ORANGE WATER AND SEWER AUTHORITY

A public, non-profit agency providing water, sewer and reclaimed water services to the Carrboro-Chapel Hill community.

AGENDA
PUBLIC HEARINGS AND MEETING OF THE OWASA BOARD OF DIRECTORS
THURSDAY, MAY 26, 2016, 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 contact the Clerk to the Board at 919-537-4217 or aorbich@owasa.org.

The Board of Directors appreciates and invites the public to attend and observe its meetings. Public comment is invited either by petition upon topics not on the Board's agenda, or by comments upon items appearing on the Board's agenda. Speakers are invited to submit more detailed comments via written materials, ideally submitted at least three days in advance of the meeting to the Clerk to the Board via email or US Postal Service (aorbich@owasa.org/400 Jones Ferry Road, Carrboro, NC 27510).

Public speakers are encouraged to organize their remarks for delivery within the four minute time frame allowed each speaker. Additional time may be allowed at the discretion of the Board of Directors.

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.
2. Announcements by Board Members
   - A. Natural Resources and Technical Systems Committee Meeting on Wednesday, June 8, 2016 at 5:30 PM in the OWASA Board Room (Dave Moreau)
   - B. Update on the May 23, 2016 Nominating Committee Meeting (Dave Moreau)
3. Announcements by Staff

PUBLIC HEARINGS

1. Concurrent Public Hearings on the Preliminary Annual Operating and Capital Improvements Budget and Proposed Rates, Fees and Charges (Ed Kerwin/Stephen Winters)
   - A. Staff Presentation
   - B. Public Comments
   - C. Motion to Close Public Hearings
   - D. Board Discussion

Petitions and Requests

2. A. Public
   - B. Board
   - C. Staff

CONSENT AGENDA

Action

3. Approval of the Minutes of the April 14, 2016 Work Session of the Board of Directors (Andrea Orbich)
4. Approval of the Minutes of the April 28, 2016 Meeting of the Board of Directors (Andrea Orbich)

REGULAR AGENDA

Discussion and Action

5. Resolution Awarding a Construction Contract for the Cane Creek Permanganate Facility Project (Simon Lobdell)

Discussion

6. Review Revised Charter for the Energy Management Plan (Mary Tiger)
7. Discuss Staff Proposed Update to Strategic Plan (Ed Kerwin)

Summary of Board Meeting Action Items

8. Executive Director will summarize the key action items from the Board meeting and note significant items for discussion and/or action expected at the next meeting

CLOSED SESSION

9. The Board of Directors will Convene in a Closed Session for the Purpose of Discussing a Personnel Matter (Ed Kerwin)

AGENDA ITEM

- CONCURRENT PUBLIC HEARINGS ON THE PRELIMINARY ANNUAL OPERATING AND CAPITAL IMPROVEMENTS BUDGET AND PROPOSED RATES, FEES AND CHARGES

BACKGROUND

- On March 10 and March 24, 2016, the Board of Directors adopted resolutions setting May 26, 2016 as the date for concurrent public hearings on OWASA's proposed budget and rates for Fiscal Year (FY) 2017.

- The Board of Directors is considering no increase in monthly water, sewer and reclaimed water charges for FY 2017. If approved, FY 2017 will be the fifth consecutive year in which there has been no increase in monthly water, sewer and reclaimed water rates.

- Rates for service availability fees (for new service connections) have not been increased.

- Certain other fees are proposed to be adjusted based on changes in the costs of providing the services.

ACTION NEEDED

- Receive and discuss input provided by the public at, or prior to the May 26, 2016 concurrent public hearings.

- Provide direction to staff regarding the proposed FY 2017 Budget and the Schedule of Rates, Fees and Charges that will be considered for adoption by the Board at its June 9, 2016 meeting.

ORANGE WATER AND SEWER AUTHORITY

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MEMORANDUM

TO: Board of Directors

THROUGH: Ed Kerwin

FROM: Stephen Winters, CPA

DATE: May 20, 2016

SUBJECT: Concurrent Public Hearings on the Preliminary Annual Operating and Capital Improvements Budget and Proposed Schedule of Rates, Fees and Charges

Purpose

This memorandum and attachments are provided to the Board of Directors as a basis for discussion of the proposed Annual Operating and Capital Improvements Budget and Schedule of Rates, Fees and Charges for Fiscal Year (FY) 2017. This information is the subject of the concurrent public hearings that will be held on May 26, 2016.

Background

The Board of Directors has previously discussed the FY 2017 Budget and is considering no increase in monthly water, sewer and reclaimed water rates.

Attached are two documents:

- Attachment 1 - Summary information about the proposed Budget for FY 2017
- Attachment 2 - Proposed Schedule of Rates, Fees and Charges

Proposed Budget Information

Expenditures in the proposed FY 2017 Budget are summarized below.

Category	Amount (in thousands)
Operating Expenses	$20,008
Capital Improvements Program (CIP)	13,648
Capital Equipment Expenditures	1,227
Debt Service on Outstanding Bonds and Loans	6,932
Total	$41,815

The operating budget is about 1% higher than the adopted FY 2016 budget. The original FY 2017 draft budget previously reviewed by the Board has been reduced by $121,878. The following adjustments have been made:

Expense and Explanation for Adjustment	Amount Increase (Decrease)
Health insurance expenses – reduced increase from 20% to 15%	($83,757)
Property and casualty insurance expense – based on quote	(15,221)
Consultants expense - removed budget for a Cape Fear River Study in which we don't plan to participate and expenses related to capacity evaluations of new developments for which we expect to be reimbursed	(21,500)
Advertising – eliminated yellow pages advertisement	(1,400)
Total adjustments	($121,878)

Budget assumptions and highlights

- Funding for 132.5 positions including staffing to achieve a biosolids recycling mix of 75% land application and 25% dewatered composting; this includes three Solids Handlers and a Solids Handling Supervisor.
- As a result of increased staffing for our biosolids recycling program, waste disposal expenses related to outsourcing biosolids recycling have been reduced by over $400,000.
- The draft budget includes funding a currently unfunded but Board-approved Utility Mechanic II position to support our grease-trap maintenance program; the program's purpose is to minimize the risk of sewer overflows.
- 2.5% vacancy allowance – the personnel compensation budget has been reduced by about $190,000, to allow for position vacancies.
- 15% increase in health insurance.
- No increase in the rates we are charged for electricity or chemicals.
- Based on WorldatWork survey data, a placeholder for a 3% merit increase is included. The Board is scheduled to make a decision on merit and cost of labor increases on June 9, 2016.
- The volumes of water, reclaimed water, and wastewater treated, and the revenue associated with those volumes, will remain essentially the same as in FY 2016.
- The CIP includes funds for implementing an Advanced Metering Infrastructure (AMI) system which would provide customers with detailed water use information and improve OWASA's operating efficiency and customer service capabilities.

Capital Improvements Program

The proposed Capital Improvements Program (CIP) budget is also lower than the original draft.

The proposed CIP, as revised, includes funding of $13.7M for FY 2017 and a total of $87.1M for the five-year period FY 2017-2021, reflecting funding decreases of $1.3M (FY 2017) and $0.6M (FY 2017-2021), respectively, from the prior draft. Attachment 1, Table 3 includes a listing of all

projects funded for FY 2017, brief project descriptions, and explanatory notes for the notable FY 2017 funding changes from the prior draft.

The majority of these changes are attributable either to schedule delays in ongoing FY 2016 projects affecting rollover expenditures in FY 2017, or shifts in the timing of planned expenditures between FY 2017 and FY 2018. Examples of the latter include Advanced Meter Infrastructure (AMI) System, Rogerson Drive Pump Station Rehabilitation, Rehabilitation at Eastowne, Eubanks, and Meadowmont 1 Pump Stations, and Water Treatment Plant Sedimentation Basin Rehabilitation; in all of these cases, more expenditures are now expected to occur within FY 2018 (and less in FY 2017) than previously anticipated.

Funding has been increased on the Cane Creek Permanganate Facility project and the Rosemary, Henderson, and Hillsborough Water Main project to reflect actual construction bids from recent months. Finally, funding levels have been adjusted to account for increased scope requirements for the Non Drinking Water Pump Replacement project, as well as project scope reductions for the Bolinwood Drive Interceptor project and the Wastewater Treatment Plant Secondary Clarifier Rehabilitation project.

Proposed Schedule of Rates, Fees and Charges

The attached Proposed Schedule of Rates, Fees and Charges (Attachment 2) reflects no increase in monthly water, sewer and reclaimed water rates; service availability fees also remain unchanged. Certain other fees are proposed to be adjusted based on changes in the costs of providing the services. Revenues of about $37 million are projected to be generated under this schedule during FY 2017.

Key Elements in the Schedule

- The bill for a single-family, individually-metered customer using 4,000 gallons per month remains $70.66.
- Continuation of the block rate structure for individually-metered residential customers and seasonal rate structure for all others.
- Conservation Water Commodity Charges Under Declared Water Shortages.
  - Surcharges remain in place for both residential and nonresidential customers with no change in the surcharge structure.
- No changes in water and sewer availability fees.
- Irrigation accounts:
  - Retains a year-round uniform charge and monthly service charge for irrigation use that is higher than the peak rate under the seasonal structure.
- Reclaimed Water
  - No changes in the commodity rate or fixed monthly charge for reclaimed water as current rates are sufficient to cover costs.
- Lake fees are unchanged.

Next Steps

- The Board will consider input received during the public hearings and provide guidance to staff.
- Formal adoption of the Annual Budget and the Schedule of Rates, Fees and Charges is scheduled for June 9, 2016.

Stephen Winters, CPA
Director of Finance and Customer Service

Attachments: Summary information about the proposed Budget for FY 2017 (Attachment 1)
Proposed Schedule of Rates, Fees and Charges (Attachment 2)

ORANGE WATER AND SEWER AUTHORITY
PROPOSED FISCAL YEAR 2017 OPERATING BUDGET

Operating Revenue		
Water	$17,923,072	
Sewer	16,578,878	
Reclaimed Water	439,110	
Service Initiation Fee	168,898	
Other	1,069,578	
Refunds and Adjustments	(325,766)	
Total Operating Revenue		**$35,853,770**
Operating Expense		
General and Administrative	6,924,545	
Operations	14,083,038	
Total Operating Expense		**21,007,583**
Net Operating Income		**14,846,187**
Non-operating Revenue		
Customer Fees		**995,950**
Interest		**14,708**
Total Net Income		**$15,856,845**
Debt Service		
Existing		**$6,932,059**
New		**0**
Total Debt Service		**6,932,059**
Net Income Less Debt Service		**$8,924,786**

DRAFT FY 2017 - 2021 CIP

Denotes a required project or project underway

No.	CIP No.	Project	FY '17	FY '18	FY '19	FY '20	FY '21	Total Funding FY'17-'21
1	270-04	Jordan Lake Raw Water Supply Allocation	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	**$ 25,000**
2	270-09	Stone Quarry Reservoir Development	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	**$ 75,000**
3	270-11	University Lake Pump Station Improvements	$ 50,000	$ 65,000	$ 700,000	$ -	$ -	**$ 815,000**
3	275-15	Water Main - Road Improvement Projects	$ 110,000	$ 250,000	$ -	$ -	$ -	**$ 360,000**
4	276-54	Rogers Road Gravity Sanitary Sewer Extension	$ 946,000	$ 4,726,000	$ -	$ -	$ -	**$ 5,672,000**
5	--	Credit for Rogers Road Sewer Extension	$ (946,000)	$ (4,726,000)	$ -	$ -	$ -	**$ (5,672,000)**
6	278-71	WWTP Main Potable Water Line – Backflow Preventer Installation	$ 80,000	$ -	$ -	$ -	$ -	**$ 80,000**
7	270-26	Cane Creek Permanganate Facility	$ 900,000	$ -	$ -	$ -	$ -	**$ 900,000**
8	272-14	Water Facility Security Upgrades	$ 200,000	$ 125,000	$ -	$ -	$ -	**$ 325,000**
9	272-34	WTP Generator Building Louver Replacement	$ 80,000	$ -	$ -	$ -	$ -	**$ 80,000**
10	275-20	Water Main Rehabilitation/Replacement Projects	$ 531,000	$ 968,000	$ -	$ -	$ -	**$ 1,499,000**
11	275-71	Rosemary, Henderson, and Hillsborough Streets Water Mains	$ 2,110,000	$ -	$ -	$ -	$ -	**$ 2,110,000**
12	275-76	Advanced Meter Infrastructure (AMI) System	$ 1,005,000	$ 3,885,000	$ 1,170,000	$ -	$ -	**$ 6,060,000**
13	275-77	Galvanized Water Main Replacements	$ 300,000	$ 300,000	$ 300,000	$ -	$ -	**$ 900,000**
14	276-45	Bolinwood Dr Interceptor	$ 450,000	$ -	$ -	$ -	$ -	**$ 450,000**
15	276-47	Little Creek Interceptor	$ 550,000	$ -	$ -	$ -	$ -	**$ 550,000**
16	276-53	Creek Crossing Access Improvements	$ 50,000	$ 393,000	$ -	$ -	$ -	**$ 443,000**
17	277-24	Eastowne, Eubanks, Meadowmont 1 Pump Station Rehabilitation	$ 125,000	$ 665,000	$ -	$ -	$ -	**$ 790,000**
18	277-31	Rogerson Drive Pump Station Rehabilitation	$ 250,000	$ 2,844,000	$ -	$ -	$ -	**$ 3,094,000**
19	278-52	WWTP Digesters #1 & #2 Rehabilitation	$ 400,000	$ -	$ -	$ -	$ -	**$ 400,000**
20	278-57	WWTP Stormwater Pump Station Electrical System Rehabilitation	$ 50,000	$ -	$ -	$ -	$ -	**$ 50,000**
21	278-58	WWTP Non Drinking Water Pump Replacements	$ 275,000	$ -	$ -	$ -	$ -	**$ 275,000**
22	280-06	Administration Building HVAC System Upgrade	$ 880,000	$ 805,000	$ -	$ -	$ -	**$ 1,685,000**
24	272-10	Water Treatment Plant Recapitalization/Rehabilitation Projects	$ 75,000	$ -	$ -	$ 2,216,000	$ 2,481,000	**$ 4,772,000**
25	272-21	WTP Switchgear Upgrade	$ 85,000	$ -	$ -	$ -	$ -	**$ 85,000**
26	272-36	WTP Lighting Improvements	$ 50,000	$ -	$ -	$ -	$ -	**$ 50,000**
27	272-38	WTP Sedimentation Basin Rehabilitation	$ 100,000	$ 1,000,000	$ -	$ -	$ -	**$ 1,100,000**
28	272-39	Water and Wastewater Facilities Concrete Condition Assessment	$ 100,000	$ 200,000	$ 200,000	$ -	$ -	**$ 500,000**
29	272-40	WTP Filter Media and Backwash Pump Replacement	$ 250,000	$ 300,000	$ 300,000	$ -	$ -	**$ 850,000**
30	275-46	Dobbins Drive Water Main	$ 68,000	$ 1,608,000	$ -	$ -	$ -	**$ 1,676,000**
31	275-53	Water Distribution System Hydraulic Model	$ 30,000	$ 30,000	$ 30,000	$ 190,000	$ 190,000	**$ 470,000**
32	275-87	Hillsborough St Water Main Replacement and MLK Blvd Abandonment	$ 200,000	$ 1,460,000	$ 500,000	$ -	$ -	**$ 2,160,000**
33	276-17	Sanitary Sewer Condition Evaluation	$ 1,474,000	$ -	$ 510,000	$ 744,000	$ 780,000	**$ 3,508,000**
34	276-18	Sanitary Sewer Rehabilitation	$ 1,324,000	$ 1,423,000	$ 3,121,000	$ 1,436,000	$ 1,267,000	**$ 8,571,000**
35	276-48	Dobbins Drive Interceptor	$ 200,000	$ 2,380,000	$ -	$ -	$ -	**$ 2,580,000**
36	276-57	Sanitary Sewer Hydraulic Model	$ 150,000	$ 150,000	$ -	$ -	$ -	**$ 300,000**
37	277-29x	Rogerson Drive Force Main Redundancy Evaluation	$ 50,000	$ -	$ -	$ -	$ -	**$ 50,000**
38	277-37	Knolls PS Rehab	$ 80,000	$ 500,000	$ -	$ -	$ -	**$ 580,000**
39	278-46	Comprehensive Coatings Program	$ 300,000	$ 300,000	$ 300,000	$ -	$ -	**$ 900,000**
40	278-51	WWTP Gravity Belt Thickener Replacement	$ 180,000	$ 860,000	$ 860,000	$ -	$ -	**$ 1,900,000**
41	278-54	WWTP Intermediate Pump Stations (IPS) Rehabilitation/Replacement	$ 91,000	$ 913,000	$ -	$ -	$ -	**$ 1,004,000**
42	278-68	Water and Wastewater Facilities Building Envelope Rehabilitation	$ 100,000	$ 150,000	$ 150,000	$ -	$ -	**$ 400,000**
43	278-72	WWTP Secondary Clarifier Rehab and Chlorine Chamber Demo	$ 50,000	$ -	$ -	$ -	$ -	**$ 50,000**
44	278-73	WWTP SCADA System Upgrade	$ 150,000	$ -	$ -	$ -	$ -	**$ 150,000**
45	278-74	WWTP Critical Spare Pumps	$ 125,000	$ -	$ -	$ -	$ -	**$ 125,000**
46	270-16	Cane Creek Pump Station Improvements	$ -	$ 65,000	$ 700,000	$ -	$ -	**$ 765,000**
47	270-28	University Lake Permanganate Facility	$ -	$ -	$ 100,000	$ 1,100,000	$ -	**$ 1,200,000**
48	271-05	Cane Creek Raw Water Transmission Main Capacity Study	$ -	$ -	$ 28,000	$ -	$ -	**$ 28,000**
49	272-35	WTP Flash Mix Basins Isolation Valve Replacement	$ -	$ 35,000	$ 215,000	$ -	$ -	**$ 250,000**
50	272-37	WTP Solids Conveyor System	$ -	$ 15,000	$ 140,000	$ -	$ -	**$ 155,000**
51	272-41	WTP Process, Sedimentation Basin, and Pulsator Turbidimeters	$ -	$ -	$ -	$ 150,000	$ -	**$ 150,000**
52	272-42	WTP Finished Water Pump Rehabilitation/Replacement	$ -	$ -	$ -	$ -	$ 125,000	**$ 125,000**
53	272-43	WTP Track Vac System Rehab	$ -	$ -	$ -	$ 116,000	$ -	**$ 116,000**
54	275-20x	Water Distribution System Recapitalization	$ -	$ -	$ -	$ 3,668,000	$ 4,915,000	**$ 8,583,000**
55	275-52	Cameron Avenue Water Main	$ -	$ 165,000	$ 1,800,000	$ -	$ -	**$ 1,965,000**
56	275-55	Manning Drive (East) 12" Water Main	$ -	$ 135,000	$ 1,440,000	$ -	$ -	**$ 1,575,000**
57	275-67	Operational Evaluation of Future 740-Foot Zone	$ -	$ -	$ -	$ 46,000	$ -	**$ 46,000**
58	275-72	Oakwood Drive Water Main	$ -	$ -	$ 55,000	$ 500,000	$ -	**$ 555,000**
59	275-78	Barclay Road Water Main	$ -	$ 45,000	$ 492,000	$ -	$ -	**$ 537,000**
60	275-80	Pritchard Avenue Water Main	$ -	$ 50,000	$ 533,000	$ -	$ -	**$ 583,000**
61	275-82	Bartram Drive Water Main	$ -	$ -	$ 86,000	$ -	$ -	**$ 86,000**
62	275-83	Country Club Road Water Main	$ -	$ 109,000	$ 383,000	$ -	$ -	**$ 492,000**
63	275-84	Scarlett Drive and Cooper Street Water Mains	$ -	$ 48,000	$ 255,000	$ -	$ -	**$ 303,000**
64	275-86	Rogerson Drive Water Main	$ -	$ -	$ 50,000	$ 513,000	$ -	**$ 563,000**
65	276-01	Bolin Creek Interceptor - Estes to Pathway	$ -	$ -	$ -	$ 390,000	$ 2,200,000	**$ 2,590,000**
66	277-01	Pump Station Recapitalization	$ -	$ -	$ -	$ -	$ 326,000	**$ 326,000**
67	277-13	Lake Ellen Force Main Replacement	$ -	$ -	$ 35,000	$ 100,000	$ -	**$ 135,000**
68	277-21	Force Main Condition Evaluation	$ -	$ -	$ -	$ 338,000	$ -	**$ 338,000**
69	277-27	North Lakeshore Drive Pump Station Replacement	$ -	$ -	$ 45,000	$ 386,000	$ -	**$ 431,000**
70	277-33	Chapel Hill North Pump Station Rehabilitation	$ -	$ -	$ 25,000	$ 122,000	$ -	**$ 147,000**
71	278-11	WWTP Recapitalization	$ -	$ -	$ -	$ 4,424,000	$ 4,724,000	**$ 9,148,000**
72	278-43	WWTP Biogas-to-Energy Combined Heat and Power	$ -	$ 100,000	$ -	$ -	$ 250,000	**$ 350,000**
73	278-50	WWTP Warehouse	$ -	$ 25,000	$ 50,000	$ 450,000	$ -	**$ 525,000**
74	278-60	WWTP Scum Pump Station Rehabilitation	$ -	$ 50,000	$ 300,000	$ -	$ -	**$ 350,000**
75	278-70	WWTP Fermenter Tank and Pumps Rehabilitation	$ -	$ 70,000	$ 750,000	$ -	$ -	**$ 820,000**
76	278-75	WWTP Capacity Upgrade	$ -	$ -	$ -	$ 100,000	$ 100,000	**$ 200,000**
77	280-09	Administration Building Recapitalization	$ -	$ -	$ -	$ 177,000	$ 186,000	**$ 363,000**
78	280-10	Operations Center Recapitalization	$ -	$ -	$ -	$ 275,000	$ 288,000	**$ 563,000**
		TOTAL Draft CIP	**$ 13,648,000**	**$ 22,506,000**	**$ 15,643,000**	**$ 17,461,000**	**$ 17,852,000**	**$ 87,110,000**

