

## RATE COMPARISON

Rate Type	Current Rate	New Rate	Monthly Increase/Decrease
Fixed Rate	456.17	378.36	(77.81)
Capital Recovery	56.81	62.29	5.48
Totals	512.98	440.65	(72.33)

Rate Type	New Rate	New Rate	Annual Increase/Decrease
Fixed Rate	5,474.01	4,540.34	(933.67)
Capital Recovery	671.73	747.44	75.71
Totals	6,145.74	5,287.78	(857.96)

**WASTE WATER TREATMENT RATE DETERMINATION for NC AQUARIUM at FORT FISHER  
FY 2020-2021 Rate Structure**

**FLOW PERIOD 7/1/19 TO 6/30/20**

ADMINISTRATION TOTALS	TREAT %	APPLIED COSTS	FIXED COSTS	VARIABLE COSTS	TOTAL	DEPRECIATED CAPITAL	FIXED %
SALARIES	15%	\$ 239,614.35	\$ 35,942.15	-	\$ 35,942.15		100%
FICA	15%	\$ 18,330.50	\$ 2,749.57	-	\$ 2,749.57		100%
GROUP INSURANCE	15%	\$ 24,457.24	\$ 3,668.59	-	\$ 3,668.59		100%
RETIREMENT	15%	\$ 17,971.08	\$ 2,695.66	-	\$ 2,695.66		100%
TRAVEL/TRAINING	15%	\$ 718.08	\$ 107.71	-	\$ 107.71		100%
M&R EQUIP	5%	\$ -	\$ -	-	\$ -		50%
M&R Software	5%	\$ -	\$ -	-	\$ -		50%
PROFESSIONAL SERVICES	5%	\$ 12,599.99	\$ 315.00	\$ 315.00	\$ 630.00		50%
INSURANCE, BONDS	18.13%	\$ -	\$ -	-	\$ -		100%
CAP PROJECTS EQUIP	5%	\$ -	\$ -	-	\$ -		50%
Notes Pymt for new Town Hall 5.17% 20YR ('03) Final Pymt 7/2019	37.25%	\$ 114,901.14	\$ 42,800.67	-	\$ 42,800.67	\$ 1,411,505	100%
ADMINISTRATION TOTALS		\$ 428,592.37	\$ 88,279.36	\$ 315.00	\$ 88,594.36		
LESS CAPITAL RECOVERY AMOUNTS							
CAPITAL RECOVERY DEBT (w/beginning year)							
Notes Pymt- WWTP UPGRADE REVENUE BONDS 25 YR ('16)	100%	\$ 89,728.80	\$ 89,728.80	-	\$ 89,728.80	\$ 1,303,676	100%

