



ORANGE WATER AND SEWER AUTHORITY

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

Agenda

Meeting of the OWASA Board of Directors

Thursday, August 23, 2018, 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 a four-minute time frame allowed each speaker, unless otherwise determined by 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.
 - B. Standing Committees of the Board of Directors
2. Announcements by Board Members
 - A. Natural Resources and Technical Services Committee Meeting on Tuesday, September 11, 2018 at 5:00 p.m. to discuss Source Water Protection (John Young)
3. Announcements by Staff
 - A. Annual Report for the July 2017 through June 2018 Collection, Treatment and Recycling of Wastewater and Biosolids (Todd Taylor)
4. Additional Comments, Suggestions, and Information Items by Board Members (Yinka Ayankoya)

Petitions and Requests

1. Public
2. Board
3. Staff

Consent Agenda

Information and Reports

1. 12 Month Board Meeting Schedule (Yinka Ayankoya/Ed Kerwin)

Action

2. Memorandum of Agreement Creating and Defining Operations of the Triangle Water Supply Partnership (Ruth Rouse)

3. Minutes of the July 12, 2018 Meeting of the Board of Directors (Andrea Orbich)

Regular Agenda
Discussion and Action

4. Discuss Agua Vista (Advanced Metering Infrastructure) Policies (Stephen Winters)

Information and Reports

5. Capital Improvements Program Semiannual Report (Vishnu Gangadharan)
6. Preliminary Financial Report for the Twelve-Month Period Ended June 30, 2018 (Stephen Winters)

Summary of Board Meeting Action Items

7. 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

8. Immediately following the Board meeting, the Board of Directors will convene in a Closed Session to discuss two items:
 - I. Potential Litigation (Robert Epting)
 - II. Personnel Matter (Robert Morgan)

OWASA Board of Directors – 12 Month Board Meeting Schedule (August 17, 2018)

Month	Board Meetings		Committee & Other Meetings
	Work Session	Business Meeting	
	1/10/2019	1/24/2019	
February 2019	CS – Prepare for General Counsel Interim Review 2/14/2019	CS - General Counsel Interim Review 2/28/2019	
March 2019	FY 20 Draft Budget & Rates Review AMI Manual Read CS - Prepare for ED Interim Review 3/14/2019	Annual Update of the Energy Management Plan FY 20 Draft Budget & Rates and Proposed Staff Rate Adjustment Recommendation Set date for Public Hearings – FY 20 Budget & Rates CS – ED Interim Review 3/28/2019	
April 2019	Review Employee Health and Dental Insurance Renewals FY 20 Draft Budget and Rate Adjustment Information Appointment of the Nominating Committee 4/11/2019	Q3 Financial Report FY 20 Budget and Rates Discussion and Authorize Staff to Publish Proposed Rates 4/25/2019	
May 2019	Approve Employee Health and Dental Insurance Renewals Discuss Employee Merit Pay for FY 2020 5/10/2019	Public Hearings – FY 20 Budget and Rates (Tentative) Approve Banking Services 5/23/2019	
June 2019	Approve FY 20 Budget and Rates, including merit pay decision Election of Officers 6/13/2019	TBD 6/27/2019	
July 2019	TBD 7/11/2019	TBD 7/25/2019	

The 12 Month Board Meeting Schedule shows Strategic Plan initiatives and other priority efforts that the Board and staff plan to give greatest consideration to during the next twelve months. The schedule also shows major recurring agenda items that require Board action, or items that have been scheduled in response to the Board's prior standing request. This schedule does not show all the items the Board may consider in a work session or business meeting. It also does not reflect meetings at which the Board will discuss and act on the update of the Strategic Plan.

The 12 Month Board Meeting Schedule will be reviewed and updated at each monthly work session and may also be discussed and updated at the Board's business meetings.

In addition to the initiatives shown in this schedule, staff will be working on other Strategic Plan and organizational priorities that are not expected to require major additional discussion with the Board except as part of budget deliberations.

The schedule implies that the following Strategic Plan initiatives would be addressed beyond the 12-month period. The Board may conclude that one or more of the following initiatives are higher priority. The schedule will be revised as needed to reflect the Board's priorities, and any additional initiatives that the Board may decide to address.

- Development of a plan and policy framework for OWASA lands is considered a longer-term priority. The NRTS Committee discussed this issue in September 2017 and determined it was lower priority than Forestry Management. Staff presented an overall approach for Forestry Management to the Board in May 2018, and this was referred to the NRTS Committee for further discussion.
- Improve effectiveness as a learning organization is considered a longer-term priority.

OWASA Board of Directors – 12 Month Board Meeting Schedule (August 17, 2018)

- Water Conservation Plan will be prepared concurrent with update of the Long-Range Water Supply Plan.

The OWASA Board determines which topics it wants to explore as a full Board (potentially in a work session format) and which topics it wants to assign to Board committees or committee chairs for further analysis and development of recommendations. Board also determines priorities and desired timeframes for addressing topics. Committee meetings will be updated on the schedule routinely.

Abbreviations Used in Draft Schedule:

☐	Recurring agenda item (generally these are “required” items)	KPI	Key Performance Indicator
AMI	Advanced Metering Infrastructure	LRWSP	Long-Range Water Supply Plan
CE	Community Engagement	MOA	Memorandum of Agreement
CEP	Community Engagement Plan	MST	Mountains-to-Sea Trail
CIP	Capital Improvements Program	MFMM	Multi-Family Master Meter
COLA	Cost of Labor Adjustment	NCDOT	North Carolina Department of Transportation
CS	Closed Session of the Board	NRTS	Natural Resources and Technical Services
CY	Calendar Year	Q	Quarter
D&I	Diversity and Inclusion	RFP	Request for Proposals
ED	Executive Director	SRF	State Revolving Fund
EEO	Equal Employment Opportunity	SOW	Scope of Work
FY	Fiscal Year	TBD	To Be Determined
HR	Human Resources	WTP	Water Treatment Plant
JLP	Jordan Lake Partnership	WWTP	Wastewater Treatment Plant

Agenda Item

- Memorandum of Agreement Creating and Defining Operations of the Triangle Water Supply Partnership

Purpose

- To receive the OWASA Board of Directors' approval to enter into a Memorandum of Agreement (MOA) with other Triangle local governments to create the Triangle Water Supply Partnership, a successor to the Jordan Lake Partnership (JLP).

Background

- The JLP is a group of 13 local governments and water systems which was created in 2009 to collaboratively plan for future water supply in the Triangle Region, including for the use of Jordan Lake
- The Agreement which created the JLP expires in 2019
- Because the Partnership has been a uniquely effective forum for regional water supply planning and water system coordination, the Partnership members desire to continue the working relationship
- The Partners propose to continue as a forum for regional coordination and collaboration for sustainable water supplies under the name Triangle Water Supply Partnership (TWP)
- Continuing in regional water planning efforts will enable OWASA to efficiently cost-share in mutually beneficial activities with the other Partners

Action

- Staff and Counsel recommend that the Board of Directors adopt the resolution authorizing the MOA creating and defining operations of the Triangle Water Supply Partnership.

August 23, 2018



ORANGE WATER AND SEWER AUTHORITY

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MEMORANDUM

TO: Board of Directors

THROUGH: Ed Kerwin *EKL*

FROM: Ruth Rouse

DATE: August 16, 2018

SUBJECT: Memorandum of Agreement Creating and Defining Operations of the Triangle Water Supply Partnership

Attached for your review and approval is a Memorandum of Agreement (MOA) to create and define the operations of the Triangle Water Supply Partnership (TWP), a successor to the [Jordan Lake Partnership](#) (JLP).

Background

The JLP is a group of 13 local governments and water systems which was created in 2009 to collaboratively plan for future water supply in the Triangle Region, including for the use of Jordan Lake. The Partners are:

- Town of Apex
- Town of Cary
- Chatham County (North water system)
- City of Durham
- Town of Hillsborough
- Town of Holly Springs
- Town of Morrisville
- Orange Water and Sewer Authority (OWASA)
- Orange County
- Town of Pittsboro
- City of Raleigh and Merger Partners (Garner, Knightdale, Rolesville, Wake Forest, Wendell, Zebulon)
- City of Sanford
- Wake County (Research Triangle Park - South)

The JLP has accomplished the following:

- Created the 50-year Triangle Regional Water Supply Plan to meet the region's water needs through 2060, which has received national and state awards

- Developed a comprehensive hydraulic model of the region's water systems and interconnections under existing and 2060 demands to identify needed infrastructure improvements
- Evaluated the region's drought contingency planning
- Provided a forum for collaboration and support for the Partners to receive, increase, or maintain their allocations of water supply from Jordan Lake (OWASA maintained its allocation of 5 percent of the water supply pool, which is approximately 5 million gallons per day)

The Agreement which created the JLP expires in 2019. Because the Partnership has been a uniquely effective forum for regional water supply planning and water system coordination, the Partnership members desire to continue the working relationship. (Note: the City of Sanford who has not been actively participating in the JLP and Wake County, who transferred its Jordan Lake water supply allocation for Research Triangle Park South to Cary in 2017 and has no water or sewer infrastructure, will not continue in the Partnership).

Proposed Triangle Water Supply Partnership

The Partners propose to continue as a forum for regional coordination and collaboration for sustainable water supplies under the name Triangle Water Supply Partnership (TWP). The name change reflects the addition of Johnston County and Harnett County who have no interest in Jordan Lake as a water supply but are completely integrated in the Triangle planning region and have important interconnections with existing JLP members.

The proposed TWP MOA states that each year the TWP will develop a 5-year project and funding plan. This requirement will provide for relatively stable membership payments, which will be higher than our membership payments for the JLP but will not require additional payment for projects as has been the practice for the JLP. This will enable the TWP's Boards and finance staff to better plan and prepare budgets. The payment for OWASA for FY19 is \$20,800; the budget approved by the Board included \$22,000 for the Partnership. Per the TWP MOA, OWASA will pay this year's dues within 60 days of the effective date of the Agreement.

The intention of the TWP is to provide a location for staff charged by their local Boards to plan and address water supply needs to collaborate on a regional basis on these issues. The Board's oversight of the group will occur through the annual budget process in which staff will be prepared to address any Board questions about the status of existing or planned TWP projects.

The TWP will enable OWASA to cost-share the following projects that are included in the first 5-year budget:

- Build on the hydraulic model to test our interconnections and develop and model regional planning scenarios that will evaluate our ability to meet regional water needs if a major plant unexpectedly went offline or water supply was contaminated
- Continue regional drought and water shortage response planning efforts; the North Carolina Division of Water Resources has expressed interest in running their combined

Neuse/Cape Fear OASIS model to evaluate drought response for the TWP at no to low cost.

- Update the Regional Water Supply Plan to ensure continued, sustainable water supply for the region

The MOA which creates and defines the operations of the TWP has been thoroughly reviewed by staff and legal counsel for each of the partners.

Recommendation

Staff and Counsel recommend that the Board of Directors adopt the resolution authorizing the MOA creating and defining operations of the Triangle Water Supply Partnership.



Ruth C. Rouse, AICP

Planning and Development Manager

Attachments

- A. Draft Resolution Authorizing the Memorandum of Agreement Creating and Defining Operations of the Triangle Water Supply Partnership
- B. MOA Creating and Defining Operations of the Triangle Water Supply Partnership

**RESOLUTION AUTHORIZING THE MORANDUM OF AGREEMENT CREATING
AND DEFINING OPERATIONS OF THE TRIANGLE WATER SUPPLY
PARTNERSHIP**

WHEREAS, the Triangle Region of North Carolina, defined herein as the geographic area encompassing Chatham, Durham, Harnett, Johnston, Orange and Wake Counties, continues to grow and serve as the premier economic engine for our State; and

WHEREAS, the local government jurisdictions in the Triangle Region have responsible and thoughtful land use plans to accommodate the projected growth of our Region; and

WHEREAS, water resources are a regional asset, and the sustained availability of water supply for the Triangle Region will benefit from a comprehensive and collaborative approach; and

WHEREAS, the Triangle Region of North Carolina has experienced multiple significant droughts in recent decades; and

WHEREAS, the local government jurisdictions and their constituent water supply authorities are responsible for providing for the publicly owned water supply that has been a critical ingredient in the economic development of the Triangle Region; and

WHEREAS, the local government jurisdictions and their constituent water supply authorities support the conservation and stewardship of water resources; and

WHEREAS, the Jordan Lake Partnership was established in 2009 to plan for secure and sustainable water supply for the Triangle Region, with participation by most of the parties to this Agreement, and has:

- developed a 50-year regional water supply plan that was endorsed by the elected Boards of all of its members;
- developed a comprehensive hydraulic model of the regional water system, now being used to improve cooperation among local water utilities;
- been recognized at the state and national level as a model for effective local government collaboration;
- expanded its membership and focus to include water supply planning for the entire Triangle Region; and

WHEREAS, the parties to this Agreement desire to continue to build upon the valuable water supply planning work and collaborative efforts begun by the Jordan Lake Partnership; and

WHEREAS, the benefits of such planning and collaborative efforts include:

- Improved cooperation between local water utilities and ease of regulatory oversight;
- Reduced unit costs for projects through economies of scale;

- Increased flexibility and reliability of local water supplies, especially during droughts and other dynamic events;
- Enhanced ability to comply with federal and state drinking water standards;
- Sustainable use of regional drinking water resources; and

WHEREAS, the parties to the Triangle Water Supply Partnership Memorandum of Agreement will maintain local ownership and control of their water resources, but are committing in that document to collaborate about water supply planning, cooperation, sustainability, and helping each other through drought or other emergency events and to move toward a more sustainable future; and

WHEREAS, the Triangle Water Supply Partnership Memorandum of Agreement is authorized by North Carolina General Statute (NCGS) 143-355.8 and/or 160A-20.1.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE ORANGE WATER AND SEWER AUTHORITY:

That the Board approves and authorizes and directs the Executive Director to sign the Memorandum of Agreement Creating and Defining Operations of the Triangle Water Supply Partnership in substantially the form attached to this resolution.

Adopted this 23rd day of August, 2018.

Yinka Ayankoya, Chair

ATTEST:

Raymond DuBose, P.E.
Secretary

**MEMORANDUM OF AGREEMENT
CREATING AND DEFINING OPERATIONS OF THE TRIANGLE WATER
SUPPLY PARTNERSHIP**

WHEREAS, for the purposes of this Memorandum of Agreement (“Agreement”), the Triangle Water Supply Planning Region (“Triangle Region”) is defined as the geographic area encompassing Chatham, Durham, Harnett, Johnston, Orange, and Wake Counties; and

WHEREAS, the Triangle Region of North Carolina continues to grow and serve as the premier economic engine for North Carolina; and

WHEREAS, the local government jurisdictions in the Triangle Region have responsible and thoughtful land use plans to accommodate projected growth; and

WHEREAS, water resources are a regional asset, and the sustained availability of water supply for the Triangle Region will benefit from a comprehensive and collaborative approach; and

WHEREAS, the Triangle Region of North Carolina has experienced multiple significant droughts in recent decades; and

WHEREAS, the local government jurisdictions and their constituent water supply authorities are responsible for providing for the publicly owned water supply that has been a critical ingredient in the economic development of the Triangle Region; and

WHEREAS, the local government jurisdictions and their constituent water supply authorities support the conservation and stewardship of water resources; and

WHEREAS, the Jordan Lake Partnership was established in 2009 to plan for secure and sustainable water supply for the Triangle Region, with participation by most of the parties to this Agreement, and has:

- developed a 50-year regional water supply plan that was endorsed by the elected Boards of all of its members;
- developed a comprehensive hydraulic model of the regional water system, now being used to improve cooperation among local water utilities;
- been recognized at the state and national level as a model for effective local government collaboration;
- expanded its membership and focus to include water supply planning for the entire Triangle Region; and

WHEREAS, the parties to this Agreement desire to continue and build upon the valuable water supply planning work and collaborative efforts begun by the Jordan Lake Partnership; and

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WHEREAS, the benefits of such planning and collaborative efforts include:

- Improved cooperation between local water utilities and ease of regulatory oversight;
- Reduced unit costs for projects through economies of scale;
- Increased flexibility and reliability of local water supplies, especially during droughts and other dynamic events;
- Enhanced ability to comply with federal and state drinking water standards;
- Sustainable use of regional drinking water resources; and

WHEREAS, the parties to this Agreement will maintain local ownership and control of their water resources, but are committing in this document to collaborate about water supply planning, cooperation, sustainability, and helping each other through drought or other emergency events and moving toward a more sustainable future; and

WHEREAS, this Agreement is authorized by North Carolina General Statute (NCGS) 143-355.8 and/or 160A-20.1.