DRAFT FY 2017 - 2021 CIP

Denotes a required project or project underway

No.	CIP No.	Project	FY '17	Comment
1	270-04	Jordan Lake Raw Water Supply Allocation	$ 5,000	ongoing required payment
2	270-09	Stone Quarry Reservoir Development	$ 15,000	ongoing required payment
3	275-15	Water Main - Road Improvement Projects	$ 110,000	reimbursement to NCDOT for work completed under roadway contracts
4	276-54 SCHEDULE	Rogers Road Gravity Sanitary Sewer Extension	$ 946,000	gravity sanitary sewer extension to serve the historic Rogers Road area
5	--	Credit for Rogers Road Sewer Extension	$ (946,000)	reimbursement from Orange County
6	278-71	WWTP Main Potable Water Line – Backflow Preventer Installation	$ 80,000	Required installation to address risk of distribution system contamination
7	270-26 COST	Cane Creek Permanganate Facility	$ 900,000	Completion of construction started in FY'16
8	272-14	Water Facility Security Upgrades	$ 200,000	Completion of installations started in FY'16
9	272-34	WTP Generator Building Louver Replacement	$ 80,000	installation of new louvers to replace the existing ones that do not work; design commenced in FY'16
10	275-20 SCHEDULE	Water Main Rehabilitation/Replacement Projects	$ 531,000	Construction by OWASA crews: Emory Drive, Chase Avenue, Hilltop Dr, and Fordham Blvd Service Rd
11	275-71 COST	Rosemary, Henderson, and Hillsborough Streets Water Mains	$ 2,110,000	Completion of construction started in FY'16
12	275-76 SCHEDULE	Advanced Meter Infrastructure (AMI) System	$ 1,005,000	Specification and implementation costs in FY'17 and '18
13	275-77	Galvanized Water Main Replacements	$ 300,000	ongoing program to replace small diameter galvanized mains because they have higher water main break frequency levels; we expect it to take 3 more years to replace all the mains marked for replacement
14	276-45	Bolinwood Dr Interceptor	$ 450,000	Completion of construction started in FY'16
15	276-47 SCHEDULE	Little Creek Interceptor	$ 550,000	Completion of construction started in FY'16
16	276-53 SCHEDULE	Creek Crossing Access Improvements	$ 50,000	staff identified needed vehicular creek crossing improvements at several different locations
17	277-24 SCHEDULE	Eastowne, Eubanks, Meadowmont 1 Pump Station Rehabilitation	$ 125,000	Rehabilitations and enhancement; design commenced in FY'16
18	277-31 SCHEDULE	Rogerson Drive Pump Station Rehabilitation	$ 250,000	Completion of design (FY'17) and construction (FY'18); design commencing in FY'16
19	278-52 SCHEDULE	WWTP Digesters #1 & #2 Rehabilitation	$ 400,000	Completion of construction started in FY'16
20	278-57	WWTP Stormwater Pump Station Electrical System Rehabilitation	$ 50,000	Completion of construction started in FY'16
21	278-58 SCOPE	WWTP Non Drinking Water Pump Replacements	$ 275,000	Completion of construction started in FY'16
22	280-06 SCHEDULE	Administration Building HVAC System Upgrade	$ 880,000	Preliminary engineering ongoing in FY'16; design completed in FY'17 with construction in FY'17 and '18
23	270-11	University Lake Pump Station Improvements	$ 50,000	Evaluation of potential pumping efficiency improvements (FY'17) followed by design and construction of pump replacements
24	272-10	Water Treatment Plant Recapitalization/Rehabilitation Projects	$ 75,000	Completion of construction started in FY'16, and placeholder funds for unforeseen rehab needs
25	272-21	WTP Switchgear Upgrade	$ 85,000	Modifications to improve transitioning between utility and backup power
26	272-36	WTP Lighting Improvements	$ 50,000	Improves worker safety through improved visibility; some energy efficiency benefits
27	272-38 SCHEDULE	WTP Sedimentation Basin Rehabilitation	$ 100,000	Rehab of deteriorating concrete walls, floors, and walkways along with valves and appurtenances
28	272-39	Water and Wastewater Facilities Concrete Condition Assessment	$ 100,000	Assessment and rehabilitation of structural and non-structural concrete structures (buildings, process tanks, etc)
29	272-40	WTP Filter Media and Backwash Pump Replacement	$ 250,000	Replacement of components reaching end of useful life
30	275-46	Dobbins Drive Water Main	$ 68,000	Condition-based replacement and capacity upgrade; coordinated with Line Item #35
31	275-53	Water Distribution System Hydraulic Model	$ 30,000	Placeholder funding FY'17-20 for minor modeling assistance; update of all-pipes hydraulic model in FY'21-22 will evaluate need and timing for future projects, including new 740-Zone tank
32	275-87	Hillsborough St Water Main Replacement and MLK Blvd Abandonment	$ 200,000	Condition-based replacement (Hillsborough) and water-quality improvements (MLK); programmed in advance of Town resurfacing of Hillsborough St
33	276-17 SCHEDULE	Sanitary Sewer Condition Evaluation	$ 1,474,000	ongoing program of sewer main condition evaluation, prioritized by sub-basin
34	276-18	Sanitary Sewer Rehabilitation	$ 1,324,000	ongoing rehabilitation program of defective gravity sewer pipes that have been identified by sanitary sewer eval program (includes visual inspection of mains); FY'17 funding is for known ineeds
35	276-48	Dobbins Drive Interceptor	$ 200,000	Capacity-driven sewer replacement; coordinated with Line Item #30
36	276-57	Sanitary Sewer Hydraulic Model	$ 150,000	Funds for flow monitoring (FY'17) and analysis (FY'18) to verify need and timing of several capacity-based projects
37	277-29x	Rogerson Drive Force Main Redundancy Evaluation	$ 50,000	Planning study to evaluate alternatives for risk mitigation in this critical area of collection system
38	277-37	Knolls PS Rehab	$ 80,000	Overhaul and enhancements for aging pumping facility; planning evaluation will look at options to eliminate this pump station
39	278-46	Comprehensive Coatings Program	$ 300,000	corrosion control of key facilities, components and structures (annual program)
40	278-51 SCHEDULE	WWTP Gravity Belt Thickener Replacement	$ 180,000	Preliminary evaluation commencing in FY'16; design in FY'17; construction in FY'18 and '19
41	278-54	WWTP Intermediate Pump Stations (IPS) Rehabilitation/Replacement	$ 91,000	Completion of necessary electrical replacements/upgrades in FY'17 and '18; future pump replacements in 2nd five year period
42	278-68	Water and Wastewater Facilities Building Envelope Rehabilitation	$ 100,000	assessment and rehab of building envelope issues (walls, floors, roofs, fenestrations and doors) that fall outside of routine O&M
43	278-72	WWTP Secondary Clarifier Rehab and Chlorine Chamber Demo	$ 50,000	Rehab of deteriorating components; planning study in FY'17 to evaluate replacement alternative
44	278-73	WWTP SCADA System Upgrade	$ 150,000	Enhanced information portal to increase operator efficiency; pilot project in FY'17 with follow up funding in FY'18 for expanded system
45	278-74	WWTP Critical Spare Pumps	$ 125,000	Backup components to improve operational efficiency and reduce risk during instances of critical component failure
		TOTAL Draft CIP	**$ 13,648,000**	

Subtotal - Required Projects and Projects Underway	**$ 8,366,000**

The NOTES reflect an increase or decrease of greater than $100,000 from the prior version of draft CIP due primarily to:

- **SCOPE** – change in project requirements or approach
- **SCHEDULE** – change in timing of expenditures between FY'16, FY'17, and/or FY'18
- **COST** – changes in the actual (bid) or estimated costs of work

Attachment 2

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

APPLICABLE TO ALL BILLINGS AND SERVICES ON AND AFTER OCTOBER 1, 2016

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Background and Authorization

In providing essential public water, sewer and reclaimed water services to Chapel Hill, Carrboro and portions of southern Orange County, Orange Water and Sewer Authority (OWASA) incurs substantial operating and capital expenses. As a community-owned non-profit public utility, OWASA has no authority to levy taxes, nor does it receive tax revenues from local governments for ongoing operations. OWASA finances its water, sewer and reclaimed water 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 cost-of-service rate-making methodology. OWASA's customers pay for the cost of providing the services and/or facility capacity required to meet customer demand.

The OWASA Board of Directors has determined that the provisions in this Schedule of Rates, Fees, and Charges are necessary to adequately sustain OWASA's near-term and long-range utility operations. Revenues generated by these rate adjustments will provide OWASA with the financial resources necessary to: (1) fund operating costs; (2) adequately maintain existing water, sewer, and reclaimed water facilities; (3) fully comply with increasingly stringent environmental and public health standards; (4) meet debt service requirements; (5) create additional facility capacity to stay abreast of water, reclaimed water and sewer service demand in a growing, dynamic community; and (6) maintain adequate reserves.

The attached Schedule of Rates, Fees, and Charges will replace the schedule adopted on June 11, 2015, which became effective on October 1, 2015.

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

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 billing date. Monthly water rates consist of two components; a monthly service charge and a commodity (volume) charge.

Water Service Charge

This charge recovers 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:

Meter Size	Monthly Service Charge
5/8"	$14.70
3/4" Combination Fire and Domestic Service Meter	$15.20
1"	$29.53
1" Combination Fire and Domestic Service Meter	$30.03
1-1/2"	$63.86
2"	$96.38
3"	$198.22
4"	$323.58
6"	$704.66
8"	$1,002.06

Water Irrigation Service Charge

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

Meter Size	Monthly Service Charge
5/8"	$23.54
1"	$47.05
1-1/2"	$87.10
2"	$133.96
3"	$265.15
4"	$407.02
6"	$800.67
8"	$1,273.30

Monthly service charges for compound meter arrangements are based on the largest meter in the

grouping. In addition to the applicable charge for the primary meter, existing OWASA-owned sub-meters are billed according to the above schedule. OWASA-owned sub-meters are no longer available and no additional sub-meters will be installed. Meter readings and service charges for first and final bills are prorated based on days of service.

(NOTE: In accordance with State law, all new in-ground irrigation systems installed on lots platted and recorded in the office of the register of deeds in the county or counties in which the real property is located after July 1, 2009 and supplied by a public drinking water system are required to have a separate meter to measure the volume of water used through the irrigation system.)

Water Commodity Charge

This charge recovers the direct and indirect costs of water supply and treatment, water distribution, general administration and capital costs not recovered by the monthly service charge. This charge is applicable to all water accounts based on meter readings of water consumed. When a billing period includes a change in commodity rates, the charges are prorated based on the ratio of days in the billing period at the old and new rates. Metered monthly consumption will be billed in thousand gallon increments rounded down to the nearest thousand gallons. Unbilled consumption due to rounding will be carried forward and billed in the month when the next thousand gallon increment is registered by the meter.

When no meter reading is available due to an inoperative, damaged or inaccessible meter, consumption will be estimated based on prior usage at the location.

Individually Metered Residential Accounts Except Irrigation-only Accounts

Individually metered residential accounts will be billed under an increasing block rate structure designed to encourage efficient water use by applying increasing commodity charges (rate per thousand gallons) to incremental increases in water use.

	Volume of Use (Gallons)	**Commodity Rate per 1,000 Gallons**
Block 1	1,000 to 2,000	$2.63
Block 2	3,000 to 5,000	$6.39
Block 3	6,000 to 10,000	$7.83
Block 4	11,000 to 15,000	$10.94
Block 5	All use 16,000 and up	$19.79

Multi-family, Master-metered and Non-residential Accounts Except Irrigation-only Accounts

To achieve demand reduction during peak water use periods, a seasonal conservation rate structure will be applied to all non-residential accounts other than irrigation-only accounts. A reduced water 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).

