



# ORANGE WATER AND SEWER AUTHORITY

*Quality Service Since 1977*

**AGENDA**  
**PUBLIC HEARINGS AND MEETING OF THE OWASA BOARD OF DIRECTORS**  
**THURSDAY, MAY 25, 2006, 7:00 P.M.**  
**CHAPEL HILL TOWN HALL**

In compliance with the "Americans with Disabilities Act," interpreter services are available with five days prior notice. If you need this assistance, please call the Clerk to the Board at 537-4217.

7:00 PM

**Announcements**

1. Announcements by the Chair
  - A. Any Board member who knows of a conflict of interest or potential conflict of interest with respect to any item on the agenda tonight is asked to disclose the same at this time.
  - B. [A Resolution Honoring the Distinguished Public Service and Expertise of Dr. Daniel A. Okun](#)
2. Announcements by Board Members
  - A. Verbal Report on Budget and Financial Planning Committee meeting held on Wednesday, May 24, 2006 (Milton Heath)
  - B. The Human Resources Committee will meet on Thursday, June 8, 2006 at 5:30 PM in the OWASA Boardroom to discuss the Alternative Employee Compensation Strategies (Penny Rich)
3. Announcements by Staff
  - A. Water Supply Advisory Update (Ed Holland)
  - B. Dawn to dusk recreation hours for May through August at University Lake (Greg Feller)

7:10 PM

**Petitions and Requests**

1. Public
2. Board
3. Staff

7:15 PM

**PUBLIC HEARINGS**

1. [Public Hearing on Draft Operations and Maintenance and Capital Improvements Program Budgets:](#)
  - A. Presentation by Ed Kerwin, Imtiaz Ahmad and Kevin Ray
  - B. Public Comments
  - C. Board Discussion
  - D. Motion to Close Public Hearing
2. Public [Hearing on Proposed Adjustments to Rates, Fees, and Charges:](#)
  - A. Presentation by Kevin Ray
  - B. Public Comments
  - C. Board Discussion
  - D. Motion to Close Public Hearing

**CONSENT AGENDA**

7:50 PM **Minutes** (Andrea Orbich)

1. [Approval of Minutes for the April 13, 2006 Meeting of the Board of Directors](#)
2. [Approval of Minutes for the April 27, 2006 Meeting of the Board of Directors](#)
3. [Approval of Minutes for the May 11, 2006 Closed Session of the Board of Directors for the purpose of discussing land acquisition](#)

**REGULAR AGENDA**

**Information and Reports**

7:55 PM

4. [Semiannual Status Report for Various Capital Improvement Projects, including the Semiannual Report on Communications Plans for Capital Projects \(Stuart Carson\)](#)

**CLOSED SESSION**

8:10 PM

5. [For the Purpose of Discussing a Personnel Matter \(Penny Rich\)](#)

A RESOLUTION HONORING THE DISTINGUISHED PUBLIC  
SERVICE AND EXPERTISE OF DR. DANIEL A. OKUN

WHEREAS, Dr. Daniel A. Okun is an internationally acclaimed champion of the principle of selecting drinking water sources of the highest and best quality available and protecting these resources through vigorous and pro-active public management; and

WHEREAS, Dr. Okun led a University-sponsored project in the 1960s which identified Cane Creek in southwestern Orange County as the preferred site of the Carrboro-Chapel Hill community's primary water supply source, and which resulted in the construction of the Cane Creek Reservoir and Dam in 1989, thus providing a very high quality water source with a capacity of three billion gallons for our community; and

WHEREAS, Dr. Okun gave extensive expert testimony during the legal proceedings for the Cane Creek Reservoir project, and his support and assistance was invaluable to the success of the project; and

WHEREAS, the governing boards of the Town of Carrboro, Town of Chapel Hill, Orange County and OWASA have followed Dr. Okun's principles of source water protection in adopting some of the most progressive watershed protection ordinances in the United States to ensure the long-term viability of the University Lake – Cane Creek Reservoir – Stone Quarry supply system; and

WHEREAS, Dr. Okun's longstanding leadership regarding the use of reclaimed water for non-drinking purposes has greatly encouraged and supported the work of OWASA and the University to plan and implement a reclaimed water system project which will reduce our vulnerability to future droughts by reusing highly treated wastewater rather than drinking water for certain non-potable purposes on the University campus, and which will reduce the community's water supply costs for decades into the future; and Dr. Okun is also a strong advocate for dual water systems, which are designed with adequate capacity to use reclaimed water for fire protection and enable drinking water systems to separately provide high quality drinking water for human consumption and other essential purposes; and

WHEREAS, Dr. Okun served as an outstanding member of the faculty of the University of North Carolina at Chapel Hill from 1952 to 1982, including 18 years as the Chair of the Department of Environmental Sciences and Engineering in the School of Public Health; and in 1999 the University created the Daniel A. Okun Distinguished Professorship of Environmental Engineering; and the University has also bestowed upon Dr. Okun the title of Kenan Professor, Emeritus; and

WHEREAS, Dr. Okun's consultancy career has included service to local, State and Federal agencies in the United States, and internationally to the World Bank, the World Health Organization, and the U.S. Agency for International Development and in more than 80 countries around the world; and Dr. Okun has received numerous State, national and international awards, including the Eddy Award, the Fuller Award, the first Freese Award of the American Society of Civil Engineers, the Abel Wolman Award of Excellence from the American Water Works Association, the Fair Award of the American Academy of Environmental Engineers, the Billard Research Award of the New York Academy of

Dr. Daniel A. Okun

May 25, 2006

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Sciences, the Boyd Award of the Association of Metropolitan Water Agencies, and the Friendship Medal of the Institute of Water and Environmental Management in Great Britain;

NOW THEREFORE BE IT RESOLVED by the Board of Directors of the Orange Water and Sewer Authority:

1. That the Board does hereby formally recognize, honor and praise the extensive public service, expertise and wisdom of Dr. Daniel A. Okun for his many achievements and his outstanding service to OWASA, our community, the State of North Carolina, our nation and the world.

Adopted this the 25<sup>th</sup> day of May, 2006.

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Michael A. Clarke, Chair

ATTEST:

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Randolph M. Kabrick, P.E.  
Secretary

## MAY 25, 2006 PUBLIC HEARINGS

1. **Public Hearing on Draft Operations and Maintenance Budget and Capital Improvements Program Budgets:**
  - A. Presentation by Ed Kerwin, Imtiaz Ahmad and Kevin Ray
  - B. Public Comments
  - C. Board Discussion
  - D. Motion to Close Public Hearing
  
2. **Public Hearing on Proposed Adjustments to Rates, Fees, and Charges:**
  - A. Presentation by Kevin Ray
  - B. Public Comments
  - C. Board Discussion
  - D. Motion to Close Public Hearing

## **PUBLIC HEARING ITEM 1**

1. Public Hearing on Draft Annual Budget and Capital Improvements Program Budget

A Memorandum on the Draft Final Annual Budget is provided for your review

A Draft Final Capital Improvements Program Budget is provided for your review

**MEMORANDUM**

**TO:** Board of Directors  
**THROUGH:** Ed Kerwin  
**FROM:** Kevin M. Ray  
**DATE:** May 19, 2006  
**SUBJECT:** Draft Annual Budget for Public Hearing

The *Preliminary Annual Budget* adopted April 27, 2006 is substantially the same budget that we will present during the upcoming public hearings. Please bring your preliminary budget to the meeting for reference. If you prefer, staff can make another copy available.

The differences between the *Preliminary Annual Budget* and the draft budget are highlighted below.

- Approximately \$285,000 in operating expenses related to meter reading originally included in the Customer Service Department have been transferred to the Water Distribution Department. These costs include direct employee costs such as wages, fringe benefits, and training; and indirect costs for equipment upgrades, maintenance and fuel. While transferred from one department to another, this transfer does not effect the total appropriation.
- Total spending reflects a \$10,000 increase for the purchase of handheld equipment with automated meter reading capabilities. This change does increase the appropriation for capital layout.

I look forward to your support as we complete the annual budget process.

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Kevin M. Ray  
Director of Finance and Customer Service

**MEMORANDUM**

**TO:** Board of Directors

**THROUGH:** Ed Kerwin

**FROM:** F. Stuart Carson

**DATE:** May 18, 2006

**SUBJECT:** Final Draft of the Capital Improvements Program for Fiscal Years 2007-2021

We have completed the Final Draft of the Capital Improvements Program (CIP) for fiscal years (FY) 2007-2021 (attached). The Budget and Financial Planning Committee reviewed the First Draft of the CIP on March 21<sup>st</sup> and March 22<sup>nd</sup>. All the comments and suggestions from the Committee have been considered in the developing the Final Draft of the CIP.

A comparison of the budgets for the current (FY 2006-2020) CIP and Final Draft FY 2007-2021 CIP is in the following table.

	<b>1<sup>st</sup> 5-Year Total</b>	<b>2<sup>nd</sup> 5-Year Total</b>	<b>3<sup>rd</sup> 5-Year Total</b>	<b>15-Year Total</b>
<b>Current CIP</b> (FY 2006-2020)	\$85,612,000	\$69,528,000	\$51,781,000	\$206,921,000
<b>Final Draft CIP</b> (FY 2007-2021)	\$77,148,000	\$85,943,000	\$59,910,000	\$223,001,000
<b>Variance</b>	<b>(\$8,464,000)</b>	<b>\$16,415,000</b>	<b>\$8,129,000</b>	<b>\$16,080,000</b>

Below we have itemized and briefly described the noteworthy changes in each category.

**RAW WATER SUPPLY – 270**

	<b><u>5-Year Total</u></b>	<b><u>15-Year Total</u></b>
<b>Current Year (2006-2020):</b>	\$3,648,000	\$6,043,000
<b>Final Draft (2007-2021):</b>	\$5,931,000	\$8,342,000
<b>Funding Change:</b>	<b>\$2,283,000</b>	<b>\$2,299,000</b>

***Explanation:***

- The initial contract for the Stone Quarry Pump Station project (CIP 270-13) was terminated prior to completion. Funds are included in the Stone Quarry Pump Station 2006 Rebid project (CIP



270-17) to complete the construction work. The requested increase for this project is \$2,465,000 due to the higher bid received for the current project.

- An increase of \$2,000,000 is proposed for the Watershed Preservation project (CIP 270-07) to potentially acquire additional critical lands for protection.
- A reduction is proposed for Stone Quarry Acquisition project (CIP 270-09) because the amount owed under the purchase contract with the previous property owner was significantly reduced during FY 2006.
- The University Lake Pump Station Improvements project (CIP 270-11) includes a new project to optimize use of the reservoirs by installation of a new pump in the near. The requested increase for this project is \$198,000.

**RAW WATER TRANSMISSION - 271**

	<b><u>5-Year Total</u></b>	<b><u>15-Year Total</u></b>
<b>Current Year (2006-2020):</b>	\$0	\$11,775,000
<b>Final Draft (2007-2021):</b>	<u>\$0</u>	<u>\$11,775,000</u>
<b>Funding Change:</b>	<b>\$0</b>	<b>\$0</b>

*No changes from the current year's CIP*

**WATER TREATMENT – 272**

	<b><u>5-Year Total</u></b>	<b><u>15-Year Total</u></b>
<b>Current Year (2006-2020):</b>	\$1,434,000	\$2,984,000
<b>Final Draft (2007-2021):</b>	<u>\$ 761,000</u>	<u>\$2,977,000</u>
<b>Funding Change:</b>	<b>(\$673,000)</b>	<b>(\$7,000)</b>

***Explanation:***

- The Water Treatment Plant Upgrade and Expansion Phase 4 project (CIP 272-03) was completed during FY 2006, reducing the first 5-year period funding in this category.
- New funds for the Water Treatment Plant Instrumentation and Control Improvements project (CIP 272-05) are recommended in the first 5-year period to make the existing software program more efficient and reliable. The requested increase in the budget for this project is \$25,000.
- A funding increase of \$182,000 is being proposed for the Water Treatment Plant (CIP 272-10) project during FY 2007 for rehabilitation of storage tanks and other equipment.

**FINISHED WATER PUMPING – 273**

	<b><u>5-Year Total</u></b>	<b><u>15-Year Total</u></b>
<b>Current Year (2006-2020):</b>	\$1,184,000	\$2,318,000
<b>Final Draft (2007-2021):</b>	<u>\$1,445,000</u>	<u>\$2,766,000</u>
<b>Funding Change:</b>	<b>\$261,000</b>	<b>\$448,000</b>

***Explanation:***

- The funding increase is needed because design and permitting processes for the Booster Pump Station at I-40 project (CIP 273-08) have taken longer than anticipated, resulting in fewer funds being spent in FY 2006 than anticipated. Also, the engineer’s most recent construction cost estimate is higher than previously based on final design work and changes to the design to meet City of Durham and Town of Chapel Hill requirements.
- Funding increases are requested due to increased anticipated costs to purchase property or an easement for the Booster Pump Station at Barbee Chapel Road (CIP 273-09) and for the pump station design and construction.

**FINISHED WATER STORAGE - 274**

	<b><u>5-Year Total</u></b>	<b><u>15-Year Total</u></b>
<b>Current Year (2006-2020):</b>	\$3,503,000	\$3,503,000
<b>Final Draft (2007-2021):</b>	<u>\$3,403,000</u>	<u>\$3,403,000</u>
<b>Funding Change:</b>	<b>(\$100,000)</b>	<b>(\$100,000)</b>

***Explanation:***

- The funding decrease reflects results from substantial progress in our study of the need for a 1.5 Million Gallon (MG) Elevated Tank for the northwest part of our service area (CIP 274-02). Proposed funding for future improvements is the same but the potential construction timing is postponed for one year. At the conclusion of the study, staff will have a more complete understanding whether the project can be further delayed.

**WATER TRANSMISSION AND DISTRIBUTION - 275**

	<b><u>5-Year Total</u></b>	<b><u>15-Year Total</u></b>
<b>Current Year (2006-2020):</b>	\$11,607,000	\$43,803,000
<b>Final Draft (2007-2021):</b>	<u>\$14,089,000</u>	<u>\$54,497,000</u>
<b>Funding Change:</b>	<b>\$2,482,000</b>	<b>\$10,694,000</b>

***Explanation:***

- Funding increases in the first 5-year period are requested for additional spending on the Water Main – Road Improvements Projects (CIP 275-15) to accommodate coordination of utility improvements with planned roadway improvements; for an excess capacity credit due to a private

developer for water main improvements along Eubanks Road as part of a Reinforcement Project (CIP 275-25); for refinements in the estimated design and construction costs for the 12-Inch Water Main Along Fordham Boulevard (CIP 275-45); and for the Water Distribution System Hydraulic Model Update (CIP 275-53), which is a proposed new project to finalize development and calibration of the model that was last updated in FY 2000.

- Proposed funding increases in the rest of the 15-year period primarily are attributable to planned increases in the water main rehabilitation and replacements, and new projects identified through our prioritization process, including the 12-Inch Water Main Along Franklin Street (CIP 275-51), Water Main Replacement Projects Along Cameron Avenue (275-52), 12-Inch Water Main Along Manning Drive (CIP 275-55), Water Main Replacement Projects along Main Street (CIP 275-56), 12-Inch Water Main along South Road (CIP 275-57), and the 12-Inch Water Main along Church Street (CIP 275-58). These projects have been identified by the most recent run of the Water Main Replacement Prioritization Model.

**WASTEWATER COLLECTION - 276**

	<b><u>5-Year Total</u></b>	<b><u>15-Year Total</u></b>
<b>Current Year (2006-2020):</b>	\$20,885,000	\$45,071,000
<b>Final Draft (2007-2021):</b>	<u>\$19,279,000</u>	<u>\$56,898,000</u>
<b>Funding Change:</b>	<b><i>(\$1,606,000)</i></b>	<b><i>\$11,827,000</i></b>

***Explanation:***

- Cost estimates and timing of three different projects, including the Bolin Creek Interceptor (CIP 276-01), Morgan Creek Interceptor (CIP 276-04), and Tom’s Creek Interceptor (CIP 276-08), have been re-evaluated based upon a recent study resulting in a cost reduction for the first 5-year period but an increase in cost over the entire 15-year period.
- The cost estimate and timing for the Meeting of the Waters Interceptor project (CIP 276-33) were revised based upon a recent study. The project will be completed during the first 5-year period and its estimated costs have increased, but the overall cost for the first 5-year period remains lower than in last year’s budget.
- As a result of recent studies, we identified the need for two new projects. These projects are proposed for the second and third 5-year periods and would significantly increase the 15-year costs for this category. They are the Morgan Creek Interceptor Future Improvements (CIP 276-05) and the Meeting of the Waters Interceptor – Upper Branch (CIP 276-41). Both projects include potential sewer main rehabilitation or replacement needs identified in recent studies. Both projects will be further evaluated following future flow monitoring analyses.