THEREFORE, BE IT RESOLVED, that the signatories to this Agreement (“Participants” or “Parties”) pledge to work together as part of a Triangle Water Supply Partnership (“Partnership”), as a regional water supply planning organization as authorized by NCGS 143-355.8; and,

BE IT FURTHER RESOLVED, that the individual units named as Participants will collaborate through the Partnership for regional water supply planning, to plan, maintain, implement and otherwise cooperate in providing long-term, sustainable, safe and secure regional water supplies for the Triangle Region; and,

BE IT FURTHER RESOLVED, that the Partnership will be guided by the principles of collaboration, sustainable water supply, environmental stewardship, mutual and collective benefit, shared responsibility, equal representation, and financial stability, but such collaboration is not intended and shall not be deemed to constitute a “partnership” as defined in NCGS Chapter 59.

NOW, THEREFORE, for and in consideration of the recitals and the mutual promises and covenants contained in this Agreement, the parties agree as follows:

- 1) **Purpose; Recitals:** The purpose of this Agreement is to collaborate in various activities related to a regional partnership for water supply. The Recitals are true and are incorporated into this Agreement and further explain the Purpose.
- 2) **Definitions:** In addition to the following defined terms, additional terms are defined elsewhere in this Agreement.
 - a) Annual Budget – means the Annual Budget adopted with the 5-Year Project and Funding Plan.

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- b) Consensus – means a Partnership decision made by unanimous vote in favor of a proposed action by all the Representatives (or Alternate Representatives) present and voting at a meeting.
- c) Dues – means Initial Dues, Annual Dues, and Special Projects Dues.
- d) Fiscal Year – means July 1 through June 30.
- e) Large Project – means a Project that is funded as a separate line item in the Annual Budget.
- f) Partnership Operating Fund (“Fund”) – means the Fund managed by the Fiscal Agent, consisting of revenue from Annual Dues and Special Project Dues, and interest thereon, and from which funds are disbursed to satisfy contractual obligations related to the Partnership’s activities.
- g) Project – means a Project included in the Annual Budget. Includes Small Projects, Large Projects, and Special Projects.
- h) Project Lead Agency – means the Participant responsible for contracting and managing each Project.
- i) Quorum – means more than one half of Participants have a Representative (or Alternate Representative) in attendance at a meeting.
- j) Partnership Management – means management of the Partnership by the Administrative Agency including but not limited to meeting notices, arrangements, facilitation, and summaries; other communications; records retention.
- k) Simple Majority Vote – means a Partnership decision made by vote of more than one-half of the total number of Representatives (or Alternate Representatives). For example, if there are 15 Members (and therefore 15 Representatives), 8 must affirmatively vote for a proposed action to pass by Simple Majority vote, regardless of how many Members may have a Representative in attendance at a meeting.
- l) Small Project – means a Project that is funded from the single Small Projects line item in the Annual Budget.
- m) Special Project – means a Project approved and funded (with additional dues) by a subset of Participants (this can also be a single Participant; e.g. when a task is added to a Project contract for work specific to that Participant).
- n) Special Project Consensus – means a Partnership decision regarding a Special Project made by unanimous vote in favor of a proposed action by all the Representatives (or Alternate Representatives) of those Participants participating in the Special Project, present at a meeting at which a Special Project Quorum is present. For example, if 6 members are participating in a Special Project, at least

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4 must be present for a quorum, and all those present must vote affirmatively for a proposed action to pass.

- o) Special Project Quorum – means more than one half of the Participants in that Special Project have a Representative (or Alternate Representative) in attendance at a meeting.
- p) Super Majority Vote – means a Partnership decision made by vote of at least three quarters of the total number of Representatives (or Alternate Representatives). For example, if there are 15 Members (and therefore 15 Representatives), 12 must vote affirmatively for a proposed action to pass by Super Majority Vote.

3) Participants:

- a) All parties to this Agreement are Participants in the Partnership. The original parties to this Agreement are:
 - i) Town of Apex,
 - ii) Town of Cary,
 - iii) Chatham County,
 - iv) City of Durham,
 - v) Harnett County,
 - vi) Town of Hillsborough,
 - vii) Town of Holly Springs,
 - viii) Johnston County,
 - ix) Town of Morrisville,
 - x) Orange County,
 - xi) Orange Water and Sewer Authority,
 - xii) Town of Pittsboro, and
 - xiii) City of Raleigh.
- b) Eligibility. Governmental entities, water and/or sewer authorities, public water utilities, regulated utilities which own and operate water supply reservoirs, reservoir operators providing water supply-related service within the Triangle Region, and any other entities authorized to participate by NCGS 143-355.8, and in the Neuse or Cape Fear River Basins, are eligible to become Participants (“Eligible Participants”). Notwithstanding this general definition, the Participants shall determine eligibility for any specific entity.

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- c) Addition of Participants. Eligible Participants may request to join the Partnership by submitting a request in writing to the Chair (“New Participant Request”). The New Participant Request must include acknowledgement and agreement that the Eligible Participant will be bound by the terms of this Agreement. A Super Majority Vote of the Partnership is required to add an Eligible Participant as a party. The Chair will notify existing Participants of a New Participant Request pursuant to paragraph 17(n) herein. The Chair will notify the Eligible Participant within 30 days following the Partnership’s decision on the New Participant Request and of the amount of Initial Dues, if applicable. Addition of an Eligible Participant as a party becomes effective upon the Eligible Participant’s execution of this Agreement and payment of Initial Dues.
 - d) Withdrawal of Participants. Participants may withdraw from this Agreement with 30 days written notice to all Participants, provided that any residual financial obligations pursuant to paragraph 14 herein shall survive such withdrawal until satisfied. Residual financial obligations will include any outstanding invoices for Dues as well as the withdrawing Participant’s share of any Special Project contractual obligations existing at the time of withdrawal. To the extent possible, the scope and cost associated with any such Special Project contractual obligations will be reduced to address the withdrawal of the Participant, with a proportional reduction in the withdrawing Participant’s financial obligation related to such Special Projects. No Dues refunds will be made.
 - e) Withdrawal Due to Nonpayment. Any Participant that fails to pay its Dues pursuant to paragraph 14 herein by October 31 is automatically deemed to have withdrawn from the Partnership on November 1 unless 1) the Chair receives a written request from the Participant prior to October 31 explaining the extenuating circumstances that justify the extension of time, and 2) the Partnership decides in a vote occurring before the automatic withdrawal date, to permit an additional 90-day grace period but not extending beyond January 29.
- 4) **Representatives:**
- a) Each Participant’s Manager, or designee, shall act for the Participant on matters related to the Partnership. Participants are encouraged to have three professional staff Representatives - the Representative, and First and Second Alternate Representatives - with said Alternate Representatives designated by the Manager, and eligible to vote only when the Representative is not present.
 - b) Representatives and Alternates are expected to stay informed about and to represent their Participant’s interests. Each Representative or, when applicable, Alternate Representative, is expected to attend and fully participate in Partnership meetings and calls. Materials presented for discussion should be distributed at least 5 business days in advance of a meeting or earlier, as practical.
- 5) **Officers:** At the first official meeting of the Partnership after execution of this Agreement, and then each year at the annual meeting of the Partnership, the Participants shall elect a Representative or Alternate Representative to serve as Chair

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and a Representative or Alternate Representative to serve as Vice Chair, both by Simple Majority Vote. The Vice Chair will perform the Chair's responsibilities when the Chair is unable to do so. The Chair or Vice Chair shall convene Partnership meetings, establish the meeting agendas, and preside at meetings. If neither the Chair or Vice Chair will be present for a meeting, the Chair will appoint a person to preside at that meeting. The Chair and Vice Chair shall have no additional power or authority over the Partnership. While there are no term limits established for the Chair or Vice Chair, it is the intention that the Chair and Vice Chair positions rotate among Participants.

6) Meetings:

- a) The Participants shall meet as often as required, but no less than annually. Annual Meetings shall be scheduled by the Chair and noticed to all Representatives no less than 30 days in advance. Any matter may be voted on at an Annual Meeting. The Annual Meeting will be held toward the end of each calendar year and include budget adoption, in order to allow for Participants to adequately plan for their upcoming fiscal year budget.
- b) Meetings will generally be held for the purposes of discussing the activities of the Partnership, planning for future activities, adopting the budget, and providing guidance and direction to the Administrative Agent, Fiscal Agent, and/or project managers, regarding ongoing Partnership activities and Projects.
- c) The Chair, Vice Chair, or 25 percent of the Participants may call a meeting by providing notice to all Participants ("Called Meeting"). Notice may be made pursuant to paragraph 17(n) or may be delivered by electronic mail. No Called Meeting may be held with less than five business days' notice. No matter may be voted on at a Called Meeting that was not noticed at the time the notice of Called Meeting is sent to the Participants. All meetings shall be open to the public and conducted in facilities that would accommodate the public. Meeting times, dates, and locations will be noted on the Partnership's website in a location accessible by the public. Notices of meetings will also be publicly posted on the principal bulletin board of the Administrative Agent, or if the Administrative Agent is not a Member, the entity represented by the Chair.
- d) Representatives (or Alternative Representatives) may participate in Called or Annual Meetings either in person or by teleconference.

7) Voting:

- a) A majority of the Participants must be represented by either their Representative or Alternative Representative to constitute a quorum for the transaction of business at any meeting of the Partnership.
- b) Each Participant will have one vote on all matters coming before the Partnership for consideration and the vote of each Participant will be counted equally.

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- c) If a Participant is not current in paying Dues but is within the allowed grace period and therefore has not been deemed to have withdrawn from the Partnership, then the vote of such Participant's Representative will be counted. If a Participant is not current in paying dues and is not within the grace period for such payment, the Participant shall not participate in any vote, and any vote by such Participant shall be null and void.
 - d) Representatives or Alternate Representatives may participate, including voting, in meetings by any means of communication by which all participating may simultaneously hear each other during the meeting.
 - e) Voting on any matter may occur outside of the Annual Meeting or a Called Meeting only upon the following terms. Any Participant may request a vote of the Partnership in writing with at least 2 business days' notice to all Participants. Votes taken pursuant to this section require a written affirmative vote (either electronic or hard copy) by the Representative (or Alternative Representative) for each Participant within thirty (30) days of the notice. If any Participant fails to provide an affirmative vote, the requested vote fails. Records of the requested vote, and each Participant's response, shall be retained as records of the Partnership.
 - f) No proxy voting will be permitted; that is, only the Representative or, if the Representative is not present, the Alternate Representative, may vote on behalf of a Participant.
- 8) **Decisions:**
- a) While it will always be the goal of the Partnership to make decisions by Consensus, this section describes the decision process if Consensus cannot be reached.
 - b) Unless otherwise specified in this Agreement, a Simple Majority Vote shall be used for all matters before the Partnership.
 - c) Super Majority Votes are required for:
 - i) Establishing or changing the Fund's Annual Target Amount (if Super Majority Vote cannot be reached, the Fund's Annual Target Amount will be the previous year's amount); and
 - ii) Establishing or changing the dues allocation basis (if Super Majority Vote cannot be reached, the dues allocation basis will be the same as the previous year; however, any changes to a Member's Tier based on number of accounts will be made); and
 - iii) Approving a New Participant Request and establishing the new Participant's Initial Dues.

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9) Administrative Agent:

- a) Administrative Agent responsibilities include Partnership Management activities such as maintaining the official roster of Representatives and Alternates, preparing meeting agendas, sending notices for meetings, meeting facilitation and summaries, internal and external communication, technical and administrative document development and review, record retention, and website management. Administrative Agent responsibilities also include serving as or overseeing the Fiscal Agent.
- b) The Administrative Agent, with approval and direction from the Partnership, may contract for:
 - i) Partnership management support
 - ii) Fiscal Agent services
 - iii) Small Project services
 - iv) Large Project services
 - v) Special Project services
- c) The Participants hereby authorize the City of Durham to act as the Administrative Agent for the Partnership and recognize and appreciate the willingness of the City of Durham to do so.
- d) The City of Durham's actions as the Administrative Agent for the Partnership's General Activities are performed on behalf of the Partnership and not as an instrument of joint agency.
- e) The Partnership will advise the Administrative Agent regarding financial management and direction of the General Activities under this Agreement. The Administrative Agent will conform with the laws of North Carolina applicable to local governments in the selection of entities to provide services for all Projects and in contracting for such services.
- f) The Partnership may appoint another Participant, or contract with another organization, to serve as Administrative Agent, upon Simple Majority Vote.

10) Fiscal Agent:

- a) The Participants hereby authorize the City of Durham to act as the Fiscal Agent for the Partnership and recognize and appreciate the willingness of the City of Durham to do so.
- b) The Partnership may appoint another Participant, or contract with another organization, to serve as Fiscal Agent, upon Simple Majority Vote.
- c) The Fiscal Agent for the Partnership shall:
 - i) Administer and manage the Partnership Operating Fund, including carrying out its legal, contractual, fiscal, and fiduciary duties.

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- ii) Invoice Members for Dues by June 1 each year for the upcoming fiscal year.
- iii) Receive Dues and notify the Chair monthly of any nonpayment issues.
- iv) Hold Partnership Operating Fund monies (“Funds”) in a restricted account, to be used solely at the request of the Partnership, for the Partnership’s activities.
- v) Disburse Funds only as specifically budgeted in support of the Partnership’s General Activities, Projects, and Special Projects.
- vi) Provide balance and disbursement summaries for the Partnership’s account(s) at least annually or at more frequent intervals as requested by the Chair or by any Representative.
- vii) Maintain such books, records, and systems of accounts so that the expenditures of Funds are accounted for as expended on the Partnership’s General Activities, Projects, and Special Projects as budgeted and reported in the Partnership Operating Funds and shall provide same to any Participant within thirty (30) days of request.
- viii) If the source of funds for any Project Contract is federal funds, comply with the following federal provisions pursuant to 2 C.F.R. § 200.326 and 2 C.F.R. Part 200, Appendix II (as applicable), unless a more stringent state or local law or regulation is applicable: Equal Employment Opportunity (41 C.F.R. Part 60); Davis-Bacon Act (40 U.S.C. 3141-3148); Copeland “Anti-Kickback” Act (40 U.S.C. 3145); Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708); Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387); Debarment and Suspension (Executive Orders 12549 and 12689); Byrd Anti-Lobbying Amendment (31 U.S.C. 1352); Procurement of Recovered Materials (2 C.F.R. § 200.322); and Record Retention Requirements (2 CFR § 200.324).

11) Partnership Activities:

- a) The Partnership’s General Activities will include, but not be limited to:
 - i) Identifying and implementing Projects that further the Partnership’s objectives;
 - ii) Overseeing a Partnership Operating Fund to help implement Projects;
 - iii) Developing and maintaining a 5-Year Project and Funding Plan which includes a running 5-year plan of Projects including annual target Fund balances, annual spending and revenue amounts, and a Participant dues contribution schedule to fund Projects;
 - iv) Managing Projects through appropriate contractual agreements;
 - v) Coordinating with appropriate resource agencies and other interested parties; and

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- vi) Providing periodic reports and status updates to Participants.
- b) Projects:
 - i) Small Projects: An amount will be budgeted annually to be used for any Small Projects that may come up during the year; this may include individual technical projects that support the mission of the Partnership, outreach, regulatory or legislative assessments, or data summaries, for example.
 - ii) Large Projects: Once approved and created as a Large Project by the Partnership, all anticipated costs for a Large Project shall be included and accounted for in the 5-Year Project and Funding Plan (Exhibit 1) as an individual line item.
 - iii) Special Projects: The Participants may seek additional opportunities to cooperate on mutually beneficial planning and capital projects related to water supply resources in the Triangle Region. Participation in a Special Project is at the discretion of each Participant. Such projects are created and defined as described in paragraph 12 below. Once created, Special Projects are included as individual line items in the 5-Year Project and Funding Plan (Exhibit 1).

12) Project and Budget Determination:

- a) Project Development: Votes to create any Project will include approval of a Project Lead Agency, Project Scope, Project Schedule, Project Budget, list of Participants (for Special Projects), and any other information needed to define the Project.
 - i) If any single Project under consideration would be anticipated to increase any Member's Annual Dues in a single year by an amount equal or greater than the Member's projected Annual Dues in any year of the current 5-Year Project and Funding Plan, then upon request of that Member, the Project will be considered a Special Project and as such must be created per Paragraph 12 (a) (iii) below.
 - ii) Small Projects and Large Projects will be created and approved, and can be modified, upon Simple Majority Vote. Participants' Cost Shares will be as defined or amended per Paragraph 14 for Annual Dues.
 - iii) Each Special Project will be created and approved by affirmative vote of all Participants who choose to participate in that Special Project. Participants' Cost Shares will be as defined and approved by the Participants in the Special Project. Modification of a Special Project scope or budget also requires affirmative vote of all Participants in that Special Project. Other Special Project decisions may be made by Special Project Consensus vote.
- b) Project Recommendations: Project recommendations may be submitted by individual Participants or solicited from interested third parties. Third parties may also present Project recommendations to the Partnership for consideration.