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

Off-peak seasonal rate per 1,000 gallons (October through April)	$4.16
Peak seasonal rate per 1,000 gallons (May through September)	$7.91
Equivalent Uniform Water Commodity Charge	$6.02

Irrigation-only Accounts

To promote conservation of water used for irrigation and to achieve greater equity between rates for irrigation-only use and irrigation use through a domestic meter, irrigation-only accounts shall be charged the following year-round commodity rate.

$8.51 per thousand gallons

WATER COMMODITY SURCHARGES APPLICABLE UNDER WATER SHORTAGE DECLARATION STAGES

Conservation Water Commodity Charges Under Mandatory Water Use Restrictions

Water commodity charges will be temporarily increased during periods of declared Water Shortages and mandatory water use restrictions regardless of the time of year. These applicable surcharges are summarized in the following table.

Individually-Metered Residential Accounts						**Non-Residential and Irrigation-Only**
Block:	Res. Block 1	Res. Block 2	Res. Block 3	Res. Block 4	Res. Block 5	
Use Level: (gallons)	1,000 to 2,000	3,000 to 5,000	6,000 to 10,000	11,000 to 15,000	16,000 and up	
Stage 1	No surcharge	No surcharge	1.25 times normal Block 3 rate	1.5 times normal Block 4 rate	2 times normal Block 5 rate	1.15 times seasonal and irrigation-only rate.
Stage 2	No surcharge	1.25 times normal Block 2 rate	1.5 times normal Block 3 rate	2 times normal Block 4 rate	3 times normal Block 5 rate	1.25 times seasonal and irrigation-only rate.
Stage 3 and Emergency	No surcharge	1.5 times normal Block 2 rate	2 times normal Block 3 rate	3 times normal Block 4 rate	4 times normal Block 5 rate	1.5 times seasonal and irrigation-only rate.

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 using the cost-of-service rate-making approach and approved by OWASA.

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

TEMPORARY HYDRANT METER CHARGE

Subject to availability, a Customer may obtain a temporary hydrant meter from OWASA for a period of up to 60 days. A customer may submit a written request to use the hydrant meter for one additional 60 day period but granting said request will be subject to availability and is at OWASA's sole discretion. Service from a fire hydrant is subject to interruption when the hydrant is needed for fire protection, compliance with water conservation standards, and other applicable law. For situations where temporary water service is needed for a period longer than 120 days, the user can purchase a metering device of a size, make and model specified by OWASA. A $300.00 service charge, payable in advance, shall be collected for setting and removing the meter. In addition, a security deposit shall be required in accordance with the following schedule:

Security Deposit
$1,000

Monthly billings for temporary hydrant meters consist of two charges: (1) a service charge for that size meter, and (2) the seasonal commodity charge, including surcharges where applicable, based on monthly readings of the meter. When the hydrant meter is returned, the security deposit shall be applied to the final bill plus any damages. The Customer is responsible for paying OWASA for damages that exceed the amount of the Security Deposit. 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) Multi-family Residential, Individually- metered; and (3) Non-residential. The Non-residential category includes master-metered multi-family customers and all commercial, University, and other institutional accounts. The use of these categories is justified by distinctive patterns of water and sewer consumption.

Property Description	Fee
5/8" Meter or 3/4" Combination Fire and Domestic Service, Single-family Residential:	
<1300 square feet	$1,265
1300-1700 square feet	$1,545
1701-2400 square feet	$1,956
2401-3100 square feet	$3,344
3101-3800 square feet	$4,546
>3800 square feet	$7,631
1" Meter, Single-Family Residential (all square footages)	$9,260

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

Property Description	Fee
5/8” Meter or 3/4" Combination Fire and Domestic Service Meter, Multi-family Residential	$1,363
1” Meter, Multi-Family Residential (all square footages)	$9,260
5/8” Meter or 3/4" Combination Fire and Domestic Service Meter, Non-residential*	$3,704
1” Meter, Non-residential*	$9,260
1-1/2” Meter, Non-residential*	$18,519
2” Meter, Non-residential*	$29,631
3” Meter, Non-residential*	$59,262
4” Meter, Non-residential*	$92,596
6” Meter, Non-residential*	$185,192
8” Meter, Non-residential*	$296,308

* Same fee for Irrigation-Only accounts.

A person or party completing a development or re-development project may be eligible to request and receive a credit on the Water Availability Fees due if their project directly results in the permanent abandonment of previously existing water meters which were connected to residences, buildings or facilities connected to and having a documented demand on the OWASA water system.

If OWASA determines that a credit is due, the amount of the credit shall be based on the current Water Availability Fees that would apply to the size of the water meters that are permanently abandoned as a direct result of the project. However, the credit due shall not exceed the amount of the Water Availability Fees that would otherwise apply to the development or re-development project. Availability Fee credits are not transferrable to any other project or property.

If an existing water meter is removed from service and/or is replaced with a smaller meter, OWASA will not issue any credit or refund to the customer for any previously paid Availability Fees.

WATER SERVICE AND METER INSTALLATION CHARGE

This charge is to recover costs of extending service from the OWASA 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 to serve the customer’s premises, subject to satisfactory easement or license being provided by the applicant. Where a suitable OWASA stub-out for service has been made and is available, the "meter-only" charge shall apply. Customer requested meter/water service relocations shall be performed on a time and materials basis. Complete new and/or additional water service installation and meter-only charges are as follows:

Service Description	Fee	
	Existing	**Proposed**
Complete Water Service Installation, 5/8” meter	$3,570	**No change**
Complete Water Service Installation, 3/4” Combination Fire and Domestic Service Meter	$3,695	**$3,650**
Complete Water Service Installation, 1” meter	$3,805	**$3,790**

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

Service Description	Fee	
	Existing	**Proposed**
Meter Only Installation, 5/8" meter	$280	**$260**
Meter Only Installation, 3/4" Combination Fire and Domestic Service Meter	$400	**$360**
Meter Only Installation, 1" Combination Fire and Domestic Service Meter	$420	**$360**
Meter Only Installation, 1" meter	$355	**$360**
Meter Only Installation, 1-1/2" meter	$600	**No change**
Meter Only Installation, 1-1/2" Combination Fire And Domestic Service Meter	$620	**$610**
Meter Only Installation, 2" meter	$790	**No change**
Meter Only Installation, 2" Combination Fire And Domestic Service Meter	$715	**$720**
Remote Read Box with 5/8" Detector Meter	$485	**$470**

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 shall be responsible for providing a meter box or vault constructed to OWASA standards. All meters, regardless of size, shall be purchased from OWASA at cost plus 10%. A $140.00 delivery fee for 3-inch and larger meters shall also apply.

A remote read box and 5/8" detector meter shall be required on all private fire protection service connections. The remote read box shall be purchased from OWASA and installed by the applicant. OWASA shall install the 5/8" detector meter at the applicant's expense.

WATER MAIN TAPPING FEE

This charge is for making a tap into an OWASA water main. The tap fee shall 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 may be needed 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 shall be for time and equipment plus an allowance for overhead, but not less than $340.

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 $125.00 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. The tap will not be performed until any applicable reinspection fees are paid in full.

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

HYDRAULIC FIRE FLOW TESTING

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

$290 per test

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

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 billing date. Monthly sewer rates consist of two components: a monthly service charge and a sewer 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. Meter readings and service charges for first and final bills are prorated based on days of service**.** Applicable to all sewer accounts, regardless of whether or not there is a commodity charge, the monthly service charge is based on the size of the meter where sewer usage is measured as follows:

Meter Size	Monthly Service Charge
5/8" or 3/4" Combination Fire and Domestic Service	$12.00
1"	$20.61
1-1/2"	$35.53
2"	$53.72
3"	$101.58
4"	$155.28
6"	$284.70
8"	$485.82

The monthly sewer service charge shall apply to any meter(s) used to directly or indirectly measure the volume of wastewater discharged from a customer's premises, regardless of whether the water source to the customer is from OWASA's drinking water and/or reclaimed water system, or a non-OWASA water source including but not limited to harvested rainwater or groundwater.

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. When a billing period includes a change in commodity rates, the charges are prorated based on the ratio of days in the billing period at the old and new rates. Metered monthly consumption will be billed in thousand gallon increments rounded down to the nearest thousand gallons. Unbilled consumption due to rounding will be carried forward and billed in the month when the next thousand gallon increment is registered by the meter**.** 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.

The sewer commodity charge is applicable to all customers discharging wastewater into the OWASA sewer system, regardless of whether or not that discharge results from the customer's use of OWASA's drinking water or reclaimed water, or their use of a non-OWASA water source, including but not limited to harvested rainwater or groundwater.

$6.48 per thousand gallons

Individually-metered residential customers will not be charged for monthly sewer use in excess of 15,000 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 agreements with other wastewater service providers. The specific rates to be charged will be negotiated with the other party based upon specific conditions using the cost-of-service rate-making approach and approved by OWASA.

MONTHLY RATES FOR SEWER-ONLY ACCOUNTS

For sewer-only accounts where there is no OWASA meter for directly or indirectly measuring the volume of wastewater discharged by the customer, the monthly sewer service and commodity charges shall be fixed and be the total of:

(1) a monthly service charge which shall be determined by the water meter size which would be required to supply water service to the property,

plus

(2) a sewer commodity charge of $6.48 per 1,000 gallons times the estimated volume of wastewater expected to be discharged by the customer (using national engineering standards as the basis); provided however, that in no case shall the billable quantity be less than 6,000 gallons per month.

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.

If a customer that has a standard metered water and sewer service (sewer gallons billed are based on the water gallons billed) also discharges wastewater resulting from the use of OWASA reclaimed water, harvested rainwater, groundwater, or sources other than OWASA drinking water, that customer shall be billed a monthly service charge and commodity charges calculated in accordance the *OWASA Rainwater Harvesting Systems Requirements and Charges Policy* for said additional discharge; provided, however, that the minimum threshold for which the charges shall apply is 3,000 gallons per month. For this purpose, such systems serving single-family residential customers are deemed to fall below this threshold, provided there is also a standard metered water and sewer service.

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 the availability fee, customer accounts are divided into three categories: (1) Single-family Residential;

(2) Multi-family Residential, Individually-metered; and (3) Non-residential. The Non-residential category includes master-metered Multi-family customers plus all other commercial, University, and other institutional accounts. The use of these categories is justified by distinctive patterns of water and sewer consumption.

Property Description	Fee
5/8” Meter or 3/4" Combination Fire and Domestic Service, Single-family Residential:	
<1300 square feet	$2,938
1301-1700 square feet	$3,549
1701-2400 square feet	$3,611
2401-3100 square feet	$4,425
3101-3800 square feet	$4,781
>3800 square feet	$5,431
1” Meter, Single-Family Residential (all square footages)	$12,301
5/8” Meter or 3/4" Combination Fire and Domestic Service, Multi-family Residential	$3,183
1” Meter, Multi-Family Residential (all square footages)	$12,301
5/8” Meter or 3/4" Combination Fire and Domestic Service, Nonresidential	$6,317
1” Meter, Nonresidential	$15,792
1-1/2” Meter, Nonresidential	$31,584
2” Meter, Nonresidential	$50,535
3” Meter, Nonresidential	$101,070
4” Meter, Nonresidential	$157,922
6” Meter, Nonresidential	$315,844
8” Meter, Nonresidential	$505,350

In addition to the sewer availability fee, an excess sewer capacity fee of four percent (4%) of the applicable sewer availability fee shall be charged to recover the costs of excess sewer capacity installed in an area covered by an agreement between OWASA and a developer for credit payments to the constructing developer. This fee shall apply to residential and non-residential customers.

A person or party completing a development or re-development project may be eligible to request and receive a credit on the Sewer Availability Fees due if their project directly results in the permanent abandonment of previously existing water meters and sewer services which were connected to residences, buildings or facilities connected to and having a documented demand on the OWASA sanitary sewer system.

If OWASA determines that a credit is due, the amount of the credit shall be based on the current Sewer Availability Fees that would apply to the size water meters that are permanently abandoned as a direct result of the project. However, the credit due shall not exceed the amount of the Sewer Availability Fees that would otherwise apply to the development or re-development project. Availability Fee credits are not transferrable to any other project or property.

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

If an existing water or sewer meter upon which consumption is based is removed from service and/or is replaced with a smaller meter, OWASA will not issue any credit or refund to the customer for any previously paid Availability Fees.

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 may be needed 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 OWASA sewer line. All lines 6" in diameter and larger must be tapped into a manhole. All permits, bonds and pavement repairs are the responsibility of the applicant.

The charge shall be for time and equipment plus an allowance for overhead, but not less than $340.

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 $125 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. The tap will not be performed until any applicable reinspection fees are paid in full.

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.

Normal Strength Domestic Wastewater	
Carbonaceous Biochemical Oxygen Demand (CBOD)	205 mg/l
Suspended Solids (SS)	235 mg/l
Ammonia Nitrogen (NH_3-N)	25 mg/l
Phosphorus (P)	6.5 mg/l

Attachment 2

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

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

Carbonaceous Biochemical Oxygen Demand (CBOD)	$0.43 per pound for all CBOD in excess of 205 mg/l
Suspended Solids (SS)	$0.52 per pound for all SS in excess of 235 mg/l
Ammonia Nitrogen (NH_3-N)	$3.04 per pound for all NH_3-N in excess of 25 mg/l
Phosphorus (P)	$12.26 per pound for all P excess of 6.5 mg/l

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

SECTION III: RECLAIMED WATER RATES AND CHARGES

MONTHLY RECLAIMED WATER RATES

Reclaimed water (RCW) charges will be 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 reclaimed water rates consist of two components: a monthly service charge and a commodity (volume) charge.

The University of North Carolina at Chapel Hill (UNC) funded the construction of the first phase of the reclaimed water system, and the methodology for determining reclaimed water charges applicable to UNC is stipulated by a contract between OWASA and UNC. For this reason, reclaimed water charges have been established for two major customer classes: UNC uses and non-UNC uses. As determined necessary by OWASA, and in accord with OWASA's contractual obligations to UNC, reclaimed water service to non-UNC customers may be temporarily interrupted to ensure the UNC's reclaimed water demand can be met from the facilities and capacity paid for by UNC.

Reclaimed Water Service Charge

This fixed monthly charge is calculated to recover direct and indirect costs including but not limited to customer service and billing, meter and lateral maintenance, general and administrative services, and fixed costs associated with supplying reclaimed water to the customer's property. The Reclaimed Water service charge is applicable to all metered reclaimed water accounts, independent of the quantity of reclaimed water consumed. Meter readings and service charges for first and final bills are prorated based on days of service.

UNC Reclaimed Water Use (covers all UNC reclaimed water uses served by the facilities paid for by UNC) $24,000 per month.

Non-UNC RCW Customers	
Meter Size	**Per Month**
5/8"	$8.37
1"	$16.74
1.5"	$30.96
2"	$47.62

Service charges for non-UNC reclaimed water meters larger than 2" will be determined on a case-by-case basis following an evaluation of the reclaimed water demands of the customer.

Reclaimed Water Commodity Charge

This charge is calculated to recover the direct costs for reclaimed water treatment and distribution and all other direct and indirect costs not recovered by fixed monthly service charges. This charge is applicable to all reclaimed water accounts based on meter readings of reclaimed water consumed.

When a billing period includes a change in commodity rates, the charges are prorated based on the ratio of days in the billing period at the old and new rates. Metered monthly consumption will be

billed in thousand gallon increments rounded down to the nearest thousand gallons. Unbilled consumption due to rounding will be carried forward and billed in the month when the next thousand gallon increment is registered by the meter.

Customer Type	Rate per 1,000 gallons
UNC Accounts	$0.60
Non-UNC Accounts	$2.18
Bulk (tanker) Sales	$0.00

RECLAIMED WATER SERVICE AVAILABILITY AND CONNECTION FEES

Reclaimed Water Availability Fees

The purpose of this fee is to recover the capital costs of providing reclaimed water system facility capacity and to fund future expansion of that capacity. Since the University (UNC) has paid to construct the reclaimed water system, UNC will not be required to pay a reclaimed water availability fee for UNC facilities that are connected to and can be served by capacity available in the reclaimed water facilities paid for by the UNC.

Reclaimed water availability fees are applicable to each non-UNC connection to the reclaimed water system, regardless of who may have paid for the installation of the main to which the connection is to be made. Reclaimed water availability fees for non-UNC customers are as follows:

Meter Size	Fee
5/8”	$1,229
1”	$3,073
1-1/2”	$6,146
2”	$9,833

Reclaimed water availability fees for connections to be served by meters larger than 2 inches shall be determined on a case-by-case basis following an evaluation of the reclaimed water demands of the customer.