**WASTEWATER PUMP STATIONS AND FORCE MAINS - 277**

	<b><u>5-Year Total</u></b>	<b><u>15-Year Total</u></b>
<b>Current Year (2006-2020):</b>	\$6,349,000	\$11,756,000
<b>Final Draft (2007-2021):</b>	<u>\$6,637,000</u>	<u>\$13,022,000</u>
<b>Funding Change:</b>	<b><i>\$288,000</i></b>	<b><i>\$1,266,000</i></b>

**Explanation:**

- Requested funding for the first 5-year period for the Heritage Hills Force Main Replacement (CIP 277-03) decreased because of refinements to the project scope identified in an engineering study. However, funds proposed for the second 5-year period are increased to include additional repairs that may be required, resulting in an overall increase in funding for this project.
- Proposed funding for the Lloyd Street / Starlite Drive Pump Stations Phase Out (CIP 277-15) and the Clayton Road Pump Station Phase Out (CIP 277-18) have increased by \$406,000, based upon detailed design work and changes made to accommodate the needs of the community.
- OWASA has an agreement with the Piney Mountain Homeowner’s Association (PMHOA) to operate and maintain the Piney Mountain Pump Station, which is north of OWASA’s urban service area and is owned by the PMHOA. Flow from this system goes to the City of Durham’s wastewater system. The pump station was determined to be in poor condition and it needs to be replaced. Funds are therefore requested for the Piney Mountain Pump Station project (CIP 277-20). All expenses for this project will be reimbursed by the PMHOA.

**WASTEWATER TREATMENT, DISPOSAL AND RECLAIMED WATER REUSE - 278**

	<u>5-Year Total</u>	<u>15-Year Total</u>
<b>Current Year (2006-2020):</b>	\$35,187,000	\$74,628,000
<b>Final Draft (2007-2021):</b>	<u>\$23,703,000</u>	<u>\$64,556,000</u>
<b>Funding Change:</b>	<b>(\$11,484,000)</b>	<b>(\$10,072,000)</b>

**Explanation:**

- Funding for the Mason Farm WWTP 14.5 Upgrade and Expansion project (CIP 278-06) has decreased for the first 5-year period due to work completed this fiscal year.
- Three new projects are recommended for funding: the Biosolids Dewatering Facilities at the WWTP (CIP 278-08), WWTP – Odor Control (CIP 278-09), and WWTP Flood Protection Enhancements (CIP 278-10). These projects would increase the funding for this category by \$3,040,000.
- The funding requested for the WWTP Rehabilitation and Improvement Projects (CIP 278-11) has decreased because previously scheduled rehabilitation is being done as part of the WWTP 14.5 Upgrade and Expansion project.

**INFORMATION SERVICES - 280**

	<u>5-Year Total</u>	<u>15-Year Total</u>
<b>Current Year (2006-2020):</b>	\$1,815,000	\$ 5,040,000
<b>Final Draft (2007-2021):</b>	<u>\$1,900,000</u>	<u>\$ 4,765,000</u>
<b>Funding Change:</b>	<b>\$85,000</b>	<b>(\$275,000)</b>

*No major changes from the current year’s CIP*

**CONCLUSION**

We look forward to presenting the Final Draft of the 15-year Capital Improvements Program in the May 25, 2006 Board of Directors' meeting. If you need any further information, please feel free to contact me.

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F. Stuart Carson, P.E.  
Engineering Manager - Capital Improvements Program

Attachment: CIP Final Draft FY 2007-2021

## **PUBLIC HEARING ITEM 2**

2. Public Hearing on Proposed Adjustments to Rates, Fees, and Charges

A Draft Final Schedule of Rates, Fees, and Charges is attached for your review

**ORANGE WATER AND SEWER AUTHORITY  
PROPOSED SCHEDULE OF RATES, FEES, AND CHARGES**

APPLICABLE TO ALL CUSTOMER BILLINGS ON AND AFTER OCTOBER 1, 2006  
UNLESS OTHERWISE NOTED

SECTION I: SCHEDULE OF WATER RATES AND FEES.....Pg. 2 to Pg. 6

SECTION II: SCHEDULE OF SEWER RATES AND FEES .....Pg. 7 to Pg. 10

SECTION III: SCHEDULE OF MISCELLANEOUS CHARGES.....Pg. 11 to Pg. 17

**Background and Authorization**

In providing essential public water and sewer services to the Chapel Hill, Carrboro and portions of southern Orange County, Orange Water and Sewer Authority (OWASA) incurs substantial operating and capital expenses. OWASA is a not-for-profit public utility and has no legislative authority to levy taxes, nor does OWASA receive tax revenues from local governments for ongoing operations. OWASA finances its water and sewer operations and extensive capital improvements almost entirely through customer paid fees and charges.

North Carolina G.S. 162A-9 requires that OWASA's "rates, fees and charges shall be fixed and revised so that the revenues of the authority, together with any other available funds, will be sufficient at all times" to fund operating and maintenance expenses and to pay the principal and interest on all debt issued or assumed by OWASA. OWASA's rates are established under a cost-of-service rate-making methodology. Each customer pays for the costs incurred by OWASA to provide the services and/or facility capacity required to meet customer demand.

The OWASA Board of Directors has determined that revisions presented in the attached Schedule of Rates Fees, and Charges are necessary to adequately fund OWASA's ongoing operations and long-range Capital Improvements Program. Additional revenues generated by these rate adjustments will provide OWASA with the financial resources necessary to: (1) fund operating costs; (2) adequately maintain existing water and sewer facilities; (3) fully comply with increasingly stringent environmental and public health standards; (4) meet debt service requirements; and (5) to create additional facility capacity to stay abreast of water and sewer service demand in a growing, dynamic community.

The attached Schedule of Rates, Fees, and Charges will replace the schedule adopted on June 9, 2005, which became effective on October 1, 2005.

**SECTION I: WATER RATES AND FEES**

MONTHLY WATER RATES

Water charges are billed monthly at approximately 30-day intervals. Charges are due upon receipt of the bill, and become delinquent 21 days after the original billing date. Monthly water rates consist of two components: a monthly service charge and a commodity (volume) charge.

Water Service Charge

This charge is calculated to recover costs related to certain direct and indirect customer service efforts, meter and lateral maintenance, and capital costs associated with supplying water to the customer’s property. Applicable to all metered water accounts, independent of the quantity of water consumed, the monthly charge is based on meter size as follows:

<u>Meter Size</u>	<u>Monthly Service Charge</u>	
	<b>Existing</b>	<b>Proposed</b>
5/8"	\$9.84	\$10.43
1"	\$19.76	\$20.95
1-1/2"	\$42.74	\$45.30
2"	\$64.50	\$68.37
3"	\$132.63	\$140.59
4"	\$216.52	\$229.51
6"	\$471.50	\$499.79
8"	\$670.50	\$710.73

Water Irrigation Service Charge

This charge is calculated to recover certain direct and indirect customer service, meter and lateral maintenance, and water capital costs associated with supplying water to properties with irrigation systems. Applicable to all metered irrigation water accounts, regardless of the quantity of water consumed, the monthly charge is based on meter size as follows:

<u>Meter Size</u>	<u>Monthly Service Charge</u>	
	<b>Existing</b>	<b>Proposed</b>
5/8"	\$15.75	\$16.70
1"	\$31.48	\$33.37
1-1/2"	\$58.28	\$61.78
2"	\$89.63	\$95.01
3"	\$177.42	\$188.07
4"	\$272.35	\$288.69
6"	\$535.75	\$567.90
8"	\$852.00	\$903.12

Compound meter arrangements are billed on the largest meter in the grouping. In



Irrigation Service Charge (Continued)

In addition to the applicable charge for the primary meter, existing OWASA-owned sub-meters are billed according to the above schedule. Sub-meters are no longer available and no additional sub-meters will be installed.

Meter changes from one size to another are billed at the rate applicable for the size of the new meter.

Meter readings for first and final bills are billed at a prorated amount based on days of service.

Water Commodity Charge

This charge is calculated to recover the direct and indirect costs of water supply and treatment, water distribution, general administration and water capital not recovered by the monthly service charge. This charge is applicable to all water accounts based on meter readings of water consumed.

When no meter reading is available due to an inoperative, damaged or inaccessible meter, consumption is estimated based on prior usage at the location and current use of the facilities at that time.

To achieve demand reduction during peak water use periods, the OWASA Board of Directors adopted a seasonal conservation rate structure. A reduced commodity charge is in effect during lower demand months (October through April), and a higher commodity charge is in effect during high demand months (May through September).

	<b>Existing</b>	<b>Proposed</b>
Off-peak rate per 1,000 gallons (October through April)	\$2.74	\$2.90
Peak seasonal rate per 1,000 gallons (May through September)	\$5.20	\$5.51

Conservation Water Commodity Charges Under Mandatory Water Use Restrictions

The peak seasonal conservation rate structure will be extended or invoked during periods of mandatory water use restrictions regardless of the time of year. During the various mandatory conservation stages, an inverted block pricing structure will be imposed in conjunction with the seasonal rate for residential and irrigation-only customers. The inverted block structure for single-family and multifamily individually metered residential and irrigation only customers is summarized in the following table. **(No adjustment is proposed).**

<b>Increases to Residential Water Rates in Addition to Seasonal Rates When Mandatory Restrictions Are In Place</b>				
Conservation Stage	Block I 0 – 5,000 (gal/month)	Block II 6,000 – 10,000 (gal/month)	Block III >10,000 (gal/month)	Cutoff Block Service Terminated
Stage 1	0%	+ 50% of seasonal rates	+100 % of seasonal rates	>1,000 gallons per day
Stage 2	0%	+ 100% of seasonal rates	+200 % of seasonal rates	>800 gallons per day
Stage 3 and Emergency	0%	+200% of seasonal rates	+400 % of seasonal rates	>600 gallons per day

INTERLOCAL WATER TRANSFER CHARGES

The purpose of this charge is to recover costs associated with the provision of supplemental water supply under contractual agreement with other water purveyors. The specific rates to be charged will be negotiated with the other party based upon specific conditions, but using the cost-of-service rate-making approach and approved by the Executive Director. The commodity charge for such interlocal water transfers shall not be less than seventy-five percent (75%) of the equivalent uniform water commodity charge applicable to all water accounts within OWASA’s service area unless OWASA and the other purveyor(s) have entered into an agreement establishing water transfer charges. This charge will not be subject to seasonal adjustments.

Equivalent Uniform Water Commodity Charge

Not less than seventy-five percent (75%) (unless OWASA and the other purveyor(s) have entered into an agreement establishing water transfer charges) of:

<b>Existing</b>	<b>Proposed</b>
\$3.93 per 1,000 gallons	\$4.17 per 1,000 gallons

TEMPORARY HYDRANT METER CHARGE

Service from a fire hydrant for construction purposes is subject to priority use of such hydrant for fire protection. Temporary hydrant meters are available April through November and may be used by a customer at a single location for a period not to exceed 60 days. Subject to availability of inventoried hydrant meters, a \$200.00 (**Proposed \$230.00**) service charge, payable in advance, is collected for setting and removing the meter. In addition, a security deposit is required in accordance with the following schedule:

Security Deposit

\$1,000.00 (**No adjustment is proposed**).

Monthly billings for temporary hydrant meters consist of two charges: (1) a service charge for that size meter, and (2) a commodity charge based on monthly readings of the meter. When the hydrant meter is returned undamaged, the security deposit is to be applied to the final bill and any credit balance will be refunded within thirty (30) days.

WATER AVAILABILITY FEE

Water availability fees are calculated to recover a portion of the capital costs of providing water system facility capacity. The availability fee is applicable to each new connection to a water main, regardless of who may have paid for the installation of the water main to which the connection is to be made. For the purpose of availability fees, customer accounts are divided into three categories: (1) Single-family Residential, (2) Multifamily Residential, Individually Metered; and (3) Nonresidential. The Nonresidential category includes master-metered multifamily apartment complexes and all commercial, University, and institutional accounts. The use of these categories is justified by distinctive patterns of water and sewer consumption.

WATER AVAILABILITY FEE (CONTINUED):

	<b>Existing</b>	<b>Proposed</b>
5/8" Meter, Single-family Residential:		
<1300 square feet	\$906.00	\$960.00
1300-1700 square feet	\$1,107.00	\$1,173.00
1701-2400 square feet	\$1,400.00	\$1,484.00
2401-3100 square feet	\$2,395.00	\$2,539.00
3101-3800 square feet	\$3,255.00	\$3,450.00
>3800 square feet	\$5,466.00	\$5,794.00
5/8" Meter, Residential, Irrigation-Only	\$2,653.00	\$2,812.00
5/8" Meter, Multifamily Residential	\$976.00	\$1,034.00
5/8" Meter, Nonresidential	\$2,653.00*	\$2,812.00
1" Meter, Nonresidential	\$6,632.00*	\$7,030.00
1-1/2" Meter, Nonresidential	\$13,265.00*	\$14,060.00
2" Meter, Nonresidential	\$21,224.00*	\$22,496.00
3" Meter, Nonresidential	\$42,448.00*	\$44,992.00
4" Meter, Nonresidential	\$66,325.00*	\$70,300.00
6" Meter, Nonresidential	\$132,650.00*	\$140,600.00
8" Meter, Nonresidential	\$212,240.00*	\$224,960.00

\* Same fee for Nonresidential, Irrigation-Only accounts

WATER SERVICE AND METER INSTALLATION CHARGE

The purpose of this charge is to recover costs of extending service from the distribution system to individual properties, and includes the installation of a service connection from the water main to the meter and the setting of the meter within the premises, subject to satisfactory easement or license being provided by the applicant. Where a suitable stub-out for service has been made and is available, the "meter-only" charge will apply. Complete water service installation and meter-only charges are as follows:

	<b>Existing</b>	<b>Proposed</b>
Complete Water Service Installation, 5/8-inch meter	\$2,200.00	\$2,250.00
Complete Water Service Installation, 1-inch meter	\$2,360.00	\$2,400.00
Meter Only Installation, 5/8 inch-meter	\$180.00	\$180.00
Meter Only Installation, 1 inch-meter	\$220.00	\$220.00
Meter Only Installation, 1-1/2-inch meter	\$460.00	\$460.00
Meter Only Installation, 2 inch-meter	\$1,320.00	\$1,800.00

Complete installation costs are determined on a time and materials basis for 1-1/2 inch and 2- inch meters. For 3-inch and larger meters, the applicant is responsible for providing a meter box or vault constructed to the configuration and standards of OWASA. All meters, regardless of size, are to be purchased from OWASA. A \$60.00 (**Proposed \$70.00**) delivery fee for 3-inch and larger meters will be applied.

WATER MAIN TAPPING FEE

The purpose of this charge is for making a tap into an OWASA water main. The tap fee must be paid in advance of OWASA performing the work, with a minimum of 48 hours advance notice given to OWASA.

The applicant shall be responsible for opening the ditch, providing adequate working clearance at the point of tap, adequately shoring the trench sidewalls, dewatering and such other associated activities as to provide a suitable and safe condition for OWASA personnel to complete the tap. Additionally, the applicant shall be responsible for providing an appropriate size tapping sleeve and tapping valve, and a backhoe or similar device shall be available on-site for lowering the tapping unit into the ditch line. All permits, bonds and paving shall be the responsibility of the applicant. The charge is for time and equipment plus an allowance for overhead, but not less than \$250.00. **Proposed \$260.00.**

The base fee noted above includes one (1) site visit by OWASA to determine if the applicant is ready for OWASA to perform the tap. A re-inspection fee of \$55.00 (**Proposed \$75.00**) will be charged for each additional site visit required to determine if the water main is accessible and all required material and safety measures are in place.

HYDRAULIC FIRE FLOW TESTING

This charge recovers the cost of hydrant ‘fire flow’ testing of the water distribution system. Test results provide developers’ engineers data to determine available flows and pressures in the systems they are designing for new developments.

<b>Existing</b>	<b>Proposed</b>
\$200.00 per test	\$230.00 per test

**SECTION II: SEWER RATES AND FEES**

**MONTHLY SEWER RATES**

Sewer charges are billed monthly at approximately 30-day intervals. Charges are due upon receipt of the bill, and become delinquent 21 days after the original billing date. Monthly sewer rates consist of two components: a monthly service charge and a commodity (volume) charge.

**Sewer Service Charge**

This charge is calculated to recover the direct and indirect customer service, service and inspection maintenance, and capital costs associated with providing sewer service to the customer's property. Applicable to all sewer accounts, regardless of whether or not there is a commodity charge, the monthly service charge is based on water meter size as follows:

<u>Meter Size</u>	<u>Monthly Service Charge</u>	
	<b>Existing</b>	<b>Proposed</b>
5/8"	\$6.81	\$7.24
1"	\$11.73	\$12.46
1-1/2"	\$20.20	\$21.46
2"	\$30.55	\$32.46
3"	\$57.75	\$61.36
4"	\$88.28	\$93.80
6"	\$161.85	\$171.97
8"	\$276.20	\$293.46

**Sewer Commodity Charge**

This charge is calculated to recover the remaining direct and indirect costs of wastewater treatment and collection, maintenance, inspection, customer service and administration and sewer capital costs not recovered by the monthly service charge. This charge is applicable to all accounts receiving sewer service based on the water meter reading, sewer meter reading if applicable, or estimated volume of discharge as determined by OWASA.

