



Orange Water and Sewer Authority

OWASA is Carrboro-Chapel Hill's not-for-profit public service agency delivering high quality water, wastewater, and reclaimed water services.

Agenda

Virtual Work Session of the OWASA Board of Directors

Thursday, December 10, 2020, 6:00 P.M.

Due to COVID-19 public health concerns, the Orange Water and Sewer Authority (OWASA) Board of Directors is conducting this meeting virtually utilizing [Microsoft Teams](#) software. Board Members, General Counsel and staff will be participating in the meeting remotely.

In compliance with the "Americans with Disabilities Act," interpreter services for non-English speakers and for individuals who are deaf or hard of hearing 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 virtual meetings online. Public comment is invited via written materials, ideally submitted at least two days in advance of the meeting to the Board of Directors by sending an email to board_and_leadership@owasa.org or via US Postal Service (Clerk to the Board, 400 Jones Ferry Road, Carrboro, NC 27510). Public comments are also invited during the Board Meeting via telephone, and you will need to be available to call-in during the meeting. Please contact the Clerk to the Board at aorbich@owasa.org or 919-537-4217 to make arrangements by 3:00 p.m. the day of the meeting.

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. The Board may take action on any item on the agenda.

Announcements

- a. Announcements by the Chair
 - Welcome New Board Member, Kevin Leibel, Chapel Hill Appointee
 - 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.
 - Update on the December 7, 2020 Orange County Board of County Commissioners Meeting
- b. Announcements by Board Members
- c. Announcements by Staff
 - Update on the November 17, 2020 Long-Range Water Supply Plan Webinar (Ruth Rouse)
 - Update on the November 19, 2020 Orange County Climate Council Meeting (Mary Tiger)
- d. Additional Comments, Suggestions, and Information Items by Board Members (Chair)

Consent Agenda

Action

1. Resolution Declaring the Official Intent of the Orange Water and Sewer Authority to Reimburse Itself for Certain Capital Expenditures Related to the Construction of Certain Projects with Proceeds of Debt (Stephen Winters)
2. Minutes of the November 12, 2020 Virtual Work Session of the Board of Directors (Andrea Orbich)
3. Minutes of the November 12, 2020 Closed Session of the Board of Directors for the Purpose of Discussing a Personnel Matter (Jody Eimers)

Regular Agenda

Discussion and Action

4. Long-Range Water Supply Plan: Drought Response Operating Protocol (Ruth Rouse)
5. Discussion to Possibly Amend COVID Annual Leave Benefits for Employees (Stephanie Glasgow)
6. Sewer Use Ordinance and Sewer Policy Updates to Align with NC Session Law 2020-61 (HB873) (Jessica Godreau)
7. Distribution System Key Performance Indicators (Vishnu Gangadharan)
8. Discuss Process to Develop a New Strategic Plan (Todd Taylor/Mary Tiger)
9. One-time Additional Personal Leave Merit Bonus for the Executive Director (Jody Eimers)

Discussion

10. Review Board Work Schedule
 - a. Request(s) by Board Committees, Board Members and Staff (Ray DuBose)
 - b. January 14, 2021 Work Session (Todd Taylor)
 - c. January 28, 2021 Meeting (Todd Taylor)
 - d. 12 Month Board Meeting Schedule (Todd Taylor)
 - e. Pending Key Staff Action Items (Todd Taylor)
 - f. Action Items Reoccurring Every 3 to 5+ Years (Todd Taylor)

Summary of Work Session Items

11. Executive Director will summarize the key staff action items from the Work Session

Agenda Item 1:

Resolution Declaring the Official Intent of the Orange Water and Sewer Authority to Reimburse Itself for Certain Capital Expenditures Related to the Construction of Certain Projects with Proceeds of Debt

Purpose:

During the development of the Fiscal Year (FY) 2022 budget and the annual update to our long-term financial plan, we determined the need for issuing revenue bonds to finance part of our capital improvements program (CIP). Staff is in the process of identifying CIP projects that have a scope and timing suitable for financing with revenue bonds. Some of these projects will likely begin before bonds are issued. The attached resolution will allow us to begin work and expend funds on projects and be reimbursed with bond proceeds once bonds are issued. The Board approved the projects when it adopted the FY 2021 CIP budget.

The Board will have two resolutions to adopt regarding issuing the bonds. We have tentatively set January 28, 2021 for the Board to adopt the “preliminary resolution” and February 25, 2021 to adopt the “series resolution.” Both are steps the Board must take to authorize the transaction.

The attached resolution was reviewed by bond counsel. We expect the bond issue to be between \$15 and \$21 million; as a contingency, the resolution states the bond issue will not exceed \$25 million.

Action Requested:

Adopt the resolution declaring the official intent of the Orange Water and Sewer Authority to reimburse itself for certain capital expenditures related to the construction of certain projects with proceeds of debt.

Information:

- Resolution Declaring the Official Intent of the Orange Water and Sewer Authority to Reimburse Itself for Certain Capital Expenditures Related to the Construction of Certain Projects with Proceeds of Debt

December 10, 2020

A Resolution Declaring the Official Intent of the Orange Water and Sewer Authority to Reimburse Itself for Certain Capital Expenditures Related to the Construction of Certain Projects with Proceeds of Debt

Whereas, the Orange Water and Sewer Authority, a public body and body politic and corporate of the State of North Carolina (the “Issuer”), intends (i) to undertake certain capital projects described in Exhibit A hereto (collectively, the “Project”), (ii) to pay costs of the Project from available funds of the Issuer prior to the issuance of bonds (the “Bonds”) to finance the Project, and (iii) to reimburse itself for such original expenditures (the “Expenditures”) from the proceeds of the Bonds; and

Whereas, bond counsel has advised the Issuer that Treasury Regulation § 1.150-2 requires the Issuer to adopt a resolution in the form set forth below to preserve the Issuer’s ability to use portions of the proceeds of an upcoming issue of Bonds to reimburse itself for the Expenditures; and

Whereas, after careful consideration and to further the public purposes for which the Issuer was created;

Now, Therefore, Be It Resolved By the Board of Directors of the Orange Water and Sewer Authority That:

Section 1. The Issuer intends to finance the Project through the issuance of one or more series of Bonds. The principal amount of the Bonds attributable to the Project is not expected to exceed \$25,000,000.

Section 2. This Resolution represents a declaration of “official intent” under Treasury Regulation § 1.150-2.

Section 3. Prior to the issuance of the Bonds, the Issuer expects to pay the costs of the Project from its available funds.

Section 4. On the date each Expenditure is paid, it will be a capital expenditure (or would be with a proper election) under general federal income tax principles or will otherwise comply with the requirements of Treasury Regulation § 1.150-2(d)(3).

Section 5. The Issuer reasonably expects to reimburse the Expenditures made prior to the issuance of the Bonds to finance the Project from the proceeds of the Bonds and the adoption of this Resolution is consistent with the budgetary and financial circumstances of the Issuer.

Section 6. This Resolution shall be in effect from and after its adoption.

A Resolution Declaring the Official Intent of the Orange Water and Sewer Authority to
Reimburse Itself for Certain Capital Expenditures Related to the Construction of Certain
Projects with Proceeds of Debt
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Adopted this 10th day of December 2020.

Raymond E. DuBose, P.E., Chair

ATTEST:

Jo Leslie Eimers, Secretary

Exhibit A

1. Replacement of water mains (Fordham Service Road, Manning Drive (East), Country Club Road, Barclay Road, Scarlett-Cooper Neighborhood, Foxcroft Drive, Kensington Drive, and Jones Ferry Road);
2. Replacement and rehabilitation of water and wastewater pumping stations (University Lake and Rogerson Drive-Phase 2);
3. Chemical facility improvements and upgrades at the Jones Ferry Road Water Treatment Plant;
4. Replacement of sewer interceptor (Bolinwood Drive); and
5. Improvements to and rehabilitation of facilities and equipment at the Mason Farm Wastewater Treatment Plant.

Item 2:

Orange Water and Sewer Authority
Virtual Work Session of the Board of Directors
November 12, 2020

The Board of Directors of the Orange Water and Sewer Authority (OWASA) held its duly noticed regular work session by virtual means in accordance with law, on Thursday, November 12, 2020, at 6:00 p.m. utilizing Microsoft Teams software.

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

OWASA staff present: Amy Armbruster, Mary Darr, Robert Epting, Esq. (Epting and Hackney), Stephanie Glasgow, Robin Jacobs (Epting and Hackney), Deepthi Kalyanam, Jacqueline Mills, Andrea Orbich, Ruth Rouse, Todd Taylor, Mary Tiger, Stephen Winters and Richard Wyatt.

Others present: Meg Holton (UNC Water Resources Manager) and Ben Poulson (UNC Associate Director of Energy Services).

Motions

1. Yinka Ayankoya made a motion to approve the Minutes of the October 8, 2020, Virtual Work Session of the Board of Directors; second by Jody Eimers and the motion was unanimously approved.
2. Yinka Ayankoya made a motion to approve the Minutes of the October 22, 2020, Virtual Meeting of the Board of Directors; second by Jody Eimers and the motion was unanimously approved.
3. Yinka Ayankoya made a motion to approve the Minutes of the October 22, 2020, Virtual Closed Session of the Board of Directors for the purpose of discussing a personnel matter; second by Jody Eimers and the motion was unanimously approved.
4. Bruce Runberg made Motion that the Board of Directors approve the proposed 2020 Energy Management Plan Update and authorize staff to proceed in accordance with the approach described in the proposed plan; second by Ruchir Vora and the Motion was unanimously approved.
5. BE IT RESOLVED THAT the Board of Directors of Orange Water and Sewer Authority adopts the Resolution of the Board of Directors of Orange Water and Sewer Authority Approving Amendments to the Water and Sewer Management, Planning and Boundary Agreement Boundary. Motion by Bruce Boehm, second by Yinka Ayankoya and the Motion was unanimously approved.
6. BE IT RESOLVED THAT the Board of Directors of Orange Water and Sewer Authority adopts the Resolution Honoring the Service of Ruchir Vora to the Chapel Hill-Carrboro-Orange County Community as a Member of the Orange Water and Sewer Authority. Motion by Yinka Ayankoya, second by Bruce Boehm and the Motion was unanimously approved.

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Announcements

Chair Ray DuBose announced that due to COVID-19 public health concerns, the OWASA Board of Directors held the work session virtually utilizing Microsoft Teams software. Mr. DuBose stated that Board Members, General Counsel, and staff participated in the meeting remotely.

Mr. DuBose asked if any Board Member knew 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.