Reclaimed Water Service Connection Fees

Reclaimed water service connection fees, including meter installation and meter fees, shall be the same as the fees applicable to potable water system service connections, as specified in Section I of this schedule.

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

SECTION IV: 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 and is applicable to all accounts.

$45 per event
$80 per event, outside of normal business hours of OWASA

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:	$25
Dishonored Draft:	$25

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 or an additional security deposit.

CHARGE FOR DELINQUENT ACCOUNTS

The purpose of this charge is to offset the costs of special handling of delinquent accounts, which may include, but is not limited to, the disconnection and reconnection of service due to nonpayment of the customer's bill. This charge applies 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 the balance due plus the delinquency charge and applicable security deposit.

$45 per event, during OWASA’s normal business hours
$80 per event, outside OWASA’s normal business hours

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

OWASA customers may request to have their service temporarily disconnected and subsequently reconnected. In emergency conditions, there will be no charge to the customer for this service. Additionally, no more than once in any twelve month period, a customer may request to have their service temporarily disconnected and subsequently reconnected at no charge for routine plumbing system maintenance. For requests to temporarily disconnect and subsequently reconnect service in any situation other than those listed above, the charges listed below will apply.

The purpose of this charge is to recover the cost to temporarily disconnect and subsequently reconnect water service at the request of a customer. In situations where charges apply, 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.

$45 per event, during OWASA's normal business hours
$80 per event, outside OWASA's normal business hours

LATE PAYMENT FEE

This fee is designed to recover a portion of the cost of delinquent payment collection efforts that arise prior to service termination and are not recovered by charges for reconnection of delinquent accounts, and to encourage customers to make timely payments, thereby reducing the overall cost of a delinquent account to the customer base. The late payment fee applies when a customer's account is delinquent as defined above.

Late Payment Fee: For past due balances of $10.00 or more, $2.40 plus 0.42% a month (5% APR) of the outstanding balance.

SECURITY DEPOSITS

OWASA requires 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 of (1) residential customers, whether detached or attached units, who have a satisfactory credit history as determined by a credit check, 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 $50 or $100 depending on credit worthiness for residential customers. All security deposits must be paid at the time application for service is made and in advance of service initiation.

Any residential customer whose service has been disconnected for non-payment of billing charges twice within a six month period and for whom OWASA does not have a security deposit will be required to pay a $50 or $100 deposit depending on credit worthiness prior to reconnection of service.

Non-residential security deposits are required based on credit worthiness and will be computed as one or two times the average monthly bill of the previous customer at the same location over the past calendar year. If there is no previous customer at the service location, the security deposit will be determined by OWASA based on the best information available, such as OWASA's experience with similar types, sizes, etc. of businesses.

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 may be refunded upon written request after the customer has established a satisfactory payment history for twelve (12) consecutive months. Otherwise, security deposits will be applied to the final bill when a customer's account is terminated with any remaining balance refunded to

the customer.

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:

Administrative Charge	$30/ trip, plus
Volume Charge and High Strength Surcharge	$140/ thousand gallons

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_3-N = Ammonia Nitrogen
CBOD = Carbonaceous Biochemical Oxygen Demand
TSS = Total Suspended Solids
P = Phosphorus

Administrative Charge of $30 / trip, plus Volume and High Strength Surcharge calculated as follows:

A + B + C + D + E = Calculated Dollars per Thousand Gallons, where:
A = pounds of NH_3-N/thousand gallons in waste x $3.04/pound
B = pounds of CBOD/thousand gallons in waste x $0.43/pound
C = pounds of TSS/thousand gallons in waste x $0.52/pound
D = $6.48/per 1,000 gallons Sewer Commodity Charge
E = pounds of P/thousand gallons in waste x $12.26/pound
Waste concentrations shall be 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	$25 per trip, plus
Commodity Charge	$6.02 per thousand gallons or portion thereof

Bulk sales are subject to administrative regulations and controls for protection of the

wastewater 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%.

Attachment 2

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

BOAT RENTAL AND LAKE USE FEES

Fees are 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 are:

OWASA Customers and Orange County Residents	
Charge for each flat-bottomed boat or canoe rental	$4.50 for one-half day plus the applicable lake use fee for each person
Trolling motor rental	$15.00 for one-half day
Kayak rental	$15.00 for one-half day plus the applicable lake use fee for each person
Private Boat Launching Fee	$3.50 per boat plus the applicable lake use fee for each person
Lake Use Fee, Under 12 Years Old	$2.00 per person
Lake Use Fee, 12-64 Years	$4.50 per person
Lake Use Fee, 65 Years and over	No charge

Individual Season Pass	
Boat or canoe rental	$82.00 per person. Each additional person pays appropriate lake use fee.
Lake Use Pass – Adult	$46.00
Boat with trolling motor rental	$163.00 per person. Each additional person pays appropriate lake use fee.

Group Season Pass	
Boat or canoe rental	$163.00 (maximum of 3 people per pass.) Each additional person pays appropriate lake use fee.
Boat with trolling motor rental	$245.00 (maximum of 3 people per pass.) Each additional person pays appropriate lake use fee.

For visitors who are not OWASA Customers or Orange County Residents	
Charge for each flat-bottomed boat or canoe rental	$8.00 for one-half day plus the applicable lake use fee for each person
Trolling motor rental	$22.00 for one-half day
Kayak rental	$20.00 for one-half day plus the applicable lake use fee for each person
Private Boat Launching Fee	$7.00 per boat plus the applicable lake use fee for each person
Lake Use Fee, Under 12 years old	$2.50 per person
Lake Use Fee, 12-64 Years	$5.50 per person
Lake Use Fee, 65 Years and over	$2.50 per person
UNC Men's Crew Club and Women's Rowing Team	By agreement between UNC-Chapel Hill and OWASA

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

FIELD TEST OF 5/8" METER OR 3/4" COMBINATION FIRE AND DOMESTIC SERVICE METER

Upon a customer's written request, OWASA will conduct a special field test of the customer's 5/8" water meter or 3/4" combination fire and domestic service 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 $100 for the meter test.

SHOP TESTING OF METER

Upon a customer's written request, OWASA will conduct a special shop test of water meters that are larger than 3/4 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 $160 for the shop meter test.

FIELD TEST OF LARGE METERS

Upon a customer's written request, OWASA will conduct a special field test of water meters that are 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 $260.

REINSPECTION FEE

OWASA will initially inspect grease traps, cross connections and water and sewer taps at no cost to the customer. Should a subsequent reinspection be required for any of these fixtures, a $125 fee will apply to each reinspection.

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, water sampling, laboratory testing, video inspection, pressure testing, etc. associated with 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.

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

Service	Water	Sewer
Plan Review	$3.63/lf	$3.63/lf
Construction Observation	$3.69/lf	$3.69/lf

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, relocation of mains, services and meters, 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 to a customer when such a customer (including but not limited to individuals, corporations, or partnerships), owes OWASA any past due balance.

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. For amounts exceeding $1,500, approval of the Board of Directors shall also be required prior to filing an action for collection.

ORANGE WATER AND SEWER AUTHORITY

WORK SESSION OF THE BOARD OF DIRECTORS

APRIL 14, 2016

The Board of Directors of the Orange Water and Sewer Authority (OWASA) held a Work Session on Thursday, April 14, 2016 at 6 PM in OWASA's Community Room in the Administration Building, 400 Jones Ferry Road, Carrboro.

Board Members present: John A. Young, Chair; Bob Morgan, Vice Chair; Heather Payne, Secretary; Terri Buckner; Jeff Danner; Barbara Foushee and David Moreau. Board Members absent: Quinton Harper and Ruchir Vora.

OWASA staff present: Ed Kerwin; Mary Darr; Greg Feller; Stephanie Glasgow; Andrea Orbich; Ruth Rouse; Todd Taylor; Mary Tiger; Stephen Winters; and Robert Epting, Esq., Epting and Hackney.

Public present: Ben Poulson, Associate Director of Energy Services, and Margaret Holton, Water, Sewer and Stormwater Coordinator, University of North Carolina at Chapel Hill; Don Schlenger, Kevin O'Connor and Linda Vaughn with Don Schlenger and Associates; and Ellen Tucker, Hill, Chesson & Woody.

MOTIONS ACTED UPON

1. Terri Buckner made a motion to authorize staff and the consulting firm of Hill, Chesson & Woody to market employee health and dental insurance plans to be effective on July 1, 2016; second by Barbara Foushee and unanimously approved.

2. Dave Moreau made a motion to authorize staff to publish information about the Fiscal Year 2017 proposed Budget and Schedule of Rates, Fees and Charges, clarifying the multi-family, master-metered rate class, in advance of the public hearings scheduled for May 26, 2016; second by Robert Morgan and unanimously approved.

ANNOUNCEMENTS

John Young 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; none were disclosed.

Mr. Young said the Board will tour the Cane Creek Reservoir Mitigation Property on Wednesday, April 20, 2016, after meeting initially at 3:30 PM in OWASA's Administration Building.

Mr. Young said the Chapel Hill Town Council's OWASA Committee will meet on April 21, 2016 at 8:30 AM in the OWASA Boardroom with the Chapel Hill Appointees to the OWASA Board to discuss items of mutual interest.

DRAFT

Mr. Young discussed with the Board an April 14, 2016 e-mail from Mr. Art Belden regarding OWASA's use of chloramines for disinfection and their effect on plumbing items. The Board agreed to receive information from staff on April 28, 2016 about common customers' inquiries regarding drinking water, including questions about release of zinc from brass in plumbing systems.

Todd Taylor provided an update on the April 12, 2016 water main break on East Rosemary Street.

Dave Moreau said that the Natural Resources and Technical Systems Committee will meet on April 25, 2016, at 5:30 PM in the OWASA Boardroom to discuss energy management.

Mary Tiger, Sustainability Manager, reported on the Inter-Local Energy Working Group's meeting on April 4, 2016, to discuss collaborative solar procurement opportunities.

Ms. Tiger also said that the Affordability Outreach Partners will meet on Friday, April 22, 2016 at 11:30 AM to discuss current initiatives.

ITEM ONE: REVIEW EMPLOYEE HEALTH, DENTAL, LIFE, DEPENDENT LIFE, ACCIDENTAL DEATH AND DISMEMBERMENT AND LONG-TERM DISABILITY INSURANCE

The Board received information from Stephanie Glasgow and Ellen Tucker and authorized staff to seek proposals from other carriers for employee health and dental insurance in the coming fiscal year.

Terri Buckner made a motion to authorize staff and the consulting firm of Hill, Chesson & Woody to market employee health and dental insurance plans to be effective on July 1, 2016; second by Barbara Foushee and unanimously approved. (Please see Motion No. 1 above.)

ITEM TWO: REVIEW DRAFT FISCAL YEAR (FY) 2017 BUDGET AND RATES

The Board received and discussed information about the draft budget for FY July 2016 through June 2017 and the proposed rates that, if approved, would go into effect in October 2016.

Jeff Danner suggested that staff consider adding key performance indicators to the quarterly financial reports provided to the Board. Staff plans to include performance measurements that provide insight into the overall efficiency of the organization beginning in FY 2017.

The Board also agreed to evaluate consultant services when the FY 2018 budget is developed.

ITEM THREE: AUTHORIZE STAFF TO PUBLISH DRAFT FISCAL YEAR (FY) 2017 BUDGET AND RATES INFORMATION

DRAFT

Terri Buckner suggested that the multi-family, master-metered customer class be clarified in the rate schedule prior to advertising the proposed budget and rates for FY 2017; the Board agreed.

Dave Moreau made a motion to authorize staff to publish information about the Fiscal Year 2017 proposed Budget and Schedule of Rates, Fees and Charges, clarifying the multi-family, master-metered rate class, in advance of the public hearings scheduled for May 26, 2016; second by Robert Morgan and unanimously approved. (Please see Motion No. 2 above.)

ITEM FOUR: REVIEW DRAFT CONSULTANT SCOPE OF WORK FOR THE ADVANCED METERING INFRASTRUCTURE (AMI) SYSTEM PROCUREMENT AND IMPLEMENTATION SERVICES

The Board discussed the draft scope of work from consultants, Don Schlenger and Associates, and requested clarification of the service procurement and customer service training tasks in the revised scope of work for the Board's consideration on April 28, 2016.

ITEM FIVE: PROPOSED PROCESS TO COMPLETE NEW STRATEGIC PLAN

The Board agreed to delay developing a new Strategic Plan and that staff provide a draft update to the current Strategic Plan at a future meeting.

ITEM SIX: REVIEW BOARD WORK SCHEDULE

Jeff Danner requested that when an e-mail is sent out the day of a Board meeting/work session to be discussed during the meeting, a printed copy of the e-mail should be provided.

John Young suggested that the Board schedule a Board Self-Assessment for the June 9, 2016 work session; the Board agreed.

Ed Kerwin requested that the April 28, 2016 Board meeting include a 20 minute presentation on common customer inquiries including dezincification; the Board agreed.

ITEM SEVEN: EXECUTIVE DIRECTOR WILL SUMMARIZE THE KEY STAFF ACTION ITEMS FROM THE WORK SESSION

Ed Kerwin summarized the key staff actions items as follows:

- Provide the Board information and a draft response to Mr. Art Belden's request regarding chloramines and dezincification;
- Hill, Chesson & Woody will market employee health and dental insurance;
- Beginning in FY 2017, staff plans to include performance measurements in quarterly financial reports that provide insight into the overall efficiency of OWASA;
- Clarify the multi-family, master-metered class in the rate schedule and advertise the proposed budgets and rates for FY 2017;
- Update the consultant's scope of work for Advanced Metering Infrastructure based on the Board's guidance for possible approval at the April 28th Board meeting;

DRAFT

- The Board decided not to proceed with development of a new Strategic Plan. Staff will draft an update to the current Strategic Plan for discussion at a future work session; and
- Staff will provide the Board the list of key staff action items to be completed.

ITEM EIGHT: CLOSED SESSION

Without objection, the Board convened in a Closed Session for the purpose of discussing a personnel matter.

The meeting was adjourned at 8:45 PM.

Respectfully submitted by:

Andrea Orbich
Executive Assistant/Clerk to the Board

DRAFT

ORANGE WATER AND SEWER AUTHORITY

MEETING OF THE BOARD OF DIRECTORS

APRIL 28, 2016

The Board of Directors of the Orange Water and Sewer Authority (OWASA) held a regular business meeting on Thursday, April 28, 2016, at 7:00 PM in Council Chambers, Chapel Hill Town Hall, 405 Martin Luther King Jr. Boulevard.

Board Members present: John A. Young, Chair; Heather Payne, Secretary; Terri Buckner; Jeff Danner; Barbara Foushee; Quinton Harper; David (Dave) Moreau; and Ruchir Vora. Board Members absent: Robert Morgan, Vice Chair.

OWASA staff present: Ed Kerwin; Mary Darr; Monica Dodson; Greg Feller; Jeremy Fireline; Vishnu Gangadharan; Stephanie Glasgow; Katie Harrold; Kenneth Loflin; Andrea Orbich; Dan Przybyl; Ruth Rouse; Kelly Satterfield; Todd Taylor; Stephen Winters; Robin Jacobs, Epting and Hackney.

Others present: Margaret Holton, Water, Sewer and Stormwater Coordinator, and Ben Poulson, Associate Director of Energy Services, University of North Carolina at Chapel Hill; Linda Vaughn and Kevin O'Connor, Don Schlenger and Associates; Chapel Hill residents: Art Belden; Monte Brown; and Jeanne Brown; Professor Bob Proctor, Carrboro resident; and Jonathan Sparrow, Sparrow and Sons Plumbing.

There being a quorum present, Chair John Young called the meeting to order.

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MOTIONS ACTED UPON

1. BE IT RESOLVED THAT the Orange Water and Sewer Authority Board of Directors adopts the Resolution Awarding Audit Contract to Martin Starnes & Associates, CPAS, P.A. 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 Heather Payne, second by Ruchir Vora and unanimously approved.

2. Heather Payne made a motion to approve the Minutes of the March 10, 2016 Meeting of the Board of Directors; second by Ruchir Vora and unanimously approved.

3. Heather Payne made a motion to approve the Minutes of the March 24, 2016 Meeting of the Board of Directors; second by Ruchir Vora and unanimously approved.

4. Heather Payne made a motion to approve the Minutes of the April 14, 2016 Closed Session of the Board of Directors; second by Ruchir Vora and unanimously approved.

DRAFT

5. BE IT RESOLVED THAT the Orange Water and Sewer Authority Board of Directors adopts the Resolution Awarding a Construction Contract for the Rosemary, Henderson and Hillsborough Street Water Main Project. Resolution so titled attached hereto and made a part of these minutes. Motion by Dave Moreau, second by Terri Buckner and unanimously approved.