<b>Existing</b>	<b>Proposed</b>
\$3.44 per thousand gallons	\$3.66 per thousand gallons

**INTERLOCAL WASTEWATER COLLECTION, TREATMENT AND DISPOSAL CHARGES**

The purpose of this charge is to recover costs associated with the provision of wastewater collection, treatment and disposal services under contractual agreement with other wastewater service providers. The specific rates to be charged will be negotiated with the other party based upon specific conditions, but using the cost-of-service rate-making approach and approved by the Executive Director. The uniform commodity charge for such interlocal wastewater services

shall not be less than seventy-five percent (75%) of the sewer commodity charge applicable to all sewer accounts within OWASA’s service area unless OWASA and the other purveyor(s) have entered into an agreement establishing water transfer charges.

Not less than seventy-five percent (75%) (unless OWASA and the other purveyor(s) have entered into an agreement establishing water transfer charges) of:

<b>Existing</b>	<b>Proposed</b>
\$3.83 per 1,000 gallons	\$4.07 per 1,000 gallons

MONTHLY RATES FOR SEWER ONLY ACCOUNTS

For existing sewer only accounts where there is no water meter, OWASA shall use the following as the basis for calculating the fixed monthly charges: (1) the monthly service charge shall be determined by the water meter size which would be required to supply water service to the property; (2) the billable quantity will be estimated using national engineering standards as the basis, but in no case shall the billable quantity be less than 6,000 gallons per month and at a rate of \$3.83 per 1,000 gallons (**Proposed \$4.07**).

For special commercial and industrial customer classifications where the proportion of water consumed to wastewater discharged is extremely large, a metered sewer account may be approved. Metered sewer accounts must also pay the appropriate monthly sewer service charge based on the sewer meter size.

SEWER AVAILABILITY FEE

The purpose of this fee is to recover a portion of the capital costs of providing sewer system facility capacity. The availability fee is applicable to each new connection to a sewer main, regardless of who may have paid for the installation of the main to which the connection is to be made. For the purpose of availability fee, customer accounts are divided into three categories: (1) Single-family Residential; (2) Multifamily Residential, Individually Metered; and (3) Nonresidential. The Nonresidential category includes master-metered Multifamily apartment complexes plus all other commercial, the University, and institutional accounts. The use of these categories is justified by distinctive patterns of water and sewer consumption.

5/8" Meter, Single-family Residential:

	<b>Existing</b>	<b>Proposed</b>
<1300 square feet	\$1,586.00	\$1,685.00
1301-1700 square feet	\$1,915.00	\$2,034.00
1701-2400 square feet	\$1,950.00	\$2,071.00
2401-3100 square feet	\$2,389.00	\$2,538.00
3101-3800 square feet	\$2,582.00	\$2,743.00
>3800 square feet	\$2,931.00	\$3,114.00
5/8" Meter, Multifamily Residential	\$1,718.00	\$1,825.00

SEWER AVAILABILITY FEE (CONTINUED):

	<b>Existing</b>	<b>Proposed</b>
5/8" Meter, Nonresidential	\$3,410.00	\$3,623.00
1" Meter, Nonresidential	\$8,525.00	\$9,057.00
1-1/2" Meter, Nonresidential	\$17,050.00	\$18,115.00
2" Meter, Nonresidential	\$27,280.00	\$28,984.00
3" Meter, Nonresidential	\$51,560.00	\$54,782.00
4" Meter, Nonresidential	\$85,250.00	\$90,575.00
6" Meter, Nonresidential	\$170,500.00	\$181,150.00
8" Meter, Nonresidential	\$272,800.00	\$289,840.00

In addition to the sewer availability fee, an excess sewer capacity fee of four percent of the applicable sewer service availability fee will be charged to recover the costs of excess sewer capacity installed in an area covered by an agreement for credit payments to the constructing developer. This fee applies to residential and nonresidential customers.

SEWER TAP CHARGE

This charge is for making a tap of the applicant's private sewer lateral into the main sewer line or sewer manhole of OWASA. The tap fee must be paid in advance of OWASA performing the work, with a minimum of 48 hours advance notice given to OWASA.

The applicant shall be responsible for opening the ditch, providing adequate working clearance at the point of tap, adequately shoring the trench sidewalls, dewatering and such other associated activities as to provide a suitable and safe condition for OWASA to connect the service lateral of the applicant into the facilities of OWASA. The minimum charge is based on a standard 4" service tap to the sewer line. All 6" lines and larger must be tapped into a manhole. All permits, bonds and pavement repairs are the responsibility of the applicant.

The charge will be for time and equipment plus an allowance for overhead, but not less than \$285.00 (**Proposed \$300.00**).

The base fee noted above includes one (1) site visit by OWASA to determine if the applicant is ready for OWASA to perform the tap. A re-inspection fee of \$55.00 (**Proposed \$75.00**) will be charged for each additional site visit required to determine if the sewer main is accessible and all required material and safety measures are in place.

HIGH STRENGTH WASTE SURCHARGE

The purpose of this charge is to recover operation and maintenance costs from customers whose wastewater discharge into the system is in excess of certain parameters for normal strength domestic wastewater as determined by OWASA. Based on local sampling and analysis, normal strength domestic wastewater has been determined to have the following pollutant characteristics:

HIGH STRENGTH WASTE SURCHARGE (CONTINUED)

Normal Strength Domestic Wastewater

Biochemical Oxygen Demand (BOD)	-	205 mg/l
Suspended Solids (SS)	-	235 mg/l
Ammonia Nitrogen (NH3-N)	-	30 mg/l
Phosphorus (P)	-	6.5 mg/l

High Strength Waste Surcharges shall apply at the following rates to all wastes exceeding the above concentrations:

Biochemical Oxygen Demand (BOD)    \$0.22 (**Proposed \$0.23**) per pound for all BOD in excess of 205 mg/l

Suspended Solids (SS)                \$0.15 (**Proposed \$0.16**) per pound for all SS in excess of 235 mg/l

Ammonia Nitrogen (NH3-N)            \$2.28 (**Proposed \$2.42**) per pound for all NH3-N in excess of 30 mg/l

Phosphorus (P)                         \$6.40 (**Proposed \$6.80**) per pound for all P excess of 6.5 mg/l



### SECTION III: MISCELLANEOUS CHARGES

#### SERVICE INITIATION FEE

The purpose of this charge is to defray the labor and administrative costs associated with the establishment of a water and/or sewer account. This includes establishing service and account records for billing. Applicable to all accounts requiring field work, be it setting a meter, reconnection of service or reading the meter.

\$40.00 per event (**No adjustment is proposed**).

\$70.00 per event, outside of normal business hours of OWASA (**No adjustment is proposed**).

#### RECORD CHANGE CHARGE

The purpose of this charge is to defray the administrative costs associated with the transfer of responsibility for an account from one customer to another. This does not require field work and is done at the request of the new customer. Record changes are conditional on the customer signing a statement assuming responsibility for the account balance, paying the record change charge, any delinquent amounts and any applicable security deposit.

\$10.00 per record change (**No adjustment is proposed**).

#### CHARGE FOR RECONNECTION OF DELINQUENT ACCOUNTS

Disconnection of water and/or sewer service for nonpayment may occur at the option of OWASA no sooner than 21 calendar days after the date of initial billing. The purpose of this charge is to offset the costs of special handling of delinquent accounts, which may include, but not limited to, the disconnection and reconnection of service due to nonpayment of the customer's bill. This charge is to be applied to all accounts scheduled for disconnection for nonpayment and is applicable on or after the specified disconnect date, regardless of whether the service was disconnected or not. Reconnection resulting from disconnection due to nonpayment will be made within 24 hours of receipt of full payment of balance due plus reconnection charge and applicable security deposit.

\$40.00 per event, during OWASA's normal business hours (**No adjustment is proposed**).

\$70.00 per event, outside OWASA's normal business hours (**No adjustment is proposed**).

#### CHARGE FOR TEMPORARY DISCONNECTION/SUBSEQUENT RECONNECTION AT CUSTOMER'S REQUEST

The purpose of this charge is to recover the cost to temporarily disconnect and subsequently reconnect water service at the request of a customer. Such requests may result from an emergency condition or routine plumbing system maintenance need. The charge may be waived if the customer provides documentation that a master cutoff valve has been installed within thirty (30) days of the date of the temporary service disconnection. However, this charge

will not be waived for any customer who had a master cutoff valve on the premises before the temporary service disconnection. \$40.00 per event (**No adjustment is proposed**).

### RETURNED CHECK CHARGE

Checks or automatic bank drafts made payable to OWASA are accepted as payment on account subject to collection. When a check or bank draft is not honored for payment by the bank or other institution on which it is drawn, a Returned Check Charge will be applied to the customer's account as follows:

Returned Check: \$18.00 per event (**No adjustment is proposed**).

Dishonored Draft: \$18.00 per event (**No adjustment is proposed**).

The customer will be notified of the returned check charge and instructed to pay the amount due immediately. Failure to respond within the time allowed will result in disconnection of water service and an additional charge for reconnection. The customer may also be required to pay a security deposit.

### SECURITY DEPOSITS

OWASA may require security deposits from customers to ensure payment of the final bill. To offset administrative costs in handling these monies, no interest is paid on security deposits.

Security deposits shall be required on all accounts other than those in the name of (1) owners or tenants of single-family residential properties, detached or attached units, who can provide a satisfactory credit history or reference to OWASA, and (2) local, State and Federal governments or agencies thereof. Security deposits shall be required for accounts other than those in (1) and (2) above and shall be an average of three months' billing charges or \$50.00, whichever is greater. In (1) above where satisfactory credit history or reference is not provided, the initial security deposit shall be \$25.00. All security deposits must be paid at the time application for service is made and in advance of service initiation. (**No adjustment proposed.**)

Any (**residential**) customer whose service has been disconnected for nonpayment of billing charges twice within a six month period of time will be required to pay a \$25.00 security deposit prior to reconnection of service. Repeated disconnections will require additional security deposits until the customer has accumulated a security deposit balance, which will cover an average of three months' billing charges.

Security deposits of residential customers may be refunded after the customer has established a satisfactory payment history four twelve (12) consecutive months. Otherwise, security deposits will be applied to the final bill when a customer's account is terminated.

## BULK WASTEWATER CHARGES

### Normal Domestic Septage

The purpose of these charges is to recover the costs associated with the service rendered by OWASA to those customers who discharge normal domestic septic tank wastes into the wastewater treatment facilities of OWASA. Applicable to those customers who have an account established at OWASA's Customer Service Office, charges for handling normal domestic septage will be billed to the customer on a monthly basis. The monthly bill will include two components: (1) an administrative charge for special services required to receive this type waste and rendering the monthly bill; and (2) a charge for the treatment of the septage as determined by OWASA. This charge is calculated as follows:

Monthly Administrative Charge	\$20.00/trip ( <b>No adjustment proposed</b> ).
	<b>Plus</b>
Volume Charge and High Strength Surcharge	\$57.00/thousand gallons ( <b>No adjustment proposed</b> ).

### Other High Strength Waste

Other wastes may be discharged to OWASA's septage facilities only with prior approval by OWASA and upon OWASA's direct inspection of the actual discharge. The costs associated with these services will be as follows:

NH<sub>3</sub>-N = Ammonia Nitrogen  
BOD = Biochemical Oxygen Demand  
TSS = Total Suspended Solids  
P = Phosphorus

Monthly Administrative Charge of \$20.00/trip (**No adjustment proposed**).

**Plus**

Volume and High Strength Surcharge calculated as follows:

$A + B + C + D + E =$  Calculated Dollars per Thousand Gallons, where:

A = pounds of NH<sub>3</sub>-N/thousand gallons in waste x \$2.28/pound (**Proposed \$2.42**).

B = pounds of BOD/thousand gallons in waste x \$0.22/pound (**Proposed \$0.23**).

C = pounds of TSS/thousand gallons in waste x \$0.15/pound (**Proposed \$0.16**).

D = \$3.83 per 1,000 gallons Sewer Commodity Charge(**Proposed \$4.07**).

E = pounds of P/thousand gallons in waste x \$6.40/pound (**Proposed \$6.80**).

Waste concentrations shall be as determined by OWASA.

## TANK SALES OR BULK WATER SALES

The purpose of this charge is to recover the labor and administrative costs associated with the supply of bulk quantities of water to tank trucks or trailers from a metering point on the premises of OWASA. Applicable to all tank or bulk water sales, the following charges apply for each loading.

Administrative Charge                    \$19.00 per trip **(No adjustment proposed)**.

**Plus**

Commodity Charge per thousand gallons \$3.93 per thousand gallons **(Proposed \$4.17)** or portion thereof.

Bulk sales are subject to administrative regulations and controls for protection of the system and efficient operation. Water tank trucks or trailers are only authorized to withdraw water from locations approved by OWASA and for which adequate usage monitoring measures are provided. Charges for bulk sales are not subject to seasonal adjustments.

## DIRECT SALES OF SUPPLIES

Applicable to the direct sale of supplies from inventory to municipalities or contractors, the supplies will be billed at the most recent cost plus a handling charge of 10% **(No adjustment proposed)**.

## BOAT RENTAL AND LAKE USE FEES

### General Public

Applicable to all persons using row boats and canoes on University Lake and Cane Creek Reservoir during scheduled hours of operation as established by OWASA, boat rental and lake user charges will be as follows:

### OWASA CUSTOMERS AND ORANGE COUNTY RESIDENTS

#### Day Use

Charge for each boat or canoe rental: \$6.50 for one-half day **(Proposed \$7.00)**.

Trolling motor rental:                    \$12.75 for one-half day **(Proposed \$13.50)**.

Lake Use Fee, Under 12 Years Old: \$1.25 per person **(No adjustment proposed)**.

Lake Use Fee, 12-64 Years:                \$2.75 per person **(Proposed \$3.00)**.

Lake Use Fee, 65 Years and over:        \$1.25 per person **(No adjustment proposed)**.

BOAT RENTAL AND LAKE USER FEES (CONTINUED)

Seasonal Passes

INDIVIDUAL PASS

Boat or canoe rental \$65.00 per person (**Proposed \$69.00**).  
Each additional person in boat pays appropriate lake use fee.

Boat with trolling motor rental \$130.00 per person (**Proposed \$138.00**).  
Each additional person in boat pays appropriate lake use fee.

GROUP PASS

Boat or canoe rental \$130.00 (**Proposed \$138.00**).  
Maximum of 3 people per pass. Each additional person in boat pays appropriate lake use fee.

Boat with trolling motor rental \$195.00 (**Proposed \$207.00**).  
Maximum of 3 people per pass. Each additional person in boat pays appropriate lake use fee.

ALL OTHERS

Day Use

Charge for each boat or canoe rental \$11.00 for one-half day (**Proposed \$11.50**).

Trolling motor rental \$18.00 for one-half day (**Proposed \$19.00**).

Lake User Fee, Under 12 Years Old \$1.25 per person (**No adjustment proposed**).

Lake User Fee, 12-64 Years \$4.25 per person (**Proposed \$4.50**).

Lake User Fee, 65 Years and over \$1.25 per person (**No adjustment proposed**).

Seasonal Pass

Not Available

UNC Boat Club

By Agreement with OWASA

Applicable to all the University of North Carolina at Chapel Hill students, faculty and staff affiliated with boating or crew clubs sanctioned by The University.

\$25.00 per boat per semester (**No adjustment proposed**).

\$8.75 per member per semester (**No adjustment proposed**).

### FIELD TEST OF 5/8" METER

Upon a customer's written request, OWASA will conduct a special field test of the customer's 5/8" water meter. There will be no charge for testing meters (1) which have not been tested during the past five years, or (2) which are found to be over-registering. Over-registering meters will be replaced by OWASA at no charge to the customer.

If, however, the meter has been tested within the past five years and the results of the meter test indicate proper or under-registering, the customer will be charged \$50.00 (**No adjustment proposed**) for the meter test.

### SHOP TESTING OF METER

Upon a customer's written request, OWASA will conduct a special shop test of the customer's water meter that is larger than 5/8 inches. There will be no charge for testing meters (1) which have not been tested during the past five years, or (2) which are found to be over-registering. Over-registering meters will be replaced by OWASA at no charge to the customer.

If, however, the meter has been tested within the past five years and the results of the meter test indicate proper or under-registering, the customer will be charged \$80.00 (**No adjustment proposed**) for the in-house meter test.

### FIELD TEST OF LARGE METERS

Upon a customer's written request, OWASA will conduct a special field test of the customer's water meter that is larger than 5/8 inches. There will be no charge for testing meters (1) which have not been tested during the past five years, or (2) which are found to be over-registering. Over-registering meters will be replaced by OWASA at no charge to the customer.

