

NORTH CARY WATER RECLAMATION FACILITY

Additional information about North Cary Water Reclamation Facility may be obtained by contacting Chris Parish, Superintendent, at (919) 677-0850, or through e-mail chris.parisher@townofcary.org, or by visiting the Town's website at www.townofcary.org.

TOWN OF CARY GOALS AND INITIATIVES

Town Focus Areas	Focus Area I: Community Planning					Focus Area II: Infrastructure				Focus Area III: Financial Condition			Focus Area IV: Municipal Services			
Town Goals	Achieve a well-planned community using innovative and proactive planning approaches and techniques.					Ensure that roads, water and wastewater facilities, parks, and other infrastructure exists for the existing citizens and for the future needs identified in the comprehensive plan.				Achieve a stable and strong financial position by accurately estimating, prudently allocating, and managing financial resources.			Achieve a high level of service to the citizens in a prompt, reliable, responsive, and cost-effective manner.			
Town Initiatives (pages 2 and 3 of this document contain full descriptions of each Town Initiative)	Growth Management	Long Range Water Resources	Housing Program	Comprehensive Planning	Land Use Plan	Environmental Concerns	Infrastructure and Level of Service Standards	Fiscal Plan	Water, Wastewater, Transportation Infrastructure	Broad Band Technology Services	Long Term Financial Plan	Performance Measurement	Short Term Financial Planning	Review Operations	Cost Consciousness and Sustained Service Provision	Public Involvement
Departmental Goals and Initiatives					1,2 3				1,2,3 6					4	4,5, 6	

DIVISION GOALS AND INITIATIVES

Wastewater Treatment

1. Treat up to 12 million gallons of wastewater per day from the collection system in the north side of Cary.
2. Provide preventive and corrective maintenance for the main plant site, one regional pump station, a biosolids processing and biosolids digester facility, a biosolids gravity belt thickener system, and a new reclaimed water system.

Biosolids Management

3. Maintain less than 3% solids in digesters to minimize odor risks. Operate the biosolids facility in a mode where less than 1 million gallons is in inventory at a given time.
4. Transport thickened biosolids to South Cary biosolids dryer for processing.

Reclaimed Water

5. Provide high quality treated effluent for reuse in residential neighborhoods and commercial markets.
6. Supply commercial contractors and the Town of Cary PW/UT Dept. with a viable bulk water source for irrigation, street sweeping, compaction, and sewer flushing, etc.

FY 2008 ACCOMPLISHMENTS

- Maintained all staff certification and associated continuing education units.
- Successfully operated a reclaimed water distribution facility to provide alternative resources for residential and industrial application.
- Continued with career ladder program for the staff.
- Comprehensive effort to lower biosolids inventory, which related directly to odor reduction at facility. The facility is maintaining less than one million gallons of biosolids at any given time. Biosolids are removed weekly and trucked to the South Cary Dryer Facility. No odor complaints were registered during the previous fiscal year.
- NCWRF met and exceeded permit limits for FY 2007.
- Lowered the overall cost to treat wastewater per 1000 gallons.

- Performed pilot studies for dewatering biosolids pertaining to design of new Western Wake plant.
- Completion of ether net conversion on plant SCADA system
- Successful shutdown of reclaimed water system to perform maintenance at facility and for distribution system checks – February 20 – 29, 2008

KEY PERFORMANCE OBJECTIVES

- Meet or exceed National Pollutant Discharge Elimination System (NPDES) percentage limits for Coliform, Biological Oxygen Demand (BOD), Ammonia, Suspended Solids, Total Nitrogen and Total Phosphorus.
- Maintain direct operational budgeted costs at less than \$1.25/1,000 gallons of treated wastewater.
- Provide a safe and beneficially reusable product (reclaimed water) for the residents and businesses in Cary to use for irrigation.

KEY PERFORMANCE MEASURES

<u>Performance Measure</u>	<u>Actual FY 2007</u>	<u>Estimated FY 2008</u>	<u>Projected FY 2009</u>
*Compliance Levels w/State Pollutant Regs.			
Fecal Coliform	2.67 ml	200/100 ml	200/100 ml
Carbonaceous BOD (summer)	.83 mg/l	4.1 mg/l	4.1 mg/l
Carbonaceous BOD (winter)	.81 mg/l	8.2 mg/l	8.2 mg/l
Ammonia-N (summer)	.05 mg/l	.5 mg/l	.5 mg/l
Ammonia-N (winter)	.09 mg/l	1.0 mg/l	1.0 mg/l
Total Nitrogen (pounds per year)	75,220	<144,136	<144,136
Phosphorous	.37 mg/l	<2.0 mg/l	<2.0 mg/l
Total Suspended Solids	1.03 mg/l	<30 mg/l	<30 mg/l
Operational costs per 1,000 gallons treated	\$1.13	\$1.10	\$1.20
Biosolids Disposal costs/dry ton	\$191	\$220	\$220

*Actual column represents annual average reported. Projected numbers represent minimum limits required by NC regulations.

KEY WORKLOAD INDICATORS

<u>Workload Indicators</u>	<u>Actual FY 2007</u>	<u>Estimated FY 2008</u>	<u>Projected FY 2009</u>
Biosolids produced (lbs.)	3,466,000	3,577,000	3,460,000
Number of equipment malfunction reports	150	150	150
Number of pollutant compliance violations	0	0	0
Million gallons of wastewater treated/year	2,562	2,920	2,620

ACTIVITY HISTORY

Fund Number: 030-7051					
<u>Activity</u>	<u>Actual FY 2005</u>	<u>Actual FY 2006</u>	<u>Actual FY 2007</u>	<u>Estimated FY 2008</u>	<u>Budget FY 2009</u>
Personnel Services	\$1,025,059	\$1,082,407	\$1,126,976	\$1,206,037	\$1,278,830
Operations and Maintenance	\$2,346,585	\$3,586,316	\$3,775,555	\$5,657,786	\$5,366,237
Capital Outlay	\$14,812	\$17,210	\$8,250	\$24,000	\$20,800
Total	\$3,386,456	\$4,685,933	\$4,910,781	\$6,887,823	\$6,665,867
Authorized FTEs	16.75	16.75	16.75	16.75	16.75

SIGNIFICANT BUDGET AND/OR SERVICE LEVEL CHANGES BEYOND CURRENT LEVELS

- Capital request for replacing AA equipment to monitor for metals in our discharge permit.
- Replacement of our phone system and coordinate with replacing our communications / intercom system campus wide. This effort is in cooperation with TS and the North Cary WRF.