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- c) 5-Year Project and Funding Plan: Each year the Partnership will develop a 5-Year Project and Funding Plan including a current-year Annual Budget. The 5-Year Project and Funding Plan will include the associated dues contribution schedule required to provide funds to support Partnership Management and regular and ongoing projects, as well as to accumulate money reserved for Projects that may require several years of accumulated funds to accomplish, and to maintain a minimum balance of approximately \$50,000 in the Partnership Operating Fund. Exhibit 1, attached hereto and incorporated herein by reference, contains the Partnership's initial 5-Year Project and Funding Plan.
- d) Cost-Shared Funding: Participants should give special consideration to projects that can take advantage of cost-shared funding from outside partners to leverage the Partnership Operating Fund's budgets.
- e) Project Financial Restrictions: The Partnership does not intend to take on debt or financial liabilities. Projects will be funded only to levels that do not exceed the Dues collected in any year plus money from previous year collections reserved for Projects that may require several years of accumulated funds to accomplish. Multi-year Project contracts will include a per-year not-to exceed requirement that is consistent with the portion of the existing Partnership Operating Fund set aside for that Project.

13) Project Management:

- a) Distribution of Funds - Any Participant may serve as the Project Lead Agency for any Project. The Partnership may fund Projects by authorizing the Fiscal Agent to make grants to the Project Lead Agency in installments, lump sum, or as may be appropriate for the Project.
- b) Project Manager (PM) – A PM will be approved for each Small or Large Project by Simple Majority Vote. A PM will be approved for each Special Project PM by affirmative vote of all participants in that Special Project. PM approval will be based on such factors as interest, capability, geographical location relative to the Project, size of the effort, and providing project management opportunities to all Participants. The PM will provide opportunities for the Participants to shape the scope of work, seek advice and counsel on proposals received and vendor selection, and provide regular status reports to the Participants.
- c) At a minimum, Project contracts shall include:
 - i) A detailed scope of work statement
 - ii) Schedules for completion of work and disbursement of funds
 - iii) Funding requirement necessary and available to complete the scope of work
 - iv) A per-year not-to-exceed requirement that is consistent with the portion of the existing Partnership Operating Fund appropriated to that project for the current year

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- v) Procedures and conditions for amending, modifying or terminating the contract.

14) Dues:

- a) Each Member will support the Partnership Operating Fund by payment of Annual Dues to the Fiscal Agent.
- b) After invoices are received, Annual Dues are due as of July 1 each fiscal year and are considered timely if paid by July 31 of that fiscal year.
- c) Annual Funding Target for Partnership Operating Fund:
 - i) The total amount to be collected in Annual Dues each fiscal year will be based on the amount needed to meet the Partnership Operating Fund annual target for the beginning of the fiscal year as shown in the 5-Year Project and Funding Plan adopted by the Partnership at its annual meeting the previous fiscal year.
 - ii) Exhibit 1 shows the initial 5-Year Project and Funding Plan including the Fiscal Year 2019 Annual Funding Target for the Partnership Operating Fund.
- d) Cost Allocation Basis:
 - i) Annual Dues will be allocated according to a three-tiered dues structure based on each Participants' number of water connections at the time of budget adoption:
 - (1) Tier 1: 0-9,999 water connections - pays Base Rate
 - (2) Tier 2: 10,000-49,999 water connections - pays 2 times Base Rate
 - (3) Tier 3: 50,000+ water connections - pays 3 times Base Rate
 - ii) The Partnership may alter this basis for allocation of Annual Dues by Super Majority Vote without the need to revise this Agreement. For example, the Partnership may need to alter the cost allocation basis to accommodate a new Participant such as a reservoir operator that does not provide or plan for water connections. The 5-Year Project and Funding Plan adopted each year will include the current cost allocation basis.
 - iii) Allocation of Annual Dues will be done each year at the Partnership Annual Meeting, for the next fiscal year, to provide input for Participant budget planning.
 - iv) Additional costs to individual Participants for Special Projects (Special Projects Dues) will be included in appropriate Participant's dues as approved by the subset(s) of Participants participating in each Special Project.

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- e) Initial Dues:
 - i) Initial Dues for fiscal year 2019, shown in Exhibit 1, for each Member, are due the later of 60 days after the effective date of this Agreement, or 60 days after the Member executes the Agreement.
 - ii) For new Participants added after Initial Dues for fiscal year 2019 are adopted, Initial Dues will be based on the date of membership approval and will be the sum of the Participant's share of 1) the current fiscal year Annual Dues, 2) previous years' (up to 4 years maximum) Annual Dues for any ongoing Projects or upcoming Projects for which funding is being collected ahead of contracting, and 3) any Special Projects Dues for Special Projects in which that Participant wishes to participate. The exact amount of Initial Dues for a new Participant will be determined by the Partnership at the time of New Participant Request approval. New Participant Initial Dues will be allocated appropriately toward funding for Projects by the Fiscal Agent and taken into account by the Partnership during development of the following year's Annual Budget.
- f) Final Dues: For any Participant that withdraws, Final Dues will be calculated and invoiced to the Participant based on unpaid Dues for the current fiscal year and ongoing Special Projects that include the withdrawing Participant.
- g) All Dues payments are non-refundable.
- h) Five-year Planning: For the first five years after this Agreement is effective, Annual Dues are projected to be slightly higher in the first two years to provide for initial planned Projects; the following three years' Annual Dues are slightly lower. It is the Participants' intention that future budgets will be planned with the goal to keep Annual Dues constant during each five-year period; however, changes to planned Projects may require some variation in Annual Dues within five-year periods and the actual amount of Annual Dues will be as adopted each year by the Partnership as part of adoption of the 5-Year Project and Funding Plan.

15) Duration, Automatic Renewal, Amendment and Termination:

- a) The term of this Agreement shall begin upon the date it is properly authorized and executed by two Participants (Effective Date) and shall end on June 30, 2028 (Initial Term End Date). Thereafter, this Agreement shall become binding on each Participant only after approval and execution of the Agreement by a duly authorized representative of the Participant.
- b) After the Initial Term End Date, the term of this Agreement shall be extended automatically for a period of five years unless all but one Participant has given thirty (30) days prior written notice of withdrawal.
- c) This Agreement may be terminated by a Super Majority Vote of the Participants.

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- d) Any Participant may be removed from the Partnership by a Super Majority Vote of the Participants. For any Participant who is removed pursuant to this provision, Final Dues will be calculated and invoiced to the Participant as described in paragraph 14 (f).
- e) This Agreement constitutes the entire agreement between the Parties with respect to its general subject matter. This Agreement may not be changed except in writing signed by all the Parties.

16) Additional agreements: It is understood that no party is obligated to participate in future separate agreements beyond this initial Agreement.

17) Miscellaneous Provisions:

- a) The Parties each represent, covenant and warrant for the other's benefit as follows:
 - i) Each Party has all necessary power and authority to enter into this Agreement and to carry out the transactions contemplated by this Agreement, and this Agreement has been authorized by Resolution spread upon the minutes of each Party's governing body. This Agreement is a valid and binding obligation of each Party.
 - ii) Neither the execution and delivery of this Agreement, nor the fulfillment of or compliance with its terms and conditions, nor the consummation of the transactions contemplated by this Agreement, results in a breach of the terms, conditions and provisions of any agreement or instrument to which either Party is now a party or by which either is bound or constitutes a default under any of the foregoing.
 - iii) To the knowledge of each Party, there is no litigation or other court, or administrative proceeding pending or threatened against such Party (or against any other person) affecting such Party's rights to execute or deliver this Agreement or to comply with its obligations under this Agreement. Neither such Party's execution and delivery of this Agreement, nor its compliance with its obligations under this Agreement, requires the approval of any regulatory body or any other entity the approval of which has not been obtained.
- b) The singular of terms used in this Agreement shall include the plural, and the masculine shall include the feminine, and vice versa.
- c) A signed copy of this Agreement shall be considered as an original.
- d) The parties intend that this Agreement be governed by the law of the State of North Carolina. In the event of conflict or default that might arise for matters associated with this Agreement, the Parties agree to informally communicate to resolve the conflict. If any such dispute cannot be informally resolved, then such

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Triangle Water Supply Partnership**

dispute, or any other claims, disputes or other controversies arising under this Agreement, shall be subject to resolution in a court of competent jurisdiction.

- e) If any part of this Agreement is held invalid or unenforceable by a court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provision hereof. If one or more paragraphs, sections sentences, clauses, or phrases shall be declared void, invalid or otherwise unenforceable for any reason by the valid, final judgment or decree of any court of competent jurisdiction, such judgment or decree shall not affect the remaining provisions of this Agreement and the same shall continue to be fully effective and enforceable on the basis that said remaining provisions would have been agreed to by the Parties without the incorporation of such void, invalid or otherwise unenforceable paragraph, section, sentence, clause or phrase.
- f) In the event of breach of this Agreement, the Parties shall be entitled to such legal or equitable remedy as may be available, including specific performance.
- g) No provision of this Agreement shall be deemed to have been waived by any party hereto unless such waiver shall be in writing and executed by the same formality as this Agreement. The failure of any party hereto at any time to require strict performance by the other of any provision hereof shall in no way affect the right of the other party to thereafter enforce the same. In addition, no waiver or acquiescence by a party hereto of any breach of any provision hereof by another party shall be taken to be a waiver of any succeeding breach of such provision or as a waiver of the provision itself.
- h) There are no third-party beneficiaries to this Agreement.
- i) No Party may sell or assign any interest in or obligation under this Agreement without the prior express written consent of the other Parties.
- j) The Parties, and all subcontractors, shall comply with Article 2, Chapter 64, of the North Carolina General Statutes.
- k) Nothing in this Agreement shall be construed to mandate purchase of insurance by any Party pursuant to N.C.G.S. 153A-435 or N.C.G.S. 160A-485; or to be inconsistent with Wake County's "Resolution Regarding Limited Waiver of Sovereign Immunity" enacted October 6, 2003; or to in any other way waive any Party's defense of sovereign or governmental immunity from any cause of action alleged or brought against any Party for any reason if otherwise available as a matter of law.
- l) No officer, agent or employee of any party will be subject to any personal liability or accountability by reason of the execution of this Agreement or any other documents related to the transactions contemplated hereby. Such officers, agents or employees will be deemed to execute such documents in their official capacities only, and not in their individual capacities. This section will not relieve

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Triangle Water Supply Partnership**

any such officer, agent or employee from the performance of any official duty provided by law.

- m) This Agreement may be executed in any number of counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument. Either Party may convert a signed original of the Agreement to an electronic record pursuant to a North Carolina Department of Natural and Cultural Resources approved procedure and process for converting paper records to electronic records for record retention purposes. Such electronic record of the Agreement shall be deemed for all purposes to be an original signed Agreement.

- n) Unless otherwise stated herein, all notices provided for herein shall be in writing and shall be sent properly by first-class mail to the parties at the addresses shown below, or to such other person or address as said party may provide in writing from time to time. Any such notice mailed to such address shall be effective upon the date received as shown by the return receipt or otherwise. All notices shall be effective three (3) days after having been deposited, properly addressed and postage prepaid, in the US Postal Service.

TOWN OF APEX

Marty Stone, Water Resources Director
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marty.stone@apexnc.org

TOWN OF CARY

Sarah Braman, Water Resources Engineer
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Cary, NC 27512-8005
sarah.braman@townofcary.org

CHATHAM COUNTY

Dan LaMontagne, Asst. County Manager & Director, Public Works & Utilities
PO Box 1550
Pittsboro, NC 27312
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CITY OF DURHAM

Vicki Westbrook, Deputy Director
Department of Water Management
101 City Hall Plaza
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vicki.westbrook@durhamnc.gov

**Memorandum of Agreement
Triangle Water Supply Partnership**

HARNETT COUNTY

Steve Ward, Director, Public Utilities
P. O. Box 1119
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TOWN OF HILLSBOROUGH

Julie Laws, Utilities Analyst
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TOWN OF HOLLY SPRINGS

Kendra Parrish, P.E., Director of Engineering
Town of Holly Springs
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JOHNSTON COUNTY

Chandra Coats, Public Utilities Director
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chandra.coats@johnstonnc.com

TOWN OF MORRISVILLE

Kent Jackson, P.E., Town Engineer
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kjackson@townofmorrisville.org

ORANGE COUNTY

Howard Fleming, Jr., Engineering/Stormwater Division Supervisor
PO Box 8181
Hillsborough, NC 27278
hfleming@orangecountync.gov

ORANGE WATER AND SEWER AUTHORITY

Ruth Rouse, Planning and Development Manager
400 Jones Ferry Road
Carrboro, NC 27510
RRouse@owasa.org

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Triangle Water Supply Partnership**

TOWN OF PITTSBORO
Jeff Jones, Planning Director
PO Box 759
Pittsboro, NC 27312
jjones@pittsboronc.gov

CITY OF RALEIGH
Kenneth Waldroup, Assistant Public Utilities Director
PO Box 590
Raleigh, NC 27602
kenneth.waldroup@raleighnc.gov

- (o) The Town of Cary shall not discriminate on any basis prohibited by law with reference to Cary's obligations under this Agreement. In the discharge of its duties and responsibilities under this Agreement, the City of Raleigh and its employees will abide by the policy of nondiscrimination as set forth in Raleigh City Code § 4-1004. Orange County and its employees will abide by Orange County Non-Discrimination Policy General Government and Administration Policy 11.0. All other parties to this Agreement will comply with the non-discrimination policies approved by their respective elected officials or boards.

IN TESTIMONY WHEREOF, the Parties, pursuant to resolutions of their respective governing boards spread upon their minutes, have caused this Agreement to be executed and attested by their duly authorized officers and their official seals affixed, the day and year written below.

**Memorandum of Agreement
Triangle Water Supply Partnership**

(Signature) _____
Drew Havens, Town Manager
Town of Apex

DATE: _____

ATTEST: _____

**Memorandum of Agreement
Triangle Water Supply Partnership**

(Signature) _____
Sean Stegall, Town Manager,
Town of Cary

DATE: _____

ATTEST: _____

**Memorandum of Agreement
Triangle Water Supply Partnership**

(Signature) _____
Renee Paschal, County Manager
Chatham County

DATE: _____

ATTEST: _____

**Memorandum of Agreement
Triangle Water Supply Partnership**

(Signature) _____
Thomas J. Bonfield, City Manager
City of Durham

DATE: _____

ATTEST: _____

**Memorandum of Agreement
Triangle Water Supply Partnership**

(Signature) _____
Paula Stewart, County Manager
County of Harnett

DATE: _____

ATTEST: _____

**Memorandum of Agreement
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(Signature) _____
Eric Peterson, Town Manager
Town of Hillsborough

DATE: _____

ATTEST: _____

**Memorandum of Agreement
Triangle Water Supply Partnership**

(Signature) _____
Charlie Simmons, Town Manager
Town of Holly Springs

DATE: _____

ATTEST: _____

**Memorandum of Agreement
Triangle Water Supply Partnership**

(Signature) _____
Rick Hester, County Manager
Johnston County

DATE: _____

ATTEST: _____

**Memorandum of Agreement
Triangle Water Supply Partnership**

(Signature) _____
Martha Paige, Town Manager
Town of Morrisville

DATE: _____

ATTEST: _____

**Memorandum of Agreement
Triangle Water Supply Partnership**

(Signature) _____
Bonnie Hammersley, County Manager
Orange County

DATE: _____

ATTEST: _____

**Memorandum of Agreement
Triangle Water Supply Partnership**

(Signature) _____
Ed Kerwin, Executive Director
Orange Water and Sewer Authority

DATE: _____

ATTEST: _____

**Memorandum of Agreement
Triangle Water Supply Partnership**

(Signature) _____
Bryan Gruesbeck, Town Manager
Town of Pittsboro

DATE: _____

ATTEST: _____

**Memorandum of Agreement
Triangle Water Supply Partnership**

(Signature) _____
Ruffin Hall, City Manager
City of Raleigh

DATE: _____

ATTEST: _____

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Triangle Water Supply Partnership**

**Exhibit 1
Fiscal Year 2019 5-Year Project and Funding Plan**

Cost Allocation Basis

Annual Dues will be allocated according to a three-tiered dues structure based on each Participant's number of water connections at the time of budget adoption:

- a) Tier 1: 0-9,999 water connections - pays Base Rate
- b) Tier 2: 10,000-49,999 water connections - pays 2 times Base Rate
- c) Tier 3: 50,000+ water connections - pays 3 times Base Rate

Large Projects

- **Regional Water Shortage and Response Planning:** This project will support regional reliability, resiliency and redundancy, using the Interconnection Model developed by the Jordan Lake Partnership, and the North Carolina Division of Water Resources' OASIS model of the Neuse/Cape Fear Basins, to further understand the capabilities and limits of the Triangle Region's present water supply network. The goal will be to estimate infrastructure investments needed to meet future needs – at both the regional and local scale – during sustained or short-term shortages or constraints such as short-term or longer-term infrastructure issues, water quality issues, or long-term regional drought.
- **Triangle Regional Water Supply Plan:** This Plan will be much more than a simple update of the Jordan Lake Partnership's Plan. This new plan will include the larger Triangle Water Supply Partnership membership and a comprehensive evaluation of potential water sources.
- **Emergency Spill Response and Mitigation Plan Coordination:** Develop an appreciation for how each supplier's responses rely on coordination with others, and lay the ground work for that coordination & pre-planning by: assessing potential types, sources, and risks of sudden contamination of raw water supplies; e.g., tanker spill, airline crash, petroleum pipeline release, etc.; identify how consequences and responses to such incidents would differ according to the water supplies affected; e.g., regional sources, such as Falls/Jordan Lakes, or more local supplies, such as University Lake; possible project elements might include a regional inventory of local response plans & capabilities, opportunities to collaborate, suggestions on best practices, etc.
- **Interconnections Model Maintenance:** The Interconnections Model will be updated about every five years. The Regional Water Shortage and Response Planning Project will effectively update the Jordan Lake Partnership's Interconnections Model so the first anticipated occurrence of this project is FY24.