6. Terri Buckner made a motion that the Board approve the "AMI Procurement and Implementation Scope of Services" prepared by Don Schlenger & Associates, and authorize the Executive Director to develop and execute a professional services contract with Don Schlenger & Associates to perform this work; second by Heather Payne and unanimously approved.

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ANNOUNCEMENTS

Conflict Of Interest

John Young 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. None were disclosed.

Natural Resources and Technical Systems (NRTS) Committee

Dave Moreau said that the NRTS Committee met on April 25, 2016 to review a revised Charter for the development of an Energy Management Plan and review an update on OWASA's energy use trends through the end of 2015. Mr. Moreau said that staff plans to have an Energy Management Plan that defines OWASA's energy management program and an implementation plan for Board approval by February 2017. Mr. Moreau said that staff recommends moving the Board's review of the revised Charter of the Energy Management Plan to the May 26, 2016 meeting.

Chapel Hill Town Council's OWASA Committee and Chapel Hill Appointees to the OWASA Board of Directors

Heather Payne said that the Chapel Hill Town Council's OWASA Committee and the Chapel Hill Appointees to the OWASA Board of Directors met on April 21, 2016. Ms. Payne provided a brief update on the following items: no increase in water and sewer rates for draft Fiscal Year 2017 budget; the Town's recruitment/selection process for OWASA Board Members; Advanced Metering Infrastructure; sewer system design of the Historic Rogers Road Area; and Affordability Outreach Pilot Project.

Jeff Danner

Jeff Danner said that on Monday, May 2, 2016, he will start a new job as Director of Technology and Strategic Development for Entex Technologies, Inc., a Chapel Hill based engineering company specializing in the design and construction of advanced wastewater treatment technologies.

DRAFT

Quinton Harper

Quinton Harper announced that he will not seek reappointment to the OWASA Board of Directors; Mr. Harper's term will end on June 30, 2016.

Tour of the Cane Creek Mitigation Tract

Ruth Rouse said that on April 20, 2016, Board Members toured Cane Creek Reservoir Mitigation Tract to hear about the forest management activities on the tract that focused on two goals: water quality protection and wildlife habitat. Other groups in attendance included staff from the NC Wildlife Resources Commission, NC Forest Service, US Forest Service, True North Forest Management Services and Audubon Society. Board Members expressed appreciation and suggested staff prepare educational material on the mitigation tract for the public.

PETITIONS AND REQUESTS:

Professor Bob Proctor, Carrboro resident, petitioned the Board that OWASA staff work with staff from the Town of Carrboro to use OWASA's 400 Jones Ferry Road facility as the site for a Google Fiber Hut (a structure that houses the telecommunications and fiber interface equipment for high-speed internet) instead of the Westwood Cemetery site in Carrboro.

The Board deferred Professor Proctor's petition to staff for follow up with the Town of Carrboro.

John Young asked for petitions and requests from the Board; none were received.

Ed Kerwin requested that the review of the revised Energy Management Plan be moved from the May 12, 2016 Work Session to the May 26, 2016 Board Meeting; the Board agreed.

ITEM ONE: QUARTERLY REPORT ON ATTENDANCE AT BOARD AND COMMITTEE MEETINGS

The Board received this as an information item.

ITEM TWO: RESOLUTION AWARDING AUDIT CONTRACT TO MARTIN STARNES & ASSOCIATES, CPAS, P.A. AND AUTHORIZING CHAIR OF THE BOARD OF DIRECTORS AND THE FINANCE OFFICER TO EXECUTE SAID CONTRACT

Heather Payne made a motion to approve the resolution, second by Ruchir Vora and unanimously approved. Please see Motion No. 1 above.

ITEM THREE: MINUTES

Heather Payne made a motion to approve the Minutes of the March 10, 2016 Meeting of the Board of Directors; second by Ruchir Vora and unanimously approved. Please see Motion No. 2 above.

DRAFT

ITEM FOUR: MINUTES

Heather Payne made a motion to approve the Minutes of the March 24, 2016 Meeting of the Board of Directors; second by Ruchir Vora and unanimously approved. Please see Motion No. 3 above.

ITEM FIVE: MINUTES

Heather Payne made a motion to approve the Minutes of the April 14, 2016 Closed Session of the Board of Directors; second by Ruchir Vora and unanimously approved. Please see Motion No. 4 above.

ITEM SIX: PRESENTATION ON COMMON CUSTOMER INQUIRES

Katie Harrold provided a presentation on common customer inquiries to inform the Board and customers about staff's efforts to inform our community about the quality and safety of OWASA's drinking water and resources addressing common customer inquiry topics. This presentation included information on the causes of dezincification.

Following the presentation, Art Belden expressed his concern that home owners are not aware of the dezincification problem until they try to sell their homes or experience a leak in their plumbing systems. He said residents are not aware of the effect that chloramines can have on brass fittings over time and that the only solution is a whole house water purification system. Mr. Belden recommended an independent consultant be engaged and report directly to the OWASA Board on the effect chloramines have on plumbing systems and what corrective actions are required to resolve past effects and avoid future effects.

Jonathan Sparrow said that dezincification is a problem in the plumbing industry in Chatham, Orange and Durham Counties.

Jeanne Brown asked that OWASA take a proactive, open approach to this issue. She said her family's experience since 2005 has included minimal water flow in a shower and having to replace four dishwashers due to degradation of rubber components.

Monte Brown said he has replaced all of the valves in showers at home, that he is responsible for five million square feet of building space in another utility's service area, and that valves can fail in two years in systems where drinking water is disinfected with chloramines. He said chloramines provide an order of magnitude less disinfection and OWASA should step back and look at why chloramines were chosen. He encouraged OWASA to use the expertise available from UNC and Virginia Tech, and to recommend concrete steps for customers to address the effects of chloramines.

After discussion, the Board agreed to refer this matter to the Natural Resources and Technical Systems (NRTS) Committee for further discussion of drinking water disinfectants and effects on plumbing systems.

DRAFT

Ed Kerwin expressed appreciation to Mr. Belden for bringing this issue to his attention. He also said that staff will continue to work with stakeholders to address this issue and coordinate a meeting for the NRTS Committee.

ITEM SEVEN: FINANCIAL REPORT FOR THE NINE MONTH PERIOD ENDED MARCH 31, 2016

The Board received this report as an information item.

ITEM EIGHT: RESOLUTION AWARDING A CONSTRUCTION CONTRACT FOR THE ROSEMARY, HENDERSON AND HILLSBOROUGH STREET WATER MAIN PROJECT

Mary Darr provided an update on the April 26, 2016 repair of a water line leak in East Rosemary Street and introduced Jeremy Fireline who provided the Board a presentation on this project.

Mr. Fireline said that work will start on Hillsborough Street and because it is a high traffic area, the road will be closed from 9:00 AM to 4:00 PM and is planned to conclude before school starts in August 2016. Work on Henderson Street is scheduled to start late August 2016 and be finished by late September 2016. The East Rosemary Street section of work is planned to begin by October 2016. Mr. Fireline clarified that minority and women owned business enterprise (MWBE) participation for this project is 100% because the company is a registered MWBE firm.

Dave Moreau made a motion to approve the resolution; second by Terri Buckner and unanimously approved. Please see Motion No. 5 above.

ITEM NINE: APPROVAL OF THE CONSULTANT'S SCOPE OF WORK FOR THE ADVANCED METERING INFRASTRUCTURE SYSTEM PROCUREMENT AND IMPLEMENTATION SERVICE

Todd Taylor provided an overview of this item including changes based on feedback from the Board on April 14, 2016 (providing additional details about the Request For Proposals development tasks; additional information regarding customer service training; and the inclusion of the cost estimate; and inclusion of a Gantt chart).

Terri Buckner made a motion that the Board approve the "AMI Procurement and Implementation Scope of Services" prepared by Don Schlenger & Associates, and authorize the Executive Director to develop and execute a professional services contract with Don Schlenger & Associates to perform this work; second by Heather Payne and unanimously approved. Please see Motion No. 6 above.

ITEM TEN: EXECUTIVE DIRECTOR WILL SUMMARIZE THE KEY ACTION ITEMS FROM THE BOARD MEETING AND NOTE SIGNIFICANT ITEMS FOR

DRAFT

DISCUSSION AND/OR ACTION EXPECTED AT THE NEXT BOARD MEETING

Ed Kerwin summarized staff action items as follows:

- May 12, 2016 Work Session will include the following agenda items:
  - Award of a construction contract for the Cane Creek Permanganate Facility project may move to the May 26th Board Meeting;
  - Review Employee Health, Dental Life, Dependent Life, Accidental Death and Dismemberment and Long Term Disability Insurance;
  - Discussion of Employee Merit Pay for Fiscal Year 2017; and
  - Review the consultant's draft Scope of Work for the Employee Total Compensation Study.
- Staff will follow up on education opportunities for the mitigation tract.
- Staff will follow up on Professor Bob Proctor's petition and keep the Board informed.
- Staff will work with the NRTS Committee to schedule a meeting to discuss OWASA's drinking water disinfectant and effects on plumbing systems.

The meeting was adjourned at 9:15 PM.

Respectfully submitted,

Andrea Orbich
Executive Assistant/Clerk to the Board

Attachments

DRAFT

AGENDA ITEM

- **RESOLUTION AWARDING A CONSTRUCTION CONTRACT FOR THE CANE CREEK PERMANGANATE FACILITY PROJECT**

PURPOSE

- To request the Board's approval to award a construction contract for the Cane Creek Permanganate Facility Project.

BACKGROUND

- The Project involves the construction of sodium permanganate storage and pumping equipment at OWASA's raw water pump station at the Cane Creek Reservoir and associated work.

- Plans and specifications for the construction of this project were prepared by Hazen and Sawyer PC ("Engineer").

- Prospective bidders for the construction contract were screened through a prequalification process. Minority outreach was performed for the prequalification process in accordance with standard practice. Five bidders were prequalified.

- Bids from three prequalified contractors were received and opened on March 29, 2016. The apparent low bidder was Water and Waste Systems, Inc. (Water and Waste) with a bid of $796,700. The Engineer's estimate was $656,000.

- Because bids exceeded the FY 2016 CIP budget and engineer's estimate, Staff renegotiated certain pieces of the project to reduce the cost by $37,700. The total recommended contract value is $759,000.

- The Engineer evaluated bids and negotiated changes to the contract. They recommended award of the revised construction contract to Water and Waste.

STAFF RECOMMENDATION

- Staff recommends that the Board of Directors adopt the attached resolution awarding the construction contract for the Cane Creek Permanganate Facility Project to Water and Waste Systems, Inc.

ORANGE WATER AND SEWER AUTHORITY

A public, non-profit agency providing water, sewer and reclaimed water services to the Carrboro-Chapel Hill community.

M E M O R A N D U M

TO: Board of Directors

THROUGH: Ed Kerwin

FROM: Simon Lobdell, P. E.

DATE: May 16, 2016

SUBJECT: **Award of Construction Contract for Cane Creek Permanganate Facility Project**

Purpose

This memorandum recommends that the Board of Directors award a construction contract to Water and Waste Systems, Inc. for the construction of the raw water permanganate feed facility at Cane Creek Reservoir.

Background

This project involves the construction of sodium permanganate storage and pumping equipment at OWASA's raw water pump station at the Cane Creek Reservoir. A project location map is provided in Attachment 1. Our water treatment process uses permanganate to control taste and odor issues as well as decrease formation of disinfection byproducts.

For the past two years, OWASA has operated a temporary permanganate storage and feed facility at the Cane Creek Reservoir. However, this temporary facility poses operational, safety, and reliability issues. Safety concerns and the need for improved handling equipment are the primary motivations for the project. Due largely to these safety concerns and water quality benefits, the permanganate feed system project has consistently rated as a top priority in our annual Capital Improvement Program (CIP) project prioritization exercise.

Hazen and Sawyer ("Engineer") completed preliminary studies in 2014 and 2015 which evaluated the feasibility and desirability of replacing the temporary feed system with permanent facilities, and evaluated a series of conceptual alternatives for the permanent facility. Following these studies, Hazen and Sawyer was selected to develop plans for the facility and to assist OWASA with bidding and construction related services for the project. Design of the project was completed in early 2016.

Advertising and Bidding

Prospective bidders were screened through our contractor prequalification process. Interested contractors submitted a package outlining their qualifications, including past performance on similar projects, credentials of their management team, safety record, etc. Only those firms that clearly demonstrated the capability to adequately perform the project work were invited to submit bids.

Staff prequalified five contractors to bid on the project. The invitation for bids was issued to the prequalified contractors on February 9, 2016. Two bids were received at the initial bid date of March 17, 2016. State law requires three bids to open a formal contract. Per North Carolina General Statute 143-132, the contract was re-advertised. A total of three bids were received at the March 29, 2016 re-bid date and were opened publicly. Water and Waste Systems was the low, responsive and responsible bidder for the project with a bid of $796,700. A copy of the certified bid tabulation is attached with the Engineer's recommendation to award (Attachment 2), and the results are summarized below:

Water and Waste Systems, Inc.	$796,700.00
Laughlin Sutton Construction Co.	$885,400.00
Turner Murphy Co.	$908,853.00
Engineer's Estimate at 100% design	*$656,000.00*

Minority and Women Business Enterprise (MWBE) Participation

OWASA's Minority Business Participation Outreach Plan and Guidelines include all of the statutory requirements from the State of North Carolina, and specify a 10% goal for participation by minority businesses. In keeping with standard practice, OWASA staff took several actions to solicit minority participation in this contract, including advertising the Request for Qualifications in the Greater Diversity News, the North Carolina Institute of Minority Economic Development, OWASA's website, and plan rooms, and requiring bidders to follow "good faith" efforts to solicit participation by minority subcontractors. The apparent low bidder (Water and Waste Systems) provided documentation of good faith efforts and identified MWBE participation of $58,100 (7.7% of the final negotiated contract amount).

Although the contract does not meet our goal in this instance, we believe that our outreach efforts are effective based on the last five years of bidding. Since the start of FY 2012, 36% of CIP dollars expended on formal and informal construction contracts have gone to MWBE firms.

Bid Analysis and Recommendation

Water and Waste Systems' ability to complete this project was evaluated during the prequalification process, and they demonstrated sufficient qualifications in past project performance (including several recent successful projects with OWASA), personnel qualifications/experience, reference checks, and all other rated categories. OWASA staff also determined that the Contractor's safety performance, relevant project experience, bonding capacity, and other non-rated categories met our requirements.

The three bids received were relatively close in cost for a small contract, varying by only 8% from the average. However, the low bid was 23% higher than the Engineer's estimate. Staff investigated the overage and determined the primary cause was related to structural and electrical subcontractor costs. There is a trend in the local market where fewer contractors and subcontractors are bidding small projects as they are already heavily utilized. As a result, both prime and sub-contractor costs are escalating. Secondary cost factors for the overage include higher than anticipated equipment purchase costs and instruments, safety features, and a contract contingency fund added to the scope after the engineer's estimate was finalized.

The total project costs, including remaining engineering fees, exceed the upper bounds of the current CIP amount for Fiscal Year 2016 and 2017 of $766,000 by approximately $250,000. State law permits negotiation with the low bid contractor when all bids exceed the funds available for the project. Staff subsequently identified several opportunities for cost reductions and negotiated $37,700 in savings that could be realized by modifying the foundation design of the containment without compromising the project quality or scope. The resulting contract being recommended for award is $759,000. The draft FY 2017 CIP reflects the revised project costs.

Staff and the Engineer considered three options for this construction contract:

1. Award the contract as negotiated
2. Rebid the work
3. Delay the project until market conditions are more favorable

Based on conversations with the Contractor and Engineer, staff does not anticipate that rebidding or delaying the work would reduce the total cost of the job. We believe the low bid is a competitive price for the project under current market conditions Additional value engineering efforts are unlikely to provide further savings and other than a reduction in the scope and functionality of the project there do not appear to be opportunities to reduce the cost of the work. Additionally, this project is one of our highest priorities due to safety considerations and to ensure consistent high quality drinking water.

Therefore, staff and the Engineer recommends award of the contract to Water and Waste Systems, Inc.

Hazen and Sawyer's recommendation that the construction contract for this project be awarded to Water and Waste Systems is attached along with the certified bid tabulation (Attachment 2). Staff further concurs with the value engineering change as recommended by Hazen and Sawyer (Attachment 3) and requests the Board's adoption of the attached resolution (Attachment 4) awarding the construction contract to Water and Waste Systems.