Jody Eimers noted she serves on the Orange County Commission of the Environment (COE) and at the November 9, 2020, COE meeting, she recused herself from the COE's evaluation of Climate Action Grant Program proposals that included OWASA's request for funding for a solar PV system at the Cane Creek Reservoir site, so that she would be able to discuss the Energy Management Plan Update agenda item tonight.

Mr. DuBose said at the November 4, 2020 Chapel Hill Town Council meeting, the Town Council reappointed John Morris and appointed Kevin Leibel to the OWASA Board of Directors. Appointments begin on December 1, 2020 and go through June 30, 2023.

Mr. DuBose announced Care to Share Day will be held on Thursday, November 19, 2020, which will be promoted via social media, the internet and radio; all donations will be directed to OWASA's customer assistance program.

Mr. DuBose said that Todd Taylor, Mary Tiger and he will attend the December 7, 2020 Orange County Board of County Commissioners meeting to provide an update on OWASA's plan to assist customers when the temporary moratorium of service disconnection for non-payment is lifted.

Ms. Eimers, Human Resources Committee Chair, said Mr. DuBose and she met with Todd Taylor, OWASA's new Executive Director, to share the Board's recent evaluation regarding his onboarding process. The Board will meet in Closed Session tonight to continue the evaluation of his progress and will meet again January 14, 2021 with Mr. Taylor.

Bruce Boehm, Vice Chair of the Board, announced that as part of the Board's 2020 self-assessment, the Board will request OWASA's management team to provide feedback via anonymous survey which will be emailed next week.

Mary Tiger said the Orange County Climate Council held a public event on October 22, 2020 to provide the community with an update on the Climate Council's activities during the past year. Ms. Tiger and Chair DuBose serve on the Council on behalf of OWASA, and the next meeting is scheduled for November 19, 2020.

Ruth Rouse announced a public webinar for the Long-Range Water Supply Plan will be held on Tuesday, November 17, 2020 at 6:00 p.m. to provide information on OWASA's activities to date and receive public feedback which will be summarized to the Board.

Item One: Minutes

Yinka Ayankoya made a motion to approve the Minutes of the October 8, 2020, Virtual Work Session of the Board of Directors; second by Jody Eimers and the motion was unanimously approved. Please see Motion 1.

Item Two: Minutes

Yinka Ayankoya made a motion to approve the Minutes of the October 22, 2020, Virtual Meeting of the Board of Directors; second by Jody Eimers and the motion was unanimously approved. Please see Motion 2.

Item Three: Minutes

Yinka Ayankoya made a motion to approve the Minutes of the October 22, 2020, Closed Session of the Board of Directors for the purpose of discussing a personnel matter; second by Jody Eimers and the motion was unanimously approved. Please see Motion 3.

Item Four: Energy Management Plan Update

Mary Tiger, Sustainability Manager, provided an update on OWASA's Energy Management Plan (Plan) whereby OWASA has met and surpassed a 2015 Board goal to reduce use of natural gas by 5% by 2020, and notable progress has been made to achieve a goal to reduce use of purchased electricity by 35% by 2022. The updated Plan identifies a path to achieve energy management goals, including the installation of solar lease projects at OWASA facilities.

The Board expressed appreciation to staff on a Plan well done.

Bruce Boehm suggested the Executive Summary separate what greenhouse gas reductions are attributable to OWASA and what is attributable to Duke Energy and/or suppliers.

Ruchir Vora suggested the Board and staff consider new additional scope items for the next Energy Management Plan, including goals for reduction in vehicle usage and contractor energy usage.

Ray DuBose suggested making note that certain projects would make sense under increased energy pricing.

Bruce Runberg made Motion that the Board of Directors approve the proposed 2020 Energy Management Plan Update and authorize staff to proceed in accordance with the approach described in the proposed plan; second by Ruchir Vora and the Motion was unanimously approved. Please see Motion 4.

Item Five: Long-Range Water Supply Plan: Drought Response Operating Protocol

Ruth Rouse, Planning and Development Manager, provided an update the Long-Range Water Supply Plan. Staff suggests incorporating the provisions of the Drought Response Operating Protocol (DROP) that require notice to the community before mandatory water restrictions enacted into the Water Shortage Response Plan. Staff also suggests rescinding the DROP as it restricts staff's ability to access its Jordan Lake allocation which increases our vulnerability to droughts and potentially increases the length that drought surcharges would apply to customers impacting affordability. These actions will improve the resiliency of OWASA's existing water supply and staff requested the Board's comments and feedback on them. Ms. Rouse suggested the Board delay approval until after the November 17, 2020 public webinar so that any feedback received can be included in the final proposal.

Bruce Boehm suggested a change to the background information to clearly note what is operational and what is policy. The change suggested is: "...the Board determined that Jordan Lake is the most cost-effective option to meet OWASA's long-term (50-year) water supply needs" to, "...the Board agreed with staff's recommendation to authorize staff to evaluate alternatives to provide access to our Jordan Lake allocation."

Overall, the Board expressed approval of the staff presentation and agreed with staff's recommendation to consolidate certain provisions of the Drought Response Operating Protocol (DROP) into the Water Shortage Response Plan, and to rescind the balance of the DROP.

Staff will provide an updated Water Shortage Response Plan which will incorporate the Drought Response Operating Protocol water shortage advisory, Board feedback, and any public input received from the November 17th webinar at the December 10, 2020 Board work session.

Item Six: Consideration of an Amendment to the Water and Sewer Management, Planning and Boundary Agreement Boundary

Ruth Rouse, Planning and Development Manager, provided an overview of a requested amendment to the Water and Sewer Management, Planning and Boundary Agreement which was previously approved by local elected officials in Chapel Hill, Hillsborough, and Carrboro and the Orange County Board of County Commissioners are scheduled to consider this request on November 17, 2020. The amendment will extend the service boundary to include lots on Bayberry Drive, which are adjacent to Lots already within the service area, such that the service area boundary will no longer bisect that particular cul-de-sac.

Bruce Boehm made a motion to approve the Resolution of the Board of Directors of Orange Water and Sewer Authority Approving Amendments to the Water and Sewer Management, Planning and Boundary Agreement; second by Yinka Ayankoya and the Motion was unanimously approved. Please see Motion 5.

Item Seven: Determine Process for Selecting Audit Firm for Fiscal Year 2021

Stephen Winters, Director of Finance and Customer Service, provided an overview of staff's request to extend OWASA's arrangement with Martin Starnes and Associates for one year to conduct the Fiscal Year (FY) 2021 audit for the same fee as charged in FY 2020.

The Board agreed with staff's recommendation and is scheduled to approve the one-year extension on January 14, 2021.

Item Eight: Review Board Work Schedule

The Board agreed to schedule a Community Engagement Committee meeting in December to define the nature and types of public comments that may require responses from the Board; a doodle poll will be sent to the full Board.

Item Nine: Resolution Honoring the Service of Ruchir Vora to the Carrboro-Chapel Hill-Orange County as a Member of the Orange Water and Sewer Authority Board of Directors

Ray DuBose read aloud the resolution honoring the service of Ruchir Vora as a Board Member and expressed the Board's deep appreciation for his commitment to OWASA over the past six years.

Yinka Ayankoya made a motion to approve the resolution, second by Bruce Boehm and the Motion was unanimously approved. Please see Motion 6.

Item Ten: Summary of Work Session Items

Todd Taylor noted the following item for staff follow-up:

- Staff will send out a doodle poll to schedule a Community Engagement Committee meeting in December 2020.

Item Eleven: Closed Session

Without objection, the Board convened in a Closed Session for the Purpose of discussing a personnel matter as provided in NC General Statutes 143.318.11(6).

Following the Closed Session, the Board reconvened in open session and the meeting was adjourned at 7:57 p.m.

Respectfully submitted by:

Andrea Orbich
Executive Assistant/Clerk to the Board

Attachments

Item 3:

Orange Water and Sewer Authority

Closed Session of the Board of Directors

November 12, 2020

The Board of Directors of Orange Water and Sewer Authority met virtually in Closed Session on Thursday, November 12, 2020, following the Board meeting.

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

Staff present: None

Item One

The Board of Directors met in Closed Session without staff to evaluate the first four months performance of OWASA's new Executive Director.

No official action was taken at the meeting.

The meeting was adjourned at 7:57 p.m.

Jo Leslie Eimers, Chair
Human Resources Committee

Agenda Item 4:

Long-Range Water Supply Plan: Drought Response Operating Protocol

Purpose:

To receive approval from the Board of Directors on incorporating certain provisions of OWASA's Drought Response Operating Protocol into its Water Shortage Response Plan to improve the resiliency of OWASA's existing water supply by increasing access to the use of our Jordan Lake allocation.

Background:

- OWASA has two documents that describe actions it will take during water shortages due to drought or operational emergencies: (1) the Water Shortage Response Plan (WSRP), and (2) the Drought Response Operating Protocol (DROP, Attachment 1).
- The WSRP is required by North Carolina General Statute 143-355(l), which was enacted in response to the drought of 2007-08. Requirements of the WSRP are included in the statute and in regulation 15A NCAC 02E .0607.
- The WSRP includes triggers for when OWASA declares mandatory water shortages based on storage in our three local water supplies: Cane Creek Reservoir, University Lake, and the Quarry Reservoir. OWASA also has had an allocation of water from Jordan Lake since 1988; our current allocation would provide about 5 million gallons per day, which we can access through our mutual aid agreements.
- The OWASA Board of Directors adopted its DROP on January 10, 2013. The DROP is a Board-adopted policy document, and there is no regulatory requirement for a DROP-type document.
- The DROP states that OWASA shall declare a Water Shortage Advisory no later than when the total water storage in the University Lake, Cane Creek and Quarry Reservoirs drops to within 10 percent of the mandatory Stage 1 triggers specified in our WSRP.
- Therefore, the DROP provides our customers and the community with timely notice of potential water shortages and provides an opportunity to reduce demands on a voluntary basis before mandatory conservation measures are initiated (beyond year-round requirements) and drought surcharges are imposed.
- However, the DROP approved by the OWASA Board of Directors in January 2013 prohibits OWASA from proactively purchasing water from neighboring utilities or from using water originating from our Jordan Lake water supply allocation before a Stage 1 (or more severe stage) water shortage has been met as outlined in the WSRP.
- In the near-term, earlier access of our Jordan Lake allocation would help increase the resiliency of our reservoirs. Under the current situation, we have no assurance that we will be able to access our Jordan Lake allocation in a drought. During water shortages, other utilities may need to access their Jordan Lake allocations, and we may be limited in

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the amount of water we can receive due to infrastructure constraints (e.g., the capacity of the Cary/Apex Water Treatment Plant (WTP) and/or interconnection capacity).