**WASTE WATER TREATMENT RATE DETERMINATION for KURE BEACH**  
**FY 2020-2021 Rate Structure**

FLOW PERIOD 7/1/19 TO 6/30/20

TREATMENT OPERATIONS	FIXED COSTS	VARIBALE COSTS	TOTAL	FIXED %	VAR %
SALARIES	244,753.52	-	244,753.52	100.00%	0%
OVERTIME	744.22	-	744.22	100.00%	0%
FICA TAXES	18,017.88	-	18,017.88	100.00%	0%
GROUP INS	37,955.50	-	37,955.50	100.00%	0%
RETIREMENT	36,600.31	-	36,600.31	100.00%	0%
401K Match	6,040.74	-	6,040.74	100.00%	0%
UNIFORMS	1,646.91	-	1,646.91	100.00%	0%
WORKMANS COMP	8,000.00	-	8,000.00	100.00%	0%
UNEMPLOYMENT	-	-	-	100.00%	0%
PHONES/CELLPHONES/DATA	7,440.59	-	7,440.59	100.00%	0%
ELECTRIC	-	129,252.78	129,252.78	0%	100%
TRAVEL	1,578.00	-	1,578.00	100%	0%
M&R BUILDINGS	6,044.45	-	6,044.45	100%	0%
M&R EQUIPMENT	22,378.46	22,378.46	44,756.91	50%	50%
M&R GROUND	3,541.28	3,541.28	7,082.55	50%	50%
M&R COMPUTERS	346.08	346.08	692.16	50%	50%
MAINTENANCE FLEET/CAPITAL OUTLAY					
a). OPERATIONAL EXPENSE FOR WWTP (813)	4,251.86	4,251.86	8,503.71	50%	50%
b). CAPITAL OUTLAY (PROJECT FUND)	-	-	-	50%	50%
CHEMICALS	-	55,623.44	55,623.44	0%	100%
SUPPLIES	1,687.78	1,687.78	3,375.55	50%	50%
SMALL TOOLS	354.14	354.14	708.28	50%	50%
CONTRACT SERVICES	-	180,254.25	180,254.25	0%	100%
PROFESSIONAL SERVICES	-	29,056.61	29,056.61	0%	100%
PLANT RENOVATION	-	126,271.09	126,271.09	100%	0%
RENTAL OF PROPERTY	11,500.00	-	11,500.00	100%	0%
LIABILITY INSURANCE	20,644.29	-	20,644.29	100%	0%
DUES & SUBSCRIPTIONS	39.97	-	39.97	100%	0%
PERMITS & FEES	19,350.00	-	19,350.00	100%	0%
PPE & SAFETY EQUIPMENT	3,863.75	-	3,863.75	100%	0%
CAPITAL PROJECTS EQUIP	-	-	-	50%	50%
<b>TOTAL OPERATIONS COSTS (Page 2)</b>	<b>456,779.71</b>	<b>553,017.75</b>	<b>1,009,797.46</b>		
<b>TOTAL ADMINSTRATIVE COSTS (Page 1)</b>	<b>88,279.36</b>	<b>315.00</b>	<b>88,594.36</b>		
<b>TOTAL APPLIED COSTS</b>	<b>545,059.07</b>	<b>553,332.75</b>	<b>1,098,391.82</b>		

**WASTE WATER TREATMENT RATE DETERMINATION for NC AQUARIUM at FORT FISHER  
FY 2019-2020 Rate Structure**

FLOW PERIOD 7/1/18 TO 6/30/19

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**Rate Calculation and Summary**

*Monthly Fixed Cost*

Actual Sewerage Flows:

Annual Flow from Carolina Beach	271,060,800	
Annual Flow from Kure Beach	77,717,000	
Projected Annual Flow from NC Aquarium	7,300,000	(Based on 80% of allocated flow)
Total Flow at WWTP	348,777,800	
Average Annual Flow by Kure Beach	22.283%	

Percentage Allocation of Total Flow:

Total Flow allocated to Kure Beach	727,784 GPD
Total NPDES permitted plant model period	3 MGD
Percentage of flow allocated to Kure Beach	24.259467%
Total Flow allocated to NC Aquarium	25,000 GPD
Percentage of flow allocated to NC Aquarium	0.8330%
TOTAL flow % allocated to Kure Bch/NC Aquarium	25.092467%

Fixed Operations Costs from page 2	545,059.07
Fixed Capital Recovery Costs from page 1	89,728.80

	Annual	Monthly
Fixed Operations Costs	\$ 545,059.07	
Fixed % Rate for Fixed Operations Costs	0.8330%	
Annual Fixed Rate for NC Aquarium Fixed Operations Cost	\$ 4,540.34	\$ 378.36
Fixed Capital Recovery Costs	\$ 89,728.80	
Fixed % Rate for Capital Recovery Costs	0.8330%	
Annual Fixed Rate for NC Aquarium Capital Recovery Costs	\$ 747.44	\$ 62.29
<b>Total Annual Fixed Operations &amp; Capital Recovery Costs for NC Aquarium</b>	<b>\$ 5,287.78</b>	<b>\$ 440.65</b>

