3-61-810-6-5781-00	S	0.00 0.00	0.00 0.00	0.00 0.00	69,390.00 0.00	72,061.00	72,061.00	_____	_____	0.00
L/P INTEREST 3-61-810-6-5782-00	S	0.00 0.00	0.00 0.00	0.00 0.00	24,485.00 0.00	21,813.00	21,813.00	_____	_____	0.00
Control Total		0.00 0.00	0.00 0.00	0.00 0.00	1,748,269.00 1,207,049.99	1,437,375.00	1,606,318.00	_____	_____	0.00
CLASS Total		0.00 0.00	0.00 0.00	0.00 0.00	1,748,269.00 1,207,049.99	1,437,375.00	1,606,318.00	_____	_____	0.00



TOWN OF NAGS HEAD  
HISTORICAL EXPENDITURES

	FY 05/06 ACTUAL	FY 06/07 ACTUAL	FY 07/08 ACTUAL	FY 08/09 ACTUAL	FY 09/10 ACTUAL	FY 10/11 ACTUAL
WATER FUND						
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WATER OPERATIONS						
SALARIES						
810 510200 SALARIES/WAGES - REGULAR	150,243.62	174,598.59	174,850.97	178,464.91	167,366.14	172,183.53
810 510200 1 SALARIES/WAGES - REGULAR	.00	.00	.00	.00	.00	.00
810 510200 2 SALARIES/WAGES - REGULAR	.00	.00	.00	.00	.00	.00
810 510201 SALARIES - LONGEVITY PAY	3,504.86	3,819.64	3,971.51	6,998.05	4,493.39	5,294.46
810 510300 SALARIES/WAGES - PARTTIME	.00	.00	.00	.00	.00	.00
810 510400 OVERTIME PAY	1,048.01	712.42	678.75	547.02	1,286.54	138.77
810 510400 1 OVERTIME PAY	.00	.00	.00	.00	.00	.00
810 510400 2 OVERTIME PAY	.00	.00	.00	.00	.00	.00
810 510500 HOLIDAY PAY	3,617.43	3,745.94	4,064.74	3,301.64	2,271.44	3,504.61
810 510500 1 HOLIDAY PAY	.00	.00	.00	.00	.00	.00
810 510500 2 HOLIDAY PAY	.00	.00	.00	.00	.00	.00
TOTAL SALARIES	158,413.92	182,876.59	183,565.97	189,311.62	175,417.51	181,121.37
BENEFITS						
810 520600 FICA TAX	11,378.60	12,678.20	13,003.23	14,108.58	13,059.19	13,197.92
810 520600 1 FICA TAX	.00	.00	.00	.00	.00	.00
810 520600 2 FICA TAX	.00	.00	.00	.00	.00	.00
810 520700 GROUP HEALTH INSURANCE	43,701.16	45,538.78	44,474.74	43,499.11	35,488.57	38,326.20
810 520701 RETIREE'S GROUP HEALTH INSUR	.00	.00	.00	-2,263.59	5,751.96	1,571.29
810 520710 EMPLOYEE DENTAL	.00	.00	.00	.00	.00	.00
810 520720 EMPLOYEE LIFE	.00	.00	.00	.00	.00	.00
810 520800 RETIREMENT	7,829.74	8,740.58	8,971.48	9,473.09	8,817.64	11,658.00
810 520800 1 RETIREMENT	.00	.00	.00	.00	.00	.00
810 520800 2 RETIREMENT	.00	.00	.00	.00	.00	.00
810 521000 401 K	4,803.39	5,373.56	5,526.63	5,823.76	5,376.32	1,850.47
810 521000 1 401 K	.00	.00	.00	.00	.00	.00
810 521000 2 401 K	.00	.00	.00	.00	.00	.00
TOTAL BENEFITS	67,712.89	72,331.12	71,976.08	70,640.95	68,493.68	66,603.88
OPERATIONS						
810 522011 CAREER DEVELOPMENT OTHER COSTS	.00	.00	.00	.00	.00	.00
810 532000 TRAINING	600.00	433.00	728.78	-45.16	9.70	339.00
810 532002 SAFETY TRAINING	.00	417.30	.00	.00	.00	.00
810 532100 BUILDING/EQUIPMENT RENTAL	1,281.17	1,216.77	901.44	897.29	670.46	622.73
810 532100 1 BUILDING/EQUIPMENT RENTAL	.00	.00	.00	.00	.00	.00