- OWASA and other local utility staff recognized the limited drinking water the Cary/Apex WTP can provide during a drought and the need to make good use of Jordan Lake as a regional resource. Thus, OWASA partnered with other utilities to have Dr. Greg Characklis (Professor, UNC Department of Environmental Science and Engineering, and Director of UNC Center on Financial Risk in Environmental Systems) conduct a study to determine how the region could work together to optimize use of Jordan Lake given current infrastructure limitations. Professor Characklis's report emphasizes the importance of earlier purchases of water through Cary, from OWASA's allocation, as an important strategy in maximizing use of the Jordan Lake water resources for all regional partners, especially during early stages of drought, (potentially before a Stage 1 shortage), to reduce the risk of severe shortages.
- The OWASA Board of Directors authorized staff to continue to evaluate alternatives to provide access to our Jordan Lake allocation at its August 13, 2020 work session. However, the restrictions that the DROP places on our use of our Jordan Lake allocation only during droughts would make our Jordan Lake options less effective and ultimately, more costly. For the alternatives where OWASA would make a capital investment in the Western Intake and WTP, OWASA would be spending a lot of money in capital improvements that we would only be able to access or use during significant water shortages.
- In order to increase the near-term resiliency of OWASA's water supply and to make viable any potential alternative to more reliably access our Jordan Lake allocation, the Board of Directors authorized staff to develop a process to modify the DROP at its August 13, 2020 work session.
- The WSRP and DROP are related and somewhat redundant documents. In order to avoid potentially contradictory language between two documents, staff recommends that the provisions of DROP that do not impede access to our Jordan Lake allocation be incorporated into the WSRP, and that the DROP be rescinded. The WSRP is required to be updated at least every five years, and the Board and public will have opportunities to review the document each time it is updated.
- The Board of Directors provided feedback to staff at its November 12, 2020 work session that it supports incorporating DROP provisions into the WSRP.

Incorporating DROP provisions into WSRP

Staff propose modifying the following sections of the WSRP:

- Section 4 – replace language regarding DROP
- Section 5, Mandatory Water Shortage Response Triggers – this section would be modified to include the voluntary advisory levels on the WSRP Figures 5-1 through 5-4. Text explaining the advisory stage would also be included.

- Section 9, Public Review and Comment – this section would be updated to reflect the meetings where the Board discussed incorporating DROP into WSRP.
- Appendix C: Drought Response Operating Protocol – this section would be removed.
- Appendix D: Resolutions Approving OWASA’s Water Shortage Response Plan – this section would be updated to include a new resolution of the Board’s approval of the updated WSRP.

In addition to these changes, staff would also update staff contact information in Section 2, incorporate the most recent rate information in Section 4, and make other minor edits. Suggested changes are shown in revisions mode in Attachment 2.

Staff and Counsel Recommendation and Action Needed:

Staff and Counsel recommend incorporating provisions in DROP into the WSRP as it consolidates documents and eliminates the potential for conflicting language in the near term and in the future as we update the WSRP as required by statute. When the WSRP is modified and approved by the Board of Directors, staff recommends the Board of Directors eliminate the DROP. Staff believes that this process will be more efficient for the Board and staff.

If the Board supports moving forward with this proposal, it could consider acting on this matter through a motion to approve a resolution which adopts the updated WSRP and rescinds the DROP. Draft motion language follows:

Motion that the Board of Directors approve the resolution approving OWASA’s revised Water Shortage Response Plan and rescinding its Drought Response Operating Protocol

Information:

Attachment 1: Drought Response Operating Protocol

Attachment 2: Water Shortage Response Plan (with suggested changes accepted and included in revisions mode)

Attachment 3: Resolution Approving OWASA’s Revised Water Shortage Response Plan and Rescinding its Drought Response Operating Protocol

DROUGHT RESPONSE OPERATING PROTOCOL

JANUARY 10, 2013

Purpose

To describe the procedures and criteria that OWASA will use for making water supply and demand management decisions during an extended drought, including provisions for public notice of potential Water Supply Shortage declarations, water purchases, and/or use of OWASA's Jordan Lake water supply storage allocation. The protocol outlined below will provide OWASA's customers, local elected boards, and the overall Carrboro-Chapel Hill-UNC community with timely notice of a potential water shortage due to extended drought and the opportunity to reduce water consumption in order to avoid and/or minimize the need for more severe water use restrictions or emergency actions.

The statistically derived drought responses described below were based on the risk of depleting OWASA's existing Cane Creek/University Lake/Quarry Reservoir system to the Emergency Storage level. Those risks do not assume that Jordan Lake is part of OWASA's existing or primary water supply portfolio (University Lake, Cane Creek Reservoir, and Quarry Reservoir); instead, Jordan Lake is only an "insurance policy" for use during extended drought or operational emergencies.

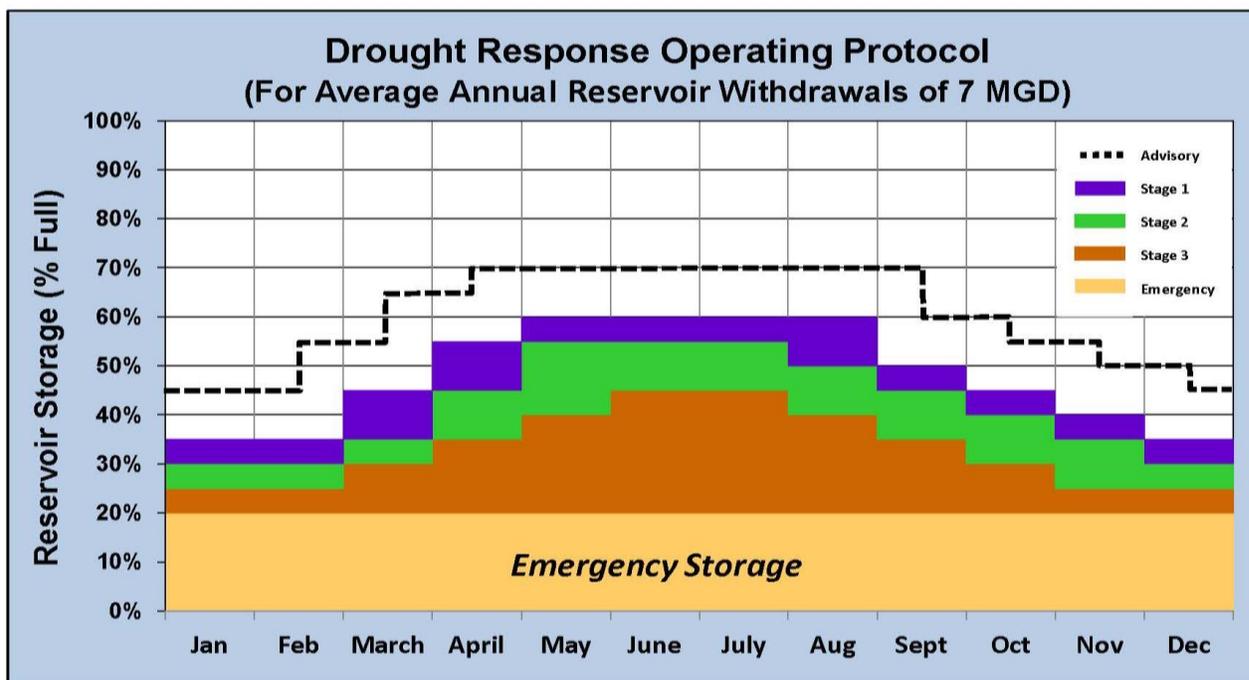
Protocol

1. OWASA shall monitor OWASA's water supply and demand conditions, short-and long-term weather forecasts, regional water supply conditions, and other factors which may affect the risk of a water supply shortage due to drought.
2. The attached graph, which is a modified version of the 7 million gallon per day (mgd) "trigger table"* in OWASA's State-approved *Water Shortage Response Plan*, shall guide OWASA's drought response decisions when raw water demands are at an annual average of 7 mgd. (When annual average demands are greater than 7 mgd, the corresponding trigger table graphs from the *Water Shortage Response Plan* shall be used.) Any drought-related Water Supply Shortage declaration at storage levels above those indicated on the trigger table, and/or any decision to purchase water from a neighboring jurisdiction (and/or to use OWASA's Jordan Lake allocation) during a drought, shall be made only upon approval by the OWASA Board of Directors.
3. OWASA shall declare a Water Shortage Advisory no later than when the total water stored in the reservoirs drops to within 10% of the mandatory Stage 1 trigger. (This Advisory stage is represented by the black dashed line on the attached graph). At or around that time, OWASA will initiate communications with the Carrboro Board of Aldermen, Chapel Hill Town Council, Orange County Board of Commissioners, and the University of North Carolina at Chapel Hill – and shall give public notice to customers and other stakeholders – regarding the likelihood that Stage 1 water use restrictions will go into effect, and that it may be necessary to begin purchasing water from the City of Durham and/or Town of Cary if current drought conditions continue or worsen. OWASA will carefully consider the advice and feedback from the elected boards. The OWASA Board of Directors will continue to exercise its sole responsibility and authority for decisions about water shortage declarations and water purchases, consistent with this Protocol. As in the past, OWASA will expand its standard conservation messaging before declaring the Water Shortage Advisory in order to encourage

* *The graph is based on an average daily raw water demand of 7 mgd. Trigger levels for greater or lesser demands will be correspondingly higher or lower than those depicted here.*

and to give the community as much opportunity as possible to intensify its water saving practices.