If, however, the meter has been tested within the past five years and the results of the meter test indicate proper or under-registering, the customer will be charged a meter test fee based on the actual time and equipment required to complete the field test. This charge shall not be less than \$100.00 (**No adjustment proposed**).

### PLAN REVIEW AND CONSTRUCTION OBSERVATION FEES

The purpose of this charge is to recover the operating cost for providing review of construction plans for the extension of water and sewer facilities. The charge also recovers the operating cost for providing field observation on the installation of these facilities. The plan review and construction observation fees are applicable to all extensions of the public water and/or sewer system regardless of the party which may be undertaking the improvements. The fees will be applied separately to water main and sewer main extensions, but in no case shall the fee be less than \$100.00 (**No adjustment proposed**).

Plan Review:	\$2.00 per linear foot ( <b>Proposed \$1.96</b> ).
Construction Observation:	\$1.82 per linear foot ( <b>Proposed \$1.79</b> ).

## CHARGES FOR MISCELLANEOUS SERVICES

Charges for miscellaneous services provided by OWASA shall be on a time and materials basis and include out-of-pocket expenses, cost of materials and services supplied by third parties, and overhead. Typical applications would be for repair of damages to water and sewer lines by outside parties, special services for billing information, expenses related to spill containment responses, etc.

## TRANSFER OF CHARGES

Any unpaid balance from past due charges for water and/or sewer services of terminated accounts or Charges for Miscellaneous Services will be transferred to any available active account(s) through which the customer is receiving services. The payment status of the active account through which the customer is receiving service will be determined by the payment status of transferred accounts.

OWASA may temporarily withhold service from a customer, or refuse service (including but not limited to individuals, corporations, or partnerships), from whom any unpaid, past due balance which is not in dispute is due OWASA for services or charges.

Accounts or portions of accounts, including charges for material or damaged property that are disputed and delinquent fees and delinquent assessment charges, may be submitted to the courts by the Executive Director, upon approval by General Counsel, for collection if such amounts do not exceed \$1,500.00. For amounts exceeding \$1,500.00, approval of the Board of Directors shall also be required prior to filing an action for collection.

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ORANGE WATER AND SEWER AUTHORITY

MEETING OF THE BOARD OF DIRECTORS

APRIL 13, 2006

The Board of Directors of the Orange Water and Sewer Authority (OWASA) met in regular session on Thursday, April 13, 2006, at 7:00 P.M., in the OWASA Community Room.

Directors present: Michael A. (Mac) Clarke, Chair; Penny Rich, Vice Chair; Randy Kabrick, P.E., Secretary; Terri Buckner; Milton S. Heath, Jr.; Marge Anders Limbert; Mark Marcoplos; Gordon Merklein; and Laura Sandvik.

Others present: Ed Kerwin, Imtiaz Ahmad, Sandra Bradshaw, Jan Bryant-Berry, Stuart Carson, Patrick Davis, Greg Feller, Stephanie Glasgow, Walter Gottschalk, John Greene, Ed Holland, Johnny Johnson, Andrea Orbich, Kevin Ray, Bob Russell, Todd Spencer, Doug Terry, Judy Weller and Steve Woolley of the OWASA staff; Robert Epting, Esquire, Epting and Hackney; Meg Holton, Water, Wastewater, and Stormwater Manager, UNC; and Elizabeth Colini, Cam Hill and Patti Hucks of the Cane Creek Rowing Association.

There being a quorum present, Chair Mac Clarke called the meeting to order.

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MOTIONS ACTED UPON

1. Penny Rich made a motion to adopt the minutes of the March 9, 2006, Meeting of the Board of Directors. The motion was seconded by Gordon Merklein, and carried by unanimous vote.

2. Penny Rich made a motion to adopt the minutes of the March 23, 2006, Closed Session of the Board of Directors for the purpose of discussing land acquisition. The motion was seconded by Gordon Merklein, and carried by unanimous vote.

3. BE IT RESOLVED THAT the Orange Water and Sewer Authority adopt the Resolution Authorizing Executive Director to renew Public Officials & Employee Liability Insurance for a One Year Period for \$2,000,000 of Coverage with American International Specialty Lines Insurance Company. (Resolution so titled attached hereto and made a part of these minutes. Motion by Penny Rich, seconded by Milton Heath, and carried by unanimous vote.)

4. BE IT RESOLVED THAT the Orange Water and Sewer Authority adopt the Resolution Supporting OWASA's Participation in the Local Greenhouse Gas Inventory and Reduction Plan and potential membership in the International Council of Local Environmental Initiatives – Local Governments for Sustainability and Cities for Climate Protection Campaign.



(Resolution so titled attached hereto and made a part of these minutes. Motion by Terri Buckner, seconded by Penny Rich, and carried by unanimous vote.)

5. BE IT RESOLVED THAT the Orange Water and Sewer Authority adopt the Resolution Awarding a Construction Contract for the Completion of the Expansion and Upgrade Improvements for the Stone Quarry Reservoir Pump Station Project. (Resolution so titled attached hereto and made a part of these minutes. Motion by Laura Sandvik, seconded by Milton Heath, and carried by unanimous vote.)

6. BE IT RESOLVED THAT the Orange Water and Sewer Authority adopt the Resolution Approving Audit Contract to McGladrey & Pullen, LLC and Authorizing Chair of the Board of Directors and the Finance Officer to Execute Said Contract. (Resolution so titled attached hereto and made a part of these minutes. Motion by Terri Buckner, seconded by Laura Sandvik, and carried by unanimous vote.)

7. Penny Rich moved that the Board to go into a Closed Session regarding a pending claim that may lead to litigation. Motion was seconded by Laura Sandvik, and carried by unanimous vote.

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ITEM ONE: ANNOUNCEMENTS

CONFLICT OF INTEREST

Mac Clarke said any Board Member who knows of a conflict of interest or potential conflict of interest with respect to any item on the agenda tonight is asked to disclose the same at this time. There were none.

CLOSED SESSION

Mac Clarke said following the Board meeting, the Board will convene in a Closed Session for the purpose of discussing a pending claim that may lead to litigation.

RATE STUDY

Mac Clarke said the Rate Study is scheduled to begin on April 13, 2006, and asked if any Board member has any a specific question or topic relevant to the Rate Study that Burton and Associates could explore and address. Mr. Clarke stated his concerns regarding how assets are valued as it relates to connection charges. He said he would also like to review the desirability of continuing the current monthly service fee and possibly moving from the fixed charge every month for water and sewer to a rate based on the cost per gallons used.

Milton Heath agreed with Mr. Clarke's concerns about the effect of rate increases on low income customers.

COMMUNITY OUTREACH MEETING

Mark Marcoplos announced that OWASA will hold the second Community Outreach meeting on Thursday, April 27, 2006 at 7:00 P.M. at Chapel Hill Town Hall.

UPDATE OF THE WATER SUPPLY AND DEMAND CONDITIONS

Ed Kerwin updated the Board on the current drought and water supply and demand conditions. OWASA's lakes are 91 percent full, but streamflows into the Cane Creek Reservoir and University Lake are substantially below normal. These low streamflows reflect the current severe drought conditions affecting the North Carolina Piedmont, as reported by the N.C. Drought Advisory Council. Mr. Kerwin said staff will likely recommend the Board declare a Water Supply Advisory at the April 27th Board meeting to increase public awareness of the drought and about the need to conserve water.

COMMITTEE MEETING

Ed Kerwin said that Budget and Financial Planning Committee will meet on Wednesday, April 19, 2006 at 8:30 A.M., in the OWASA Boardroom to review the results of OWASA's 15-Year Financial Model as it pertains to the next Fiscal Year and beyond.

ITEM TWO: PETITIONS AND REQUESTS FROM THE PUBLIC

Mac Clarke asked for petitions and requests from the public. There were none.

ITEM THREE: PETITIONS AND REQUESTS FROM THE BOARD

Mac Clarke asked for petitions and requests from the Board.

Laura Sandvik inquired about an OWASA customer, Theodore Sampson, whose basement was flooded. She asked whether OWASA has a procedure in place so that situation would not occur again.

Ed Kerwin said that there is a procedure, but precautions were not taken by staff to prevent flooding. Mr. Kerwin said staff will be retrained regarding these requirements.

ITEM FOUR: PETITIONS AND REQUESTS FROM THE STAFF

Mac Clarke asked for petitions and requests from the staff. There were none.

**ITEM FIVE: REPORT ON EXTENSION OF THE UNC COGENERATION FACILITY'S SEWER DISCHARGE AGREEMENT**

The Board received the April 6, 2006 update on extension of the UNC Cogeneration facility's sewer discharge agreement.

**ITEM SIX: COMMUNICATIONS PLANNING FOR WATER REUSE**

Penny Rich asked who at OWASA would be taking questions regarding water reuse system.

Greg Feller said that Patrick Davis would receive the calls, as well as Ed Kerwin and himself.

Terri Buckner proposed that because of the different types of reuse practiced in our service area, OWASA could title the highly treated wastewater from the Mason Farm Wastewater Treatment Plant (WWTP) as "reclaimed" and refer to the schools' collection of stormwater as "reuse" to avoid misinterpretation of the two water reuses.

**ITEM SEVEN: DECONSTRUCTION AND DEMOLITION OF THE CANE CREEK STANFORD HOUSE**

The Board received the April 4, 2006 report on the deconstruction and demolition of the Cane Creek Stanford house as an information item.

**ITEM EIGHT: MINUTES**

Penny Rich made a motion to adopt the minutes of the March 9, 2006, Meeting of the Board of Directors. The motion was seconded by Gordon Merklein, and carried by unanimous vote. Please see Motion No. 1 above.

Penny Rich made a motion to adopt the minutes of the March 23, 2006, Closed Session of the Board of Directors for the purpose of discussing land acquisition. The motion was seconded by Gordon Merklein, and carried by unanimous vote. Please see Motion No. 2 above.

**ITEM NINE: RESOLUTION AUTHORIZING EXECUTIVE DIRECTOR TO RENEW PUBLIC OFFICIALS & EMPLOYEE LIABILITY INSURANCE FOR A ONE YEAR PERIOD FOR \$2,000,000 OF COVERAGE WITH AMERICAN INTERNATIONAL SPECIALTY LINES INSURANCE COMPANY**

Milton Heath asked for clarification of the kind of coverage this insurance provides for Board members and for the rationale for covering Board members.

Robert Epting and Kevin Ray said that this coverage is for Board members and staff and it applies to actions taken in an official capacity for OWASA.

Penny Rich moved to adopt the resolution; the motion was seconded by Milton Heath and carried by unanimous vote. Please see Motion No. 3 above.

**ITEM TEN: RESPONSE TO A PETITION FROM CANE CREEK ROWING ASSOCIATION**

John Greene presented information to the Board regarding the petition.

Robert Epting said that he had provided advice regarding specific questions asked by OWASA staff, and that his comments should not be interpreted as meaning that he opposes the Cane Creek Rowing Association's (CCRA) request or that approving it would be illegal.

Mark Marcoplos said the CCRA's request involves low risk and that OWASA should allow this activity.

Milton Heath said that having no supervision of citizens' use of the reservoir involves more risks than with allowing supervised lake use after the normal recreation season.

Mr. Cam Hill, a representative of the CCRA, said that there is risk inherent in everything, that rowing is a worthwhile activity and that the risk to OWASA is minimal. Mr. Hill said the CCRA appreciates the Board's willingness to continue discussing their request.

Ed Kerwin encouraged the Board to keep in mind that OWASA's primary mission is public water supply. He said three primary areas to consider are: first, the precedent set if the request is granted and the potential for similar requests from other organizations; second, that OWASA should seek and consider the views of Cane Creek Reservoir neighbors before making a decision on the request; and finally, that costs incurred by OWASA if the request is approved should be covered by parties other than OWASA ratepayers.

Mr. Marcoplos said he is persuaded by the thorough and thoughtful response from CCRA. He also said that input from the neighbors is important and should be considered before a final decision, and that the Board should address the issue of cost.

Penny Rich said she would like to see the lakes used more, but OWASA should proceed slowly and receive a plan from CCRA as well as feedback from neighbors of the Cane Creek Reservoir before a decision is made.

Mr. Heath suggested holding a public hearing on the issue. He said parking would be an issue; that the number of rowers using the lake on a year-round basis is concern when our lakes are open to the public only from March through October; and that structures and a separate private entrance would need to be built. He said these would set a precedent and OWASA should possibly conduct a trial run on a limited basis during the existing recreation season.

Marge Anders Limbert said that if OWASA considers allowing unsupervised lake use, OWASA would need to address security concerns.

Gordon Merklein said that if there were to be more recreation on the lake, this would be the type of recreation OWASA would want because we already have it on University Lake without any problems.

Mac Clarke requested clarification of the physical limits on boating use at the lake at one time, and asked whether the present limit under the State permit granted to OWASA can be increased. He asked for more information about impacts of allowing a separate facility away from the OWASA building at Cane Creek; and about whether OWASA should allow greater lake use by members of a private club.

The Board requested more information from staff and directed staff to present it to the Board at a future meeting.

**ITEM ELEVEN: STAFF PRESENTATION ON ANTICIPATED OPERATIONS AND MAINTENANCE BUDGET VARIANCES FOR FISCAL YEAR 2006-2007**

Kevin Ray said that he and Ed Kerwin met with each department manager to discuss departmental budget requests for the new fiscal year, and that the Budget and Financial Planning Committee has also reviewed appropriation requests. The proposed operating budget variances will be included in the preliminary budget for fiscal year 2006-2007 which will be presented at the Board meeting on April 27, 2005. Mr. Ray said that the initial appropriation request is expected to exceed the current year's appropriation by approximately eight percent.

Department managers and the Board discussed variances in the proposed budget.

**ITEM TWELVE: DISCUSSION OF PROPOSAL FROM THE AD HOC ART COMMITTEE**

The Board was in agreement with the April 6, 2006 proposal from the Ad Hoc Art Committee and directed staff to move forward with process.

**ITEM THIRTEEN: OWASA PARTICIPATION IN LOCAL GREENHOUSE GAS INVENTORY AND REDUCTION PLAN AND POTENTIAL MEMBERSHIP IN THE INTERNATIONAL COUNCIL OF LOCAL ENVIRONMENTAL INITIATIVES – LOCAL GOVERNMENTS FOR SUSTAINABILITY**

Patrick Davis presented information to the Board on OWASA's involvement with the Local Greenhouse Gas Inventory and Reduction Plan and potential membership in the International Council of Local Environmental Initiatives (ICLEI) – Local Governments for Sustainability.

Mac Clarke inquired if there would be a demand on Mr. Davis' time or any other staff member.

Mr. Davis said that the time commitment would not be any more than is already required.

Terri Buckner asked if participation in this project would include information on a prior petition regarding alternative fuel.

Mr. Davis said yes, this study includes an assessment of all types of energy use in OWASA operations – electrical, natural gas and fuel including our current and potential use of alternative fuels.

Terri Buckner moved to adopt the Resolution Supporting OWASA's Participation in the ICLEI – Local Governments for Sustainability and Cities for Climate Protection Campaign. The motion was seconded by Penny Rich and carried by unanimous vote. Please see Motion No. 4 above.

**ITEM FOURTEEN: RESOLUTION AWARDING A CONSTRUCTION CONTRACT FOR THE COMPLETION OF THE EXPANSION AND UPGRADE IMPROVEMENTS FOR THE STONE QUARRY RESERVOIR PUMP STATION PROJECT**

Stuart Carson gave information to the Board on a construction contract for the completion of the expansion and upgrade improvement for the Stone Quarry Pump Station project.

Laura Sandvik moved to adopt the resolution; the motion was seconded by Milton Heath, and carried by unanimous vote. Please see Motion No. 5 above.

**ITEM FIFTEEN: RESOLUTION APPROVING AUDIT CONTRACT TO MCGLADREY & PULLEN, LLC AND AUTHORIZING CHAIR OF THE BOARD OF DIRECTORS AND THE FINANCE OFFICER TO EXECUTE SAID CONTRACT**

Mac Clarke commented that while he will support McGladrey and Pullen as OWASA's Auditor, it is important to periodically change audit firms.

Terri Buckner moved to adopt the resolution; the motion was seconded by Laura Sandvik and carried by unanimous vote. Please see Motion No. 6 above.

**ITEM SIXTEEN: CLOSED SESSION**

Penny Rich moved that the Board go into a Closed Session for the purpose of discussing a pending claim that may lead to litigation. The motion was seconded by Laura Sandvik, and carried by unanimous vote. Please see Motion No. 7 above.

**Draft**

There being no further business to come before the Board, the meeting was adjourned at 9:40 P.M.

Respectfully submitted,

**Draft**

Andrea Orbich  
Executive Assistant

Encs.

NOTE: Audiotapes are available at OWASA for listening.