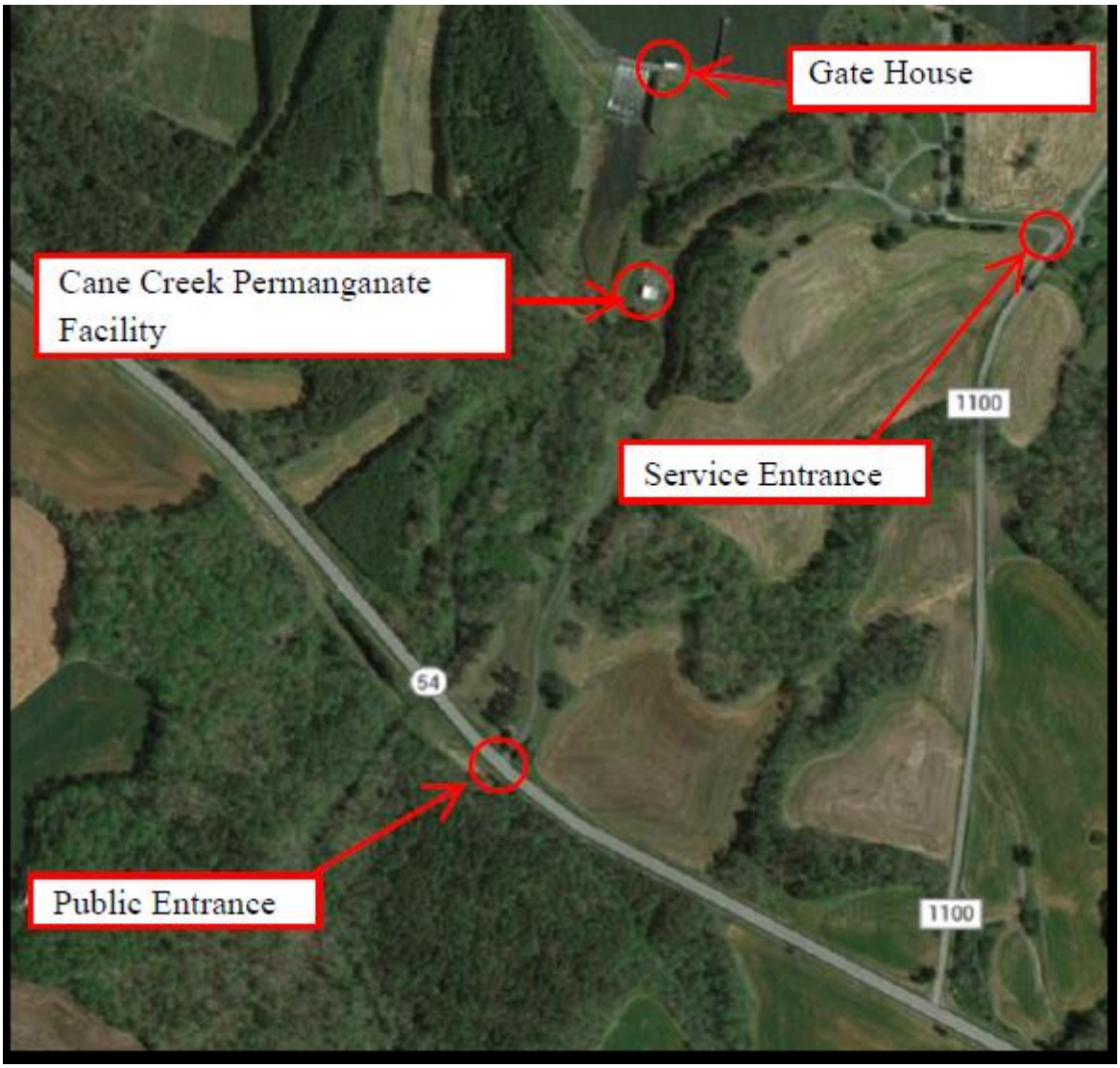
Please let me know if you have any questions or need additional information. I can be reached at 537-4247 or smlobdell@owasa.org.

Thank you.

Simon Lobdell, P.E.
Utilities Engineer

Attachment 1 – Project Site - Location Map
Attachment 2 – Engineer's Recommendation for Award and Certified Bid Tabulation
Attachment 3 – Engineer's recommendation of Value Engineering Change
Attachment 4 – Resolution

Attachment 1



Location Map

Attachment 2

Hazen and Sawyer
4011 WestChase Boulevard, Suite 500
Raleigh, NC 27607 • 919.833.7152

May 6, 2016

Mr. Simon Lobdell, PE
Utilities Engineer
Orange Water and Sewer Authority
400 Jones Ferry Road
Carrboro, NC 27510

Re: Cane Creek Reservoir Raw Water Permanganate Facility, 32258-001

Dear Mr. Lobdell:

On March 29, 2016, the Orange Water and Sewer Authority (OWASA) received and opened three bids for the Cane Creek Reservoir Raw Water Permanganate Facility. The three bids are believed to be responsive and competitive as set forth in the attached Bid Tabulation. The lowest responsive bid for the Total Lump Sum Single Prime Bid was submitted by Water & Waste Systems Construction, Inc. in the amount of $796,700.

Water & Waste Systems Construction, Inc. was pre-qualified to bid this project. We have reviewed the bid documentation submitted by Water & Waste Systems Construction, Inc. and find they complied with the Instructions to Bidders. Based on this, we recommend that OWASA award the project to Water & Waste Systems Construction, Inc. in the amount of $796,700. If you require additional information, please to not hesitate to contact us.

Very Truly Yours,

Melanie Mann

Melanie A. Mann, PE
Senior Associate

Enclosure: Certified Bid Tabulation

cc: Mark Bishop, Hazen

Job no

BID TABULATION

OWASA CANE CREEK RESERVOIR RAW WATER PERMANGANATE FACILITY

Bid Opening: Tuesday, March 29, 2016 at 2:00 pm

				WATER & WASTE SYSTEMS CONSTRUCTION, INC. 14 Apothecary Ct. Garner, NC 27529	LAUGHLIN-SUTTON CONSTRUCTION CO. 5855 Rudd Station Rd. Browns Summit, NC 27214	TURNER MURPHY CO., INC. 2500 Southway Drive Rock Hill, SC 29730
Bid Bond				5%	5%	5%
Addenda 1, 2, 3, 4 Acknowledged				All Acknowledged	All Acknowledged	All Acknowledged
No.	**Description**	**Unit**	**QTY**			
1	All work other than Items 2, 3 and 4	LS	1	$640,440.00	$709,140.00	$752,593.00
2	Control System Integration	LS	1	$126,260.00	$126,260.00	$126,260.00
3	Contingency Allowance	LS	1	$25,000.00	$25,000.00	$25,000.00
4	Construction Materials Testing Allowance	LS	1	$5,000.00	$5,000.00	$5,000.00
TOTAL LUMP SUM SINGLE PRIME BID				**$796,700.00**	**$865,400.00**	**$908,853.00**

CERTIFICATION

The Bids tabulated herein were opened and read aloud at 2:00 p.m. on the 29th day of March 2016, at the Board Room of Orange Water and Sewer Authority, 400 Jones Ferry Road, Carborro, NC 27510. The tabulation is correct in that it contains the bid prices as presented on the original Bid Form of each Bidder.

Hazen

Melanie Mann

Melanie A. Mann, PE
Senior Associate



3/31/2016

Hazen
Hazen and Sawyer
4011 WestChase Boulevard, Suite 500
Raleigh, NC 27607 • 919.833.7152

Attachment 3

May 11, 2016

Simon Lobdell
Utilities Engineer
Orange Water and Sewer Authority
400 Jones Ferry Road
Carrboro, NC 27510

Re: Cane Creek Reservoir Raw Water Permanganate Facility – Change Order Number 1

Dear Mr. Lobdell:

We have reviewed the materials provided by Water and Waste Systems Construction, Inc. regarding Change Order Number 1 for the Cane Creek Reservoir Raw Water Permanganate Facility and find them in compliance with the contract specifications. We recommend that OWASA accept and incorporate Change Order Number 1 into the contract documents to replace the proposed minipiles with 2-7/8 inch helical piles for a net credit of $37,700.

Very truly yours,

Mark Bishop, PE
Vice President

JOB NO

RESOLUTION AWARDING A CONSTRUCTION CONTRACT FOR THE CANE CREEK PERMANGANATE FACILITY PROJECT

WHEREAS, there is a need to build a permanent permanganate storage and feed facility at Cane Creek Reservoir; and

WHEREAS, plans and specifications for the construction of this project have been prepared by Hazen and Sawyer PC; and

WHEREAS, advertisement for contractor qualifications was published on the websites of the North Carolina Institute of Minority Economic Development, North Carolina Department of Administration, and OWASA in December 2015, and five contractors were qualified to bid; and

WHEREAS, on March 17, 2016, the prequalified contractors were formally invited to submit construction bids for the project, and two bids were received; and

WHEREAS, on March 29, 2016, the prequalified contractors were formally invited to re-submit construction bids for the project and three bids were received; and

WHEREAS, Water and Waste Systems, Inc. of Garner, North Carolina has been determined to be the low responsive, responsible bidder for the project; and

WHEREAS, on June 11, 2015 the Board approved a resolution authorizing funds for Capital Improvement Projects, including funds for this project;

NOW, THEREFORE, BE IT RESOLVED:

1. That the Orange Water and Sewer Authority Board of Directors awards the construction contract to Water and Waste Systems, Inc., the low responsive, responsible bidder for the Raw Water Permanganate Feed Facility, in accordance with the approved plans and specifications, in the amount of $759,000.00, subject to such change orders as may apply.

2. That the Executive Director be, and hereby is, authorized to execute said contract, subject to prior approval of legal counsel, and to approve and execute change orders and such documents as may be required in connection with the construction contract.

Adopted this 26th day of May, 2016.

_____
John A. Young, Chair

ATTEST:

_____
Andrea Orbich, Assistant-Secretary

AGENDA ITEM

- REVIEW REVISED CHARTER FOR THE ENERGY MANAGEMENT PLAN

PURPOSE

- To review trends in energy use and obtain the Board of Directors approval of the Revised Project Charter for the Energy Management Program and Plan.

BACKGROUND

- Strategic Initiative #5 of OWASA's Strategic Plan for Fiscal Years 2014-2017 is to Implement an Energy Management Plan
- On January 22, 2015, the OWASA Board of Director's approved a Project Charter for an Energy Management Plan (EMP) that provided strategic direction for OWASA's energy management, energy efficiency, and renewable energy decisions, actions, and investments.
- On June 25, 2015, the Board reviewed a summary of historic energy use and energy efficiency improvements made in recent years, as well as set draft framing objectives for OWASA's energy management plan.
- Since last June, staff has hosted multiple inter-local energy management collaboration meetings, continued exploration of a biogas-to-energy project at the wastewater treatment plant, signed on as a program partner with the Department of Energy's Better Buildings, Better Plants Program, and increased consideration of the energy impact of capital projects.
- On April 25, 2016, the Natural Resources and Technical Systems Committee reviewed, discussed, and supported a slightly revised charter (with minor requested revisions).
- The revised Charter modifies the original Charter in three significant ways:
    - The timeline for completion of the EMP has been updated.
    - The methodology for developing the EMP has been adjusted to request significant input from the Board of Directors and stakeholders on the criteria to be used to evaluate clean energy opportunities.
    - The methodology for updating EMP has been adjusted to allow for ongoing clean energy opportunity (i.e. annual) evaluation and implementation planning.

STAFF RECOMMENDATION

- Board discussion and decision about proceeding with the development of the EMP as described in the revised Project Charter.
- Consistent with past practice, we do not believe a formal resolution is needed for this matter. However, we do recommend that the Board consider acting on this matter via approval of a motion, perhaps along the lines of the following:

    "Motion that the Board of Directors approves the Revised Charter for the Energy Management Plan and authorize staff with this project in accordance with the approach described in this document."

May 26, 2016

ORANGE WATER AND SEWER AUTHORITY

A public, non-profit agency providing water, sewer and reclaimed water services to the Carrboro-Chapel Hill community.

MEMORANDUM

TO: Board of Directors

THROUGH: Ed Kerwin

FROM: Mary Tiger

DATE: May 20, 2016

SUBJECT: Energy Management Plan Revised Project Charter

Purpose

To review trends in energy use and obtain the Board of Director's approval of the Revised Project Charter for the Energy Management Program and Plan.

Background

Last January, in pursuit of Strategic Initiative #5 of OWASA's Strategic Plan for Fiscal Years 2014-2017, the OWASA Board of Director's approved a Project Charter for an Energy Management Plan (EMP) that provided strategic direction for OWASA's energy management, energy efficiency, and renewable energy decisions, actions, and investments. Last June, the Board reviewed a summary of historic energy use and energy efficiency improvements made in recent years, as well as set draft framing objectives for OWASA's energy management plan.

Since last June, staff has hosted multiple inter-local energy management collaboration meetings, continued exploration of a biogas-to-energy project at the wastewater treatment plant, signed on as a program partner with the Department of Energy's Better Buildings, Better Plants Program, and enhanced consideration of the energy impact of capital projects.

On April 25, 2016, the Natural Resources and Technical Systems Committee reviewed, discussed, and supported a slightly revised charter (with minor requested revisions). The Revised Project Charter modifies the original Charter in three significant ways:

1. The timeline for completion of the EMP has been updated.
2. The methodology for developing the EMP has been adjusted to request significant input from the Board of Directors and stakeholders on the criteria to be used to evaluate clean energy opportunities.
3. The methodology for updating EMP has been adjusted to allow for ongoing clean energy opportunity (i.e. annual) evaluation and implementation planning.

Under the proposed Charter revision, staff will engage the Board in drafting criteria against which to evaluate clean energy projects and stakeholders in review of that criteria. Additionally, staff will develop internal policies and procedures regarding employee education and awareness, progress tracking and reporting, and clean energy opportunity identification and evaluation. Staff anticipates finalizing the EMP in February 2017.

Action Requested:

Staff recommends proceeding with development of the EMP as described in the revised Project Charter. Consistent with past practice, we do not believe a formal resolution is needed for this matter. However, we do recommend that the Board consider acting on this matter via approval of a motion, perhaps along the lines of the following:

> *"Motion that the Board of Directors approves the Revised Charter for the Energy Management Plan and authorize staff with this project in accordance with the approach described in this document."*



Mary Tiger
Sustainability Manager

A. General Information

Project Title:	***ENERGY MANAGEMENT PLAN, Revised Version* - DRAFT**
Project Description:	This charter is a continuation and revision of the initial Energy Management Plan Charter approved by the OWASA Board of Directors on January 22, 2015. As originally stated, this project will result in development of an Energy Management Plan (EMP) that will provide strategic direction for OWASA's energy management, energy efficiency, and renewable energy decisions, actions, and investments. The plan presented in this Charter modifies the original Charter in three significant ways: 1. The timeline for completion of the EMP has been updated. 2. The methodology for developing the EMP has been adjusted to request significant input from the Board of Directors and stakeholders on the criteria to be used to evaluate clean energy opportunities. 3. The methodology for updating EMP has been adjusted to allow for ongoing clean energy opportunity (i.e. annual) evaluation and implementation planning. The EMP will be the primary document that describes the policies, procedures, employee education and awareness, and actions and investments that together comprise our ***energy management program***. It is through our program that we will proactively manage our use of energy and pursue our clean energy goals and objectives.
Project Purpose:	OWASA uses a lot of energy to operate the community's water, wastewater, and reclaimed water systems, and to run related support facilities, vehicles, and equipment. Most of the energy we use is in the form of electricity, which powers the many motors and pumps we use to move and treat water and wastewater. We are committed to being efficient in our use of this energy. At its June 25, 2015 meeting, the OWASA Board of Directors received a **Technical Memorandum** that provided a baseline assessment of OWASA's energy use, a presentation of energy management strategies implemented (as of June 2015), and potential goals and objectives for OWASA's energy management. At that meeting, the Board of Directors approved the following draft framing objectives for incorporation into OWASA's Energy Management Plan: 1. Reduce use of purchased electricity by 35% by the end of Calendar Year 2020 compared to the Calendar Year 2010 baseline. 2. Reduce use of purchased natural gas by 5% by Calendar Year 2020 compared to the Calendar Year 2010 baseline. 3. Beneficially use all WWTP biogas by 2022, provided the preferred strategy is projected to have a positive payback within the expected useful life of the required equipment.

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	4. Formally engage local governments and partners in discussion about potential development of a biogas-to-energy project at the Mason Farm WWTP. 5. Seek proposals for third-party development of renewable energy projects on OWASA property, such as rooftop solar at the Administration Building. **Value Added to OWASA and our Customers:** The proposed EMP will be OWASA's first formal, comprehensive energy management plan. It will help ensure and communicate OWASA's continuous improvement and progress towards energy management goals and objectives. It will serve as a single point of reference for information about our historical energy use, energy management program, and implementation plan. Our customers will benefit from engagement and awareness of the program, as well as cost-effective energy efficiency actions and returns on investments. **Aligns With Strategic Plan:** Preparation of the EMP is Strategic Initiative #5 of OWASA's Strategic Plan for Fiscal Years 2014-2017. This project also complements the proposed development of a Water Conservation Plan, which is a goal in Strategic Initiative #1 of the Strategic Plan. **Benefits to Be Realized:** The Energy Management Program described in the Plan will define a process that continually and consistently identifies and evaluates energy management, energy efficiency, and renewable energy strategies for meeting our goals and objectives against a criteria set-forth by the OWASA Board of Directors.