4. When total water storage in OWASA's reservoirs system declines to the purple block on the attached graph, OWASA must declare a Stage 1 Shortage as required by its State-approved *Water Shortage Response Plan*. OWASA may, at its own discretion, initiate Stage 1 use restrictions – with or without corresponding drought rate surcharges – earlier than indicated on the graph, but not later. The OWASA Board may authorize purchases from other utilities and/or obtain water through its Jordan Lake allocation only when total water storage in University Lake, Cane Creek Reservoir, and the Quarry Reservoir is below the Mandatory Stage 1 Shortage trigger, but no sooner. Board approval for such a declaration or purchase decision shall not be required, however, during an operational emergency as determined by OWASA's Executive Director per OWASA's *Water Shortage Response Plan*. Operational emergencies are typically characterized by the need for rapid response and may require the curtailment of water use and/or purchases in a short period of time. Examples of such emergencies include, but are not limited to:
 - Production problems at the Jones Ferry Road Water Treatment Plant
 - Failure of pumps, storage tanks, or pipelines
 - Raw or treated drinking water quality problems
 - Planned or unplanned maintenance events
 - Natural disasters.
5. During an extended drought, OWASA staff will initiate discussions with the Board of Directors regarding the need and timing of commencing water purchases or other prudent actions as total water in storage approaches the mandatory Stage 1 trigger levels shown on the attached graph; however, no purchase or use of OWASA's Jordan Lake allocation shall be made without explicit approval by the Board of Directors (except during Operational Emergencies as described above in Paragraph 4). Restrictions shall, and purchases may, continue until storage returns to levels above the mandatory Stage 1 trigger. Water use restrictions shall continue until storage returns to the "rescission" levels specified in the *Water Supply Shortage Response Plan*.
6. OWASA shall provide regular updates to the community and to the local elected boards throughout the drought as described in Paragraph 3 above. The OWASA Board and staff shall be available to attend meetings of the local governments to provide information about supply and demand conditions and to provide any information or answer questions elected officials may have.
7. The OWASA Board shall review this protocol (a) concurrently with its review of OWASA's State-approved *Water Shortage Response Plan* (as required in conjunction with Local Water Supply Plan updates that must be submitted to the NC Division of Water Resources at least once every five years); (b) following any drought during which mandatory water use restrictions were implemented; and/or (c) at any time deemed necessary to reflect changes in water supply and demand conditions or other new information, such as when the expanded Quarry Reservoir comes on line.



These responses are based on the risk of depleting OWASA's existing Cane Creek/ University Lake/Quarry Reservoir system to the Emergency Storage level and are consistent with the Response Triggers of OWASA's State-approved Water Shortage Response Plan. Those risks do not consider Jordan Lake to be part of OWASA's existing or primary water supply (University Lake, Cane Creek, and Quarry Reservoirs), but only as an "insurance policy" for use during extended drought or emergency conditions.

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Water Shortage Advisory: Aggressive public awareness/education effort, including direct communication with the Carrboro, Chapel Hill, and Orange County elected boards and the University of North Carolina at Chapel Hill. A Water Shortage Advisory may be initiated earlier at OWASA's discretion.

- 
Stage 1 Shortage: Mandatory use restrictions -- with or without rate surcharges -- may be initiated earlier at OWASA's discretion, but not later. The OWASA Board may authorize purchases of water from other utilities and/or obtain water through its Jordan Lake allocation only when total water storage in University Lake, Cane Creek Reservoir, and the Quarry Reservoir is below this Mandatory Stage 1 trigger, but not sooner. Board approval for such a declaration or purchase decision shall not be required, however, during an operational emergency as determined by the Executive Director per OWASA's *Water Shortage Response Plan*.

- 
Stage 2 Shortage: May be initiated earlier at OWASA's discretion, but not later.

- 
Stage 3 Shortage: May be initiated earlier at OWASA's discretion, but not later.

- 
Water Supply Emergency: Emergency actions will be taken to obtain supplemental water to ensure the protection of public health, safety and welfare. If Cane Creek/University Lake/Quarry Reservoir storage declines to this level, such actions would likely include the installation of temporary facilities to pump water from the Haw River to the Cane Creek Reservoir.

WATER SHORTAGE RESPONSE PLAN

DECEMBER 10, 2020

Orange Water and Sewer Authority
Carrboro, North Carolina



ORANGE WATER AND SEWER AUTHORITY
WATER SHORTAGE RESPONSE PLAN

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SECTION 1.

PURPOSE AND BACKGROUND

This Water Shortage Response Plan (WSRP) describes the actions Orange Water and Sewer Authority (OWASA) will take during a water shortage condition due to drought or special operational constraints, including the measures that OWASA will implement to reduce potable water use during such shortage conditions. This plan has been prepared as required by North Carolina General Statute (NCGS) 143-355(l).

That statute requires most public water systems in the State to have a State-approved WSRP as a component of their Local Water Supply Plan. State regulations governing water use during droughts and water emergencies (15A NCAC 02E .0607) and Session Law 2008-143 passed in July 2008 set forth specific items that must be included in local WSRPs.

OWASA's WSRP is generally organized along the lines of the North Carolina Division of Water Resources' (DWR) *Water Shortage Response Plan (WSRP) Guidelines* issued in January 2009. This plan meets the following criteria as required by the State, including:

- ✓ tiered levels of water conservation measures or other response actions based on the severity of a water shortage condition;
- ✓ each tier is based on increased severity of drought or water shortage condition and represents increasingly stringent conservation measures;
- ✓ specific measurements of available water supply, water demand and system conditions that OWASA *must use* to determine the severity of water shortage conditions and to initiate water use reduction measures and the movement between various water shortage stages;
- ✓ procedures that will be followed to ensure compliance with the provisions of the plan;
- ✓ procedures for affected parties to review and comment on the plan prior to final adoption;
- ✓ procedures to receive and review applications for variances from specific requirements, and the criteria that will be used to evaluate such requests;
- ✓ general method for evaluating the effectiveness of the plan; and
- ✓ procedures for reviewing and revising the plan, which must be done at a minimum of every five years concurrent with the update of the state-required Local Water Supply Plan.

DWR is responsible for reviewing all Water Shortage Response Plans to ensure they meet the State's minimum requirements.

This plan is only one part of OWASA's long-term water conservation and demand management efforts. The OWASA Board of Directors approved a Long-Range Water Conservation and Demand Management Goal and Objectives in April, 2005. OWASA's primary strategies for

achieving its long-term conservation goals and objectives, and which are complementary to this WSRP but not described in this document, are:

- ✓ implementing aggressive conservation pricing structures, including increasing block water rates for residential customers, year-round water rates for all irrigation use, and seasonal water rates applicable to all other customers;
- ✓ promoting the use of reclaimed water for non-drinking purposes;
- ✓ treating and recycling drinking water treatment plant process water back to the head of the water plant; and
- ✓ providing education and awareness, including targeted water use audits for customers, technical assistance to developers, etc.

Additionally, water demands by OWASA's existing and future customers will be shaped by factors outside the control of OWASA, including but not limited to:

- ✓ Session Law 2007-546 (Senate Bill 668), "*An Act to Promote the Conservation of Energy and Water Use in State, University, and Community College Buildings*;"
- ✓ changes in water use efficiency standards of the NC Plumbing Code, as suggested in the North Carolina Department of Environment and Natural Resources' report titled "*Recommendations for Water Efficiency Standards for Water-Using Fixtures in Residential and Commercial Buildings*" (January 2009); and
- ✓ changes in climate, precipitation, and/or land use, which would affect rates and patterns of inflows into OWASA's water supply reservoirs, as well as customer demands.

Additional information about OWASA's comprehensive water conservation efforts is available on OWASA's website at www.owasa.org; by e-mail to info@owasa.org; by phone at 919-968-4421; by fax to 919-968-4464; or by mail to OWASA, 400 Jones Ferry Road, Carrboro, NC 27510.

SECTION 2.
AUTHORIZATION

OWASA's Executive Director is responsible for: (a) declaring a Water Shortage as described in this Plan; (2) enacting the applicable provisions of this WSRP; and (3) overseeing implementation of the Plan. In the Executive Director's absence, OWASA's General Manager of Operations is responsible for such actions.

As required by NCGS 143-355, OWASA will implement the provisions of this Plan whenever the trigger conditions established herein (and/or as they may be revised from time to time in accordance with Section 10 of this plan) occur.

Following is the contact information for the above-listed individuals as of the date of this plan:

PRIMARY RESPONSIBILITY

Todd Taylor, or Successor
Executive Director
Orange Water and Sewer Authority
400 Jones Ferry Road
Carrboro, NC 27510

Telephone: 919-537-4216
E-Mail: ttaylor@owasa.org

ALTERNATE

Mary Darr, or Successor
General Manager of Operations
Orange Water and Sewer Authority
400 Jones Ferry Road
Carrboro, NC 27510

Telephone: 919-537-4246
E-Mail: mdarr@owasa.org

SECTION 3.

NOTIFICATION OF EMPLOYEES AND CUSTOMERS

OWASA will, as soon as possible, notify its employees, customers, and the public if and when a Water Shortage declaration is issued as described in Sections 4 and 5. Such notification will be provided via several methods, including but not limited to the following:

1. OWASA's Executive Director (or designee) will notify the following officials and agencies:
 - ✓ OWASA Board of Directors;
 - ✓ OWASA General Counsel;
 - ✓ Managers of the Towns of Carrboro and Chapel Hill, and Orange County; and
 - ✓ Division of Water Resources and the Public Water Supply Section within the NC Department of Environment and Natural Resources.
2. The Executive Director (or designee) will inform all OWASA employees of changes in Water Shortage stages and conservation requirements applicable to OWASA customers. This will be communicated via one or more methods, including but not limited to:
 - ✓ e-mail through the OWASA Local Area Network;
 - ✓ presentations at staff and crew meetings; and
 - ✓ memoranda or other written materials.

Employees will be reminded of their role and responsibility and applicable procedures for monitoring and responding to potential or actual violations of applicable water use restrictions. If an employee observes such an event, he/she will be instructed to attempt to inform the customer of the restrictions in effect, the observed violation, the need for corrective action by the customer, and consequences of repeat violations.

3. OWASA's Communications and Community Relations Officer (or designee) will contact the news media (including newspapers, television, and radio) and provide them with information about the applicable declaration, associated requirements, water rate surcharges if applicable, etc. Such notifications may be made by e-mail, website postings, news releases, telephone, etc. News releases will include the name(s) and contact information of the OWASA staff member(s) that will be primarily responsible for addressing media inquiries.

As in the past, OWASA will make extensive use of e-mail, the media, the OWASA website, etc. to provide information to its customers about the need to conserve water, the use restrictions in effect, and water rate surcharges if applicable.

4. The Communications and Community Relations Officer (or designee) will be responsible for updating the OWASA website in a timely manner regarding current information on the status of local water supply and demands, Water Shortage declarations, conservation requirements, and water rate surcharges if applicable.

5. The Communications and Community Relations Officer (or designee) will assist OWASA staff in responding to customer inquiries.
6. The Communications and Community Relations Officer (or designee) will contact local law enforcement personnel about the applicable water conservation requirements in effect during the declared Water Shortage.
7. If feasible, OWASA will notify residential and non-residential customers of water restrictions via media and e-mail. In addition, OWASA staff may provide targeted information to the following customers:
 - ✓ The University of North Carolina at Chapel Hill;
 - ✓ UNC Hospitals;
 - ✓ Chapel Hill-Carrboro City Schools;
 - ✓ multi-family residential property owners/managers/residents;
 - ✓ irrigation customers;
 - ✓ hotels, motels, and restaurants; and
 - ✓ others as appropriate.
8. OWASA may place informational signs at high-visibility locations, such as the OWASA Administration Building, local town halls, entranceways to Carrboro and Chapel Hill, etc.