ORANGE WATER AND SEWER AUTHORITY

MEETING OF THE BOARD OF DIRECTORS

APRIL 27, 2006

The Board of Directors of the Orange Water and Sewer Authority (OWASA) met in regular session on Thursday, April 27, 2006, at 6:00 P.M., at the Chapel Hill Town Hall.

Directors present: Michael A. (Mac) Clarke, Chair; Penny Rich, Vice Chair; Milton S. Heath, Jr.; Marge Anders Limbert; Mark Marcoplos; Gordon Merklein; and Laura Sandvik. Directors absent: Randy Kabrick, P.E., Secretary; and Terri Buckner.

Others present: Ed Kerwin, Imtiaz Ahmad, Mary Darr, Patrick Davis, Marsha Ferrington, Greg Feller, John Greene, Ed Holland, Andrea Orbich, and Kevin Ray of the OWASA staff; Robert Epting, Esquire, Epting and Hackney; and Meg Holton, Water, Wastewater, and Stormwater Manager, University of North Carolina at Chapel Hill.

There being a quorum present, Chair Mac Clarke called the meeting to order.

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MOTIONS ACTED UPON

1. Penny Rich moved to adopt the minutes of the March 23, 2006, Meeting of the Board of Directors. The motion was seconded by Marge Anders Limbert and carried by unanimous vote.

2. Penny Rich moved to adopt the minutes of the April 13, 2006, Closed Session of the Board of Directors for the purpose of discussing land acquisition. The motion was seconded by Marge Anders Limbert and carried by unanimous vote.

3. BE IT RESOLVED THAT the Orange Water and Sewer Authority adopt the "Resolution Adopting Preliminary Annual Budget for Orange Water and Sewer Authority for the Fiscal Year July 1, 2006 through June 30, 2007." (Resolution so titled attached hereto and made a part of these minutes. Motion by Milton Heath, seconded by Laura Sandvik, and carried by unanimous vote.)

4. BE IT RESOLVED THAT the Orange Water and Sewer Authority adopt the resolution titled "Resolution Setting Date of May 25, 2006 for a Public Hearing on the Proposed OWASA Budget for Fiscal Year 2006-2007 and on the Capital Improvements Program for Fiscal Years 2007-2021, Including a Five-Year Capital Improvements Budget for Fiscal Years 2007-2011." (Resolution so titled attached hereto and made a part of these minutes. Motion by Milton Heath, seconded by Mark Marcoplos, and carried by unanimous vote.)

5. BE IT RESOLVED THAT the Orange Water and Sewer Authority adopt the resolution titled "Resolution Setting the Date of May 25, 2006 for a Public Hearing on Proposed Revision of Water and Sewer Rates, Fees and Charges." (Resolution so titled attached hereto and



made a part of these minutes. Motion by Laura Sandvik, seconded by Gordon Merklein, and carried by unanimous vote.)

6. Marge Anders Limbert moved that the Board recess until after the Community Outreach meeting, at which time the Board will convene in a Closed Session for the purpose of discussing land acquisition. The motion was seconded by Gordon Merklein and carried by unanimous vote.

\* \* \* \* \*

ITEM ONE: ANNOUNCEMENTS

CONFLICT OF INTEREST

Mac Clarke said any Board Member who knows of a conflict of interest or potential conflict of interest with respect to any item on the agenda tonight is asked to disclose the same at this time. There were none.

CLOSED SESSION

Mac Clarke said that following the Community Outreach meeting at 7:00 P.M. tonight, the Board will convene in a Closed Session for the purpose of discussing property acquisition.

CHAPEL HILL COMPREHENSIVE PLAN

Mac Clarke said that the Town of Chapel Hill Planning Department requested OWASA's review of and comments on proposed revisions to the Chapel Hill Comprehensive Plan by June 30, 2006. Mr. Clarke requested that Town staff make a presentation at the June 8, 2006 OWASA Board meeting.

COMMITTEE MEETING

Penny Rich said the Human Resources Committee will meet on Thursday, May 11, 2006 at 5:30 P.M. in the OWASA Boardroom to discuss alternative employee compensation strategies.

EARTH ACTION FEST

Greg Feller said Pat Davis will represent OWASA at the Earth Action Fest on Sunday, April 30, 2006 from 2:00 p.m. until 6:00 p.m. at Carrboro Town Hall/Town Commons.

TOWN OF CARRBORO'S COMMUNITY DAY

Greg Feller said that OWASA will participate in the Town of Carrboro's Community Day on Sunday, May 7, 2005, from 1:00 P.M. until 7:00 P.M., at the Carrboro Town Hall/Town Commons.

SEASONAL RATES

Greg Feller said that on May 1, 2006, the charge for water use will change to the "peak" seasonal rate through September, 2006.

ITEM TWO: PETITIONS AND REQUESTS FROM THE PUBLIC, THE BOARD AND THE STAFF

Mac Clarke asked for petitions and requests from the public, the Board and the staff. There were none.

ITEM THREE: MINUTES

Penny Rich moved to adopt the minutes of the March 23, 2006, Meeting of the Board of Directors. The motion was seconded by Marge Anders Limbert and carried by unanimous vote.

Penny Rich moved to adopt the minutes of the April 13, 2006, Closed Session of the Board of Directors for the purpose of discussing land acquisition. The motion was seconded by Marge Anders Limbert and carried by unanimous vote.

ITEM FOUR: RECOMMENDED DECLARATION OF WATER SUPPLY ADVISORY

Ed Holland provided information about the current status of OWASA's water supply and demand conditions and suggested that the Board consider declaring a Water Supply Advisory due to ongoing drought conditions and below normal streamflows into OWASA's reservoirs.

The Board unanimously agreed to declare a Water Supply Advisory and directed staff to notify the Carrboro and Chapel Hill Mayors and the Chair of the Orange County Board of Commissioners of this decision and to include the information provided at the Board meeting.

ITEM FIVE: RESOLUTION ADOPTING PRELIMINARY ANNUAL BUDGET FOR ORANGE WATER AND SEWER AUTHORITY FOR THE FISCAL YEAR JULY 1, 2006 THROUGH JUNE 30, 2007

Kevin Ray highlighted key elements of the preliminary budget, which includes \$17.3 million for operating services; and \$20.7 million for capital projects, which are primarily financed with bonds. Mr. Ray said that adoption of a Preliminary Budget satisfies statutory requirements for an interim appropriation in the unlikely event that a final budget is not adopted before July 1, 2006.

Milton Heath made a motion to adopt the resolution; it was seconded by Laura Sandvik, and carried by unanimous vote. Please see Motion No. 3 above.

ITEM SIX: RESOLUTION SETTING DATE OF MAY 25, 2006 FOR A PUBLIC HEARING ON THE PROPOSED OWASA BUDGET FOR FISCAL YEAR 2006-2007 AND ON THE CAPITAL IMPROVEMENTS PROGRAM FOR FISCAL YEARS

**Draft**

**2007-2021, INCLUDING A FIVE-YEAR CAPITAL IMPROVEMENTS  
BUDGET FOR FISCAL YEARS 2007-2011**

Kevin Ray said that Section 159-12 of the General Statutes of North Carolina requires a public hearing to receive comments on the proposed Operating and Capital Improvements Budget before the final budget is adopted by the full Board. Mr. Ray asked the Board to approve a resolution setting the date of May 25, 2006 for the public hearing.

Milton Heath made a motion to adopt the resolution; it was seconded by Mark Marcoplos, and carried by unanimous vote. Please see Motion No. 4 above.

**ITEM SEVEN: RESOLUTION SETTING THE DATE OF MAY 25, 2006 FOR A PUBLIC  
HEARING ON PROPOSED REVISION OF WATER AND SEWER RATES,  
FEES AND CHARGES**

Kevin Ray said this resolution sets the date for a Public Hearing to receive public comments on the proposed adjustments of rates, fees and charges. The proposed rate increase of six percent for water and six and a quarter percent for sewer services, if approved, would be effective on October 1, 2006.

Mr. Ray stated that the Sale and Purchase Agreements with the University of North Carolina at Chapel Hill require that the University be provided a 90-day notice before implementation of changes in water and sewer rates, fees, and charges.

Laura Sandvik made a motion to adopt the resolution; it was seconded by Gordon Merklein, and carried by unanimous vote. Please see Motion No. 5 above.

**ITEM EIGHT: CLOSED SESSIONS**

Marge Anders Limbert moved that the Board recess until after the Community Outreach Meeting and then convene in a Closed Session for the purpose of discussing land acquisition. The motion was seconded by Gordon Merklein, and carried by unanimous vote. Please see Motion No. 6 above.

There being no further business to come before the Board, the meeting was adjourned at 6:35 P.M.

Respectfully submitted,

**Draft**

Andrea Orbich  
Executive Assistant

Encs.

NOTE: Audio and video tapes are available at OWASA for listening and viewing.

**Draft**

ORANGE WATER AND SEWER AUTHORITY

CLOSED SESSION OF THE BOARD OF DIRECTORS

MAY 11, 2006

The Board of Directors of Orange Water and Sewer Authority met in Closed Session on Thursday, May 11, 2006 during the regularly scheduled meeting of Board of Directors in the OWASA Community Room.

Directors present: Penny Rich, Vice Chair; Randolph M. Kabrick, P.E., Secretary; Terri Buckner; Milton Heath Jr.; Marge Anders Limbert; and Gordon Merklein. Directors absent: Michael A. (Mac) Clarke, Chair; Mark Marcoplos; and Laura Sandvik.

Others present: Ed Kerwin, Patrick Davis, Ed Holland and Kevin Ray, Orange Water and Sewer Authority; and Robert Epting Esquire, Epting and Hackney.

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**ITEM ONE**

The Board of Directors met in Closed Session for the purpose of instructing Counsel and Staff regarding a potential land acquisition.

No action was taken.

**Draft**

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Ed Kerwin  
Executive Director

**AGENDA ITEM**

- SEMI-ANNUAL STATUS REPORT FOR VARIOUS CAPITAL IMPROVEMENT PROJECTS INCLUDING THE SEMI ANNUAL REPORT ON COMMUNICATION PLANS FOR CAPITAL PROJECTS

**BACKGROUND**

- On June 9, 2005 the OWASA Board of Directors adopted a Capital Improvement Program (CIP) for FY 2006-2020, which included a FY 2006 budget of \$31,697,000.
- The FY 2006 CIP Budget authorized the staff to proceed with design and construction of various water and wastewater facilities and utility line rehabilitation, replacement and renewal projects.
- This semiannual status report provides information on active or recently completed capital improvement projects through April 2006.
- The report includes a brief summary of project activities and details that are significant to project cost and/or schedule. “Cost to Date” versus “Project Budget” is also presented. The project budget is the total amount budgeted for each project stage based on the FY 2006 CIP and previous CIPs, unless otherwise noted.
- Semiannual communication plan updates with the public for each project are included in this report.
- During the May 25<sup>th</sup> Board Meeting, staff will present a PowerPoint presentation about recently completed and active projects, including an overview of progress at the Mason Farm Wastewater Treatment Plant.

**ACTION REQUESTED**

- This is an informational report only. No formal action is requested.

May 25, 2006

## MEMORANDUM

**TO:** Board of Directors

**THROUGH:** Ed Kerwin

**FROM:** F. Stuart Carson, P.E.

**DATE:** May 19, 2006

**SUBJECT:** Semiannual Status Report for Various Capital Improvement Projects including the Semiannual Report on Communications Plans for Capital Projects

### SUMMARY

This semiannual status report provides information on active or recently completed capital improvement projects through April 2006. It includes a brief summary of project activities and details that are significant to project cost and/or schedule. "Cost to Date" versus "Project Budget" is also presented. The project budget is the total amount budgeted for each project stage based on the FY 2006 Capital Improvements Program (CIP), previous CIPs, and updates based upon engineering estimates or executed agreements.

Semiannual communication plan updates with the public for each project are included in this report.

### **Stone Quarry Pump Station (CIP# 270-17)**

The Stone Quarry Reservoir is located on Highway 54 west of Carrboro and is OWASA's alternate raw water source. The existing pump station consists of pumps mounted on a floating dock and has a transfer capacity of 1 to 2 million gallons per day (MGD) to University Lake via Phil's Creek.

The new station will include two vertical turbine pumps and associated piping mounted to a truss attached to the bottom of the quarry. It will include the capability to vertically adjust the position of the pumps in the quarry to add flexibility in pumping as may be needed during droughts or transmission line repairs. A connection will be added to the existing 30-inch Cane Creek raw water transmission main so that raw water can be pumped directly to the Jones Ferry Road Water Treatment Plant.

CIP# 270-17 was established to complete the work remaining from the terminated CIP# 270-13 project. Additional underwater survey work was performed as part of Hazen and Sawyer's

preparation to rebid for completion of the work. The survey information was needed in addition to the previous underwater survey information to more accurately establish the pumps' truss support location. Performance of this work prior to rebidding for the formal contract will expedite project completion.

Design: Hazen & Sawyer  
 Construction: Seaside Environmental Constructors, Inc.  
 Bid: \$2,072,000  
 Notice to Proceed: May 22, 2006  
 Inspection: Hazen & Sawyer

### Project Schedule and Budget

	Status	Start	Finish	Project Budget	Cost To Date
Planning					
Land/ROW					
Eng/Design	Active	Jul 2005	Feb 2007	\$ 232,300 <sup>1</sup>	\$ 101,925
Construction	Pending	May 2006	Feb 2007	\$ 2,072,000 <sup>2</sup>	\$ 0
Inspection	Pending	May 2006	Feb 2007	\$ 134,000 <sup>3</sup>	\$ 0
Equipment	Active	Dec 2005	Feb 2007	\$ 213,022 <sup>4</sup>	\$ 155,090
Contingency				\$ 24,000	
<b>Total</b>				<b>\$ 2,675,322</b>	<b>\$ 257,015</b>

<sup>1</sup> The engineering budget is based upon a contractual agreement and includes design, bid, and engineering office services during construction phases.

<sup>2</sup> The construction cost budget reflects the amount bid by the contractor. The total cost of the construction work, including CIP# 270-13, is approximately \$3,200,000.

<sup>3</sup> The inspection budget is based upon a contractual agreement and includes resident field observation and specialized sub-consultant consulting and observation services during construction.

<sup>4</sup> OWASA has purchased several pieces of equipment directly from the manufacturers' representatives.

The new contract work will include completion of the underwater concrete support for the truss, completion of the pump station on-grade concrete slab, installation of the truss, installation of the pumps and appurtenances including electrical facilities, yard piping, site restoration, and demolition / removal of the existing pump station facilities that no longer will be needed.

### Public Communication

A status update letter will be mailed in May 2006 to neighbors in the vicinity of the project advising them of the new project details and schedule. Periodic updates will be provided throughout the project's duration.

**Upflow Clarifier, Backwash Clarifier and Generator Improvement Project – Phase IV:  
 Jones Ferry Road Water Treatment Plant (WTP) (CIP# 272-03)**

As part of Phase IV Improvements for the WTP 20 MGD Upgrade and Expansion Project, Crain and Denbo, Inc. (CDI) performed the installation of a new 1,500 KW standby power generator for the expanded WTP. In addition, the existing Pulsator and Backwash Clarifier #1 was rehabilitated and improved to provide operational flexibility. A new feed pipe for the existing clearwell was installed for hydraulic improvements and a permanent 18-inch process water recycle line was constructed from the clarifiers to the head of the plant.

Design: Hazen & Sawyer  
 Construction: Crain and Denbo  
 Bid: \$2,237,345  
 Notice to Proceed: September 15, 2003  
 Terminated for Cause: April 1, 2005  
 Inspection: Hazen & Sawyer

**Project Schedule and Budget<sup>1</sup>**

	Status	Start	Finish	Project Budget	Cost to Date
Planning					
Land/ROW					
Eng/Design	Complete	Jun 2002	Mar 2005	\$ 293,000	\$ 255,000
Construction	Inactive	Sep. 2003	Mar 2005	\$ 2,400,000	\$ 2,237,245
Inspection	Inactive	Sep. 2003	Mar 2005	\$ 112,000	\$ 141,000
Equipment					
Contingency				\$ 148,000	
<b>Total</b>				<b>\$ 2,953,000</b>	<b>\$ 2,633,245</b>

<sup>1</sup>This schedule and budget is for the contract that was terminated for cause. See below for additional information.

The construction contract for this project with Crain and Denbo was terminated for cause effective April 1, 2005. The contractor failed to perform hydraulic improvements inside the old clearwell. This worked involved bypassing the filtered water around the old clearwell to the new clearwell. This bypassing procedure was scheduled to occur during the low water demand period of November and December 2004. The contractor failed to accomplish the work in the allocated time period.

The remaining project work was repackaged and rebid under the new project titled, “Backwash Clarifier and Filter Improvements Project.” This project included backwash clarifier modifications, filtered water flume modifications, filtered water bypass pumping, clearwell modifications, and filter modifications. The bids for this project were opened on October 25, 2005. Dellinger, Inc. of Monroe, NC was the low bidder with a bid of \$381,410. Staff presented a recommendation to the Board for awarding construction contract to Dellinger, Inc. during the



November 10, 2005 meeting. Along with the Backwash Clarifier and Filter Improvements Project, Hazen & Sawyer was also contracted to design various other improvements under CIP #272-03, including Filter Gullet Repairs for filters #2 – 5.