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HISTORICAL EXPENDITURES

	FY 05/06 ACTUAL	FY 06/07 ACTUAL	FY 07/08 ACTUAL	FY 08/09 ACTUAL	FY 09/10 ACTUAL	FY 10/11 ACTUAL
WATER FUND						
810 532100 2 BUILDING/EQUIPMENT RENTAL	.00	.00	.00	.00	.00	.00
810 532200 TELEPHONE	4,224.82	4,166.37	4,411.69	4,539.76	4,655.14	4,517.66
810 532200 1 TELEPHONE	.00	.00	.00	.00	.00	.00
810 532200 2 TELEPHONE	.00	.00	.00	.00	.00	.00
810 532300 UTILITIES	38,138.60	40,316.86	42,497.20	42,529.24	43,970.82	44,586.24
810 532400 TRAVEL	1,598.55	993.20	329.09	1,256.80	1,444.87	1,224.29
810 532500 POSTAGE	2,208.87	1,569.56	1,974.63	1,761.64	1,549.54	1,577.56
810 532600 ADVERTISING	1,023.82	.00	73.50	.00	.00	.00
810 532700 PRINTING	1,640.50	1,892.74	1,920.51	2,163.55	2,489.00	2,567.00
810 543100 FUEL COSTS	4,293.32	4,889.41	5,110.66	3,842.11	5,127.98	5,874.86
810 543300 DEPARTMENT SUPPLIES	24,320.92	39,114.40	28,687.11	30,232.25	22,176.80	18,037.89
810 543300 1 DEPARTMENT SUPPLIES	.00	.00	.00	.00	.00	.00
810 543300 2 DEPARTMENT SUPPLIES	.00	.00	.00	.00	.00	.00
810 543400 OTHER SUPPLIES	3,499.70	3,519.00	4,892.65	3,481.49	1,905.00	1,776.00
810 543400 1 OTHER SUPPLIES	.00	.00	.00	.00	.00	.00
810 543400 2 OTHER SUPPLIES	.00	.00	.00	.00	.00	.00
810 543405 OTHER SUPPLIES - COMPUTER	1,413.60	3,127.87	.00	.00	.00	967.00
810 543500 MAINT/REPAIR BUILDINGS	126,198.27	6,695.66	4,623.49	21,584.53	.00	.00
810 543500 1 MAINT/REPAIR BUILDINGS	.00	.00	.00	.00	.00	.00
810 543500 2 MAINT/REPAIR BUILDINGS	.00	.00	.00	.00	.00	.00
810 543600 MAINT/REPAIR EQUIPMENT	13,134.92	28,881.93	22,100.17	17,036.47	30,515.97	22,858.56
810 543600 1 MAINT/REPAIR EQUIPMENT	.00	.00	.00	.00	.00	.00
810 543600 2 MAINT/REPAIR EQUIPMENT	.00	.00	.00	.00	.00	.00
810 543700 MAINT/REPAIR VEHICLES	1,169.30	3,637.80	502.53	1,100.42	991.10	793.14
810 543700 1 MAINT/REPAIR VEHICLES	.00	.00	.00	.00	.00	.00
810 543700 2 MAINT/REPAIR VEHICLES	.00	.00	.00	.00	.00	.00
810 543701 VEHICLE REPAIRS	.00	.00	.00	.00	.00	.00
810 543900 UNIFORMS	3,445.16	2,904.96	3,073.26	3,319.09	1,282.46	1,302.72
810 544000 PROFESSIONAL FEES	27,725.88	8,676.89	6,001.68	4,731.33	16,732.05	34,847.00
810 544500 CONTRACTED SERVICES	7,561.99	5,208.73	48,108.34	7,072.70	8,373.30	6,547.12
810 544500 1 CONTRACTED SERVICES	.00	.00	.00	.00	.00	.00
810 544500 2 CONTRACTED SERVICES	.00	.00	.00	.00	.00	.00
810 544800 PURCHASES FOR RESALE	665,091.93	700,738.27	737,589.54	792,242.44	882,504.62	845,210.50
810 555000 DEPRECIATION EXPENSE	268,808.58	303,035.63	398,623.10	318,563.63	273,966.21	269,531.78
810 555200 OPEB Funding	.00	.00	.00	.00	13,563.28	19,143.29
810 555300 DUES AND SUBSCRIPTIONS	1,456.24	1,380.32	2,183.24	2,190.81	2,230.00	2,277.36
810 555400 INSURANCE	33,333.00	34,328.00	39,081.00	35,128.00	38,828.81	45,813.00
810 555400 1 INSURANCE	.00	.00	.00	.00	.00	.00
810 555400 2 INSURANCE	.00	.00	.00	.00	.00	.00
810 569900 COST REIMBURSEMENT	123,758.00	125,926.00	121,356.00	95,084.00	190,077.00	190,077.00
810 577433 CAPITAL OUTLAY BUDGETARY	15,627.08	2,919.50	.00	.00	.00	.00
TOTAL OPERATIONS	1,371,554.22	1,325,990.17	1,474,769.61	1,388,712.39	1,543,064.11	1,520,491.70
CAPITAL OUTLAY						
810 577200 CAPITAL OUTLAY BUILDINGS	107,948.00	.00	.00	.00	.00	.00

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HISTORICAL EXPENDITURES

	FY 05/06 ACTUAL	FY 06/07 ACTUAL	FY 07/08 ACTUAL	FY 08/09 ACTUAL	FY 09/10 ACTUAL	FY 10/11 ACTUAL
WATER FUND						
810 577300 CAPITAL OUTLAY OTHER	828,153.67	.00	.00	.00	.00	.00
810 577400 CAPITAL OUTLAY EQUIPMENT	.00	.00	.00	100,460.00	.00	.00
TOTAL CAPITAL OUTLAY	936,101.67	.00	.00	100,460.00	.00	.00
DEBT SERVICE						
810 578100 L/P PRINCIPAL	162,866.16	78,872.81	69,686.42	61,955.04	64,761.30	66,905.30
810 578200 LEASE PURCHASE INTEREST	43,608.12	38,115.00	34,490.59	31,919.57	29,113.31	26,969.31
TOTAL DEBT SERVICE	206,474.28	116,987.81	104,177.01	93,874.61	93,874.61	93,874.61
TOTAL WATER OPERATIONS	2,740,256.98	1,698,185.69	1,834,488.67	1,842,999.57	1,880,849.91	1,862,091.56