SECTION 4.

WATER SHORTAGE RESPONSE PROGRAM

The cornerstones of OWASA's water shortage response strategy are:

1. Water Conservation Standards, including year-round water use restrictions;
2. OWASA's water rate surcharges that are implemented during a declared water shortage and increase as the severity of the shortage increases; and
3. Public education and awareness, including provisions for voluntary issuance of a water shortage advisory by OWASA during unusually dry periods.

Water Conservation Standards

OWASA has established Water Conservation Standards that apply to the use of OWASA drinking water by all customers. The current Standards, which went into effect in June 2009, include year-round water use restrictions and four tiers of increasingly strict requirements depending on the severity of water shortage conditions.

The Water Conservation Standards are summarized in Table 4-1. The full text of the current Standards is included as Appendix A.

To complement and support OWASA's water shortage response program, the Town of Carrboro, Town of Chapel Hill, and Orange County enacted local water conservation ordinances which incorporate all of OWASA's Water Conservation Standards. The applicable provisions of the local ordinances go into effect upon a request by OWASA and subsequent proclamation by the chief elected official of each jurisdiction.

(The implementation and associated enforcement actions under the local water conservation ordinances is outside the direct control of OWASA. OWASA works very closely with the local governments to coordinate monitoring and enforcement efforts to promote compliance with applicable use restrictions.)

Table 4-1.

SUMMARY OF KEY CONSERVATION STANDARDS FOR OWASA DRINKING WATER *

Effective June, 2009

Water Use	Year-Round	Stage 1	Stage 2	Stage 3	Emergency
Spray Irrigation of Turf / Grass (on designated days of the week as noted)	3 days per week, up to 1 inch per week, 6 pm - 10 am only ** Odd Addresses: Tu/Th/Sat Even Addresses: Sun/W/F	1 day per week, up to 1/2 inch per week, 6 pm - 10 am only ** Odd Addresses: Tues. Even Addresses: Thurs.	X**	X**	X
Spray Irrigation of Non-Turf Plant Materials (on designated days of the week as noted)	3 days per week, up to 1 inch per week, 6 pm - 10 am only ** Odd Addresses: Tu/Th/Sat Even Addresses: Sun/W/F	3 days per week, up to 1 inch per week, 6 pm - 10 am only ** Odd Addresses: Tu/Th/Sat Even Addresses: Sun/W/F	1 day per week, up to 1/2 inch per week, 6 pm - 10 am only ** Odd Addresses: Tues. Even Addresses: Thurs.	X***	X
Drip irrigation, underground drip emitters, soaker hose, hand-watering, and other non-spray methods allowed <i>at any time</i> or frequency	✓	✓	✓	✓	X
Washing of Building Exteriors Before Painting	✓	✓	✓	X	X
General Cleaning of Building Exteriors, Paved Areas, Etc.	✓	✓	X	X	X
Filling, Refilling, or Topping Off Ornamental Ponds, Fountains, etc.	✓	✓	X	X	X
Vehicle Washing	✓	✓	Only at commercial or institutional facilities where at least 50% of the water is being recycled, or is from a non-potable source or well	X	X
Filling, Refilling, or Topping Off of Swimming Pools and Backyard-Scale Facilities to Support Wildlife	✓	✓	✓	✓	X
Flushing or Pressure Testing New Water Lines	✓	✓	✓	✓	Only if captured and returned to system
Year-Round Requirements, Regardless of Water Shortage Condition					
<ul style="list-style-type: none"> > Automatic controllers and rainfall or soil moisture sensors required on all irrigation systems > "Wasteful" water use* prohibited at all times > Water leaks must be repaired within 10 days of discovery and/or notification by OWASA > Water may be served in restaurants and other dining facilities only at customer's request > Hotel/motel linens may only be changed upon customer changeover, every 5 days, or upon customer request 					
Symbols and Notes					
* For the actual text of OWASA's Water Conservations Standards, please see Appendix A					
✓ Water use is allowed.					
X Water use is not allowed.					
** Restrictions may not apply to public purpose athletic fields, recreational fields, or public purpose botanical sites operated in compliance with OWASA-approved Water Conservation Plans.					
*** Restrictions may not apply to public purpose botanical sites operated in compliance with OWASA-approved Water Conservation Plans.					

Water Rate Surcharges During Declared Water Shortages

In 2007, OWASA adopted water rate surcharges to be imposed during declared water shortages. The surcharges were implemented during the 2007-2008 drought and resulted in a substantial reduction in water use.

Based on that experience, OWASA refined the surcharges in 2008 to apply more equitably to all customer classes throughout all drought stages.

Table 4-2 summarizes the water rate surcharges included in OWASA's October 1, 2020 schedule of rates and fees. When the surcharges are implemented, the applicable water rates in effect are increased by the factors shown in the table. The OWASA Board of Directors, at its discretion, may from time to time revise the water rate surcharges following a public hearing on OWASA's rates, fees and charges.

Table 4-2.

WATER RATE SURCHARGES IN DECLARED WATER SHORTAGES

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

Calculating OWASA's Water Rates With Water Shortage Surcharges in Effect

Based on the water rates in effect as of October 1, 2017 (and which will be revised at the discretion of the OWASA Board of Directors), here are a couple illustrations of how OWASA's water rates change when water rate surcharges are in effect.

Example 1: *The Block 3 water rate for individually-metered residences is \$8.39 per 1,000 gallons of water use (use between 6,000 and 10,000 gallons). When the Stage 1 water rate surcharge is in effect, the Block 3 rate would increase to \$10.49 per 1,000 gallons (an increase of 25%).*

Example 2: *The Peak Season (May – October) water rate for all non-residential and irrigation-only customers is \$8.47 per 1,000 gallons of water use. Under Stage 3 surcharges, the Peak Season water rate would increase to \$12.71 per 1,000 gallons (an increase of 50%).*

Public Education and Awareness

A comprehensive public education and awareness program is an essential component of OWASA's WSRP and water conservation efforts. During a drought or other shortage condition, the demand reductions achieved will depend primarily on how successful the education and awareness program is at gaining customer cooperation. That effort will be more successful if the public is informed about why conservation is necessary, the severity of the shortage, rate surcharges in effect, actual demand during the shortage and expected demand reductions, and how customers can achieve those reductions.

OWASA's public education and awareness program:

- ✓ provides for timely and regular notification to customers about the severity of a water shortage situation and why conservation is necessary;
- ✓ includes a variety of means to inform customers (electronic news releases to media, community organizations, and to customers who have shared their e-mail addresses; local and regional print and broadcast media; the OWASA website; direct mailings; signs and bus placards; newspaper articles and ads; etc.);
- ✓ provides information about what OWASA is doing to maintain a safe and adequate water supply and what specific measures customers can take to conserve water;
- ✓ provides the community with updates on the effectiveness of water conservation efforts; and
- ✓ includes information in Spanish on our website and for regional Latino media, local agencies serving the Hispanic community, etc.

Appendix B includes examples of brochures that OWASA mailed to customers during Stage 1 and Stage 2 of the 2007/2008 drought, and an example of an ad that was placed in a local newspaper during that drought.

OWASA will also declare a Water Shortage Advisory no later than when the total water storage in the reservoirs drops to within 10 percent of the mandatory Stage 1 triggers as shown in Section 5 of this Plan. At such time, OWASA will communicate with the Carrboro and Chapel Hill Town Councils, Orange County Board of Commissioners, and the University of North Carolina at Chapel Hill about the potential need for water use restrictions should the situation worsen. OWASA will also provide public notice to its customers and other stakeholders about the likelihood for water use restrictions.

Major Water Conservation Initiatives of OWASA

Following the extreme droughts of 2001-2002 and 2007-2008, OWASA implemented a number of important strategies to reduce and manage customer demands throughout the year, including:

1. Implementing a permanent process water recycling system at the Jones Ferry Road Water Treatment Plant. This has reduced average daily raw water withdrawals by about 7% since the fall of 2002.
2. Establishing seasonal water rates for all customers beginning in 2002 and subsequently implemented a five-tiered increasing block rate structure for all individually-metered residential customers beginning in 2007.
3. Implementing a new reclaimed water system to initially serve the University of North Carolina at Chapel Hill. This system reduces drinking water demands by approximately 0.7 million gallons a day (mgd).
4. Continuing water conservation education and awareness efforts for OWASA customers, including information and technical assistance for customers interested in implementing cost-effective conservation measures.

As a result of these strategies and the conservation efforts by OWASA customers, average day water sales in the OWASA service area are about the same now as they were about 30 years ago despite about a 70% increase in OWASA customer accounts during that period.

Together, these measures have reduced the community's risk to droughts and other water shortage conditions, thereby reducing the need for additional restrictions during such events. It is, however, essential that OWASA have a water shortage response program in place to respond to such events because the potential for a water shortage due to drought or other event always exists.

SECTION 5.

MANDATORY WATER SHORTAGE RESPONSE TRIGGERS

As required by NCGS 143-355, OWASA has established a set of specific measurements of available water supply and demand conditions to: assess the severity of water shortage conditions during extended droughts; guide the initiation of water use reduction measures; and guide the transition between the various water shortage stages described in this Plan. The measurements and rationale are explained below.

From time to time, it may be necessary to implement water use restrictions in response to certain drinking water system emergencies, such as water main breaks, water quality problems, planned and unplanned maintenance events, natural disasters, etc. OWASA's water shortage response strategy for operational emergencies is also described below.

OWASA staff continually monitors and evaluates the operational status of water supply, treatment, and distribution system components to ensure that customer demands can be met at any given time. Staff also tracks customer demands and the amount of raw water supply remaining in each supply source on a daily basis. USGS streamflow gaging data are monitored closely to determine conditions and trends in inflows to the reservoirs. This and other information is used to guide OWASA's water shortage response strategy.

Triggers for Implementing Water Shortage Response Stages During Extended Droughts

OWASA's drought management decisions are guided primarily by the estimated level of risk that usable reservoir storage will decline to 20 percent (approximately 700 million gallons [MG]) or less during the next 12 months. At a raw water demand level of 7.5 mgd, 700 MG of raw water supply on-hand would meet customer needs for approximately three months during an extreme drought, thus providing time to implement emergency water supply augmentation and conservation measures.