B. Project Objectives:

The OWASA Energy Management Program and Plan will address the following objectives, which are organized along the three pillars of sustainability: social performance, environmental performance, and financial performance. This program will require a balancing of these multiple and sometimes competing objectives. Staff requests Board and stakeholder guidance in translating and prioritizing these objectives into criteria for evaluating energy management strategies.

Social Performance: Our Energy Management Program will impact the people and communities we serve.

1) Strategies will be evaluated against their impacts on the community.
2) We will inform and engage our customers and stakeholders in our energy planning efforts and major initiatives.
3) We will inform and involve our employees in our energy management efforts and ensure their safety in its implementation.

Environmental Performance: Our Energy Management Program will help us preserve natural resources; conserve energy, water, and other natural resources; minimize waste and pollution emissions, and reduce our environmental impacts.

4) We will seek to reduce our energy use per million gallons per day of water, wastewater, and reclaimed water used in our community compared to our 2010 baseline energy use (or other baseline year as determined appropriate and for which historical data is available).
5) Energy management, energy efficiency, and renewable energy alternatives will be evaluated against their relative effect on energy use and greenhouse gas (GHG) emissions.

6) Where practical, we will pursue energy management strategies that enhance the reliability and resiliency of our water, wastewater, and reclaimed water facilities and operations.

Financial Performance: The economic well-being of our customers and our community depend on our ability to manage energy services, use, and costs so that we can ensure high quality and reliable services at an acceptable financial cost to our customers.

7) Energy management, energy efficiency, and renewable energy alternatives will be evaluated against their relative life-cycle financial costs (capital and operating and maintenance costs).
8) To ensure that the selected strategies are cost-effective for our community, the selected mix of measures will have a positive financial payback.
9) We will seek direct and indirect support for our program, such as: federal, state, and foundation grants; energy utility incentives and rebates; revenues from renewable energy credits and carbon trading; etc.

C. Assumptions

1) Energy savings and associated cost savings will be developed only for measures for which direct savings can be estimated.
2) Unless there is a very high level of certainty that we will receive supplemental funding support from other parties, all payback calculations will assume that all project costs are funded solely by OWASA.
3) No major structural changes are assumed for our energy rates, and energy rate increases will be assumed to be in-line with general inflation.
4) GHG emission estimates will not include indirect emissions such as those associated with employee travel in personal vehicles, or with the manufacture and transport of goods purchased by OWASA.

D. Project Scope and Key Tasks

Our Energy Management Program will involve the following seven basic steps.

1) Establish organizational commitment, including goals and objectives for energy management program set by the Board *(commitment and draft framing objectives have been established)*
2) Develop a baseline of energy use *(10-year baseline assessment has been completed)*
3) Evaluate the system
4) Identify clean energy opportunities
5) Evaluate and prioritize opportunities for implementation against Board-defined criteria
6) Create an implementation plan that sets forth the proposed actions, timetable, resource requirements, and expected outcomes for the upcoming year
7) Provide for monitoring and reporting level of progress in achieving performance objectives

Steps 3 through 7 will need to be completed to draft the first Energy Management Plan. It is proposed that those steps (3-7) will be repeated on an annual basis to ensure continuous improvement, and to maintain an up-to-date Implementation Plan. In the first year (and on an as-need basis after that), staff requests that the Board define criteria against which clean energy opportunities will be evaluated.

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E. Project Milestones

NOTE: Milestone dates are shown for tasks included in the 12 Month Board Meeting Schedule; delivery dates may be adjusted with Board approval.

Milestones	Deliverables	Date
Natural Resources and Technical Systems (NRTS) Committee review of Project Charter, Revised Version	Draft Charter for EMP Project	April 2016
Board review and approval of Project Charter, Revised Version	Final Charter for EMP Project	May 2016
Staff and NRTS Committee develop draft evaluation criteria to be used in evaluating projects and stakeholder engagement plan to be used in seeking input on criteria	Draft evaluation criteria and stakeholder engagement plan	June-July 2016
Board review and approval of draft criteria and stakeholder engagement plan	Draft evaluation criteria and stakeholder engagement plan	August - September 2016
Stakeholder engagement on draft criteria	TBD	October 2016
Board review of stakeholder feedback and approval of evaluation criteria	Final criteria to be used in evaluating clean energy opportunities	November 2016
Staff and NRTS Committee evaluation of clean energy opportunities for calendar year (CY) 2017	Draft Energy Management Plan and 2017 Implementation Plan	January 2017
Public review of Draft Energy Management Plan and 2017 Implementation Plan	TBD	January-February 2017
Board review and approval of Energy Management Plan and CY17 Implementation Plan	Approved Energy Management Plan and 2017 Implementation Plan	February 2017

F. Impact Statement

Potential Impact	Systems / Units Impacted
May affect timing of certain asset rehabilitation and replacement decisions	Several
May impact capital improvements and capital equipment plans and costs, and our financial plan	Engineering and Planning Finance (financial plan)
Staff work on applications for funding assistance (grants, rebates, etc.)	Office of Executive Director and possibly other Departments

G. Stakeholder Engagement/Communication

It is OWASA's goal to provide the community and stakeholders with timely information about projects, programs, and policies that are important to them and offer them meaningful opportunities to give their feedback so that we can continue to improve.

The evolution of our Energy Management Program and the development of our accompanying Energy Management Plan presents an opportunity to engage OWASA's stakeholders in the criteria used to evaluate energy management, energy efficiency, and renewable energy opportunities. Staff

and the NRTS Committee will develop a stakeholder engagement plan to solicit feedback on the criteria that staff and the NRTS Committee will use to evaluate clean energy projects on an annual basis.

Additionally, the development of an Energy Management Plan will provide a single-source of information about OWASA's energy management program, progress, and investments. We will inform our customers and stakeholders when the draft EMP is available for review, and provide them opportunities to comment on the plan. Comments received will be considered as we finalize the plan.

Where specific energy management projects have the potential to directly affect customers and/or stakeholders, we will inform them of those projects and provide additional opportunities for review and comment (following OWASA's Community Engagement Planning Procedures).

H. Strategy to Complete

Staff will prepare the Energy Management Plan document, incorporating best practices and guidance from Federal and State agencies and professional associations. The Plan will include a description of OWASA's Energy Management Program (how staff intends to track and report progress, evaluate the system and collect data, identify clean energy opportunities throughout the coming year, and evaluate those opportunities) as well as an implementation plan for those opportunities identified this year. Staff will engage the NRTS Committee in the technical review of clean energy strategies each year.

Staff will work with the Board of Directors (and its committees as specified) to ensure the Board has the information needed to set policy level goals and objectives, review the best strategies for meeting those goals and objectives, and make decisions regarding the funding and implementation of the plan.

Proactive and effective project management and communications will be required of each project team member to ensure success.

I. Project Partners

Potential Partner	Expected Role
Duke Energy	Provide historical energy use and cost data for our facilities; potential funding support from energy efficiency incentives program; assistance with education and outreach
PSNC/Scana Energy	Provide historical energy use and cost data for our facilities; potential funding support through energy efficiency incentives program; assistance with education and outreach
NC Energy Office U.S. Environmental Protection Agency U.S. Department of Energy	Technical assistance; potential funding support
NC Clean Energy Technology Center NC Waste Reduction Partnership UNC Energy Services Advanced Energy	Technical assistance; possible no-cost/low-cost audits of lighting/HVAC at certain facilities

The Towns of Carrboro and Chapel Hill, Orange County, Chapel Hill Carrboro City Schools, and the University of North Carolina at Chapel Hill	Partnership in pursuit of clean energy projects that will result in economies of scale and community alignment; technical review

J. Roles and Responsibilities

Role	Name	Responsibility
Vision Setting and High-Level Oversight	Board of Directors	Approves program objectives; goals and objectives for energy management plan; scope of stakeholder engagement, resources necessary to complete major initiatives
Technical Preview	NRTS Committee	Workshops evaluation criteria and stakeholder engagement plan, provides general guidance and feedback regarding draft work products, technical findings, policy issues and recommendations, etc.
Executive Leadership, Support and Accountability	Ed Kerwin, Executive Director	Provide organizational leadership, support, guidance, and accountability for energy management program
Program Manager and Task Leader	Mary Tiger, Sustainability Manager	Program Management Role: Leads staff in the planning, development, and completion of the project. Provides direction to Task Leaders as needed. Serves as staff liaison with NRTS Committee and Board of Directors. Works with project team to identify and quickly resolve issues. Task Leader Role: Profile system, energy use and costs; document efforts and progress to date; evaluate alternative strategies; prepare draft and final plan document; manage consulting services for the project; coordinate staff and consultant meetings and communications.
Project Advisor	Patrick Davis, Utility Advisor	Provides technical assistance on Energy Management Plan, Program, and strategies
Task Leader	Mary Darr, Director of Engineering and Planning	Provides support and guidance for the Program Manager and other Task Leaders as needed.
Task Leader	Vishnu Gangadharan, Engineering Manager (Capital Projects)	Work with engineering staff to incorporate energy considerations into relevant project's scope and design
Task Leader	Adam Haggerty, Asset Manager	Work with staff to incorporate EMP findings and recommendations into our comprehensive asset management plan; capital improvements program; and annual O&M budget.
Subject Matter Expert	Stephen Winters, Director of Finance and Customer Service	Finance and budget, including considerations on long-term financial plan.

DRAFT

Subject Matter Expert	Todd Taylor, General Manager of Operations	System operating considerations; energy requirements; and general assessment of energy savings opportunities and feasibility.
Subject Matter Expert	Ken Loflin, Water Supply and Treatment Manager	Water system operating considerations; energy requirements; and general assessment of energy savings opportunities and feasibility.
Subject Matter Expert	John Kiviniemi, Wastewater Treatment and Biosolids Recycling Manager	Wastewater system operating considerations; energy requirements; and general assessment of energy savings opportunities and feasibility.
Subject Matter Expert	Eric Oldham, Maintenance Supervisor, and James Dodson, Maintenance Coordinator	Technical information and assistance regarding equipment performance and condition; help coordinate consultant's site visits for facility evaluations.
Subject Matter Expert	Greg Feller, Public Affairs Administrator	Help develop community engagement plan and information for customers/stakeholders and employees.

DRAFT

K. Resources

Resource	Estimated Costs
In-house staff support services	Staff time
Information and assistance from other utilities regarding their experience and lessons learned with energy management plans and strategies	$0
Advanced technical assessments, such as assessment of energy performance of our largest pumps and motors, completed by a qualified consultant	$75,000 (estimated based on planning-level guidance we received from two consulting firms)
If possible, no-cost and low-cost technical assistance services offered through our energy utilities, Federal and State agencies; water and wastewater professional associations, the NC Waste Reduction Partnership program, etc.	TBD
NRTS Committee and Board of Directors	Board and staff time

L. Project Risks

Risk	Mitigation Strategy
Incomplete or inaccurate information	Quality control throughout the work.
Desire to over-study potential alternatives	Focus will especially be on near-term strategies that we can implement on our own.
Other priorities result in delayed completion of project	EMP development should be deferred only if there are major unforeseen circumstances.
Insufficient funding to implement selected strategies	Potential strategies will be fully evaluated and selected only if they are financially viable. Investments will be phased as needed to meet financial objectives. Grant funding will be pursued.

M. Approvals

The signatures of the people below document approval of the formal Project Charter. The project manager is empowered by this charter to proceed with the project as outlined in the charter.

Name	Signature or Date of Board Approval, if Applicable	Date
Board of Directors		
Ed Kerwin		
Mary Tiger		

DRAFT

AGENDA ITEM

- **DISCUSS STAFF PROPOSED UPDATE TO STRATEGIC PLAN**

PURPOSE

- Seek feedback from the Board of Directors on staff's proposed update to the Strategic Plan.

BACKGROUND

- OWASA's Strategic Plan (Plan) identifies the strategic initiatives and corresponding actions we will take to address the key themes and opportunities we believe are important for the Carrboro-Chapel Hill community we serve.

- The Plan was originally adopted by the OWASA Board of Directors on March 13, 2014 following a public engagement process to solicit and carefully consider feedback from customers and stakeholders.

- On April 14, 2016, the Board agreed to consider a staff proposed update to the Plan in light of new information to include feedback from the 2015 Customer Survey.

STAFF RECOMMENDATION

- Discuss staff's proposed update to the Strategic Plan and provide direction to staff, if desired.

May 26, 2016

ORANGE WATER AND SEWER AUTHORITY

A public, non-profit agency providing water, sewer and reclaimed water services to the Carrboro-Chapel Hill community.

M E M O R A N D U M

TO: Board of Directors

FROM: Ed Kerwin

DATE: May 20, 2015

SUBJECT: **Discuss Staff Proposed Update to Strategic Plan**

Purpose

Seek feedback from the Board of Directors on staff's proposed update to the Strategic Plan.

Background

OWASA's Strategic Plan (Plan) identifies the strategic initiatives and corresponding actions we will take to address the key themes and opportunities we believe are important for the Carrboro-Chapel Hill community we serve.

The Plan was originally adopted by the OWASA Board of Directors on March 13, 2014 following a public engagement process to solicit and carefully consider feedback from customers and stakeholders.

The most recent update on the Plan's progress was provided to the Board and public on February 25, 2016.

On April 14, 2016, the Board agreed to consider a staff proposed update to the Plan in light of new information to include feedback from the 2015 Customer Survey.

Board approval of the updated Plan is currently scheduled for the June 9, 2016 Work Session.

Staff Recommendation

Discuss staff's proposed update to the Strategic Plan and provide direction to staff, if desired.

Ed Kerwin
Executive Director

Attachment – Updated Strategic Plan dated May 20, 2016



Strategic Plan

Orange Water and Sewer Authority
Carrboro, North Carolina



A public, non-profit agency providing water, sewer and reclaimed water services to the Carrboro-Chapel Hill community.

Adopted March 13, 2014 / Updated May 20, 2016

Our Mission

We are a community-owned utility providing our customers high quality and reliable water, wastewater, and reclaimed water services through responsible and creative stewardship of the resources we manage.

Our Vision

We provide excellent service so that if our customers could choose their water utility, they would always select OWASA. We are a trusted steward of the community, environmental, and financial resources we manage.

Our Values

- ***Quality Drinking Water***

  We provide high quality drinking water through effective management and operation of our water supply, treatment, and distribution system.

- ***Environmental Responsibility***

  We protect the environment through effective management and operation of our wastewater collection, treatment, water reuse, and resource recovery systems. We manage our resources in an environmentally responsible manner.

- ***Excellence in Serving Customers***

  We provide excellent service to our customers. We are leaders in engaging our customers and stakeholders and provide them meaningful opportunities to participate in decisions that are important to them.

- ***Employees***

  We value our employees as our most important resource and we provide them competitive compensation and a safe and rewarding work environment which promotes diversity and equal opportunity for all.

- ***Affordability and Value***

  We provide affordable and high-value services and we are committed to continuous improvement.

- ***Sustainability***

  We embrace the principles of environmental, social, and economic sustainability. We strive to make the highest and best use of our local water resources and to promote conservation of water, energy, and other natural resources.

- ***Support for the Communities We Serve***

  We provide services consistent with the growth management and land use plans of the Town of Carrboro, the Town of Chapel Hill, and Orange County. We maintain open and positive communications with our governments and neighboring water utilities and cooperate in regional initiatives where appropriate and consistent with OWASA's commitment to our member governments.

- ***Innovation and Creativity***

  We seek innovation and creativity in accomplishing our mission and enhancing our services.

Introduction

OWASA's Strategic Plan (Plan) identifies the strategic initiatives and corresponding actions we will take to address the key themes and opportunities we believe are important for the Carrboro-Chapel Hill community we serve.

The Plan was originally adopted by the OWASA Board of Directors (Board) on March 13, 2014 following a public engagement process to solicit and carefully consider feedback from customers and stakeholders.

On April 14, 2016, the Board agreed to consider a staff proposed update to the Plan in light of new information to include feedback from the 2015 Customer Survey.

The Board discussed staff's proposed update to the Plan at its May 26, 2016 meeting and formally adopted the revised Plan at its < TBD > meeting.