Design: Hazen & Sawyer  
 Construction: Dellinger, Inc. (Backwash Clarifier and Filter Improvements)  
 Seager Waterproofing, Inc. (Filter Gullet Repairs)  
 Bid Amount: \$381,410 (Backwash Clarifier and Filter Improvements)  
 \$89,500 (Filter Gullet Repairs)  
 Notice to Proceed: December 28, 2005  
 Inspection: Hazen & Sawyer

### Project Schedule and Budget

	Status	Start	Finish	Project Budget	Cost to Date
Planning					
Land/ROW					
Eng/Design	Complete	May 2005	Aug 2006	\$ 84,225 <sup>1</sup>	\$ 31,018
Construction	Active	Jan. 2006	Aug. 2006	\$ 470,910 <sup>2</sup>	\$ 381,410
Inspection	Active	Jan. 2006	Aug. 2006	\$ 51,100 <sup>1</sup>	\$ 22,608
Equipment					
Contingency					
<b>Total</b>				<b>\$ 606,235</b>	<b>\$ 435,036</b>

<sup>1</sup> Budget numbers taken from executed engineering agreement.

<sup>2</sup> Includes bid amounts for Backwash Clarifier and Filter Improvements performed by Dellinger, Inc., and for Filter Gullet Repairs to be performed by Seager Waterproofing, Inc.

Construction for the Backwash Clarifier and Filter Improvements was completed in March 2006. Proposals for Filter Gullet Repair work were solicited under an informal bidding process, and bids were opened on May 4, 2006. Hazen & Sawyer has provided a recommendation for awarding the contract to Seager Waterproofing, and OWASA will issue notice of award in May 2006.

### Public Communication

In November 2005, staff furnished public communication letters to the neighbors within a 1,000 foot radius of the Jones Ferry Road Water Treatment Plant site indicating the expected start of construction project, and that there could be some noise generated from the bypass pump operated as part of the project. Public notices were mailed out in early January at the start of construction of the Backwash Clarifier and Filter Improvements project. Regular updates will continue to be sent to the area residents during the construction phase of the project.

**Booster Pump Station at I-40 (CIP# 273-08)**

This project includes design and construction of a new above ground booster pump station with two new pumps to replace the existing I-40 Booster Pump Station. The new pump station, along with the recently installed 16-inch pipeline along Old Durham Road (CIP #275-25) will increase the emergency transfer capacity of finished water from the City of Durham from 3.7 to 7.1 MGD. The new pump station will be located on the same property as the existing pump station on Old Durham Road, west of the intersection of Interstate 40. Along with construction of a new brick building and meter vault, we will replace the existing flow meter with a 10-inch meter, abandon and remove portions of the 8-inch Pope Road water main within the job site, and abandon three smaller booster pump stations (Cooper Street, Ephesus Church Road, and the existing facility at Old Durham Road).

Design: Black & Veatch  
 Construction: TBD  
 Inspection: TBD

**Project Schedule and Budget**

	Status	Start	Finish	Project Budget <sup>1</sup>	Cost to Date
Planning					
Land/ROW					
Eng/Design	Active	Jun 2003	Jan 2007	\$ 129,000 <sup>2</sup>	\$ 122,370
Construction	Pending	Aug 2006	Jan 2007	\$ 582,000	0
Inspection	Pending	Aug 2006	Jan 2007	\$ 29,000	0
Equipment					
Contingency				\$ 87,000	
<b>Total</b>				<b>\$ 827,000</b>	<b>\$ 122,370</b>

<sup>1</sup> The budget for this project was increased because of design revisions and additional requirements by the Town of Chapel Hill and the City of Durham.

<sup>2</sup>See below for more details.

The design is complete and the project is currently in the permitting phase. Staff has obtained from the Town of Chapel Hill a Special Use Permit to construct the above ground station in a residential location. Also, the Town's Community Design Committee has approved the plans. Right-of-Way Encroachment Agreements have been requested from the NCDOT, and a Zoning Compliance Permit has been requested from the Town of Chapel Hill. Construction is expected to begin in August 2006 with completion expected in January 2007.

The project budget amount for the Eng/Design line item is based upon an executed engineering agreement for design and bid phase services and does not include engineering administration services during construction. It will be increased to include those services after the scope of services and fees are agreed upon.

**Public Communication**

Specific information concerning this project schedule will be sent after a contractor has been selected and a construction schedule is available. Regular updates will be sent to the area residents prior to and during the construction phase of the project.

**Water Line Rehabilitation and Replacement Projects – Willow Drive Water Main Replacement (CIP# 275-20)**

CIP# 275-20 includes funds for various projects to rehabilitate or replace water mains. The Willow Drive Water Main Replacement project included installation of approximately 600 feet of new 8-inch ductile iron pipe to replace an existing 8-inch asbestos cement main along Willow Drive east of the intersection with Fordham Boulevard. The need for this project was dictated by repair incidents in this area.

Design: O'Brien & Gere, Inc.  
 Construction: OWASA  
 Inspection: OWASA

**Project Schedule and Budget**

	Status	Start	Finish	Project Budget <sup>1</sup>	Cost to Date
Planning					
Land/ROW					
Eng/Design	Complete	Sep 2005	Jan 2006	\$ 7,300 <sup>3</sup>	\$ 7,300
Construction <sup>1</sup>	Complete	Feb 2006	Apr 2006		\$ 78,867.62 <sup>2</sup>
Inspection <sup>1,2</sup>	Complete	Feb 2006	Apr 2006		
Equipment					
Contingency					
<b>Total</b>				<b>\$7,300</b>	<b>\$ 86,167.62</b>

<sup>1</sup>Total funds available in the FY 2006 budget for all CIP# 275-20 projects is \$1,312,000. See below.

<sup>2</sup>Construction and inspection performed by OWASA. See below for more information.

<sup>3</sup>This amount is from the executed engineering agreement for design services.

OWASA crews began construction on the water line replacement in late February 2006. Construction was completed in March 2006 and the pavement restoration was completed in April 2006.

This project was not planned for in the CIP budget, so no funds were budgeted specifically for it. Funds earmarked for other CIP# 275-20 work was used for this project. Expenses for construction and inspection work performed by OWASA construction crews on CIP projects are reported to the Finance Department on a monthly basis by the Operations Department. These amounts are recorded as capital assets by the Finance Department.

## Public Communication

A public notice to residents regarding upcoming construction activity and traffic impacts was mailed in mid-February 2006. A separate notice was provided in February to customers for whom water service interruptions were anticipated. A public notice will be provided in May 2006 to inform residents of the completion of construction, and a post-construction letter and survey will be mailed to the property owners within a few weeks following the final public notice.

## Water Line Rehabilitation and Replacement Projects - Colony Woods Water Main Replacement (CIP# 275-20)

CIP# 275-20 consists of projects to rehabilitate or replace water mains. Two of these projects, Colony Woods Phase I and Colony Woods Phase II, are located in the Colony Woods neighborhood at the eastern side of the OWASA service area. Coordination with Town of Chapel Hill officials has been required because the roads within the neighborhood are not maintained by the NCDOT. The new water mains are being installed within the existing street Rights-of-Way. The impact to local traffic is expected to be minimal as only one lane will be closed as the new water mains are installed next to the existing curb.

Design: O'Brien & Gere  
 Construction: OWASA  
 Inspection: OWASA

## Project Schedule and Budget

	Status	Start	Finish	Project Budget <sup>1</sup>	Cost to Date
Planning					
Land/ROW					
Eng/Design	Complete	Mar 2005	Sep 2005	\$ 57,444 <sup>3</sup>	\$ 57,444
Construction <sup>1</sup>	Active	Mar 2006	Aug 2006	\$ 797,000	\$ 78,853.16 <sup>2</sup>
Inspection <sup>1,2</sup>					
Equipment					
Contingency				\$ 10,000	
<b>Total</b>				<b>\$864,444</b>	<b>\$ 136,297.16</b>

<sup>1</sup> Total funds available in the FY 2006 budget for all CIP# 275-20 projects is \$1,312,000. See below.

<sup>2</sup> Construction and inspection performed by OWASA. See below for more information.

<sup>3</sup> This amount is from the executed engineering agreement for design services.

Construction of Phase I began during March 2006 by OWASA crews. By the end of April 2006, approximately one half of the new water mains had been installed for Phase I. Disinfection and testing of the new mains will be performed prior to relocating service connections from the

existing mains to the new ones. Construction of Phase II is expected to begin by mid-June 2006 and continue through the Summer of 2006.

Funds for OWASA construction and inspection are included in the Construction project budget line item. Expenses for construction and inspection work performed by OWASA construction crews on CIP projects are reported to the Finance Department on a monthly basis by the Operations Department. These amounts are recorded as capital assets by the Finance Department.

**Public Communication**

In early March 2006, a letter was sent to the area residents to inform them of the project. Coordination with affected property owners is ongoing by the OWASA crew on a daily basis. Regular updates will be sent to the residents as construction continues through the Summer of 2006.

**Abbey Road/Booth Road Water Main Replacement (CIP# 275-23)**

This project includes the installation of approximately 650 feet of 6-inch ductile iron pipe, meter boxes, and water services in the Abbey Road/Booth Road neighborhood in northern Chatham County. This project will extend new water services to the residents either from this new 6-inch main or from Chatham County's 16-inch water main within US 15-501. At the completion of the project, the new 6-inch main and the customer water service accounts will be transferred from OWASA to Chatham County. Completion of this project will alleviate historical problems of low water pressure experienced in this neighborhood.

Design: EarthTech, Inc.  
 Construction: TBD  
 Inspection: TBD

**Project Schedule and Budget**

	<b>Status</b>	<b>Start</b>	<b>Finish</b>	<b>Project Budget</b>	<b>Cost to Date</b>
Planning	Complete	Aug 2005	Oct 2005	\$ 4,788 <sup>1</sup>	\$ 4,788
Land/ROW					
Eng/Design	Active	Mar 2006	Jul 2006	\$ 38,950 <sup>1</sup>	\$ 14,100
Construction	Pending	TBD	TBD	\$ 130,000	\$ 0
Inspection	Pending	TBD	TBD	\$ 7,000	\$ 0
Equipment					
Contingency				\$ 7,000	\$ 0
<b>Total</b>				<b>\$ 187,738</b>	<b>\$ 18,888</b>

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<sup>1</sup>Budget numbers taken from executed engineering agreements.

On February 10, 2005, the Board approved a resolution authorizing the transfer of OWASA customers in the Abbey Road neighborhood to Chatham County. As authorized in this resolution, staff developed an Interlocal Agreement by and between Chatham County and OWASA which identified the conceptual layout of the proposed improvements, the properties involved, and the terms of the transfer of service for these properties. This Interlocal Agreement was executed by the Executive Director on February 13, 2006 and ratified by the Board at the March 9, 2006 OWASA Board meeting. The project is currently in the preliminary design phase.

**Public Communication**

Periodic updates about the project were provided in November 2005, February 2006, and May 2006 to the property owners to be included in the transfer of service to Chatham County. Regular updates will continue to be sent to these property owners during the design phase. A public notice will be mailed to all residents within a 1000 feet radius of the work in the month prior to construction start-up, and regular updates will continue to be sent to these residents during the construction phase of the project. A post-construction letter and survey will be mailed to the businesses and residents following the completion of construction.

**12" Water Main Along Fordham Boulevard (CIP# 275-45)**

This project includes the replacement of an existing 8-inch asbestos cement water main with approximately 2,635 feet of 12-inch ductile iron pipe. The new water main will start from the vicinity of the Days Inn hotel along Fordham Boulevard, continue past Eastgate and Ram's Plaza Shopping Centers, and end at the Crown Volvo dealership along the frontage road. Portions of the existing water main were identified in the water main prioritization model as being in the top ten miles recommended for replacement.

Design: HDR Engineering Inc. of the Carolinas  
 Construction: TBD  
 Inspection: TBD

**Project Schedule and Budget**

	Status	Start	Finish	Project Budget	Cost to Date
Planning					
Land/ROW					
Eng/Design	Active	Aug 2005	Oct 2006	\$ 98,760 <sup>1</sup>	\$ 36,659
Construction	Pending	Jul 2007	Dec 2007	\$ 905,000 <sup>2</sup>	\$ 0
Inspection	Pending	Jul 2007	Dec 2007	\$ 37,000 <sup>2</sup>	\$ 0

Equipment					
Contingency				\$ 46,000 <sup>2</sup>	
<b>Total</b>				<b>\$ 1,086,760</b>	<b>\$ 36,659</b>

<sup>1</sup>Budget numbers taken from executed engineering agreement.

<sup>2</sup>Budget numbers based on engineer's cost opinion.

The preliminary design for the project has been reviewed by OWASA and NCDOT. The water main alignment has been revised based on NCDOT suggestions, and surveying for the route has been completed. Traffic control permitting is currently being pursued for the geotechnical and subsurface utility investigations needed to proceed with design.

### Public Communication

A public notice will be sent to all business and residents within a 1000 feet radius of the work in May 2006 to inform them of the upcoming geotechnical and subsurface utility investigations anticipated to occur in June 2006, and also to provide background information on the future project construction. Public notices will be sent one month prior to construction start-up and monthly during the construction phase. A post-construction letter and survey will be mailed to the businesses and residents following the completion of construction.

### 16" Water Main Along Dobbins Drive (CIP# 275-46)

This project includes the replacement of an existing 12-inch asbestos cement water distribution main with approximately 2,335 feet of 16-inch ductile iron pipe along Dobbins Drive from Erwin Road to East Franklin Street at the Booker Creek crossing. The new water main will be located within the median between westbound US 15/501 and Dobbins Drive. On the eastern end of the project, the new water main will tie into a proposed main that will be constructed as part of the NCDOT Erwin Road/US 15-501 Intersection Improvement Project. On the western end the new main will tie to a recently installed 16-inch water main. Portions of the existing water main were identified in the water main prioritization model as being in the top ten miles recommended for replacement.

Design: HDR Engineering Inc. of the Carolinas  
 Construction: TBD  
 Inspection: TBD

### Project Schedule and Budget

	Status	Start	Finish	Project Budget	Cost to Date
Planning					
Land/ROW					
Eng/Design	Active	May 2005	Aug 2006	\$ 66,050 <sup>1</sup>	\$ 44,225

Construction	Pending	Jul 2008	Dec 2008	\$ 753,000 <sup>2</sup>	\$ 0
Inspection	Pending	Jul 2008	Dec 2008	\$ 30,000 <sup>2</sup>	\$ 0
Equipment					
Contingency				\$ 38,000 <sup>2</sup>	\$ 0
<b>Total</b>				<b>\$ 887,050</b>	<b>\$ 44,225</b>

<sup>1</sup> Budget numbers taken from executed engineering agreement.

<sup>2</sup> Budget numbers based on engineer's cost opinion.

OWASA has reviewed the 90% design submittal and the consultant is revising the plans per comments received and is preparing to apply for permits.

### Public Communication

A public notice will be sent to all business and residents within a 1000 feet radius of the work six (6) months prior to the expected start of construction informing them of the upcoming project. Public notices will be sent one month prior to construction start-up and monthly during the construction phase. A post-construction letter and survey will be mailed to the businesses and residents following the completion of construction.

### Bolin Creek Interceptor Phase III (CIP# 276-01)

The Bolin Creek Interceptor project will replace approximately 6,000 feet of the existing parallel sewer interceptors with new pipe. The new construction will provide additional capacity that is needed due to growth and will reduce existing inflow/infiltration and surcharge conditions.

Design: HDR Engineering, Inc. of the Carolinas  
 Construction: TBD  
 Inspection: TBD

### Project Schedule and Budget

	Status	Start	Finish	Project Budget <sup>1</sup>	Cost to Date
Planning	Complete	Jan 2004	Mar 2004	\$ 65,000	\$ 64,363
Land/ROW	Pending	Nov 2005	Feb 2007	\$ 10,000	\$ 0
Eng/Design	Active	Apr 2005	Apr 2008	\$ 320,000	\$49,113
Construction	Pending	Feb 2007	Apr 2008	\$3,481,000	\$ 0
Inspection	Pending	Feb 2007	Apr 2008	\$ 192,000	\$ 0
Equipment					
Contingency				\$ 189,000	\$ 0
<b>Total</b>				<b>\$ 4,257,000</b>	<b>\$ 113,476</b>

<sup>1</sup> The project budget has been revised. See below for details.