Water supply risk is determined from OWASA's Reservoir Optimization Model (OWASA-ROM), which includes a statistical analysis of 82 years of actual and simulated streamflow records (1926-2007) for the Cane Creek/University Lake/Quarry Reservoir supply system. The model simulates what reservoir storage levels would be under various levels of annual average-day demand, storage volume remaining at a given time of the year, and historical streamflows and evaporation rates.

The average-day demand for the year is adjusted to reflect historical monthly demand ratios for the OWASA system. The model reflects OWASA's operating protocols and the capacities of existing raw water pumping and transmission facilities. It simulates reservoir inflows, levels and demands on a daily time-step, and evaluates the reliability of the system to meet demands while maintaining a minimum emergency storage reserve target of 20% of total capacity as a margin of safety.

OWASA-ROM has been used to estimate the total reservoir storage volumes (percent remaining) that correspond to approximately 2% (2 years in 82), 10% (8 years in 82) and 20% (16 years in 82) probabilities that reservoir storage will be drawn down to 20% or less of storage during the

following 12 months under various annual average-day demand levels and assuming no other action taken to reduce demands and/or augment the supply.

In the late fall, winter and early spring, when inflows are typically higher and demand lower, reservoir storage can drop to relatively low levels before the risk of drawdown to 20% or less during the following 12 months becomes significant. From late spring through fall, when demand rises and inflows decline, the level of risk for a given demand increases.

This analysis has been used to establish the trigger levels that will automatically result in OWASA's implementation of the various Water Shortage stages and associated restrictions.

Figures 5-1 through 5-4 show the trigger levels that will apply to the implementation of successive Water Shortage response stages under annual average-day demands of 7.0, 8.0, 9.0, and 10.0 mgd, respectively. (OWASA projects average-day raw water withdrawals will be about 7 mgd in Fiscal Year 2021.)

Figures 5-1 through 5-4 also include a water shortage advisory level, which is represented by a black dashed line on the graphs. OWASA will declare a Water Shortage Advisory no later than when the total water storage in the reservoirs drops to within 10 percent of the mandatory Stage 1 triggers as shown on Figures 5-2 through 5-4. At such time, OWASA will communicate with the Carrboro and Chapel Hill Town Councils, Orange County Board of Commissioners, and the University of North Carolina at Chapel Hill about the potential need for water use restrictions should the situation worsen. OWASA will also provide public notice to its customers and other stakeholders about the likelihood for water use restrictions and request that customers voluntarily conserve water.

OWASA's Executive Director will declare the appropriate Water Shortage stage (including the Advisory) within five (5) working days after the trigger has been reached (assuming storage remains at or below the applicable level). However, OWASA may declare a Water Shortage or Advisory or implement stages before the specific trigger is reached (sooner than the applicable Figure would indicate) if other factors indicate such an action is appropriate or required upon approval by the Board of Directors.

Staff will provide regular informational reports to the Board and community during extended droughts. Other factors that will be considered when determining whether to declare a Water Shortage or Advisory before a specific trigger is reached include but are not be limited to:

- regional water supply and demand conditions and forecasts;
- likelihood of obtaining raw or finished water from other utilities;
- Drought Advisory issued by the NC Drought Management Advisory Council; and
- long-term weather forecasts.

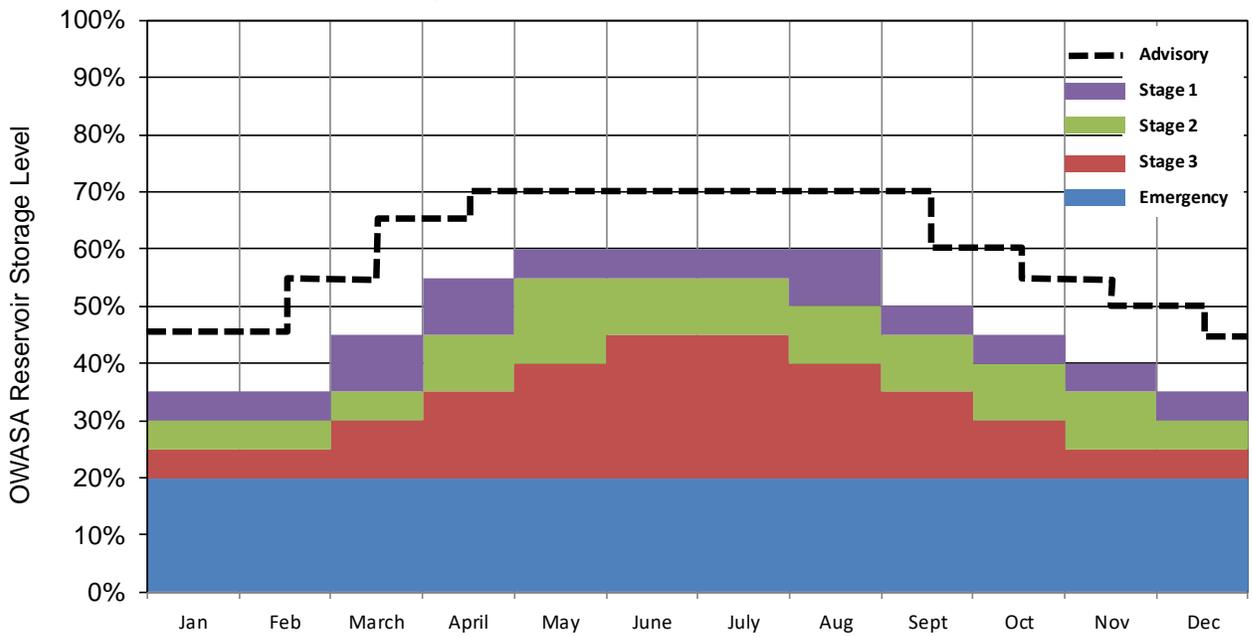
It is also possible that Water Shortage response stages may not necessarily be implemented sequentially if water supply and/or demand conditions change rapidly.

If and when OWASA determines a Water Shortage stage is in effect, it will clearly explain to its customers and the public the basis for the decision, including the estimated risk that the local water supply could be drawn down to very low levels (at or below 20% of total storage) over the following 12 months.