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Exhibit 1
Fiscal Year 2019 5-Year Project and Funding Plan**

Table 1: Triangle Water Supply Partnership 5-Year Project and Funding Plan

	Budgeted Expenses				
	FY19	FY20	FY21	FY22	FY23
A. Partnership Management					
Partnership Management Support	\$ 75,000	\$ 75,000	\$ 78,000	\$ 78,000	\$ 81,000
B. Small Projects					
Data summaries, regulatory evaluation, outreach, etc.	\$ 24,000	\$ 36,000	\$ 30,000	\$ 30,000	\$ 30,000
C. Large Projects					
1. Regional Water Shortage and Response Planning	\$ 150,000				
2. Interconnection Model Maintenance (FY24)					
3. Triangle Regional Water Supply Plan			\$ 250,000		
4. Emergency Spill Response and Mitigation Plan Coordination					\$ 150,000
Total Annual Expenditures	\$ 249,000	\$ 111,000	\$ 358,000	\$ 108,000	\$ 261,000
Total Dues	\$ 249,600	\$ 300,000	\$ 216,000	\$ 216,000	\$ 216,000
Partnership Operating Fund Target (beginning of year)	\$ 249,600	\$ 300,600	\$ 405,600	\$ 263,600	\$ 371,600
Expected End-of-Year Fund Balance (carry over to next year)	\$ 600	\$ 189,600	\$ 47,600	\$ 155,600	\$ 110,600

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Exhibit 1
Fiscal Year 2019 5-Year Project and Funding Plan**

Table 2: Triangle Water Supply Partnership Initial Dues and Planned Annual Dues

Member	Metered Connections	Tier	Initial Dues		Planned Annual Dues		
			FY19	FY20	FY21	FY22	FY23
Town of Apex	15,000+	2	\$20,800	\$25,000	\$18,000	\$18,000	\$18,000
Town of Cary	64,000+	3	\$31,200	\$37,500	\$27,000	\$27,000	\$27,000
Chatham County	8,000+	1	\$10,400	\$12,500	\$9,000	\$9,000	\$9,000
City of Durham	85,000+	3	\$31,200	\$37,500	\$27,000	\$27,000	\$27,000
Harnett County	37,000+	2	\$20,800	\$25,000	\$18,000	\$18,000	\$18,000
Town of Hillsborough	5,000+	1	\$10,400	\$12,500	\$9,000	\$9,000	\$9,000
Town of Holly Springs	13,000+	2	\$20,800	\$25,000	\$18,000	\$18,000	\$18,000
Johnston County	29,000+	2	\$20,800	\$25,000	\$18,000	\$18,000	\$18,000
Town of Morrisville	0	1	\$10,400	\$12,500	\$9,000	\$9,000	\$9,000
Orange County	0	1	\$10,400	\$12,500	\$9,000	\$9,000	\$9,000
OWASA	18,000+	2	\$20,800	\$25,000	\$18,000	\$18,000	\$18,000
Town of Pittsboro	< 10,000	1	\$10,400	\$12,500	\$9,000	\$9,000	\$9,000
City of Raleigh	168,000+	3	\$31,200	\$37,500	\$27,000	\$27,000	\$27,000
TOTAL DUES			\$249,600	\$300,000	\$216,000	\$216,000	\$216,000
Base Rate			\$10,400	\$12,500	\$9,000	\$9,000	\$9,000

3-tiered dues based on # of connections:

0-9,999 Connection= Base Rate

10,000-49,999= 2x Base Rate

50,000- up= 3x Base Rate

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Table 3: Triangle Water Supply Partnership FY19 Annual Budget

FY19 Annual Budget	
Carry Over from Previous Year	\$0
Total Dues	\$ 249,600
Partnership Operating Fund Target (beginning of year)	\$ 249,600
Expenditures	
A. Partnership Management	
Partnership Management Support	\$ 75,000
B. Small Projects	
Data summaries, regulatory evaluation, outreach, etc.	\$ 24,000
C. Large Projects	
1. Regional Water Shortage and Response Planning	\$ 150,000
Total Annual Expenditures	\$ 249,000
Expected End-of-Year Fund Balance (carry over to next year)	\$ 600

Orange Water and Sewer Authority
Meeting of the Board of Directors
July 12, 2018

The Board of Directors of the Orange Water and Sewer Authority (OWASA) met in a work session on Thursday, July 12, 2018, at 6:00 p.m. in OWASA's Community Room, 400 Jones Ferry Road, Carrboro.

Board Members present: Yinka Ayankoya (Chair), Jeff Danner (Vice Chair), Ray DuBose (Secretary), Bruce Boehm, Jody Eimers, Robert Morgan, John N. Morris and John A. Young. Board Member absent: Ruchir Vora.

OWASA staff present: Mary Darr, James Dodson, Monica Dodson, Robert Epting, Esq., (Epting and Hackney), Vishnu Gangadharan, Adam Haggerty, Ed Kerwin, Linda Low, Andrea Orbich, Kelly Satterfield, Todd Spencer, Todd Taylor, Mary Tiger, Stephen Winters and Richard Wyatt.

Others present: Terri Buckner, Barbara Foushee, Margaret Holton (University of North Carolina Water Resources Manager), Ben Poulson (UNC Associate Director of Energy Services), Valerie Yow and JD Solomon (CH2M).

Motions

1. BE IT RESOLVED THAT the Board of Directors of the Orange Water and Sewer Authority adopts the Resolution Awarding a Construction Contract for the Mason Farm Wastewater Treatment Plant Intermediate Pump Station Rehabilitation Project. (Motion by Robert Morgan, second by Jeff Danner and unanimously approved.)
2. BE IT RESOLVED THAT the Board of Directors of the Orange Water and Sewer Authority adopts the Resolution Awarding a Construction Contract for the Pritchard Avenue Water Main Replacement Project. (Motion by Robert Morgan, second by Jeff Danner and unanimously approved.)
3. BE IT RESOLVED THAT the Board of Directors of the Orange Water and Sewer Authority adopts the Resolution to Approve North Carolina Department of Transportation Right of Way Acquisition for Roadway Improvements of Highway 54 and Orange Grove Road. (Motion by Robert Morgan, second by Jeff Danner and unanimously approved.)
4. Robert Morgan made a motion to approve the Minutes of the June 14, 2018 Work Session of the Board of Directors; second by Jeff Danner and unanimously approved.

* * * * *

Announcements

Yinka Ayankoya asked if any Board Member knows of a conflict of interest or potential conflict of interest with respect to any item on the agenda tonight to disclose the same at this time; none were disclosed.

Ms. Ayankoya welcomed new Board Members Jody Eimers (Orange County Appointee) and Bruce Boehm (Chapel Hill Appointee) who took their oath of office on July 2, 2018. She also noted that on July 2, 2018, a New Board Member Orientation meeting was held along with other Board Members and staff.

Ms. Ayankoya announced that she distributed to the Board a draft list of the Standing Committees of the Board and requested feedback on same; final list will be distributed later. Committee assignments are (*Committee Chair): Community Engagement – Ruchir Vora*, Bruce Boehm, Jody Eimers and John Morris; Finance – Ray DuBose*, Jeff Danner, Robert Morgan and John Young; Human Resources – Robert Morgan*, Jeff Danner, Ray DuBose and Ruchir Vora; Natural Resources and Technical Services – John Young*, Bruce Boehm, Jody Eimers and John Morris.

Ms. Ayankoya said that the Human Resources Committee met on June 25, 2018, to continue discussing OWASA's retiree health benefits for new hires and deferred compensation (457) plan. The Committee agreed to review additional options at a future meeting this fall.

Ray DuBose announced that OWASA employees volunteered to participate in an "Orange to Orange" walking challenge to promote fitness which was organized by Orange County. This challenge included the Towns of Carrboro, Chapel Hill and Hillsborough; the idea was to walk the distance from Orange County, NC to Orange County, CA (total of 2,505 miles) and OWASA was the winner of this first annual competition.

Ed Kerwin said that the City of Durham staff notified OWASA today that they may discontinue OWASA's transfer of water by Monday, July 16, 2018.

Item One: Quarterly Report on Attendance at Board and Committee Meetings

The Board received this as an information item.

Item Two: Resolution Awarding a Construction Contract for the Mason Farm Wastewater Treatment Plant Intermediate Pump Station Rehabilitation Project

Motion by Robert Morgan, second by Jeff Danner and unanimously approved. Please see Motion No. 1 above.

Item Three: Resolution Awarding a Construction Contract for the Pritchard Avenue Water Main Replacement Project

Motion by Robert Morgan, second by Jeff Danner and unanimously approved. Please see Motion No. 2 above.

Item Four: Approve North Carolina Department of Transportation Right of Way Acquisition of Partial Interest in OWASA Property for Roadway Improvements at the Intersection of Highway 54 and Orange Grove Road

Robert Morgan made a motion to adopt the Resolution Approving the NC Department of Transportation's Acquisition of OWASA Property for Road Improvements at the Intersection of Highway 54 and Orange Grove Road; second by Jeff Danner and unanimously approved. Please see Motion No. 3 above.

The approval of this resolution reflects compensation to OWASA in the amount of \$5,000.

Item Five: Minutes

Robert Morgan made a motion to approve the Minutes June 14, 2018 Work Session of the Board of Directors; second by Jeff Danner and unanimously approved. Please see Motion No. 4 above.

Item Six: Discuss Draft Water Treatment Plant (WTP) and Wastewater Treatment Plant (WWTP) Reliability and Risk Assessment Evaluation

The Board received and provided feedback on the Draft Jones Ferry Road WTP and Mason Farm WWTP Reliability and Risk Assessment Evaluation. JD Solomon, Project Director at CH2M, delivered a presentation on the Reliability and Risk Evaluation process, findings and recommendations. In September 2018, the Board will review an action plan as recommended in the WTP and WWTP Reliability and Risk Assessment Study, to include a staff training plan.

Item Seven: Status of Action Items on Communications During OWASA-Related Emergencies

The Board received and discussed feedback on the status of action items regarding communications during OWASA-related emergencies including ways to connect with customers who are harder to reach, for example, multi-family master meter customers. The Board also inquired about the possibility of developing standard operating protocols for emergencies. An updated report will be provided to the Board at a future meeting.

Item Eight: Review Draft of Weights Assigned to Decision-Criteria of a Request for Proposals for Banking Services

Yinka Ayankoya noted that the Board received a public comment via e-mail on this topic.

The Board provided feedback on the criteria to be included in a Request for Proposals (RFP) for banking services including social responsibility and environmental sustainability. It was agreed that staff will provide the Board draft questions for comment on social responsibility and environmental sustainability via e-mail for staff's consideration in the RFP. Staff will evaluate the firms and make a recommendation for Board approval.

Item Nine: Review Board Work Schedule

The Board agreed to add a closed session item to the August 23, 2018 Board meeting regarding potential litigation.

Item Ten: Executive Director Will Summarize the Key Staff Action Items from the Work Session

Ed Kerwin noted the following items for staff follow-up:

- Review the feedback received on the draft Water Treatment Plant and Wastewater Treatment Plant Reliability and Risk Assessment Evaluation as well as action items regarding communications during OWASA-related emergencies; and
- provide the Board draft questions for comment on social responsibility and environmental sustainability via e-mail for staff's consideration in the Request for Proposals for Banking Services including social responsibility and environmental sustainability.

The Board Work Session was adjourned at 8:05 p.m.

Respectfully submitted by:

Andrea Orbich
Executive Assistant/Clerk to the Board

Attachments

Agenda Item

- Discuss Agua Vista (Advanced Metering Infrastructure) Policies

Background

- Implementing Agua Vista (OWASA's AMI system) gives OWASA many opportunities to improve efficiencies and customer service.
- To take advantage of the opportunities, changes to certain business practices and Board-approved policies need to be considered.

Action Requested

- Review staff's AMI-related policies and practices recommendations and provide guidance.

August 23, 2018



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 *EK*

FROM: Stephen Winters, CPA

DATE: August 17, 2018

SUBJECT: Discuss Agua Vista (Advanced Metering Infrastructure) Policies

Background:

Implementing Agua Vista (OWASA’s Advanced Metering Infrastructure (AMI) system) gives OWASA many opportunities to improve efficiencies and customer service. To take advantage of the opportunities, changes to certain business practices and Board-approved policies need to be considered.

Objectives:

OWASA’s policies and practices related to the AMI system are designed to support the following objectives:

- Enhance customer service
- Conserve resources through early leak detections
- Provide customers with tools to better manage their water use
- Maximize operational efficiency – services are performed quickly, accurately and cost-effectively
- Minimize lost revenues (due to vacancies, unbilled water use, adjustments, etc.)

1. Access to Meter Box and Meter

To be able to obtain meter readings each day and provide enhanced services to our customers such as leak detection, we must be able to receive transmissions from customers’ meters. Therefore, it is essential for meters and other network equipment to remain accessible.

The customer shall ensure that OWASA’s meter box is always accessible and shall not impede access to it, nor cover it (e.g., with mulch). Customer shall not block the radio signal emanating from the AMI radio. For maintenance purposes, an area approximately two feet in each direction around the meter box shall be kept clear of bushes, shrubs, trees, rocks, and other obstructions.

Pre-AMI Policy/Practice	Proposed Post-AMI Policy/Practice
Customer shall ensure access to meter box.	Same as current with addition that customer shall not block radio signal.

2. Visiting a Customer's Location / On-site Customer Consultation

Data generated and compiled by the AMI system allows for efficient and effective desktop and telephone notification and consultation regarding leaks and high bills. We proactively contact customers when their water use, as reported through the AMI system, seems unusual. With AMI, we are able to identify these situations within hours rather than days or weeks. We can perform a consumption analysis remotely using hourly water-use data and guide the customer through how to check for toilet leaks, etc. based on what the data show. Once the customer web portal is deployed, the detailed consumption history will also be accessible online by the customer, as well as step-by-step instructions on where and how to look for leaks. Additionally, OWASA will consider options to communicate detailed consumption history and leak detection instructions to customers without web connection or computer skills (e.g. mailed leak reports).

A major cost savings associated with the AMI project is in reducing the costs associated with driving to customer locations to read meters, verify readings, help identify the existence and sources of leaks, etc. The AMI system can be used to accomplish virtually all of what used to be accomplished through a visit to a customer's location. However, to achieve the full benefit and cost savings of the AMI system once fully deployed, we must proactively inform customers of how to best access, understand and use their water consumption information. We will soon be implementing our plan to accomplish this, and we will keep the Board informed. In the meantime, there will be situations where our staff will continue to visit the customer's location at no charge to provide our assistance, especially in circumstances where someone may have special needs.

Once sufficient time and effort has been given to empowering customers with the information they need to manage their water use, we recommend implementing a cost-of-service fee for customer requested onsite visits. We further recommend that staff have the discretion to waive the fee depending on the specific circumstances, special needs, etc. We currently charge \$45 to visit a customer's location to initiate or shutoff service.

We will keep the Board informed about the expected timeline for this work and when the cost-of-service fee for site visits should be implemented.