The preliminary engineering report was completed in October 2005 and included the analysis of different options of replacing or rehabilitating the existing interceptors. Staff's preferred option is to have a new 30-inch interceptor replace the existing parallel sewer lines. The new interceptor will be placed along the existing easement from Estes Drive Extension to Umstead Park and then along the pavement of Umstead Drive from the park to Martin Luther King Jr. Boulevard. Design started in March 2006 and is expected to be complete by this November. It is expected that an additional 2 to 4 months will be needed for easement acquisition and permit approval for the project and 15 months for construction.

Based on the preliminary engineering report, the project budget has been adjusted to account for higher than the previously estimated cost of the project. This is mostly because the preferred alignment for the proposed main is planned to be under Umstead Drive. Pavement replacement cost will substantially increase the project cost; however, location of the new sewer along the pavement will minimize environmental disruption to Bolin Creek.

### **Public Communication**

On October 11, 2005 staff furnished 700 letters to the neighbors within the 1,000 foot radius of the proposed sewer line and stakeholders, alerting them to OWASA's plan for replacement of the existing sewer interceptor. Letters were also mailed to immediate project neighbors on February 27, 2006 alerting them about the start of land surveys for this project.

Staff met with representatives of the Friends of Bolin Creek on March 24, 2006 to update them about the project and to obtain their feedback. In the future staff will consider planning a Community Meeting for the neighbors and general public to advise the community about our plans. Such a meeting will be scheduled prior to finalization of the design. Regular project updates will be provided to the community throughout the project's duration.

### **Bolin Creek Basin Sewer Rehabilitation (CIP# 276-09)**

A recent Sanitary Sewer Evaluation Survey indicated a variety of problems in this area with the majority of the problems located in the lower portion of the drainage basin. The objective of this project is to have repairs made in a systematic, comprehensive manner to more than nine (9) miles of gravity sewer mains and more than 350 manholes. Several different types of construction methods will be utilized, including Cured-In-Place-Pipe (CIPP) liners for mains, sprayed-on liners for manholes, and "point" repairs where short sections of pipe will be replaced.

Design:	Hazen and Sawyer
Construction:	Am-Liner East, Video Pipe Services
Inspection:	Hazen and Sawyer

**Project Schedule and Budget**

	Status	Start	Finish	Project Budget	Cost to Date
Planning					
Land/ROW					
Eng/Design	Active	Jan 2006	Nov 2006	\$60,000	\$54,198
Construction	Active	Mar 2006	Nov 2006	\$810,000	\$ 225,000
Inspection	Active	Mar 2006	Nov 2006	\$36,000	\$ 4,000
Equipment					
Contingency				\$ 81,000	
<b>Total</b>				<b>\$987,000</b>	<b>\$283,198</b>

Construction is in progress with TV inspections, cleaning, and installation of CIPP by Am-Liner East. The contractor for the point repairs will be selected and is expected to begin during June 2006. Manhole repairs are expected to begin in June 2006 by Video Pipe Services. Construction will continue through the Fall of 2006.

**Public Communication**

The project was announced with a letter to approximately 2,200 customers at the end of February 2006. The contractor is providing a weekly schedule in advance of the work and is also communicating directly with residents who may be affected on a daily basis. A general project update is available on the OWASA website, and a status report will be mailed by June 2006. Regular updates will be sent as construction continues through the Fall of 2006.

**Sewer Area Service Line Rehabilitation and Replacement Projects – 206 West Cameron Avenue Water and Sewer Replacement (CIP# 276-18)**

CIP# 276-18 includes funds for various projects to rehabilitate or replace sewer mains. An 8-inch vitrified clay sewer main currently runs underneath the building at 206 West Cameron Avenue, posing potential difficulties for maintenance. As part of this CIP project, staff investigated options to address this maintenance concern, including lining the existing sewer main or rerouting the main and reconnecting the service lateral from the house. Due to the location of the existing service connection, the latter option was chosen. WK Dickson, Inc. was retained to design the relocation. During the design phase, a water main relocation was added to the project due to the proximity of the relocated sewer main to an existing asbestos concrete water main. The project site lies within a Town of Chapel Hill Historic District.

Design: WK Dickson, Inc.  
 Construction: TBD  
 Inspection: TBD

**Project Schedule and Budget**

	<b>Status</b>	<b>Start</b>	<b>Finish</b>	<b>Project Budget<sup>1</sup></b>	<b>Cost to Date</b>
Planning					
Land/ROW					
Eng/Design	Active	Nov 2005	Aug 2006	\$ 44,270 <sup>1</sup>	\$ 30,344
Construction	Pending	Jul 2006	Aug 2006	\$ 206,738 <sup>1</sup>	\$ 0
Inspection	Pending	Jul 2006	Aug 2006	\$ 0	\$ 0
Equipment					
Contingency					
<b>Total</b>				<b>\$ 251,008</b>	<b>\$ 30,344</b>

<sup>1</sup>The budget numbers are based upon engineering agreements and engineering construction cost estimates. The total FY 2006 budget amount for all CIP# 276-18 projects is \$550,000.

The project design is complete and permits are currently being obtained. This project will be bid informally.

**Public Communication**

A public notice will be sent out in June 2006 notifying residents of the upcoming construction. Staff has been in contact with the property owners at 206 West Cameron Avenue and at Granville Towers regarding the scope and schedule of construction.

**Sewer Area Service Line Rehabilitation and Replacement Projects - East Main Street Sewer Rehabilitation (CIP# 276-18)**

CIP# 276-18 includes funds for various projects to rehabilitate or replace sewer. The East Main Street Sewer Rehabilitation project replaced an existing 4-inch common sewer lateral with approximately 340 feet of 8-inch main between Brewer Lane and Boyd Street in Carrboro. The new gravity sewer is intended to eliminate chronic sewer blockages in this service area. A new 2-inch water main to serve two existing customers also was installed as part of this project. The existing water service was replaced due to the proximity of sewer main construction and also to provide a better service connection for the two customers.

Design: EarthTech, Inc.  
 Construction: Construction Supervision Services, Inc.  
 Inspection: EarthTech, Inc.

**Project Schedule and Budget**

	<b>Status</b>	<b>Start</b>	<b>Finish</b>	<b>Project Budget<sup>1</sup></b>	<b>Cost to Date</b>
Planning					
Land/ROW					
Eng/Design	Active	Jun 2004	Mar 2006	\$ 49,077 <sup>1</sup>	\$ 43,665
Construction	Pending	Jan 2006	Mar 2006	\$ 116,204 <sup>1</sup>	\$ 120,572 <sup>2</sup>
Inspection	Complete	Jan 2006	Mar 2006	\$ 8,280 <sup>1</sup>	\$ 7,435
Equipment					
Contingency					
<b>Total</b>				<b>\$ 173,561</b>	<b>\$ 171,672</b>

<sup>1</sup>The budget numbers are based upon engineering agreements and engineering construction cost estimates. The total FY 2006 budget amount for all CIP# 276-18 projects is \$550,000.

<sup>2</sup>Construction cost based on final pay application currently under review.

Construction of this project is complete and the final pay application is being reviewed. The contractor and Inspector received positive evaluations for coordinating work with the Town of Carrboro and with neighboring businesses. The construction was completed within schedule, which was critical due to the upcoming NCDOT resurfacing project on Main Street scheduled to begin in July 2006.

**Public Communication**

Initial notices were mailed to property owners in the project area in December 2005 to inform them of the plans for future construction. A news release was sent out and a construction start-up notice was mailed and hand-delivered in February 2006 prior to construction. A final public notice will be sent out in May 2006 informing the public of the completion of construction. A post-construction letter and survey will be sent out within a few weeks of the final public notice.

**Meeting of the Waters Interceptor (CIP# 276-33)**

This project involves upgrading the Meeting of the Waters Interceptor (MWI). Approximately 5,200 feet of existing gravity sewer main along the Meeting of the Waters Creek from Manning Drive and Skipper Bowles Drive to the WWTP will be replaced with new, larger pipe. An evaluation and study was completed in January 2006 which considered the route, environmental impacts, timing, cost and ultimate size of the project.

Study: Brown and Caldwell  
 Design: Brown and Caldwell  
 Construction: TBD  
 Inspection: TBD

## Project Schedule and Budget

	Status	Start	Finish	Project Budget	Cost to Date
Planning	Complete	Apr 2005	Jan 2006	\$ 245,300	\$ 234,832
Land/ROW					
Eng/Design	Active	Mar 2006	Sep 2008	\$ 128,770 <sup>1</sup>	\$ 0
Construction	Pending	Apr 2007	Sep 2008	\$ 3,109,000	\$ 0
Inspection	Pending	Apr 2007	Sep 2008	\$ 132,000	\$ 0
Equipment					
Contingency				\$ 777,000	
<b>Total</b>				<b>\$ 4,392,070</b>	<b>\$ 234,832</b>

<sup>1</sup> Budget numbers are from the executed contract. See below for more details.

The proposed reclaimed water transmission main (CIP# 278-31) and the MWI will be co-located and co-constructed to reduce cost and construction impacts. Brown and Caldwell will work closely with Hazen and Sawyer, the design engineer for the reclaimed water system, on these projects. Design began in March 2006 and is expected to be complete in November 2006.

The project budget amount for the Eng/Design line item is based upon an executed engineering agreement for design and bid phase services and does not include engineering administration services during construction. It will be increased to include those services after the scope of services and fees are agreed upon.

## Public Communication

OWASA invited over 200 stakeholders to attend a third Neighborhood Meeting on December 13, 2005. The purpose of the meeting was to receive additional feedback from stakeholders and to present more detailed information about some of the key items of public interest expressed previous meetings.

Based on the feedback gathered at the December 13<sup>th</sup> Neighborhood Meeting and other previous meetings, OWASA staff and consultants developed a recommended alternative for a substantial portion of the sewer route, which was presented to the Board at the January 12, 2006 meeting. The Board passed a resolution identifying the recommended alternative as the preferred route and describing OWASA's commitment to incorporate effective mitigation measures throughout all phases of the project.

A community meeting will take place in late June 2006 to share the 30 percent design drawings of the pipelines with interested stakeholders. Community feedback and input is a critically important and ongoing part of this project. We will continue to meet with community stakeholders to seek their feedback during future planning and design work.

**Heritage Hills Force Main Replacement (CIP# 277-03)**

The Heritage Hills pump station serves the Heritage Hills Subdivision located in the University Lake watershed. This project includes evaluation of and replacement or rehabilitation of the existing force main. Work to upgrade the existing pump station was completed in FY 2005.

Portions of the existing 11,745 feet 8-inch asbestos cement force main will be replaced with 8-inch ductile iron pipe or rehabilitated using cured-in-place-pipe liner. The force main currently extends from the Heritage Hills pump station along Brandywine and Princeton Roads to Smith Level Road and then north to the vicinity of Ray Road. At Ray Road, the force main discharges to OWASA's gravity sewer system which extends to the Southern Village development. This project assessed the condition of the force main and evaluated the potential of redirecting the force main discharge into a future gravity sewer system in Dogwood Acres, which would then continue to a sewer interceptor in Southern Village.

Design: Black & Veatch, Inc.  
 Construction: TBD  
 Inspection: TBD

**Project Schedule and Budget**

	<b>Status</b>	<b>Start</b>	<b>Finish</b>	<b>Project Budget</b>	<b>Cost to Date</b>
Planning	Active	Oct 2005	Jun 2006	\$ 32,080 <sup>1</sup>	\$ 14,710
Land/ROW	Pending	Jul 2006	Dec 2006	\$ 20,000	\$ 0
Eng/Design	Pending	Jul 2006	Dec 2006	\$ 210,000	\$ 0
Construction	Pending	Dec 2006	Jun 2007	\$1,650,000	\$ 0
Inspection	Pending	Dec 2006	Jun 2007	\$ 56,000	\$ 0
Equipment					
Contingency				\$ 42,000	
<b>Total</b>				<b>\$ 2,010,080</b>	<b>\$ 14,710</b>

<sup>1</sup>The numbers are based upon the executed engineering agreement.

The initial condition assessment has been completed by the consultant, and the results of the testing and analysis indicate that the entire length of the force main is in poor condition. The next phase of the planning study includes conducting Ground Penetrating Radar (GPR) analysis along the length of the force main. The consultant will be providing additional analysis of the options of redirecting the force main to a future gravity sewer main in either the Dogwood Acres or Fan Branch areas.

**Public Communication**

In December 2005, a public notice was mailed to area residents informing them of OWASA's future plans for work on the force main as well as upcoming work related to the study phase. A

public notice will be mailed to the residents informing them of the upcoming GPR work, and providing an update on the status of the overall project. Public notices will be sent out one month prior to any rehabilitation or replacement work and periodically during the construction phase. A post-construction letter and survey will be sent out within a few weeks of the final public notice.

**Lloyd Street and Starlite Drive Pump Stations Phase Out (CIP# 277-15)**

The Lloyd Street and Starlight Drive pump stations were identified as possible stations to be phased out. Staff determined that the pump stations could be phased out by constructing a new gravity sewer line. The phase out of these pump stations will eliminate the potential for spills associated with power outages and reduce operation and maintenance costs.

Design:                   McKim & Creed  
 Construction:        TBD  
 Inspection:            TBD

**Project Schedule and Budget**

	<b>Status</b>	<b>Start</b>	<b>Finish</b>	<b>Project Budget</b>	<b>Cost to Date</b>
Planning					
Land/ROW					
Eng/Design	Active	Nov 2002	Jan 2007	\$ 147,960 <sup>1</sup>	\$ 115,821
Construction	Pending	Sep 2006	Jan 2007	\$ 349,000 <sup>2</sup>	\$ 0
Inspection	Pending	Sep 2006	Jan 2007	\$ 17,000 <sup>2</sup>	\$ 0
Equipment					
Contingency				\$ 35,000 <sup>2</sup>	
<b>Total</b>				<b>\$ 548,960</b>	<b>\$ 115,821</b>

<sup>1</sup> Budget numbers are from the executed contract and related change orders. See below for further details.

<sup>2</sup> Budget numbers are from the engineer's cost estimate.

The design has been completed and we are in the process of acquiring one remaining easement. We expect to advertise for bids in July 2006. Construction is anticipated to begin in September 2006 and to be completed in early 2007.

The project budget amount for the Eng/Design line item is based upon an executed engineering agreement for design and bid phase services and does not include engineering administration services during construction. It will be increased to include those services after the scope of services and fees are agreed upon.

## Public Communication

There has been no recent public communication regarding this project. We plan to send an update letter to stakeholders in May 2006; this update will include an offer to hold another community meeting to discuss project plans if stakeholders are interested. Once construction begins, we will send monthly update letters to the community.

### Cleland Drive Pump Station Phase Out and Water Main Replacement (CIP# 277-16 and CIP# 275-26)

The Cleland Drive pump station (CIP# 277-16) was identified as a possible station to be phased out. A study determined that the pump station could be phased out by gravity flow and a preliminary route has been selected for design. The phase out of this pump station will eliminate the potential for spills associated with power outages and reduce operation and maintenance costs. An existing 8-inch water line (CIP# 275-26) along Cleland Drive will be replaced as part of the pump station phase out contract.

Study:	Greenhorne & O'Mara
Design:	HDR Engineering, Inc. of the Carolinas
Construction:	TBD
Inspection :	TBD

### Project Schedule and Budget

	Status	Start	Finish	Project Budget	Actual Cost
Planning					
Land/ROW					
Eng/Design	Active	Jul 2004	Dec 2007	\$ 86,160 <sup>1</sup>	\$ 69,214
Construction	Pending	Jul 2007	Dec 2007	\$ 820,000 <sup>2</sup>	\$ 0
Inspection	Pending	Jul 2007	Dec 2007	\$ 46,000 <sup>2</sup>	\$ 0
Equipment					
Contingency				\$ 132,000 <sup>2</sup>	
<b>Total</b>				<b>\$ 1,084,160</b>	<b>\$ 69,214</b>

<sup>1</sup> Budget numbers are from the executed contract and related change orders. See below for more details.

<sup>2</sup> Budget numbers are from the engineer's cost estimate.

During the initial design and planning stages in July 2004, it became apparent that the existing water line along Cleland Drive would need to be replaced concurrently with the installation of the new gravity sewer. Additional funding to pay for the water line design and construction (CIP# 275-26) was included in the FY 2006 CIP budget. However, it was decided to postpone construction of these projects until FY 2007 due to availability of staff and budgetary resources.



Design is complete and we are currently in the process of obtaining permits, which is expected to be complete in June 2006. We expect to advertise for bids in July 2007 once FY 2007 has begun.

The project budget amount for the Eng/Design line item is based upon an executed engineering agreement for design and bid phase services and does not include engineering administration services during construction. It will be increased to include those services after the scope of services and fees are agreed upon.

**Public Communication**

In addition to continuing to address specific stakeholder questions via e-mail, we met with residents of the Oaks I neighborhood at their annual homeowners’ association meeting on April 23, 2006 to discuss plans for the project and the delay in construction schedule. We plan to send an update letter to stakeholders in May 2006; this update will include an offer to hold another community meeting to discuss project plans if stakeholders are interested. Once construction begins, we will send monthly update letters to the community.