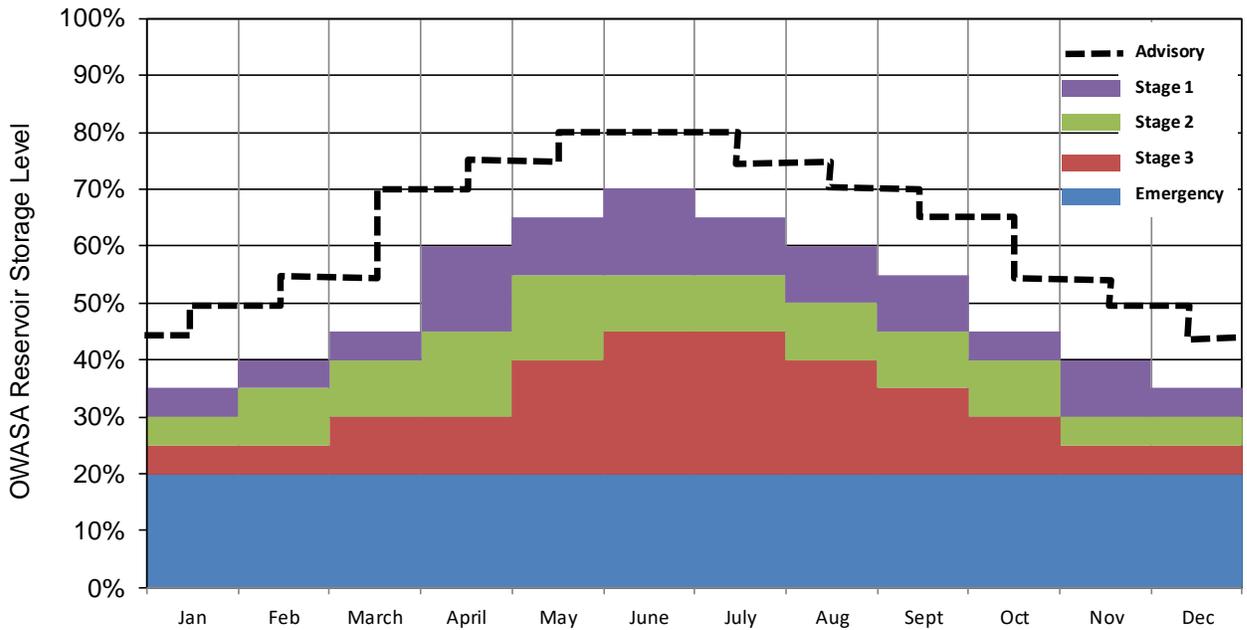
DRAFT

**OWASA Water Shortage Trigger Levels for
Average Annual Demand of 7.0 MGD**

Figure 5-1

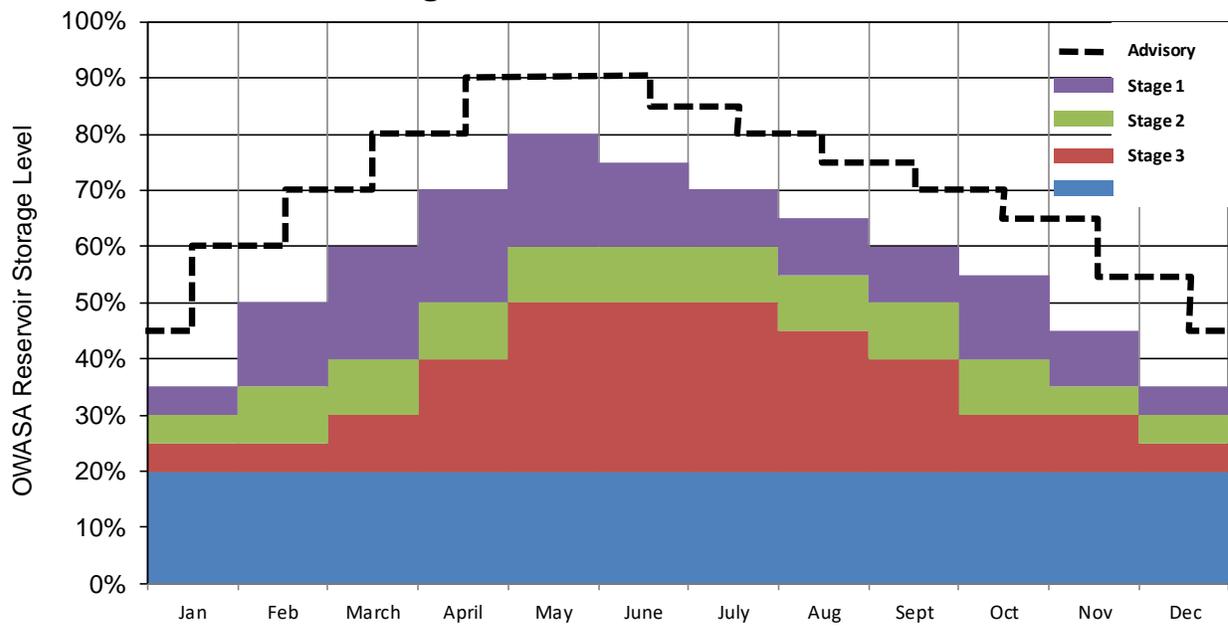


**OWASA Water Shortage Trigger Levels for
Average Annual Demand of 8.0 MGD**



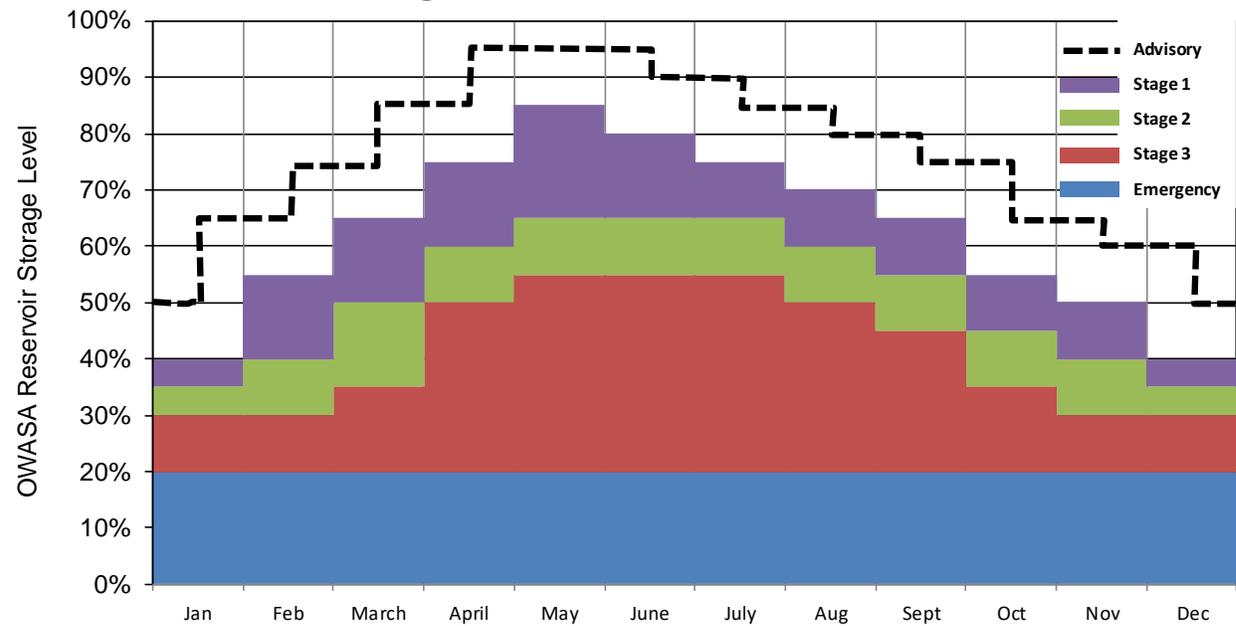
**OWASA Water Shortage Trigger Levels for
Average Annual Demand of 9.0 MGD**

Figure 5-3



**OWASA Water Shortage Trigger Levels for
Average Annual Demand of 10.0 MGD**

Figure 5-4



Triggers for Rescinding Water Shortage Response Stages During Extended Droughts

For a Water Shortage stage to be rescinded, the water supply storage volume must be at least ten percent (10%) above the specified Water Shortage initiation trigger for the applicable stage. However, OWASA's Executive Director may delay the rescission of a Water Shortage stage depending on water supply and demand conditions, extended weather forecast, regional water supply conditions and outlook, and other factors.

As with initiation, rescission of Water Shortage stages may not always occur sequentially, depending on how quickly supply and/or demand conditions change.

Water Shortage Response Triggers for Operational Emergencies

OWASA may occasionally need to implement mandatory water use restriction to address abnormal operating conditions – other than extended droughts – when current demand cannot be met. Such events include, but are not limited to:

- production problems at the Jones Ferry Road Water Treatment Plant;
- pump, tank, or pipeline failures;
- raw or treated drinking water quality problems;
- planned or unplanned maintenance events; and
- natural disasters.

OWASA may declare a Water Supply Shortage or Emergency whenever customer demand – as averaged over three consecutive days – exceeds 85 percent of OWASA's capability of treating and delivering water. The stage and duration of such a Water Supply Shortage or Emergency shall be guided by the degree to which customer demands approach or exceed OWASA's capacity to meet those demands, and by the degree to which conservation efforts successfully reduce short-term demands.

Operational emergencies are typically characterized by the need for rapid response by OWASA and its customers, and may require major curtailment of water use in a short period of time.

Non-drought water emergencies are unique because of the potential lack of preparation time and the need for immediate and potentially large-scale demand reductions. Because each emergency scenario is different, no single strategy can meet OWASA's needs during all emergency scenarios.

If OWASA's Executive Director determines that an emergency operating condition exists, he/she may implement a Water Shortage response stage and associated mandatory water use restrictions that he/she deems necessary and appropriate given the nature, extent, and expected duration of the emergency condition.

The Water Shortage response stage initially selected may be quickly modified as operating conditions are further assessed and there is a better understanding of the length of time that may be needed to restore normal operating and/or demand conditions.

SECTION 6.
ENFORCEMENT

OWASA does not have statutory authority to establish water conservation ordinances; therefore, as described in Section 4, it has established Water Conservation Standards applicable to all OWASA customers. The Standards include year-round mandatory water use restrictions as well as a system of increasingly stringent restrictions for different stages of a declared water shortage.

OWASA does not have statutory authority to directly impose civil or criminal penalty provisions for violations of its Conservation Standards. The Standards provide for the temporary disconnection of water service to any customer that repeatedly violates the Standards.

Upon learning of an actual, reported, or suspected violation, OWASA staff will contact the customer by phone, in person, and/or in writing to inform them of:

- ✓ the restrictions in effect;
- ✓ the nature of the actual, reported, or suspected violation;
- ✓ the need for corrective action by the customer; and
- ✓ the potential consequences of continued violations, including temporary disconnection of service for non-compliance with the Standards and the potential for citation by local government law enforcement officers.

In addition to OWASA's authority and approach to enforcing its Standards, the Carrboro, Chapel Hill and Orange County ordinances include civil penalty provisions for violations of their respective conservation ordinances, which, as noted before, are based on the OWASA Standards.

SECTION 7.

PROCEDURES FOR REVIEW OF VARIANCE REQUESTS

OWASA's Water Conservation Standards allow exemptions only for the following water uses during declared Water Shortages:

- ✓ Public purpose athletic fields and public purpose botanical sites are exempt from certain irrigation restrictions provided that an OWASA-approved site-specific Water Conservation Plan is in place.
- ✓ Car washes are exempt from certain restrictions provided that at least 50% of their water has been recycled, is from a non-potable water source, or is supplied from a well.

(Exemptions from water use restrictions do not include exemptions for water rate surcharges.)

Customers may request a variance from the Water Conservation Standards by submitting a letter or e-mail to OWASA's Executive Director (or designee) specifically describing the nature and reason for the requested variance and the customer's specific plan to reduce water use or to maintain a high level of water use efficiency during the declared shortage.

A decision to approve or deny individual variance requests will be provided to the customer within two weeks of receipt of the request, after careful consideration of the following criteria:

- ✓ purpose and necessity for use of drinking water;
- ✓ social and economic importance/hardship imposed by compliance with the Standards;
- ✓ the prevention of structural damage impact;
- ✓ expected duration of the use for which the variance is requested;
- ✓ expected direct and indirect impact on water demands; and
- ✓ practicality of options for alternative water sources.

Required Water Conservation Plans may be submitted at any time and will be reviewed and either approved or denied by OWASA within six weeks of receipt. To be considered for approval, a Water Conservation Plan must include:

1. Estimated amount of water use per day during both an average winter month and an average summer month for various purposes, including drinking water, basic sanitation, process water, irrigation, and other major uses specific to the customer
2. Description of alternate water sources available
3. Description of existing measures or high-efficiency fixtures in place to reduce water use
4. Measures that could be taken during each Water Shortage Response Stage for which a variance is requested in order to meet the percentage reductions in Table 8-1.

5. Description of the impact to the customer (e.g. reduced production, reduction of business hours, employment impacts, structural damage, etc.) of meeting the Table 8-1 water use reduction percentages during each Water Shortage Response Stage for which a variance is requested.
6. Proposed alternative measures to be taken during each Water Shortage Response Stage for which a variance is requested, and the resulting expected percentage reduction in water use for the categories listed in item 1, under both average winter and average summer conditions.

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SECTION 8.

EXPECTED AND ACTUAL EFFECTIVENESS OF THIS PLAN

Because OWASA revised its Water Conservation Standards in June 2009 and no drought has occurred subsequent to that date, there is no actual data or experience regarding the effectiveness of these Standards. However, based on customer response to water use restrictions and other measures in place during the 2001-2002 and 2007-2008 droughts, OWASA has the following water use reduction objectives associated with the Water Shortage Response Stages in the Standards:

Table 8-1.

Expected/Targeted Water Use Reductions for OWASA's Water Shortage Stages

Water Shortage Response Stage	Target Reductions Relative to Normal* Water Use
Stage 1	10%
Stage 2	15%
Stage 3	20%
Emergency	To be Determined

* Normal Water Use is the level of customer demands that would be expected to occur during the time of the year that the Water Shortage Response Stage is in effect.

OWASA will periodically evaluate the effectiveness of its Water Shortage response actions through several methods, including but not limited to:

- ✓ comparing actual demand reductions achieved to the objectives of the Water Conservation Standards, as well as demand information for the same period for prior years;
- ✓ monitoring the frequency, severity, and duration of declared Water Shortage conditions;
- ✓ identifying any situations where action should have been taken but was not required under this plan;
- ✓ monitoring the number, type and recurrence of violations of applicable water use restrictions, and any required enforcement actions; and
- ✓ reviewing the inquiries and feedback received from customers during declared Water Shortages.

SECTION 9.

PUBLIC REVIEW AND COMMENT

In accordance with State law, OWASA's draft 2010 WSRP was issued for public review and comment and all comments received were considered prior to the OWASA Board of Directors' formal approval of the WSRP.