3. Final Read/Transfer of Service

Post-AMI implementation, when a customer discontinues service, OWASA will read the meter remotely on the date the service is to be discontinued, then bill the outgoing customer. In certain circumstances, we may also physically shut-off the service at the meter. When a customer wishes to initiate service at a location where service has been shut-off, a fee covering the cost of a field visit to turn on the service will be charged.

However, OWASA will endeavor to leave the service on. If left on, when an incoming customer establishes an account and requests that service be turned on, no site visit will be necessary and no fee will be charged.

OWASA will not grant a discontinuance of service to be effective on a date in the past.

If OWASA shuts-off service at the request of the customer, a field service visit fee will be charged.

Current Policy/Practice	Proposed Post-AMI Policy/Practice	Notes
\$45 service initiation fee charged to incoming customers.	No fee unless we have to visit the location to physically turn-on meter.	With AMI, in most circumstances, we anticipate being able to close the account but leave the meter turned-on. We will be able to monitor the meter so unless there is use, there will be no need to physically shut-off the meter.

4. High Consumption (“Broken Pipe”) Notification

The AMI system informs OWASA staff if a customer’s usage appears to be excessively high. Once informed, OWASA notifies the customer using contact information the customer has provided to us.

If OWASA is unable to contact the customer successfully or if the high-use condition does not abate, OWASA may, at its option, attempt to contact the customer in-person or turn the service off and leave a tag at the customer’s premises notifying them of the condition and the action taken.

Current Policy/Practice	Proposed Post-AMI Policy/Practice	Notes
May discover "broken pipe" situation when in the field reading meters. If so, we knock on door and, if someone is home, investigate. If no one is home and apparent leak seems severe, we shut-off meter and leave a tag.	AMI allows us to monitor water-use in near real-time and be alerted to suspected "broken pipe" situations. We will attempt to contact customer. If unable to contact the customer and leak seems severe, we will visit location, shut-off meter, and leave tag.	No fee will be charged for visiting customer’s location even after AMI is deployed. Limiting the loss of water and property damage is considered a benefit to the system.

5. Low-Flow Continuous-Use (“Leak”) Notification

The AMI system notifies OWASA staff if a customer’s meter shows continuous consumption indicative of a low-flow, continuous leak. Once notified, OWASA, using commercially reasonable efforts, will notify the customer using contact information the customer has provided to us.

Current Policy/Practice	Proposed Post-AMI Policy/Practice	Notes
May discover low-flow leak when reviewing meter readings collected for billing. We attempt to contact customer but their bill will be higher than normal.	AMI allows us to monitor water-use in near real-time and be alerted to suspected low-flow leak situations. We will attempt to contact customer. Impact of low-flow leak on customer’s bill should be greatly reduced compared to current capabilities. This type of leak does not require, and we will not be making, a customer visit.	No customer location visit necessary. No fee will be charged.

6. Contact Information

To receive high-use and leak notifications, the customer is responsible for providing and ensuring that OWASA has their current and accurate contact information, including email address, cell phone number or other phone number.

OWASA will make commercially reasonable efforts to notify the customer of possible leaks or high-use. However, if the customer has not provided OWASA with current and accurate email address, cell phone number or other phone number, OWASA cannot provide timely leak or high use notification.

Pre-AMI Policy/Practice	Proposed Post-AMI Policy/Practice
Strive to maintain accurate contact information but there are no real consequences to customer if not provided.	Without accurate contact information, customer is not eligible for leak notifications or water loss adjustments.

7. Emergency Water Loss (Courtesy) Adjustments

OWASA may extend short-term emergency water loss adjustments for leaks or high-use situations. To be eligible, customers must provide and ensure that OWASA has current and accurate contact information, including email address, cell phone number or other phone number, and must properly apply for the adjustment. Adjustments are based on water lost during the time-period from when the leak begins to when it is repaired and will not be made for water used more than seven days after the first successful notification is made to the customer. A successful notification includes an in-person or via-phone conversation, voice mail, email or text message.

Pre-AMI Policy/Practice	Proposed Post-AMI Policy/Practice	Notes
May offer account adjustments for high-bills resulting from leaks. Since suspected leaks are detected once per month when meters are read, leaks can last from a few days to several weeks. We typically offer adjustments for one month's bill.	To be eligible for an adjustment, a customer must have provided accurate contact information. Adjustment will cover water lost from when the leak began to when it is repaired but not to exceed seven days from date of first successful notification.	Customers who choose the manual read option will not be eligible for water loss adjustments.

8. Tampering with Meter or AMI Device

Tampering with the meter or other AMI device may result in a fine in accordance with North Carolina General Statutes. OWASA may also assess charges for damaged equipment. Tampering includes disconnecting the radio from the meter.

Pre-AMI Policy/Practice	Proposed Post-AMI Policy/Practice	Notes
Statute allows fine of up to \$5,000. We may also charge for cost of damaged equipment.	No change.	With AMI, there will be more equipment subject to tampering (meter box lid, radio transmitter, meter, repeaters).

9. Vacant Account Monitoring

At locations where a customer vacates the premises and asks OWASA to close the account, we may not physically shut-off the meter. In cases where we do not physically shut-off the service, we will monitor the accounts for water-use. If there is use above a certain number of gallons, we will physically shut-off the service and may lock the shut-off valve.

Two Scenarios	Pre-AMI Policy/Practice	Proposed Post-AMI Policy/Practice	Notes
<p><u>Scenario 1</u> Location is rental property and landlord has a “property management agreement” with OWASA.</p>	<p>Account is transferred to landlord who is responsible for paying for any services used. Fee of \$10 charged.</p>	<p>No change.</p>	
<p><u>Scenario 2</u> Location may or may not be rental but if so, no property management agreement is in place.</p>	<p>Account is closed. Meter is physically turned off. No charge to the outgoing customer but a \$45 fee is charged to initiate service when a new customer moves in.</p>	<p>We may choose not to physically shut-off meter. If we do not, we will monitor the location and shut-off service only if water-use over a certain amount is detected.</p>	<p>In cases where service is not shut-off, the new customer moving in will not incur the \$45 service initiation fee because no site visit will be required.</p>

10. Billing increments

We currently bill water and sewer services in increments of 1,000 gallons. Based on customer feedback, the Board and staff would like to bill in smaller increments. Until AMI implementation is complete, some portion of our meters will be read using our current methods (manual or drive-by). Staff plans to present billing increment options to the Board subsequent to full-implementation of the AMI system.

Action Requested:

We would like the Board’s input and guidance on these AMI-related policies and practices. Staff will collect the Board’s input, determine which existing policies need to be revised, identify whether new policies are needed, and create drafts for the Board to review/approve at a future meeting (tentatively scheduled for October 25, 2018).



Stephen Winters, CPA
 Director of Finance and Customer Service

Agenda Item

- Capital Improvements Program (CIP) Semiannual Report

Purpose

- To summarize project and program performance for OWASA's Capital Improvements Program (CIP) for the Fiscal Year (FY) 2018 reporting period (July 2017 through June 2018).

Background

- The report details overall CIP performance during FY 2018, status updates for projects active during the reporting period, and Minority and Women Business Enterprise (MWBE) participation information.
- Highlights of the report include:
 - Approximately \$19.2 million was invested in a total of 69 capital projects which were active during FY 2018. This expenditure total represents the largest annual investment in CIP since the completion of the last major wastewater treatment plant upgrade in FY 2007.
 - The FY 2018 CIP expenditure total is about \$4.1 million more than the budgeted FY 2018 CIP funds (approximately 127% of budget). About \$2.55 million of this total is due to timing-related budget variances and about \$1.55 million is due to scope-related budget variances. These subtotals are primarily driven by four large projects in construction.
 - Over the past five fiscal years, the CIP program has achieved 44% MWBE participation on formal and informal contracts, and has met the 10% MWBE participation goal on 58% of awarded contracts. Additional outreach to MWBE firms (beyond typical procedures) has been underway but with no noticeable participation change in recent bids, which is reflective of the overall bid environment.

Action Needed

- Receive and discuss the report.

August 23, 2018



ORANGE WATER AND SEWER AUTHORITY

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

TO: Board of Directors
THROUGH: Ed Kerwin *EKL*
FROM: Vishnu Gangadharan, P.E., PMP
DATE: August 17, 2018
SUBJECT: **Capital Improvements Program (CIP) Semiannual Report**

PURPOSE

This semiannual report summarizes project and program performance for OWASA's Capital Improvements Program (CIP) for the Fiscal Year (FY) 2018 reporting period (July 2017 through June 2018).

DISCUSSION

Program Summary

Approximately \$19.2 million was invested in a total of 69 capital projects which were active during FY 2018, including (as of the end of the reporting period): eighteen (18) projects in a planning phase, fourteen (14) projects in design, ten (10) projects in construction, thirteen (13) projects in closeout, and fourteen (14) completed projects. The FY 2018 expenditure total represents the largest annual investment in CIP since the completion of the last major wastewater treatment plant upgrade in FY 2007, a fact which is due in large part to the full staffing of the CIP group as of October 2017.

The FY 2018 expenditure total is about \$4.1 million more than the budgeted FY 2018 CIP funds (approximately 127% of budget). About \$2.55 million of this FY 2018 overage is due to the timing of project expenses: primarily this is comprised of projects such as the Agua Vista initiative where work planned for FY 2019 is completed (ahead of schedule) in FY 2018; timing changes can also reflect projects where work that was expected to be complete in FY 2017 was completed (behind schedule) in FY 2018. The remaining \$1.55 million of the FY 2018 overage is due to true cost growth on projects, due primarily to scope additions such as unforeseen conditions during construction or increases in construction prices compared to budgetary estimates. This summary breakdown of budget variance is shown graphically at the lower right of Figure 1, with further discussion on the following page and supporting detail in Table 1.

Figure 1 shows the actual FY 2018 CIP expenses (in red) against the monthly baseline projection (in blue), as well as the expenditure target of 90% to 105% of budgeted funds.

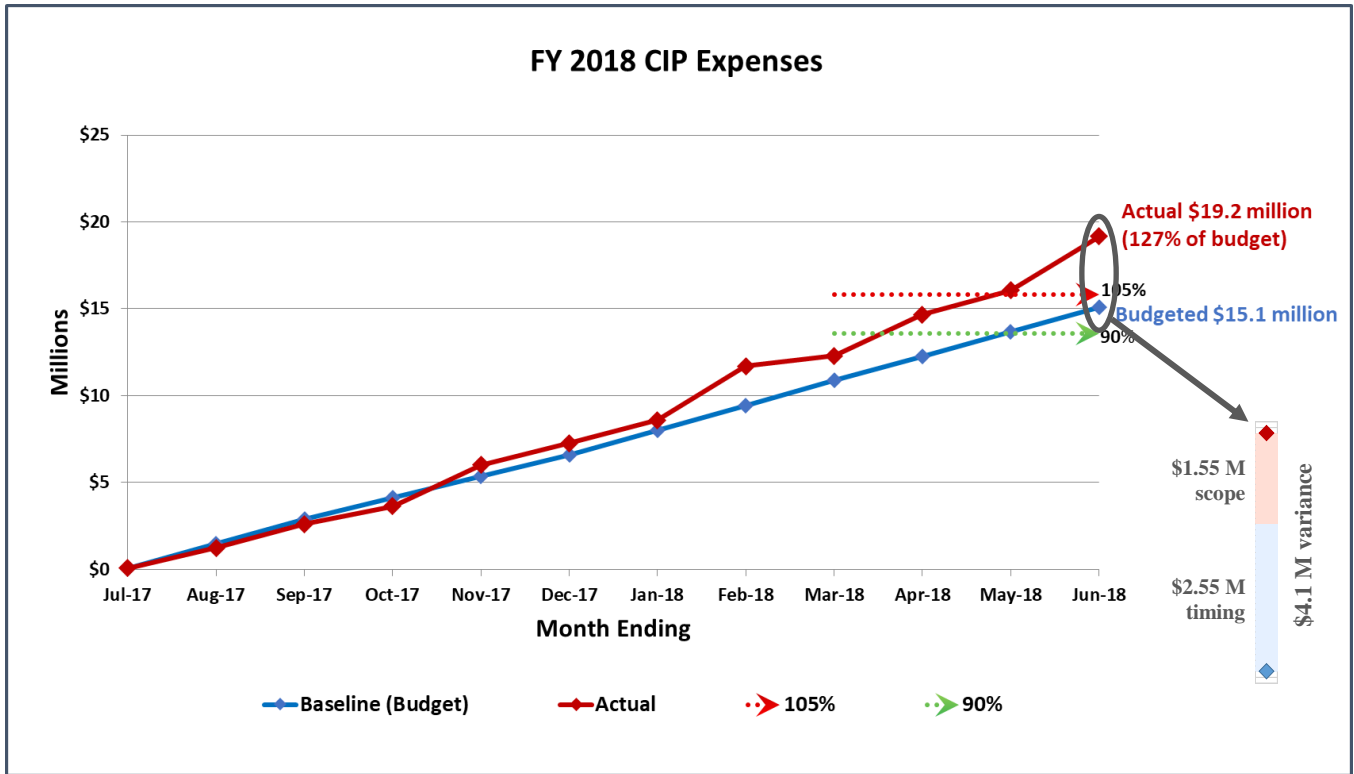


Figure 1 – FY 2018 CIP Expenses

As discussed with the Board at the presentation of the January 25, 2018 Semiannual CIP report, variances in expenditure related to timing do not represent true cost growth on a project. These instances tend to be deviations of a few months from the schedule assumptions that were current at time of budget approval. Good progress on the Agua Vista initiative (CIP 275-76) and the Administration Building HVAC project (CIP 280-06) account for the majority of the timing-related budget variances (\$2.3 million out of the \$2.55 million listed in Figure 1), reflecting additional FY 2018 expenditures which were expected and budgeted to occur in FY 2019.

On the other hand, variances in expenditure related to additional project scope do reflect actual cost increases on a project, and are in large part due to unforeseen site conditions encountered during construction. For FY 2018, most of the scope-related budget variance (\$1.4 million of the \$1.55 million listed in Figure 1) was due to the additional construction required on two projects: the Little Creek Interceptor Replacement project (approximately \$854,000 above FY 2018 budget) and the sewer interceptor replacement across Hillsborough Road that was completed as part of the Hillsborough Street Water Main Replacement project (approximately \$520,000 of this project’s overrun; note that this project also incurred about \$220,000 of timing-related FY 2018 overrun). Information on both of these projects is included on the following page.

Project Performance Summary

Table 1 (attached) contains summaries of project performance for all active projects during this reporting period. This reporting table has been expanded and reformatted from prior reports in

order to provide information not only on the Fiscal Year variances, but also visibility on overall project schedule and budget status. The projects in the table are shown in four major categories:

1. Projects with no FY 2018 cost overrun, or cost overrun primarily due to scope changes;
2. Projects with FY 2018 cost overrun primarily due to delayed completion of FY 2017 work;
3. Projects with FY 2018 cost overrun primarily due to accelerated completion of FY 2019 work; and
4. Projects still in planning stages and not yet baselined for schedule and budget.

The following project narratives provide descriptions for certain projects which cross several fiscal years and which may warrant additional information to help describe the budgetary impact from scheduling delays or other factors:

- **CIP #272-40 WTP Filter Media and Backwash Improvements:** Construction began in the fall of 2017 and encountered significant and previously unknown deteriorated components within the older filter basins. Replacement of filter troughs and rehabilitation of deteriorating concrete were added to the construction scope.
- **CIP #275-87 Hillsborough Street Water Main Replacement:** This project scope included not only the replacement of the water main in Hillsborough Street, but also the replacement and upsizing of a section of sewer main crossing Hillsborough Street near Bolinwood Drive. During construction, a buried utility crossing was discovered which necessitated lowering the elevation of the new, upsized sewer crossing, which in turn required additional downstream sections to be designed and replaced as part of construction. In total, the additional design and construction costs related to this change totaled approximately \$520,000 (this total is higher than the amount that was projected and reported in the January 2018 semiannual report). The remainder of the Fiscal Year 2018 overrun was due to work completed in FY 2018 which was initially expected to be complete in FY 2017.
- **CIP #276-47 Little Creek Interceptor Replacement:** Construction began in FY 2016 and has been significantly delayed twice due to issues related to unusual soil conditions encountered in the area. FY 2018 funding included \$552,000 for the completion of construction; however, the contractor's claim for additional costs (on the basis of the unusual soil conditions) was found to be legitimate resulting in total additional FY 2018 costs of approximately \$854,000. Staff provided additional background about the project and the contractor's claim in an memorandum emailed to the Board on January 19, 2018, as well as further discussion during the January 25, 2018 Board meeting.
- **CIP #276-43 Sanitary Sewer Hydraulic Model:** Budgeted funds for this flow monitoring and modeling effort was based on costs incurred during the prior master plan in FY 2010/2011. However, project planning revealed that significant additional monitoring would be required to meet project objectives, which included a detailed assessment of areas within the collection system subject to infiltration and inflow. FY

2018 costs of \$211,000 allowed for completion and initial analysis of flow monitoring, and funds are included in FY 2019 for completion of the study.