*Gallongage Rate from Variable Costs - Not Applicable*

	Annual	Monthly
<b>Total Fixed Rate cost for NC Aquarium for Waterwater Treatment</b>	<b>\$ 5,287.78</b>	<b>\$ 440.65</b>

<b>Waste Water Treated</b>					
<b>FLOW PERIOD 7/1/19 TO 6/30/20</b>					
<b>Month</b>	<b>Carolina Beach Flow</b>	<b>Kure Beach Flow</b>	<b>Total Flow</b>	<b>KB's Mthly % of Total Flow</b>	
Jul-19	25,233,400	7,793,600	33,027,000	23.60%	
Aug-19	20,971,900	10,636,100	31,608,000	33.65%	
Sep-19	21,911,800	8,440,200	30,352,000	27.81%	
Oct-19	18,095,400	5,185,600	23,281,000	22.27%	
Nov-19	21,180,400	4,078,600	25,259,000	16.15%	
Dec-19	18,636,700	4,297,300	22,934,000	18.74%	
Jan-20	17,859,500	4,357,700	22,217,200	19.61%	
Feb-20	20,351,500	5,300,000	25,651,500	20.66%	
Mar-20	22,194,900	6,364,200	28,559,100	22.28%	
Apr-20	17,326,500	2,332,500	19,659,000	11.86%	
May-20	25,806,200	5,803,800	31,610,000	18.36%	
Jun-20	41,492,600	13,127,400	54,620,000	24.03%	
	<b>271,060,800</b>	<b>77,717,000</b>	<b>348,777,800</b>	<b>22.28%</b>	

Kure Beach flow gallons in FY19-20

<b>PRIOR YEAR FLOW</b>					
<b>Waste Water Treated</b>					
<b>FLOW PERIOD 7/1/18 TO 6/30/19</b>					
<b>Month</b>	<b>Carolina Beach Flow</b>	<b>Kure Beach Flow</b>	<b>Total Flow</b>	<b>KB's Mthly % of Total Flow</b>	
Jul-18	41,141,800	14,645,200	55,787,000	26.25%	
Aug-18	46,706,400	15,196,600	61,903,000	24.55%	
Sep-18	44,927,400	15,371,600	60,299,000	25.49%	
Oct-18	28,417,100	10,402,900	38,820,000	26.80%	
Nov-18	25,694,200	7,649,800	33,344,000	22.94%	
Dec-18	26,080,500	11,028,500	37,109,000	29.72%	
Jan-19	22,088,300	8,660,700	30,749,000	28.17%	
Feb-19	18,048,800	4,990,200	23,039,000	21.66%	
Mar-19	19,666,100	5,683,900	25,350,000	22.42%	
Apr-19	20,026,100	5,967,900	25,994,000	22.96%	
May-19	21,831,200	1,167,800	22,999,000	5.08%	
Jun-19	24,427,600	3,811,400	28,239,000	13.50%	
	<b>339,055,500</b>	<b>104,576,500</b>	<b>443,632,000</b>	<b>23.57%</b>	

Variance between FY18/19 and FY19/20                      (67,994,700)                      (26,859,500)                      (94,854,200)

<i>Month</i>	<i>Year</i>	<i>Monthly Gallons</i>	<i>Amount Paid</i>	<i>Adjusted Amount Due to Audit</i>	<i>Difference</i>
July	2020	No Data	512.98	440.65	-72.33
August	2020	No Data	512.98	440.65	-72.33
September	2020	No Data	512.98	440.65	-72.33
October	2020	No Data	512.98	440.65	-72.33
November	2020	No Data	512.98	440.65	-72.33
December	2020	No Data	512.98	440.65	-72.33
January	2020	No Data	512.98	440.65	-72.33
February	2020	No Data	512.98	440.65	-72.33
March	2020	No Data	512.98	440.65	-72.33
April	2020	No Data			0.00
May					0.00
June					0.00
<b>Total Due for 2020/2021</b>		0			-650.97

**Total Due to Aquarium**

**\$ (650.97)**