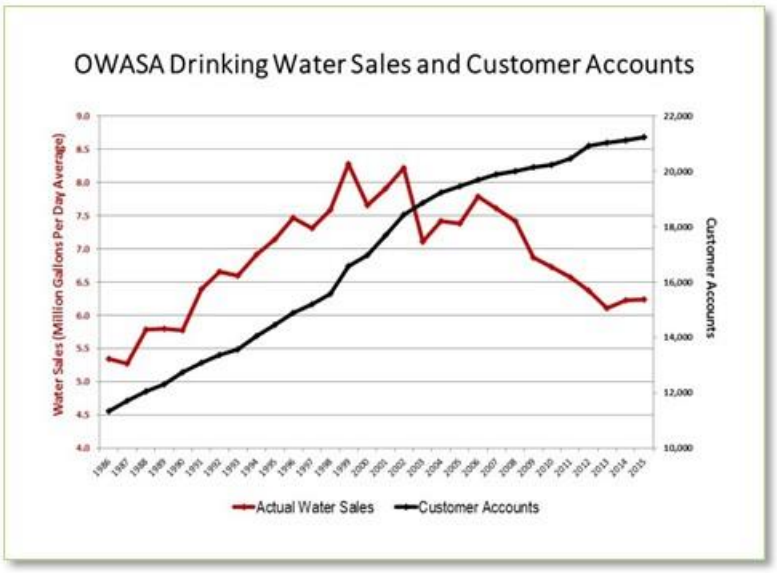
Strategic Themes

An early task in our planning process was to identify the key strategic themes we want addressed by future strategic initiatives. Our Strategic Themes are:

- ✓ Affordability and Cost Management
- ✓ Environmental Stewardship and Conservation
- ✓ Role in the Community
- ✓ Infrastructure Sustainability and Resource Management
- ✓ Technology

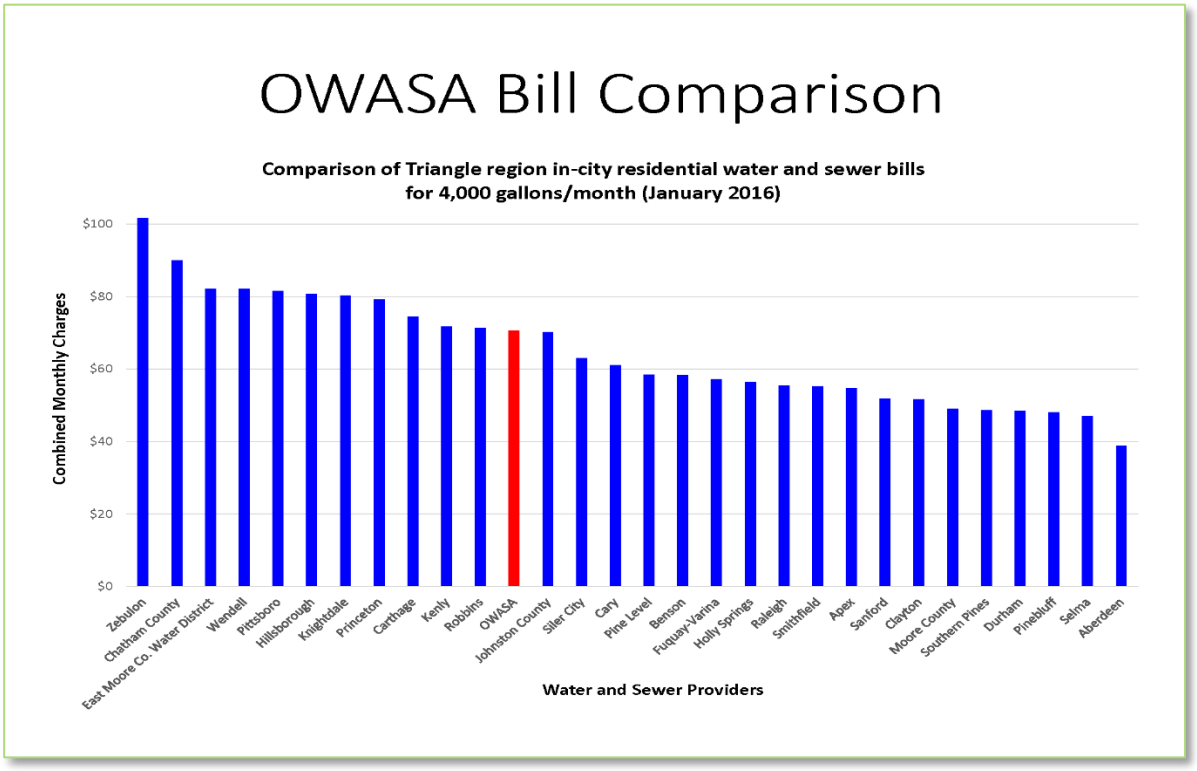
A summary of the current status, challenges, and opportunities for continuous improvement regarding each Strategic Theme is provided.

Affordability and Cost Management – Together, OWASA and our customers have reduced drinking water sales by about 24 percent since 2002, despite a 16 percent increase in the number of customer accounts over the same period. As a result of this significant reduction in drinking water demand by our customers, we are especially well-positioned to reliably and cost-effectively meet the near and long-term drinking water needs of our community for the next 50 years under most circumstances.



The large reduction in water sales over the past decade or so, coupled with the need to replace, renew and improve aging water and wastewater facilities, required substantial rate increases. As a result, many of our customers have told us that our rates are high. Policy, planning and decision-making at all levels of the organization reflect our commitment to operate our utility at the lowest rates consistent with our responsibility to provide proper and efficient services, now and in the future. We are very pleased that due to efficiency and cost control actions, the Board has approved five consecutive annual budgets without an increase in monthly rates.

From our 2012 and 2015 customer surveys, we understand that there is growing interest among our conservation-minded customers in being billed in smaller increments than the current 1,000 gallons, and we are actively considering this possibility.



How OWASA's monthly water and sewer bills for individually-metered residences compare to others in the region.

Environmental Stewardship and Conservation – OWASA is a community–owned utility that embodies our community's commitment to environmental protection and sustainable management of our natural resources. We protect the environment through effective management and operation of our wastewater collection system, treatment, water reuse and resource recovery systems at our Mason Farm Wastewater Treatment Plant (WWTP). Since 2009, OWASA has provided the University of North Carolina at Chapel Hill (University) highly treated reclaimed water (RCW) instead of drinking water to meet certain non-drinking water demands on campus (cooling tower water at chilled water plants, irrigation of landscaping and athletic fields, toilet flushing in new facilities, etc.). RCW is the clean water produced from the advanced treatment of wastewater at OWASA's WWTP. Water conservation by all customers and the University's continued use of RCW are key strategies to sustain an adequate water supply. Partnerships with local governments and other communities are significant factors in fulfilling our responsibilities.



OWASA Operator checks RCW Pumps at the WWTP

We use a significant amount of energy to operate our utility, and we are aware of the important relationships between water consumption, energy consumption, and greenhouse gas (GHG) emissions. We are committed to seeking cost-effective and practical ways to reduce our use of energy and use renewable energy sources in order to reduce our energy costs and lower our GHG emissions. In September 2014, work was completed to install more energy efficient treatment equipment, which helped to reduce electricity use at the WWTP by about 35 percent.

Role in the Community – Engaging the community (customers and other stakeholders) is strategically important to accomplishing our mission. We will continue to engage stakeholders to understand their perceptions and expectations so that we maintain their trust and make well-informed decisions about our services. We want to empower our stakeholders with information so they continue to use our water wisely and protect water quality through the proper use of our wastewater system.

We believe it is very important to assist our customers with water conservation information to help them reduce their water consumption to lower their bills.

Infrastructure Sustainability and Resource Management – OWASA is responsible for large and complex systems of infrastructure, assets and resources including over 800 miles of pipe, three reservoirs, two treatment plants and support systems and equipment, along with land holdings in excess of 3,700 acres. Over the last decade, we invested about $118 million to renew or replace aging infrastructure and to improve the quality and reliability of our services. Our continuing challenge is to develop, operate, maintain, and manage our infrastructure and resources to meet current and future customers' demands for high quality, reliable, and cost-effective services under a range of future conditions – including natural and man-made disasters – while protecting the environment, meeting or surpassing all regulatory requirements, and making efficient use of our natural resources. To meet this challenge, we apply asset management best practices and implement solutions that appropriately balance our triple bottom line of environmental, social, and economic performance.



OWASA Employees replacing old water line

Our 3,700 acres of land help protect our watersheds and support other parts of our operations. We manage our landholdings to ensure they meet our long-term goals and objectives. In 2010 and 2014, we implemented a Forest Management Plan for our 490-acre Cane Creek Mitigation Tract in accordance with federal requirements for the Cane Creek Reservoir. We need to develop a plan for sustainable management of our remaining forest lands. To ensure cost-effective management of our land assets, we will periodically evaluate the need for and benefit of alternative management strategies for those assets.

Technology – OWASA will continue to use cost-effective and proven technology to improve services and save our customers' money. We will seek to incorporate best practices in all that we do – from construction technology, to water and wastewater treatment technologies, to information management and processing technologies.

For example, advancement in technology has made available Advanced Metering Infrastructure (AMI) systems that can be used to provide customers detailed information about their water use including apparent leaks. Procurement and implementation planning for AMI are underway in accord with action by the Board of Directors on March 24, 2016.

Strategic Initiatives

We identified six strategic initiatives with accompanying goals, actions, and measures of success. We believe that these initiatives and actions address each of our strategic themes and will result in positive change.



Strategic Initiative 1

Provide reliable and high quality supply of water for the next 50 years

GOALS	ACTIONS	MEASURES OF SUCCESS
Optimum mix of technically, environmentally, economically, and socially feasible water supply and demand management alternatives that meet projected demands and level-of-service objectives under a range of future conditions and uncertainties.	Update Long-Range Water Supply Plan to include: > desired level of service and water supply resiliency. > supply and demand projections to incorporate best information from land use /growth management plans, University plans, climate change impact information, etc. > evaluation of potential supply and demand management alternatives, including but not limited to: Jordan Lake as emergency supply; conservation and water use efficiency; expanded use of reclaimed water (including direct and indirect); quarry reservoir; etc. > preferred mix of supply and demand management alternatives required to meet level-of-service objectives.	Updated plan provides a clear and responsible path forward to ensure a reliable and high quality supply of water for the next 50 years that is supported by stakeholders.
	Adopt Long-Range Water Supply Plan and begin implementation.	Adequate supply of high-quality water which meets customer needs for next 50 years across the range of assumptions and scenarios included in the Plan.
Enhanced water supply reliability, reduced energy use, and reduced long-term life-cycle costs of water and sewer service through cost-effective water use efficiency (WUE), conservation, and RCW strategies.	Prepare Water Conservation Plan that includes a program to educate customers on the value and importance of water, best practices for reducing water use and monthly bills through conservation, WUE practices, and collaboration with Towns, County and others on conservation and WUE standards.	Reduce residential water use by X% (currently 4,000 gallons/month for individually-metered single-family residential accounts). (Target to be established) Establish targets for other customer classes.
Maintain our Jordan Lake water supply allocation.	Application for Jordan Lake water supply allocation (Round 4) was submitted in November 2014.	Allocation request granted to OWASA by Environmental Management Commission (EMC). (*Note*: Latest information from NC Division of Water Resources indicates the EMC may make decisions in January 2017.)
New or amended water transfer agreements with Town of Cary and City of Durham for OWASA to access our Jordan Lake water supply allocation through those entities when needed.	Coordinate with staff from the Town of Cary and City of Durham to determine terms and conditions for ensuring cost-effective access to our Jordan Lake allocation.	Successful adoption of new or amended water transfer agreements for OWASA to reliably and cost-effectively access our Jordan Lake water supply allocation when needed.



Strategic Initiative 2

Engage the Community

GOALS	ACTIONS	MEASURES OF SUCCESS
Engage stakeholders to understand their perceptions and expectations so that we make well-informed decisions about our services and so that we maintain their trust; and empower stakeholders with information so they use water wisely and protect water quality through proper use of our wastewater system; and provide stakeholders with timely information about projects, programs, and policies that are important to them and offer them meaningful opportunities to give their feedback so that we can continue to improve.	Prepare and implement Community Engagement Plans (CEPs) for all capital improvement projects and key initiatives.	Stakeholders trust OWASA to make informed decisions about our services. Positive feedback from customers and stakeholders about effectiveness of engagement work. Stakeholders have the information they need regarding projects, programs and policies and they have opportunities to provide feedback on matters of importance to them.



Strategic Initiative 3

Adopt financial management policies and budget decision processes to ensure affordable services and fiscal sustainability

GOALS	ACTIONS	MEASURES OF SUCCESS
Financial reserve funds set at appropriate level.	Review reserve policies during the annual budget development process to determine the desired level of reserve funds.	New or revised policies adopted, if appropriate.
Efficient process which provides opportunities for stakeholder input and allows the Board of Directors to make well-informed budget and rate decisions.	During the annual budget development process, review Capital Improvement Program (CIP) investment practices.	New or revised CIP investment practices are adopted, if appropriate.
The right investments at the right time to sustain the community's essential water, wastewater and reclaimed water assets.	Comprehensive asset management report was completed in March 2016.	Service levels are part of the asset management program report.
Rates, fees and charges that meet objectives.	Evaluate possible rate structure changes for customer classes to include possible update to Service Availability Fees.	A rate structure that fairly and fully recovers revenues, promotes water conservation, promotes affordability, and is understood by customers.



Strategic Initiative 4

Implement an Energy Management Program

GOALS	ACTIONS	MEASURES OF SUCCESS
Cost-effective measures to reduce our use of energy, related energy costs, and associated greenhouse gas (GHG) emissions.	Develop an Energy Management Program that includes: > Goals for energy reduction by 2030 against a 2010 baseline. > Ongoing assessment of energy use, costs, and GHGs. > Assessment of the energy performance of our equipment, operations, and buildings and identification of opportunities for energy savings and the associated return on investment. > Prioritized energy savings opportunities. > Implementation of selected energy management and energy efficiency projects as part of CIP and annual budget. > Evaluation and prioritization of potential renewable energy strategies. > Feedback from community stakeholders.	Program provides a clear and responsible path forward for effective energy management. Energy cost savings (costs avoided) achieved from energy management, energy efficiency measures and renewable energy measures. Amount of grants, rebates, incentives, etc. received to fund energy management efforts. Percent reduction in our GHGs compared to baseline year.
	Adopt Energy Management Plan and begin implementation of Energy Management Program.	Continued reduction in electricity use (kilowatt-hours) and natural gas use (therms).



Strategic Initiative 5

Implement Advanced Metering Infrastructure

GOALS	ACTIONS	MEASURES OF SUCCESS
Cost-effective, accurate, reliable and timely water metering information for enhanced customer service.	System procurement and implementation planning. Develop and implement Community Engagement Plan.	Procure a system within budget constraints that meets OWASA's needs. Develop implementation plans that will effectively mitigate risks identified in the AMI Feasibility Study and will fully inform and engage customers.
	System deployment.	Ensure the system delivers accurate, reliable and timely water use information for billing purposes. Processes are in place to ensure customers are provided accurate and timely information about their water use and prompt notifications about potential leaks. Reduce energy use and carbon footprint associated with meter reading and field service functions.



Strategic Initiative 6

Develop a plan and policy framework for long-term management and disposition of OWASA lands

GOALS	ACTIONS	MEASURES OF SUCCESS
Land assets provide the expected value to fulfill OWASA's mission and the assets are effectively managed.	Develop a long-term plan for sustainable management of OWASA forest lands (not including Cane Creek Mitigation Tract, which is already being managed). Management options range from "no active management" to comprehensive management that includes a variety of activities such as thinning, small seed tree cuts, small area clear-cuts, etc.	Forest lands are effectively managed to meet the goals provided in the Forest Stewardship Plan.
	Evaluate land assets to determine if the asset is needed, what degree of ownership is needed, and if the asset should be sold.	Land assets provide expected value to meet OWASA's current and future needs.

Administering Our Strategic Plan

We will provide regular updates on our progress towards achieving our Strategic Plan goals, including measures of success, which can be found on our website. We welcome your questions or comments about our Strategic Plan or any of our services and programs. You may contact us by:

- Phone: 919-968-4421
- E-mail: info@owasa.org
- Fax: 919-968-4464
- Address: 400 Jones Ferry, Carrboro, NC 27510

There are other high priority tasks that we will address over the next couple of years that are not included in our Strategic Plan because they do not require strategic action at this time. However, these tasks may require action by the Board in the future.

1. Continue to increase community awareness of options to manage and reduce OWASA bills and empower low-income customers and the local agencies that serve them with information and tools to manage and reduce OWASA bills through the Affordability Outreach Program.
2. Evaluate alternative employee compensation strategies to encourage and reward high performance as part of a Total Compensation Study.
3. Develop and implement an Inclusion and Diversity Plan for the organization.

We provide an Annual Review and Update of Strategic Trends and Utility Planning Issues to the Board each October. This report will be modified as a companion document to this Strategic Plan for the Board's consideration in October 2016.

We will routinely update and amend our Strategic Plan as necessary, and we will keep our customers and stakeholders informed of significant changes.

Summary

As your community-owned water utility, we are committed to providing reliable, high quality water, wastewater and reclaimed water services for our customers, now and into the future. Our Strategic Plan is one of many tools we use to effectively manage our essential responsibilities to the Carrboro-Chapel Hill community. We will continue to work hard to provide excellent service so that if our customers could choose their water utility, they would always select OWASA.