- **CIP #278-51 WWTP Digesters #1 and #2 Rehabilitation:** Construction began in early FY 2016, and was expected to finish in early FY 2017. However, the contractor encountered several unexpected construction problems during the structural rehabilitation of these 50 year-old, enclosed concrete tanks, including the difficult and challenging removal of a large amount of grit and sediment (beyond what was predicted), cracks in the concrete floor slab, and groundwater intrusion into the tank. Work associated with most of these changes occurred in FY 2017. Changes due to unforeseen construction problems and previously unforeseen scope increases requested by Staff delayed project completion until late FY 2017; however billing for final closeout work was not received until early FY 2018.

Minority and Women Business Enterprise (MWBE) Participation

Formal and informal construction contracts awarded during this reporting period included \$1.0 million participation by MWBE businesses (or 20% of the total awarded contract value), with 20% of awarded contracts meeting the 10% participation goal. The contracts which fell below the goal either provided evidence of Good Faith Efforts to secure MWBE participation or else did not utilize subcontracts on the project.

The five-year averages for the CIP program include 44% MWBE participation on formal and informal contracts, and 58% of awarded contracts meeting the 10% participation goal. A review of contract information available since FY 2014 shows the following MWBE breakdown during that time period (out of total MWBE participation of \$11.5 million): Woman-Owned (90.1%), Hispanic-owned (6.1%), Black/African American-owned (3.6%), Other (0.2%).

Rising construction costs and other construction procurement challenges continue to be an area of concern for the CIP program. The large quantity of public and private construction work has made it increasingly difficult to solicit bidding interest from contractors; this issue is also reflected in results from recent MWBE outreach efforts. Despite recent MWBE outreach efforts (beyond our standard MWBE advertising practices) including online posting, email solicitation and direct contact with MWBE contractors and subcontractors about our capital project contracting opportunities, recent bid results have not shown any change in the makeup of MWBE prime contractors and subcontractors bidding our projects. Follow-up discussion reveals that, just as is the case with non-MWBE contractors, MWBE contractors are extremely busy and are extremely selective with the projects that they choose to bid.

Further MWBE outreach efforts will include a webinar reviewing upcoming bid opportunities in more detail as well as some procedures on prequalification, bidding, and contract details to eliminate potential barriers that might be dissuading MWBE contractors unfamiliar with our processes. Staff is also planning to participate in a University of North Carolina-hosted outreach event for contractors and designers in September.

Additional Information

Customers may visit our website (www.owasa.org) for information about our current major CIP projects and our [FY 2018 - 2022 CIP book](#) which provides additional information about the CIP. Please feel free to contact me at (919) 537-4248 or vgangadharan@owasa.org if you have any questions regarding the CIP program or projects.



Vishnu Gangadharan, P.E., PMP
Engineering Manager - Capital Improvements

Attachment – Table 1 Project Performance Summary Table

Table 1: Project Performance Summary - FY 2018

- ✔ FY 2018 (or overall project) costs within 5% of FY 2018 (or overall project) budget; completion within 2 months of baselined completion
- ✘ FY 2018 (or overall project) costs more than 5% above FY 2018 (or overall project) budget; completion more than 2 months beyond baselined completion

CIP No.	Project	Active Phase (at 6/30/18)	FY 2018 Performance			Overall Project Performance						Comments
			FY 2018 Budget	FY 2018 Cost	FY 2018 Cost Status	Baseline Budget	Forecasted Cost	Cost Status	Baseline Completion	Forecasted Completion	Schedule Status	
Projects with no FY 2018 cost overrun, or cost overrun primarily due to scope (not timing) changes												
270-04	Jordan Lake Raw Water Supply Allocation	N/A	\$ 5	\$ 5	✔	\$ 5	\$ 5	✔	Jun 18	Jun 18	✔	
270-09	Quarry Reservoir Development	N/A	\$ 15	\$ 15	✔	\$ 15	\$ 15	✔	Jun 18	Jun 18	✔	
270-11	University Lake Pump Station Improvements	Design	\$ 65	\$ 162	✘	\$ 2,105	\$ 2,223	✘	Jun 20	Mar 20	✔	Design costs greater than planned, including installation of 24" raw water meter
272-14	Water Facility Security Upgrades	Closeout	\$ 110	\$ 98	✔	\$ 325	\$ 536	✘	Jun 18	Aug 18	✔	Additional security options and scope identified during system design
272-21	WTP Switchgear Upgrade	Complete	\$ 60	\$ 51	✔	\$ 85	\$ 86	✔	Jun 17	Oct 17	✘	Delay due to material delivery and installation delays
272-31	Water Treatment Plant and Adjacent Facilities Paving	Complete	\$ 25	\$ 16	✔	\$ 89	\$ 88	✔	Jun 17	Jul 17	✔	
272-34	WTP Generator Building Louver Replacement	Complete	\$ 40	\$ 38	✔	\$ 80	\$ 55	✔	Jun 17	Jul 17	✔	
272-35	WTP Flash Mix Basin Evaluation	Complete	\$ 25	\$ 22	✔	\$ 25	\$ 22	✔	Jun 18	Feb 18	✔	
272-38	WTP Sedimentation Basin Rehabilitation	Design	\$ 102	\$ 92	✔	\$ 3,296	\$ 2,606	✔	Jun 20	Mar 20	✔	
272-39	Concrete Condition Assessment	Planning	\$ 75	\$ 70	✔	\$ 500	\$ 188	✔	Jun 19	Jun 19	✔	
272-40	WTP Filter Media and Backwash Improvements	Construction	\$ 880	\$ 927	✘	\$ 850	\$ 1,399	✘	Jun 19	Sep 18	✔	Cost variance due to several unforeseen site conditions; see additional note
272-45	WTP Fluoride System Improvements	Complete	\$ 150	\$ 121	✔	\$ 200	\$ 178	✔	Sep 17	Oct 17	✔	
272-47	WTP and WWTP Risk Assessment	Closeout	\$ 150	\$ 238	✘	\$ 150	\$ 243	✘	Jun 18	Aug 18	✔	Cost of study above planning estimate
275-20	Brandywine Road Water Main Replacement	Construction	\$ 770	\$ 655	✔	\$ 1,098	\$ 1,094	✔	Dec 18	Oct 18	✔	
275-20	Lake Ellen Water Main Replacement	Complete	\$ 129	\$ 178	✘	\$ 175	\$ 242	✘	Dec 18	Feb 19	✔	Bids above planning estimate; scope of design greater than initially planned
275-21	High Priority Water Mains - Programmatic Services	Design	\$ -	\$ 51	✘	\$ -	\$ 51	-	Jun 22	Jun 22	✔	Added a review of program scope/schedule, bid analysis, and rehabilitation technologies
275-21	Pritchard Avenue Water Main Replacement	Construction	\$ 70	\$ 61	✔	\$ 1,218	\$ 1,026	✔	Jun 19	Dec 18	✔	

Table 1: Project Performance Summary - FY 2018

- ✔ FY 2018 (or overall project) costs within 5% of FY 2018 (or overall project) budget; completion within 2 months of baselined completion
- ✘ FY 2018 (or overall project) costs more than 5% above FY 2018 (or overall project) budget; completion more than 2 months beyond baselined completion

CIP No.	Project	Active Phase (at 6/30/18)	FY 2018 Performance			Overall Project Performance						Comments
			FY 2018 Budget	FY 2018 Cost	FY 2018 Cost Status	Baseline Budget	Forecasted Cost	Cost Status	Baseline Completion	Forecasted Completion	Schedule Status	
275-46	Dobbins Drive Water Main Replacement	Design	\$ 50	\$ 4	✔	\$ 1,658	\$ 1,520	✔	Jun 19	Dec 19	✘	Delay due to re-evaluation of upstream flow demand projections, easement acquisition
275-53	Water Distribution System Hydraulic Model	Planning	\$ 40	\$ 23	✔	\$ 30	\$ 23	✔	Jun 18	Jun 18	✔	
275-87	Hillsborough St Water Main Replacement	Closeout	\$ 1,700	\$ 2,440	✘	\$ 2,160	\$ 2,557	✘	Feb 18	Jul 18	✘	Delay and added cost due to additional sewer work; see additional note
276-18	Sanitary Sewer Rehabilitation (FY17-19)	Various	\$ 1,249	\$ 853	✔	\$ 5,868	\$ 5,702	✔	Jun 19	Jun 19	✔	
276-47	Little Creek Interceptor	Construction	\$ 552	\$ 1,406	✘	\$ 1,185	\$ 2,623	✘	Jun 16	Aug 18	✘	Delay and added cost due to unforeseen site conditions; see additional note
276-48	Dobbins Drive Interceptor	Design	\$ 55	\$ 4	✔	\$ 1,815	\$ 1,650	✔	Jun 19	Dec 19	✘	Delay due to re-evaluation of upstream flow demand projections, easement acquisition
276-53	Creek Crossing Access Improvements	Design	\$ 20	\$ 20	✔	\$ 693	\$ 702	✔	Jun 21	Jun 21	✔	
276-57	Sanitary Sewer Hydraulic Model	Planning	\$ 151	\$ 211	✘	\$ 300	\$ 800	✘	Jun 19	Jun 19	✔	Cost variance due to additional project objective; see additional note
276-60	Kenan Stadium Interceptor Replacement	Complete	\$ 575	\$ 569	✔	\$ 575	\$ 569	✔	Oct 17	Aug 17	✔	
277-31A	Rogerson Drive Pump Station Rehabilitation	Closeout	\$ 925	\$ 914	✔	\$ 3,094	\$ 3,106	✔	Jun 19	May 19	✔	
277-37	Knolls PS Rehab	Closeout	\$ 55	\$ 26	✔	\$ 72	\$ 53	✔	Jun 18	Jul 18	✔	Budget and schedule reported for study phase only
277-38	Rogerson Drive Force Main Emergency Repair and Rehabilitation	Closeout	\$ 1,250	\$ 1,121	✔	\$ 1,650	\$ 1,708	✔	Mar 18	May 18	✔	
277-39	Wastewater PS Rehabilitation	Closeout	\$ 90	\$ 11	✔	\$ 40	\$ 41	✔	Jun 18	Jul 18	✔	
278-46	Comprehensive Coatings	Construction	\$ 200	\$ 194	✔	\$ 1,200	\$ 1,047	✔	Sep 19	Sep 19	✔	
278-52	WWTP Digesters #1 & #2 Rehabilitation	Complete	\$ 25	\$ 44	✘	\$ 2,227	\$ 2,526	✘	Jan 17	Jul 17	✘	Cost and schedule variance due to several unforeseen site conditions; see Aug 2017 report
278-54	WWTP IPS Rehabilitation	Design	\$ 472	\$ 37	✔	\$ 1,004	\$ 949	✔	Dec 18	Feb 19	✔	
278-58	WWTP Non Potable Water Pump Replacements	Construction	\$ 120	\$ 39	✔	\$ 275	\$ 285	✔	Dec 17	Sep 18	✘	Considerable delay with pump fabrication and delivery
278-68	Roofing / Building Envelope Rehabilitation (FY 2018)	Closeout	\$ 236	\$ 353	✘	\$ 266	\$ 386	✘	Jun 18	Jul 18	✔	Bids above planning estimate

Table 1: Project Performance Summary - FY 2018

- ✔ FY 2018 (or overall project) costs within 5% of FY 2018 (or overall project) budget; completion within 2 months of baselined completion
- ✘ FY 2018 (or overall project) costs more than 5% above FY 2018 (or overall project) budget; completion more than 2 months beyond baselined completion

CIP No.	Project	Active Phase (at 6/30/18)	FY 2018 Performance			Overall Project Performance						Comments
			FY 2018 Budget	FY 2018 Cost	FY 2018 Cost Status	Baseline Budget	Forecasted Cost	Cost Status	Baseline Completion	Forecasted Completion	Schedule Status	
278-71	WWTP Main Potable Water Line – Backflow Prevention	Complete	\$ 25	\$ 63	✘	\$ 80	\$ 138	✘	Dec 18	Oct 18	✔	Cost variance due to additional project objective
278-72A	WWTP Secondary Clarifier Rehab (SC 2 &3)	Planning	\$ 40	\$ 21	✔	\$ 900	\$ 880	✔	Jun 19	Jun 19	✔	
278-78A	WWTP Fermenter Tank and Pumps Rehabilitation	Design	\$ 15	\$ 15	✔	\$ 550	\$ 397	✔	Jun 20	Dec 19	✔	
280-12	Admin Building LED Lighting Retrofit	Complete	\$ 95	\$ 58	✔	\$ 95	\$ 58	✔	Jun 18	Dec 17	✔	
Projects with FY 2018 cost variance primarily due to delayed completion of FY 2017 work												
270-26	Cane Creek Permanganate Facility	Closeout	\$ 20	\$ 41	✘	\$ 1,032	\$ 969	✔	Jun 17	Dec 17	✘	Substantial completion achieved in June 2017, but punchlist and closeout items lagged
272-44	WTP Energy Monitors	Complete	\$ -	\$ 37	✘	\$ 37	\$ 37	✔	Jun 17	Jul 17	✔	Minor delay
275-71	Rosemary, Henderson, and Hillsborough Streets Water Mains	Complete	\$ -	\$ 52	✘	\$ 2,110	\$ 1,896	✔	Jun 17	Jul 17	✔	Minor delay
276-17	Sanitary Sewer Condition Evaluation	Complete	\$ 41	\$ 465	✘	\$ 1,474	\$ 983	✔	Jun 17	Jun 18	✘	Delay due to required reinspections and billing delay
277-24	Eastowne, Eubanks, Meadowmont 1 Pump Station Rehab	Closeout	\$ 790	\$ 850	✘	\$ 970	\$ 1,008	✔	Dec 18	Dec 18	✔	Construction sequencing different than planned; overall construction completed on schedule
277-29	Rogerson Drive Force Main Redundancy Evaluation	Closeout	\$ 45	\$ 50	✘	\$ 50	\$ 50	✔	Dec 17	Oct 17	✔	Minor delay in starting evaluation; project was completed on schedule
278-59	WWTP LED Lighting	Complete	\$ -	\$ 3	✘	\$ 125	\$ 122	✔	Jun 17	Jul 17	✔	Minor delay
278-61	WWTP Pavement	Closeout	\$ 20	\$ 52	✘	\$ 130	\$ 65	✔	Jun 17	Jun 18	✘	Delay due to staffing shortage and major revision to project scope due to high bids received
278-73	WWTP SCADA Upgrade	Closeout	\$ 150	\$ 254	✘	\$ 389	\$ 397	✔	Dec 18	Dec 18	✔	Minor delay in task completion; overall project is on schedule
278-74	WWTP Critical Spare Pumps	Complete	\$ -	\$ 29	✘	\$ 125	\$ 101	✔	Jun 17	Oct 17	✘	Delays in pump fabrication and delivery
Projects with FY 2018 cost variance primarily due to accelerated completion of FY 2019 work												
270-28	University Lake Permanganate Facility	Planning	\$ -	\$ 46	✘	\$ 1,380	\$ 2,108	-	-	-	-	Planning accelerated due to increased priority on taste and odor issues; forecasted cost based on planning study in progress
275-15	Reimbursement for Distribution System Improvements	N/A	\$ -	\$ 65	✘	\$ 296	\$ 296	✔	Jun 19	Jun 19	✔	FY 2018 costs are for remedial work which will be credited against the reimbursement owed
275-20	Fordham Service Road Water Main Replacement	Design	\$ -	\$ 12	✘	\$ 955	\$ 955	✔	Jun 19	Jun 19	✔	Restarted project earlier than planned due to timing of adjacent development (Wegman's)

Table 1: Project Performance Summary - FY 2018

✔ FY 2018 (or overall project) costs within 5% of FY 2018 (or overall project) budget; completion within 2 months of baselined completion
✘ FY 2018 (or overall project) costs more than 5% above FY 2018 (or overall project) budget; completion more than 2 months beyond baselined completion