**North Forest Hills Pump Station Phase Out (CIP# 277-17)**

The North Forest Hills pump station is located near Piney Mountain Road in the North Forest Hills subdivision. Staff determined that construction of a gravity sewer was feasible and the station could be phased out. The phase out of this pump station will eliminate the potential for spills associated with power outages and reduce operation and maintenance costs.

Study: Earth Tech  
 Design: Earth Tech  
 Construction: Billings & Garrett  
 Bid: \$409,499  
 Notice to Proceed: December 20, 2004  
 Inspection: Earth Tech

**Project Schedule and Budget**

	<b>Status</b>	<b>Start</b>	<b>Finish</b>	<b>Project Budget</b>	<b>Cost to Date</b>
Planning					
Land/ROW					
Eng/Design	Complete	Aug 2003	Jul 2005	\$ 112,000 <sup>1</sup>	\$ 112,393
Construction	Complete	Nov 2004	Jul 2005	\$ 460,000	\$ 455,004 <sup>3</sup>
Inspection	Complete	Nov 2004	Jul 2005	\$ 39,000 <sup>2</sup>	\$ 39,000
Equipment					
Contingency				\$ 30,000	

<b>Total</b>				<b>\$ 641,000</b>	<b>\$ 606,397</b>
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<sup>1</sup> Design budget includes \$17,500 for preliminary design and \$9,200 for geotechnical and subsurface engineering.

<sup>2</sup> Inspection budget includes a \$18,000 change order for additional inspections to complete the project.

<sup>3</sup> Final construction cost including a change order for \$45,555.

The project is now complete. The pump station has been removed from service and the new gravity sewer main was placed into service in July 2005. The remaining punch list items, including pavement overlayment on portions of Piney Mountain Road and finishing fine grading along the roadway shoulders and sewer easements, have been completed.

### **Public Communication**

A letter advising property owners in the project area that the project was substantially complete was mailed on October 25, 2005. A letter advising six potential customers that their houses could be connected by a service lateral to the new gravity sewer main was mailed to them on October 25, 2005. A post-construction letter was mailed on April 11, 2006 and a post-construction survey was mailed to the property owners on May 10, 2006. Nine (9) survey responses have been received with an average rating of 4.5 out of 5 on a scale from 1 to 5 with 5 being the highest rating.

### **Clayton Road Pump Station Phase Out Project (CIP# 277-18)**

The Clayton Road Pump Station is located along Clayton Road and Audubon Road, north of Pritchard Park property. This station was identified as a possible station to be phased out. Staff evaluation determined that the pump station could be phased out by gravity flow if a new sewer is constructed along an existing easement through Pritchard Park to the existing sewer located in the vicinity of intersection between Library Drive and Estes Drive. The phase out of this pump station will eliminate the potential for spills associated with power outages and reduce operation and maintenance costs.

Design: Earth Tech  
 Construction: TBD  
 Inspection : TBD

### **Project Schedule and Budget**

	<b>Status</b>	<b>Start</b>	<b>Finish</b>	<b>Project Budget<sup>1</sup></b>	<b>Actual Cost</b>
Planning					
Land/ROW					
Eng/Design	Active	May 2005	Dec 2006	\$95,000	\$ 67,800
Construction	Pending	Aug 2006	Dec 2006	\$ 540,000	\$ 0
Inspection	Pending	Aug 2006	Dec 2006	\$ 30,000	\$ 0

Equipment					
Contingency				\$ 30,000	
<b>Total</b>				<b>\$ 695,000</b>	<b>\$ 67,800</b>

<sup>1</sup>The project budget has been revised. See below for details.

Design has been completed. We are currently in the process of finalizing all the permits required for the construction of this project. We are requesting modifications to the existing easement through the Pritchard Park property to minimize environmental concerns. We expect to obtain all the required easements within the next two months.

The project budget has been adjusted to account for higher a than previously estimated project cost. This is mostly because the excessive rock excavation expected, a difficult and expensive bore of the sewer line under the Library Drive pavement, and the cost of waterline relocation required for installation of new sewer at Estes Drive to tie to the existing sewer.

### **Project Communication**

In November 2005 staff furnished public communication letters to the neighbors within the 1,000 feet radius of the proposed sewer line, alerting them about OWASA’s plan of phasing out the existing sewer pump station. The mailing list included property owners, residents, business owners, key personnel of the Town of Chapel Hill including the Library, and other stakeholders. Staff has established good communications with the Town staff, including personnel from the Town’s Planning Department, Public Works, Engineering, Library and Parks and Recreation departments. Staff made brief project presentations to the “Friends of the Library” on February 8, 2006 and to the Library Board on February 13, 2006. On March 7, 2006 staff met with representatives of the Chapel Hill Arts Commission. These meetings and presentations were conducted to update key stake holders about our project and to obtain their feedback. Regular updates will be provided to all the stakeholders throughout the project’s duration.

### **Piney Mountain Pump Station (CIP# 277-20)**

The Piney Mountain pump station is unique because it is operated separately from the wastewater management system within OWASA’s existing service area. The original pump station was constructed in 1995 with financial assistance from State and County funds after the community’s sewer system had failed. The pump station serves the 59 lots of the development. Due to the composition of the incoming sewage from individual septic tanks, the concrete wet well has severely deteriorated and is in need of an urgent repair. The design was completed in September 2005 for a replacement project, but only one bid was received for construction. Because the bid was significantly higher than the construction cost estimate, staff made the decision to perform the work using OWASA resources.

Design: Earth Tech  
 Construction: OWASA  
 Inspection: OWASA

**Project Schedule and Budget**

	Status	Start	Finish	Project Budget <sup>1</sup>	Actual Cost
Planning					
Land/ROW					
Eng/Design	Complete	July 2005	Sep 2005	\$ 20,000	\$ 19,810
Construction	Active	Mar 2006	Dec 2006	\$ 125,000	\$ 0
Inspection	Active	Mar 2006	Dec 2006	\$ 10,000	\$ 0
Equipment					
Contingency				\$ 10,000	\$ 0
<b>Total</b>				<b>\$ 165,000</b>	<b>\$ 19,810</b>

<sup>1</sup> This project was not included in the CIP for FY 2006. Funds were transferred from another project.

After meeting with the Piney Mountain Home Owners’ Association (PMHOA) to discuss options during the Fall of 2005, it was agreed that replacement is the best solution. The PMHOA advised OWASA during March 2006 to proceed with the construction project. Preliminary work began in March and the major part of the work is expected to begin in early July 2006. The construction phase is expected to continue through the Fall of 2006. All costs associated with this project will be reimbursed to OWASA by the PMHOA.

**Public Communication**

Staff currently is communicating with the PMHOA concerning work in progress and reimbursement options. Updates will be sent to the residents on a regular basis following OWASA’s monthly progress meetings.

**Mason Farm Wastewater Treatment Plant; 14.5 MGD Upgrade and Expansion (CIP# 278-06)**

This project will increase the peak month treatment capacity of the Mason Farm Wastewater Treatment Plant (WWTP) from 12 to 14.5 MGD. The project provides improved odor control by converting the floating covers of the digesters to fixed covers and by routing the emissions from the new Morgan Creek Pump Station and new headworks through an existing scrubber.

Treatment plant improvements include the installation of an ultraviolet (UV) disinfection system, tertiary deep-bed denitrification filters, and a new secondary clarifier; expansion of the chemical storage and feed facilities; improvements to the aeration basins; and an improved standby power

system. Other associated improvements include work to relieve hydraulic bottlenecks, including channels for aeration basins; return and waste activated sludge pumps; an automatic transfer switch for the existing 2,000 kilowatt generator and a new 2,700 kilowatt generator; a new vessel for methane gas storage for Digester #1; and a new expanded Morgan Creek Pump Station to replace the existing station.

Design for the WWTP upgrade and expansion to 14.5 MGD treatment capacity started in August 2002 and was completed in October 2003. At the September 25, 2003 Board meeting, staff made a detailed presentation about the scope and features of the project's final design. Staff pre-qualified seven general contractors to bid on this project. Bids were opened on March 9, 2004. Pizzagalli Construction Company was the low bidder with a bid of \$38,781,000. Construction started on May 5, 2004.

Study:	Brown and Caldwell
Design:	Brown and Caldwell
Construction:	Pizzagalli Construction Company
	Bid: \$38,781,000
	Notice to Proceed: May 5, 2004
Construction Management And Inspection:	Construction Dynamics Group

### Project Schedule and Budget

	Status	Start	Finish	Project Budget	Cost to Date
Planning	Complete	May 2001	Jun 2002	\$ 700,000	\$ 608,056
Land/ROW					
Eng/Design	Active	Aug 2002	Jul 2007	\$ 5,352,000 <sup>1</sup>	\$ 4,889,586 <sup>2</sup>
Construction	Active	May 2004	Jul 2007	\$ 40,893,000 <sup>3</sup>	\$ 30,840,446.15
Inspection	Active	May 2004	Jul 2007	\$ 2,236,000	\$ 1,377,946.09
Equipment					
Contingency				\$ 1,913,000	
<b>Total</b>				<b>\$ 51,094,000</b>	<b>\$ 37,716,034.24</b>

<sup>1</sup> This includes \$3,652,166 for design and \$1,874,082 for engineering services during construction.

<sup>2</sup> This includes \$3,652,166 for design and \$1,237,420 for engineering services during construction.

<sup>3</sup> This includes the low bid of \$38,781,000 for construction, estimated change orders and \$1,492,914 for Instrumentation and Controls work.

We estimate that 78% of the work is complete based on the total amount invoiced to date by the Contractor, while completion based on "time elapsed" is 66%. The total approved Change Orders amount includes \$135,250 for the Bonus Incentive for completing the Early Completion Milestone slightly ahead of schedule. The gap between "work complete" and "paid-to-date" results from the payment for stored equipment and materials that have been delivered to the site.

Originally, the expected “Early Completion Milestone” was established for November 7, 2005. The Substantial Completion date was May 9, 2007 and the Final Completion date was July 9, 2007. These completion dates have been modified because of weather-related delays as part of executed Change Orders and are as follows:

	<b>Original Schedule</b>	<b>Modified Schedule</b>	<b>Status</b>
Early Completion Milestone	Nov. 7, 2005	Nov. 22, 2005	Complete
Substantial Completion	May 9, 2007	May 27, 2007	Pending
Final Completion	July 9, 2007	July 27, 2007	Pending

Early Milestone work was completed in November 2005. Final Completion work remains and includes the following:

- ✓ Existing pipe modification and relocation of existing or addition of new aeration equipment to the ten existing aeration cells, new Nutrified Sludge Pump Station, Effluent Channels, Aeration cells 5A and 5B, Foam-Wasting Station and distribution box.
- ✓ A new Final Clarifier #5 and new Return Activated Sludge (RAS) pumps for the four existing clarifiers.
- ✓ A new Morgan Creek Pump Station and electrical building, new Headworks, new plant influent sewers and new Rogerson Drive force main.
- ✓ Demolition of splitter box #4 and major existing underground pipes.

### **Public Communication**

OWASA staff made a presentation about the overall project’s progress at the Chapel Hill Town Council’s November 14, 2005 Public Forum on odor elimination improvements. At the conclusion of the Public Forum, the Town Council directed OWASA to provide quarterly updates concerning the Odor Elimination Compliance Monitoring Program and information on odor reported by citizens. Accordingly, updates were provided in January and May 2006. The Town Council also determined that another Public Forum will be scheduled in approximately one year.

During the November 4, 2005 OWASA Board of Directors’ meeting, staff was authorized to negotiate a contract with Black & Veatch, engineering consulting firm, for the Odor Assessment work at the Mason Farm WWTP. On January 31, 2006, staff met with neighbors to obtain their input before drafting a proposed scope of services for the consultant’s work. The first draft of the scope of services was shared with the WWTP neighbors for whom we have e-mail addresses. Comments we received were used in preparing the second draft, which was shared on May 2, 2006 by e-mail with the WWTP neighbors who had commented earlier. The recommended scope of services was approved by the OWASA Board of Directors on May 11, 2006.

We have also continued to update the WWTP Hotline (537-4376) information about the status of the project.

**Reclaimed Water Treatment, Pumping, Storage Facilities, and Transmission System (CIP# 278-30 and CIP# 278-31)**

These two projects include design and construction of pumping, storage and transmission facilities necessary for a reclaimed water system that will initially provide reclaimed water for use on the UNC main campus. The reclaimed water facilities at the Mason Farm WWTP are planned to include a pH adjustment system, a supplemental chlorine disinfection system, and a 300,000 or 600,000 gallon storage tank. The reclaimed water transmission main will be a 24-inch pipe running from the WWTP to a new steam tunnel on Skipper Bowles Drive where it will connect to the approximately one mile of reclaimed water distribution pipes being installed by UNC.

The reclaimed water system will produce and deliver a high quality, reliable supply of reclaimed water to meet certain non-potable water needs at the UNC main campus. It also will conserve the community's drinking water supply, thereby reducing drought impact and allowing OWASA to defer or eliminate certain capital improvements, including developing new water supply sources and expanding drinking water treatment capacity. Long term nutrient and pollutant loads to Morgan Creek will be reduced.

Study: Hazen & Sawyer  
 Design: Hazen & Sawyer  
 Construction: TBD  
 Inspection: TBD

**Project Schedule and Budget**

	Status	Start	Finish	Project Budget	Cost to Date
Planning <sup>1</sup>	Complete	Feb 2005	Apr 2006	\$ 323,815 <sup>2</sup>	\$ 161,965
Land/ROW					
Eng/Design <sup>1</sup>	Active	Mar 2006	Sep 2008	\$ 60,000 <sup>2</sup>	\$ 0
Construction	Pending	Mar 2007	Sep 2008	\$ 8,161,000	\$ 0
Inspection	Pending	Mar 2007	Sep 2008	\$ 346,000	\$ 0
Equipment					
Contingency				\$ 409,000	
<b>Total</b>				<b>\$ 9,299,815</b>	<b>\$ 161,965</b>

<sup>1</sup>Project engineering design and permitting costs will be reimbursed from the \$1.866 million grant from the North Carolina Clean Water Management Trust Fund.

<sup>2</sup>Budget numbers are from the executed contract and related change orders. An amendment for additional design services is pending. See below for more details.

Per the contract executed between OWASA and UNC on April 10, 2006, UNC will pay for 100% of the costs to construct the reclaimed water system, including the pump station, storage tank and chemical feed facilities at the WWTP. UNC will also pay for the reclaimed water transmission main.

The project budget amount for the Eng/Design line item is based upon an executed engineering agreement for design and bid phase services and does not include engineering administration services during construction. It will be increased to include those services after the scope of services and fees are agreed upon.

Engineering design is now underway, and includes evaluation of reclaimed water demands, storage requirements, and pumping requirements for the initial system as well as future expected use. The Basis of Design Report was completed in April 2006. Final design for the treatment and storage facilities at the WWTP is expected to be complete in December 2006. Design for the transmission main from the WWTP to UNC began in March 2006 and is expected to be complete in November 2006. The transmission main (CIP# 278-31) and the MWI (CIP# 276-33) will be co-located and co-constructed to reduce cost and construction impacts. Hazen & Sawyer will work closely with Brown and Caldwell, the design engineer for the MWI project, on these projects. All three projects will be coordinated with the upgrade and expansion of the WWTP (CIP# 278- 06) and UNC's ongoing development projects.

Construction is expected to start in March 2007 and be completed in September 2008.

### **Public Communication**

OWASA invited over 200 stakeholders to attend a third Neighborhood Meeting on December 13, 2005. The purpose of the meeting was to receive additional feedback from stakeholders and to present more detailed information about some of the key items of public interest expressed previous meetings.

Based on the feedback gathered at the December 13<sup>th</sup> Neighborhood Meeting and other previous meetings, OWASA staff and consultants developed a recommended alternative for a substantial portion of the sewer route, which was presented to the Board at the January 12, 2006 meeting. The Board passed a resolution identifying the recommended alternative as the preferred route and describing OWASA's commitment to incorporate effective mitigation measures throughout all phases of the project.

A community meeting will take place in late June 2006 to share the 30 percent design drawings with interested stakeholders. Community feedback and input is a critically important and ongoing part of this project. We will continue to meet with community stakeholders to seek their feedback during future planning and design work.



### **Upcoming Projects**

The following list is of projects that are being initiated by staff. Consultants have been retained for both projects and we currently are in the planning stage. More details on these projects will be provided in future reports to the Board.

- ✓ Morgan Creek Interceptor (CIP# 276-04)
- ✓ Mason Farm WWTP Odor Control (CIP# 278-09)

If you have any questions regarding these projects, please contact me at (919) 537-4247.

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F. Stuart Carson, P.E.  
Engineering Manager, Capital Improvement Projects

# **CLOSED SESSION**

**Following the Meeting of the Board of Directors, the Board  
will Convene in a Closed Session for the Purpose of Discussing  
a Personnel Matter**

**(Penny Rich)**

**May 25, 2006**