CIP No.	Project	Active Phase (at 6/30/18)	FY 2018 Performance			Overall Project Performance						Comments
			FY 2018 Budget	FY 2018 Cost	FY 2018 Cost Status	Baseline Budget	Forecasted Cost	Cost Status	Baseline Completion	Forecasted Completion	Schedule Status	
275-21	Manning Drive & Country Club Water Main Replacements	Design	\$ 37	\$ 146	✘	\$ 3,811	\$ 3,409	✔	Mar 20	Dec 19	✔	
275-76	Advanced Metering Infrastructure (AMI) System	Construction	\$ 1,500	\$ 2,983	✘	\$ 6,060	\$ 5,600	✔	Jun 20	Dec 19	✔	Major material purchases completed ahead of programmed schedule
275-77	Galvanized Water Main Replacements (Ph 1 & 2)	Design	\$ 96	\$ 136	✘	\$ 1,165	\$ 1,447	✘	Jun 19	Dec 19	✘	Design proceeded ahead of schedule; overall schedule affected by easement acquisition
278-51	WWTP Solids Thickening Improvements	Design	\$ 300	\$ 440	✘	\$ 4,250	\$ 4,863	✘	Jun 20	Jun 20	✔	Design proceeded ahead of schedule; overall cost forecast to increase due to price increases
280-06	Administration Building HVAC System Upgrade	Construction	\$ 900	\$ 1,762	✘	\$ 1,685	\$ 2,110	✘	Mar 19	Aug 18	✔	Majority of construction completed in FY 2018, ahead of schedule
Projects not yet baselined												
272-37	WTP Belt Filter Press Replacement	Planning	\$ 65	\$ 31	✔	-	-	-	-	-	-	Planning study in progress
275-52	West Cameron Avenue Water Main	Planning	\$ 25	\$ -	✔	-	-	-	-	-	-	Planning study in progress
276-45	Bolinwood Dr Interceptor	Planning	\$ 150	\$ 22	✔	-	-	-	-	-	-	Planning study in progress
276-54	Rogers Road Gravity Sanitary Sewer Extension	Construction	\$ -	\$ 240	✘	-	-	-	-	-	-	All costs for this project are reimbursed by Orange County
278-50	WWTP Warehouse	Planning	\$ 25	\$ 0	✔	-	-	-	-	-	-	Planning deferred to FY 2020
278-72B	WWTP Secondary Clarifier Pumping Improvements	Planning	\$ 110	\$ 102	✔	-	-	-	-	-	-	Planning study and minor improvements completed; future project is not currently funded
278-78B	Digester Gas Mixing Improvements	Planning	\$ 25	\$ 40	✘	-	-	-	-	-	-	Planning study completed; future project is not currently funded
278-80A	Primary Sludge PS Rehab and Old Lab Building Demo	Planning	\$ 50	\$ 25	✔	-	-	-	-	-	-	Planning study completed; future project is not currently funded
278-80	WWTP Miscellaneous Rehabilitation	Planning	\$ 125	\$ 52	✔	-	-	-	-	-	-	Program budget to be re-baselined prior to FY 2020 CIP budget development
278-82	WWTP Headworks Concrete Rehab	Planning	\$ -	\$ 19	✘	-	-	-	-	-	-	Planning study in progress

Total FY 2018 Active Projects	FY 2018 Budget	FY 2018 Cost
	\$ 15,085	\$ 19,182

Baseline Budget	Forecasted Cost
\$ 61,997	\$64,192

Agenda Item

- Preliminary Financial Report for the Twelve-Month Period Ended June 30, 2018

Purpose

- To inform the Board of Directors of OWASA's financial performance and fiscal position.

Background

- The preliminary financial report consists of a Statement of Net Position, an Income Statement that includes a budget to actual comparison, graphical presentations of financial performance indicators and a Financial Management Policy Report Card.
- Highlights of the report include:
 - All but one financial performance target was met.
 - Operating Revenues for the period were about \$1.7 million or 4.6% over budget.
 - System Development Fees were about \$162,000 or 11.4% over budget.
 - Operating Expenses were about \$306,000 or 1.4% under budget.
 - Net Income less Debt Service was about \$2.3 million or 26.7% over budget. OWASA is a nonprofit entity. Net Income less Debt Service is used to fund investments in capital improvement projects and reserves.
 - The original Capital Improvements Program (CIP) budget was \$15.1 million. In May 2018, the Board approved a budget amendment to increase the CIP budget for FY 2018 by \$5 million. For the year, CIP expenditures totaled \$19.2 million which is approximately 127% of the original budget.

Action Needed

- Receive and discuss the Preliminary Financial Report for the twelve-month period ended June 30, 2018.

August 23, 2018



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 *EKL*
From: Stephen Winters, CPA
Date: August 17, 2018
Subject: Preliminary Financial Report for the twelve-month period ended June 30, 2018

Purpose

The preliminary financial report for the twelve-month period ended June 30, 2018 is presented to inform the Board of Directors of OWASA's financial position and financial performance in relation to budget. The report is considered preliminary until the annual audit of our financial statements is complete; the audited financial report is scheduled to be presented to the Board on September 27, 2018.

Contents

- Statement of Net Position
- Income Statement
- Graphs of Key Performance Indicators
- Financial Management Policy Report Card

Fiscal Performance

- As shown on page 10 of the financial report, all financial performance measurement targets were met for the period except for meeting the target balance in the working capital reserve. At the end of the year, the balance was about \$1.5 million less than the target. We expended approximately \$3 million on Capital Improvements Program (CIP) projects which are being financed with low-interest loans from the state and we have not yet drawn funds against the loans.
- Average drinking water sales for the period was 6.16 million gallons per day (MGD), 6.15 was projected. Combined drinking and reclaimed water sales for the period averaged 6.78 MGD versus a projection of 6.89.
- The year-end balance in Receivables is approximately \$11.4 million which is higher than typical. The amount in the account includes several amounts that are not normally present in the year-end balance:
 - \$1.2 million due from the City of Durham related to revenue from water transfers
 - \$1.8 million in sales tax refunds (per state law, OWASA pays sales taxes on purchases and then files for their refund with the state)
 - \$4.3 million in anticipated proceeds from approved loans from the state (an accounting treatment required by generally accepted accounting principles (GAAP))
- Total Operating Revenue was 4.6% or about \$1.7 million over budget. We recorded approximately \$1.2 million in unbudgeted revenue from the transfer of water to the City of Durham in accord with our mutual

aid agreement.

- Revenue from new system connections (system development fees) was over budget by about \$162,000. Several large meters were set for which revenue was greater than the “average per-meter equivalent price” used in developing the budget.
- Total Operating Expenses for the period were 1.4% or about \$306,000 under budget.
 - General and Administrative expenses were under budget by about \$276,000 due primarily to not incurring consulting and professional fees and vacancies in the Administrative and Finance Departments.
 - The Water Supply and Treatment department was over budget by about \$335,000 primarily due to higher than expected chemical use and costs. Part of the additional chemical costs resulted from the water treated and transferred to the City of Durham.
 - Water Distribution expenses were under budget by about \$81,000 due primarily to meter maintenance expense. Malfunctioning meters are being replaced with automated metering infrastructure meters and are being charged to the Agua Vista capital project rather than being expensed.
 - Wastewater Treatment expenses were under budget by about \$176,000. Maintenance costs were about \$98,000 less than projected for the period. Waste Disposal costs were also under budget due to less than projected use of biosolids hauling contractor.
 - Wastewater Collection expenses were under budget by about \$107,000. Personnel, energy, and materials and supplies costs were lower than budgeted.
- Net Income less Debt Service for the period was approximately 26.7% or \$2.3 million more than budget. OWASA is a nonprofit entity. Net Income less Debt Service is used to fund investments in capital improvement projects and reserves.
- Capital Improvements Program - Approximately \$19.2 million was invested in a total of 69 capital projects during FY 2018, including (as of the end of the reporting period): 18 projects in a planning phase, 14 projects in design, 10 projects in construction, 13 projects in closeout, and 14 completed projects. The FY 2018 expenditure total represents the largest annual investment in CIP since the completion of the last major wastewater treatment plant upgrade in FY 2007, a fact which is due in large part to the full staffing of the CIP group as of October 2017.

The FY 2018 expenditure total is about \$4.1 million more than the original budget for FY 2018 CIP funds (approximately 127% of budget). In May 2018, the Board approved a budget amendment to increase the CIP budget for FY 2018 by \$5 million. For further information, please see agenda Item 5, Capital Improvements Program Semiannual Report.



Stephen Winters, CPA
Director of Finance and Customer Service

Orange Water and Sewer Authority

**Preliminary Financial Report
For the Twelve-Month Period Ended
June 30, 2018**

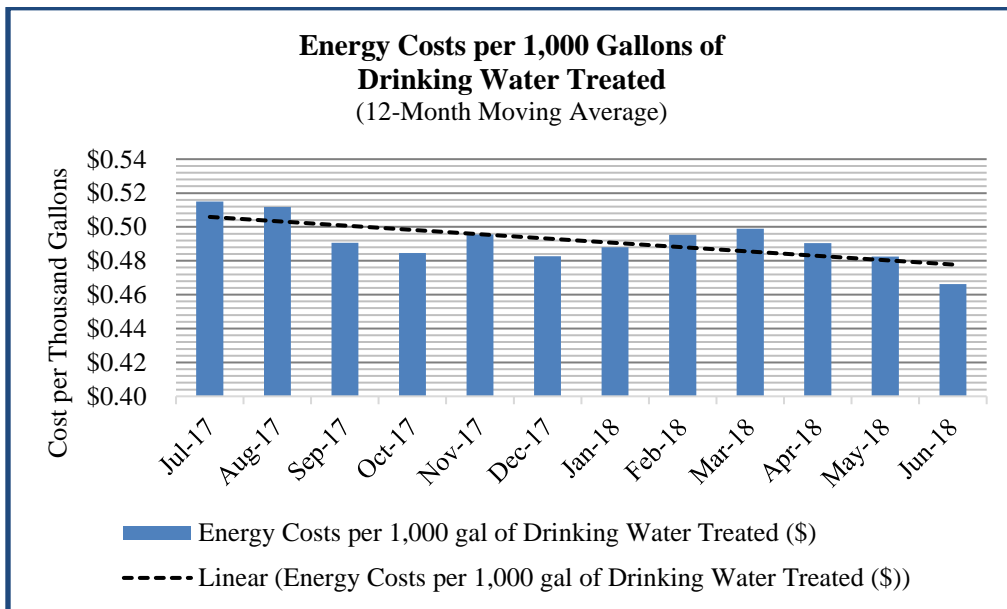
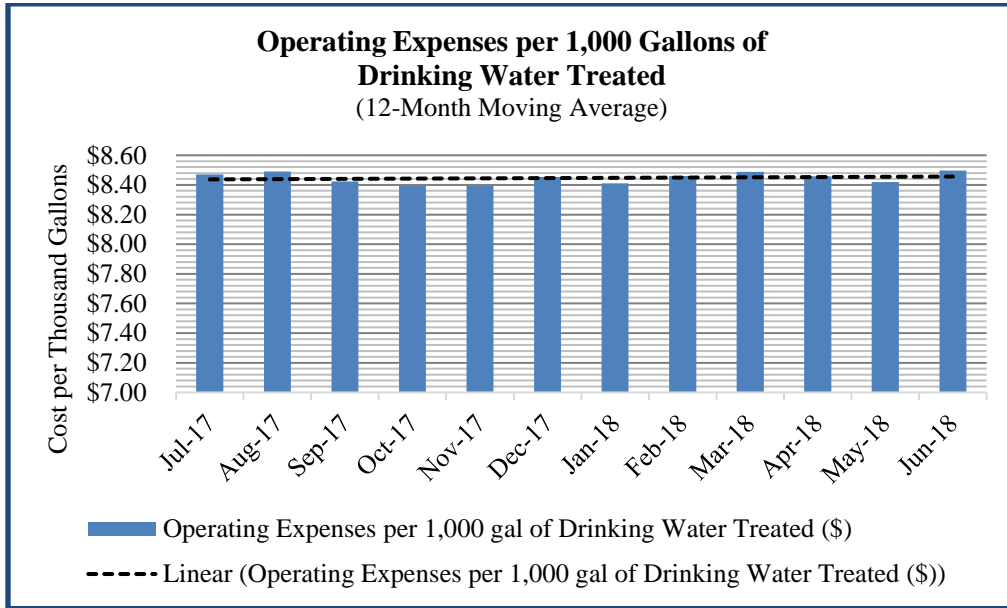
Orange Water and Sewer Authority
Statement of Net Position
June 30, 2018
(unaudited)

Assets	
Current Assets	
Cash	\$17,018,861
Receivables	11,364,274
Inventory	1,191,250
Prepaid expenses	38,880
Restricted cash	6,098,610
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Total Current Assets	35,711,875
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Noncurrent Assets	
Capital assets (net of depreciation)	278,113,479
Other noncurrent assets	36,908,740
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Total Noncurrent Assets	315,022,219
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Total Assets	\$350,734,094
	<hr/> <hr/>
Liabilities and Net Position	
Current Liabilities	
Accounts payable and accrued expenses	\$6,016,705
Unearned income	176,548
Customer deposits	1,086,646
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Total Current Liabilities	7,279,899
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Noncurrent Liabilities	
Bonds payable	64,709,401
Other noncurrent liabilities	13,907,668
	<hr/>
Total Noncurrent Liabilities	78,617,069
	<hr/>
Net Position	
Contributed capital	118,105,546
Net position at the beginning of the year	141,603,284
Year-to-date accrual basis net income	5,128,296
	<hr/>
Total Liabilities and Net Position	\$350,734,094
	<hr/> <hr/>
Net income reconciliation:	
Accrual basis net income	\$5,128,296
Depreciation, other post-employment benefits, and interest expense	12,435,378
	<hr/>
Modified accrual basis net income	\$17,563,674
	<hr/> <hr/>

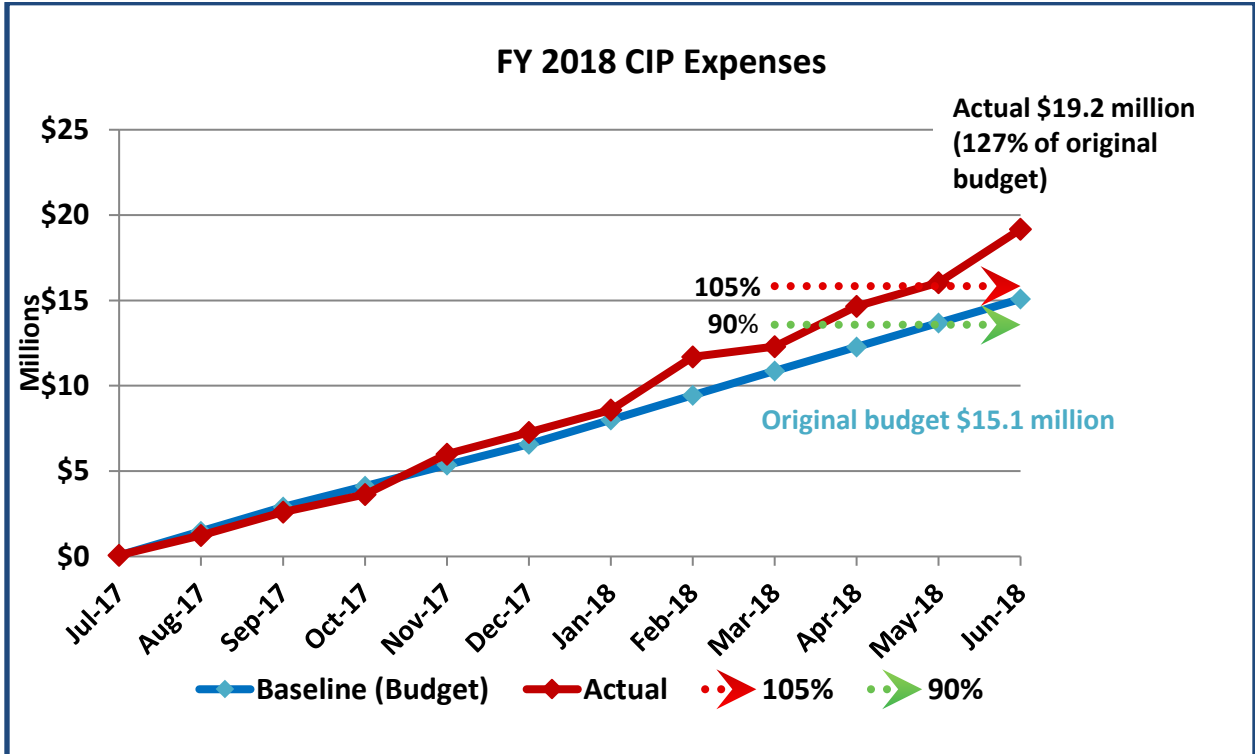
Orange Water and Sewer Authority
Income Statement
For the Twelve-Month Period Ended June 30, 2018
(unaudited)

	Actual through June 30, 2018	Budget through June 30, 2018	Variance (effect on net change in Fund Balance)	Percent Variance
Operating Revenue				
Water	\$19,013,363	\$17,824,170	\$1,189,193	6.7%
Sewer	17,062,645	16,734,273	328,372	2.0
Reclaimed Water	441,303	450,060	(8,757)	(1.9)
Service Initiation Fees	156,225	165,650	(9,425)	(5.7)
Other	1,063,905	963,227	100,678	10.5
Refunds and Allowances	(194,197)	(246,088)	51,891	21.1
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Total Operating Revenue	37,543,244	35,891,292	1,651,952	4.6
	<hr/>	<hr/>	<hr/>	<hr/>
Non-Operating Income				
Customer Fees	1,578,262	1,416,657	161,605	11.4
Interest	56,524	38,441	18,083	47.0
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Total Non-Operating Income	1,634,786	1,455,098	179,688	12.3
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Total Income	39,178,030	37,346,390	1,831,640	4.9
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Operating Expense				
General and Administrative	6,901,551	7,177,861	276,310	3.8
Water Supply and Treatment	5,457,117	5,122,357	(334,760)	(6.5)
Water Distribution	3,238,152	3,319,346	81,194	2.4
Wastewater Treatment	4,715,742	4,891,627	175,885	3.6
Wastewater Collection	1,301,794	1,409,287	107,493	7.6
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Total Operating Expense	21,614,356	21,920,478	306,122	1.4
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Net Income (modified accrual)	17,563,674	15,425,912	2,137,762	13.9
Debt Service	6,825,888	6,949,537	123,649	1.8
	<hr/>	<hr/>	<hr/>	<hr/>
Net Income less Debt Service	10,737,786	8,476,375	2,261,411	26.7
Less: CIP Expenditures	19,170,000	20,085,000	915,000	4.6
Capital Equipment				
Expenditures	1,178,175	1,231,100	52,925	4.3
	<hr/>	<hr/>	<hr/>	<hr/>
Net Change in Fund Balance	(\$9,610,389)	(\$12,839,725)	\$3,229,336	
	=====	=====	=====	

**Orange Water and Sewer Authority
Select Financial Data
For the Twelve-Month Period Ended June 30, 2018**



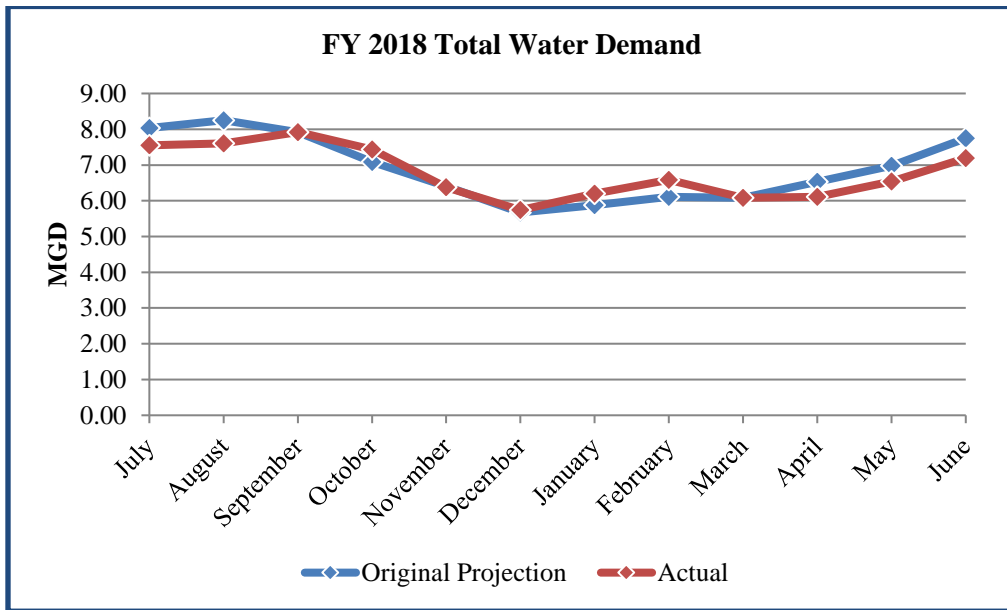
**Orange Water and Sewer Authority
Select Financial Data
For the Twelve-Month Period Ended June 30, 2018**



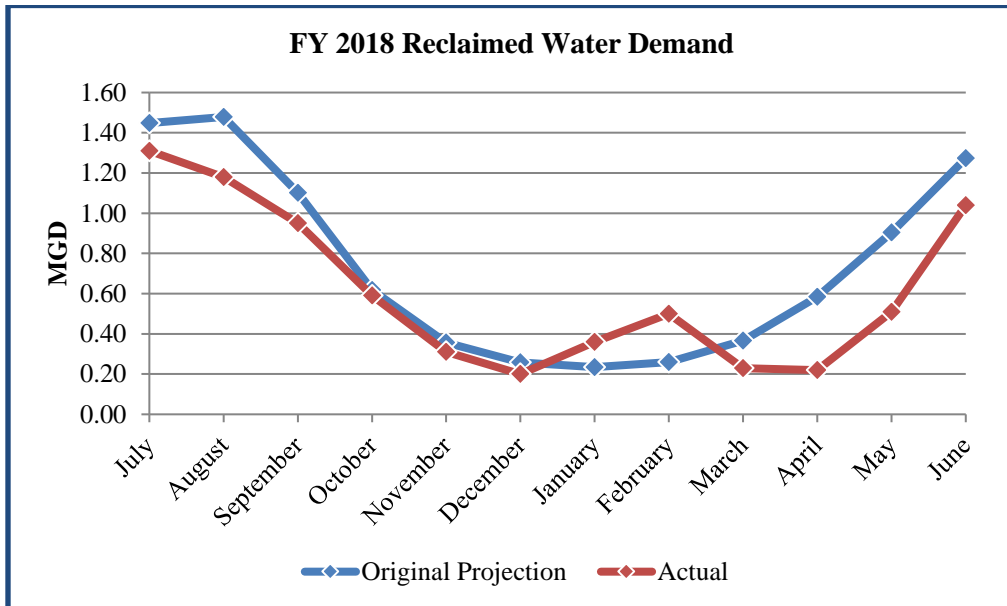
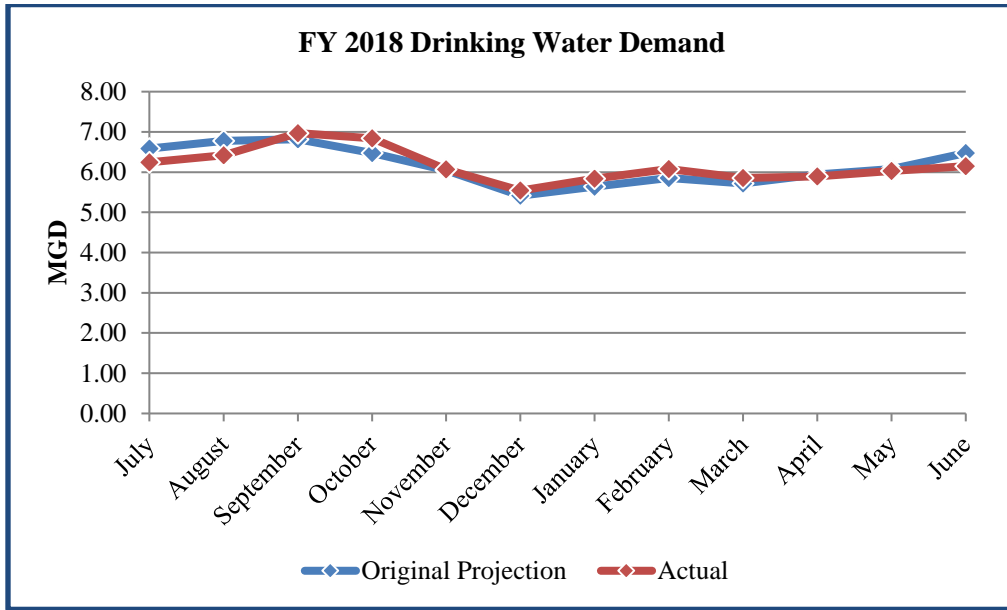
**Orange Water and Sewer Authority
Select Financial Data
For the Twelve-Month Period Ended June 30, 2018**

FY 2018 Water Sales Projection (Average Day)						
	Original FY 2018 Sales Projections		Actual FY 2018 Water Sales		Revised FY 2018 Sales Projections	
	DW	RCW	DW	RCW	DW	RCW
July	6.59	1.45	6.24	1.31	6.24	1.31
August	6.77	1.48	6.42	1.18	6.42	1.18
September	6.82	1.10	6.97	0.95	6.97	0.95
October	6.47	0.62	6.84	0.59	6.84	0.59
November	6.05	0.36	6.07	0.31	6.07	0.31
December	5.41	0.26	5.54	0.20	5.54	0.20
January	5.64	0.23	5.84	0.36	5.84	0.36
February	5.85	0.26	6.08	0.50	6.08	0.50
March	5.72	0.37	5.85	0.23	5.85	0.23
April	5.94	0.58	5.89	0.22	5.89	0.22
May	6.07	0.90	6.03	0.51	6.03	0.51
June	6.47	1.27	6.15	1.04	6.15	1.04
Average	6.15	0.74	6.16	0.62	6.16	0.62

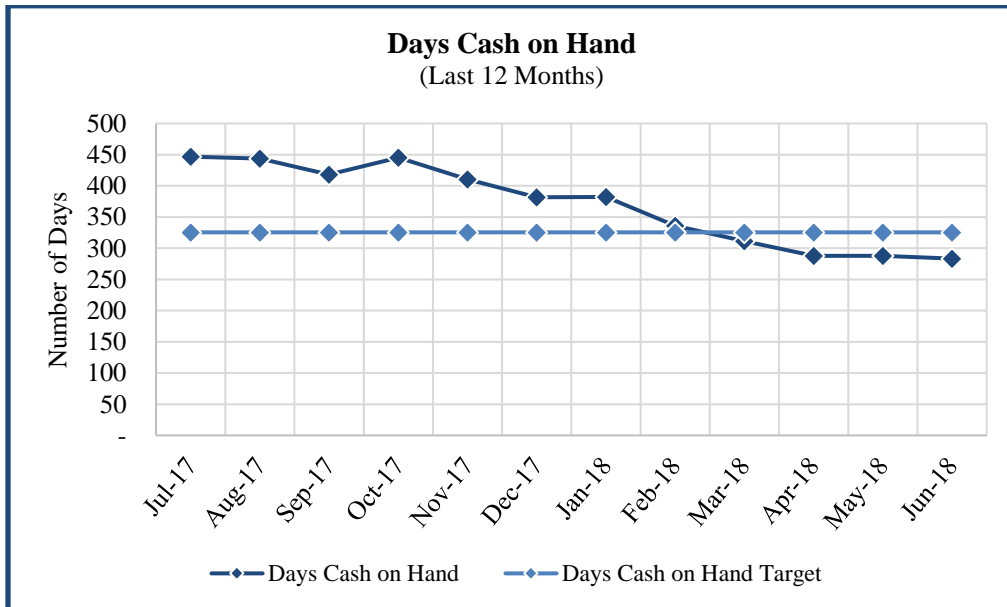
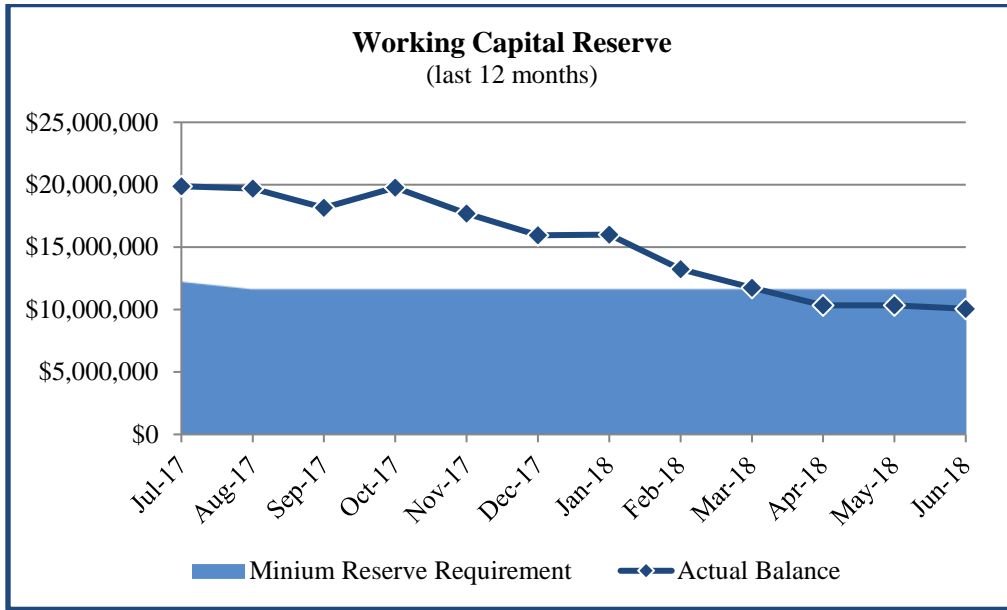
Estimates shown in red



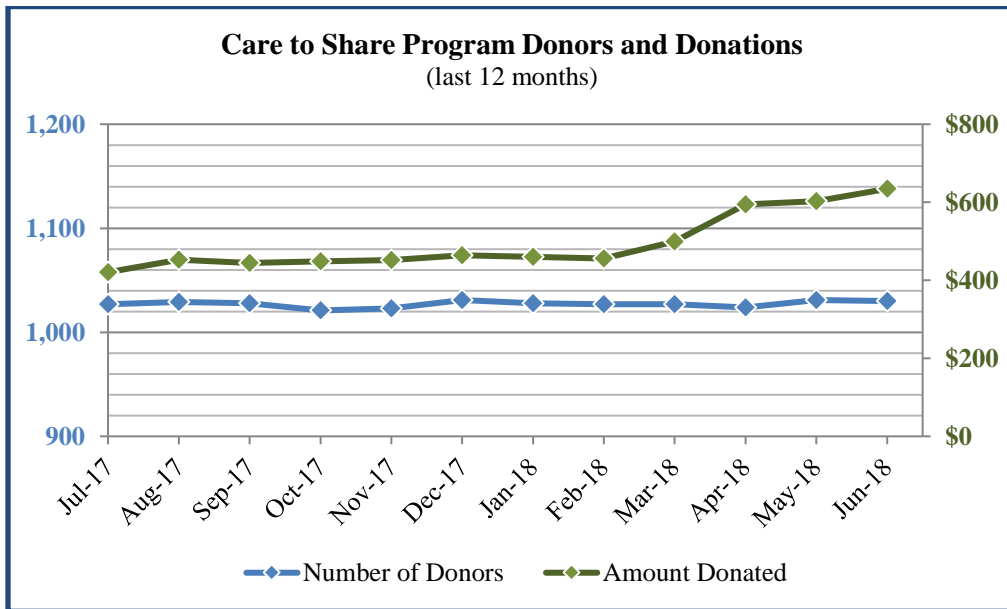
**Orange Water and Sewer Authority
 Select Financial Data
 For the Twelve-Month Period Ended June 30, 2018**



Orange Water and Sewer Authority
Select Financial Data
For the Twelve-Month Period Ended June 30, 2018



Orange Water and Sewer Authority
Select Financial Data
For the Twelve-Month Period Ended June 30, 2018



**Orange Water and Sewer Authority
Financial Management Policy Report Card
For the Twelve-Month Period Ended June 30, 2018**

Measurement	Objective	FY17 Results	FY18 Goal	YTD FY18 Results
Working Capital Reserves	Greater of four months Operating expenses or 20% of succeeding three years CIP	\$19.5M	\$11.6M	\$10.1M
Capital Improvements Reserve	2% of Net Capital Assets (Funding \$400,000 per year until reach goal of approximately \$6M)	\$3.2M	\$3.6M	\$3.6M
Rate/Revenue Stabilization Reserve	5% of annual Water and Sewer Revenue	\$1.7M	\$1.7M	\$1.7M
Debt Burden to Asset Value	Total Debt not more than 50% of Total Assets	23%	≤ 50%	24%
Sufficiency of Revenues above Debt Requirements	Annual Debt Service no more than 35% of Gross Revenue	18%	≤ 35%	17%
Cash Financing of Capital	Annual revenues and reserves provide at least 30% of CIP funding	50%	≥ 30%	49%
Debt Service Coverage Ratio	Annual Net Income not less than two times Annual Debt Service	2.4	2.0	2.6
Service Affordability Ratio	Average annual OWASA bill not more than 1.5% of area median household income	1.35%	1.5%	1.35%

M = million