The core components of this Plan – OWASA's Water Conservation Standards, Water Shortage response stages, and associated water use restrictions – were adopted by OWASA in June 2009 following an extensive public review and comment process that included stakeholder meetings, review and comments from local governments and the Chapel Hill–Carrboro Chamber of Commerce, and a formal public hearing. Notice of the proposed Standards and restrictions was provided in the local newspaper and on OWASA's website.

The draft 2010 WSRP was made available for public review and comment for two weeks in advance of final consideration by the OWASA Board of Directors. Public review and comment was invited by:

- ✓ posting the draft on OWASA's website (www.owasa.org);
- ✓ providing copies for public review at OWASA's main office and the Chapel Hill Public Library;
- ✓ providing notice in the local newspaper of the draft plan's availability and the deadline for submitting written and/or verbal comments; and
- ✓ issuing electronic news releases announcing the availability of, and inviting comments on, the draft plan.

OWASA invited interested persons to submit written comments via e-mail or letter, and/or verbal comments at the public meeting when the draft was considered by the OWASA Board of Directors. Following consideration of the public comments, the OWASA Board of Directors formally approved OWASA's WSRP on November 11, 2010 (Appendix C).

The 2015 update of the WSRP included minor updates such as contact information changes. It also included information about water shortage advisories, which would be declared when storage dropped to within 10 percent of mandatory stage 1 triggers. The advisories would request that customers voluntarily conserve water.. The advisories were not shown on the trigger graphs included in Section 5 of this Plan. This version of the WSRP was presented to the Board at a work session on December 11, 2014 and approved by the Board of Directors along with OWASA's Local Water Supply Plan at its January 22, 2015 meeting (Appendix C).

The 2018 update of the WSRP includes minor updates (Table 4-2 is updated to reflect the change in multi-family, master-metered residential rates, the reclassification of our Public Affairs Administrator to Communications and Community Relations Officer, and other minor formatting changes. This version of the WSRP was presented to the Board of Directors at a work session on June 14, 2018 along with OWASA's 2017 Local Water Supply Plan (Appendix C).

The main changes in this version were adding the advisory stage lines to the trigger tables illustrated in Figures 5-1 through 5-4, modifying language concerning the advisory stage in section 4, adding text regarding the advisory stage in Section 5. These changes negated the need for a Board policy, which was removed from an appendix. The OWASA Board of Directors discussed these modifications at their November 12, 2020 meeting, which was open to the public. OWASA staff also held a webinar for members of the public on November 17, 2020. While the main purpose of the webinar was to provide information about OWASA's Long-Range Water Supply Plan and receive feedback on the work completed to date, staff also included information about these potential changes to the WSRP. Other changes included updated staff contacts and other minor edits. This updated version of the WSRP was acted upon by the Board on December 10, 2020 (Appendix C).

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SECTION 10.

FUTURE REVIEW AND REVISION OF OWASA'S WSRP

In accordance with State requirements, OWASA will review the local WSRP, and revise it where necessary, as follows:

- ✓ concurrent with the update of OWASA's Local Water Supply Plan as required per NCGS 143-355(1), which occurs a minimum of once every five years;
- ✓ following the rescission of all mandatory water use restrictions that were imposed during an event that required declaration of a Stage 1, Stage 2, Stage 3, or Emergency Water Shortage condition; and/or
- ✓ at any time as deemed necessary to reflect changes in water supply and demand conditions, new information regarding the effectiveness of conservation management practices including the water use restrictions in OWASA's Water Conservation Standards, experience gained with implementation of the plan, and other factors.

Prior to the OWASA Board's final consideration of any proposed major revisions to the WSRP, OWASA will provide its customers and the public an opportunity to review and comment on the proposed revisions. Information about proposed revisions and requests for comments on such proposals will be provided via OWASA's website, e-mail communications, news releases, notices of availability published in the local newspaper, etc. The draft plan will be available at OWASA's main office building and on our website (www.owasa.org) for public review.

The Executive Director (or designee) will be responsible for initiating all major WSRP updates, and for ensuring that OWASA customers and the public have the opportunity to comment on the plan and any proposed changes prior to final approval by the OWASA Board of Directors.

It has been OWASA's practice to meet with representatives of organizations such as the Chamber of Commerce, green industry, and local governments to receive information, comments, and suggestions regarding the effectiveness of existing water use restrictions and potential changes to those restrictions. OWASA will continue this practice as part of future evaluations and major updates of this plan.

APPENDIX A

OWASA WATER CONSERVATION STANDARDS

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Orange Water and Sewer Authority
Water Conservation Standards
(Approved March 26, 2009)

Article I – Purpose and Definitions

I. A. Purpose

These Water Conservation Standards are enacted by the Orange Water and Sewer Authority (OWASA) for the purposes of:

1. Reducing the rate of increase in overall water use through year-round water conservation practices that will help maximize the community's existing and planned water supply sources and help reduce seasonal peak day demands that result in the need for costly expansion of water treatment, storage, and transmission facilities. Such year-round practices shall include:
 - a. Reducing indoor water waste by encouraging the installation and maintenance of ultra-low flow toilets, faucet aerators, low-flow showerheads and similar devices, as well as other creative and commonsense indoor conservation practices.
 - b. Reducing irrigation and irrigation-related water waste without sacrificing landscape quality through the cultivation of lower water use plants; improved landscape design and planting practices; more efficient watering practices; and improved irrigation system design and maintenance.
 - c. Increasing the use of non-potable water, as permitted by appropriate public health regulations, for irrigation and other uses that do not require water of potable quality.
2. Providing an orderly process for reducing community-wide water demands during periods of drought or other naturally occurring causes of water shortages.
3. Providing an orderly process for reducing community-wide water demands during periods of water shortages due to natural disaster (other than drought), major OWASA facilities failure, or other unexpected and sudden loss of water supply, treatment, or distribution capacity that constitutes a water supply emergency.

I. B. Definitions

For the purpose of these Standards, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

AUTOMATIC CONTROLLER. A mechanical or electronic device capable of operating an irrigation system and its component valve stations according to a pre-determined schedule of irrigation frequency and duration.

CISTERN. A tank or container, typically located underground, for the storage and subsequent reuse of rainwater collected from rooftops or other impervious surfaces that would have otherwise evaporated or drained off the premises.

DRIP IRRIGATION. The application of irrigation water through drip emitter devices at low pressure, volume, and velocity near or at ground level in order to minimize runoff and evaporative losses. Drip irrigation emitters are typically used for irrigating non-turf vegetation and release water in the range of 0.04 to 0.40 gallons per minute.

EVEN-NUMBERED PROPERTIES. Properties with street addresses that end in even-numbered digits, or other properties so designated for the purposes of these Standards through special arrangements with OWASA.

GRAYWATER. Wastewater removed from household wash basins, bathtubs, or showers. Graywater may only be reused in accordance with practices approved by applicable regulatory agencies.

HAND WATERING. The application of water for irrigation purposes through a hand-held hose or watering container.

HARVESTED WATER. Precipitation or irrigation runoff collected, stored and available for reuse for irrigation purposes.

IRRIGATION SYSTEM. Any permanently installed system of pipes, hoses, or other conveyance devices and appurtenances that provides water to living plant material through spray heads or other emission devices located at, above, or below the ground surface. For the purposes of these Standards, a sprinkler, soaker hose, or other device connected to its water source via a moveable above-ground garden hose is not considered to be an irrigation system.

LANDSCAPE AREA. That portion of a parcel that contains turf or non-turf vegetation.

LOW-PRECIPIATION BUBBLER. An irrigation head which typically operates within six inches of ground level and delivers water at a rate of less than 0.45 gallons per minute within a radius of less than two feet of the head. Low-precipitation bubblers are typically used for irrigating non-turf vegetation.

MICRO SPRAY. The application of irrigation water through small, low volume sprayer heads in order to minimize runoff losses. Micro sprays are typically used for irrigating non-turf vegetation. Individual micro spray heads typically operate less than 12 inches above ground level and typically deliver water in the range of 0.10 to 0.50 gallons per minute within a radius of five feet or less of the head.

MULCH. A protective covering of organic material, such as sawdust, wood chips, compost, or other vegetative matter, spread on the ground to reduce evaporation and increase water retention.

ODD-NUMBERED PROPERTIES. Properties with street addresses that end in odd-numbered digits, or other properties so designated for the purposes of these Standards through special arrangements with OWASA.

OVERALL WATER DEMAND. The total water demand for any given month, as projected by OWASA.

OWASA. The Orange Water and Sewer Authority.

POTABLE WATER. Treated water provided by OWASA that is suitable for drinking, cooking, and other domestic use. Water that is collected indoors in containers from indoor faucets or spigots that would otherwise be discharged into drainpipes while a user awaits the warming of the water for dishwashing, other washing, shaving, bathing, or showering is not considered to be potable water for the purposes of these Standards.

PRECIPITATION RATE. The amount of water applied per unit of time, usually expressed in inches per hour.

PUBLIC PURPOSE ATHLETIC OR RECREATIONAL FIELD. An athletic or recreational field owned or leased by a public or not-for-profit entity and which is (a) operated for the use of the public pursuant to general invitation, and (b) not operated for the purpose of profit. For purposes of this definition, a golf course is not considered to be a public purpose athletic field or recreational field.

PUBLIC PURPOSE BOTANICAL SITE. A landscaped area which is owned or leased by a public or not-for-profit entity in which a variety of plants are grown to be categorized and documented for scientific purposes and/or which may also be open to the public for entertainment and educational purposes.

PUBLIC RIGHT-OF-WAY. The area of land owned or maintained by municipal, county, or state government primarily for the use of the public for the movement of people, goods, vehicles, or storm water. For the purposes of these Standards, the public right-of-way shall include curbs, streets, sidewalks, and storm water drainage inlets, but shall not include adjacent landscaped areas that also may be located within the legally delineated public right-of-way.

RAIN BARREL: A tank or container, typically located on the ground beneath a roof drainage system, that captures and stores rainwater for subsequent reuse.

RAW WATER. Water drawn from a reservoir or other water source before treatment.

RECLAIMED WATER. Highly treated effluent from a wastewater treatment plant that can be safely used for non-potable purposes approved by applicable regulatory agencies.

RUNOFF. Water that is not absorbed by the soil or landscape to which it is applied. Runoff occurs when water is applied too quickly (application rate exceeds infiltration rate), particularly if there is a severe slope. These Standards do not apply to stormwater runoff which is created by natural precipitation rather than human-caused or applied water use.

SERVICE AREA. The geographic area in which OWASA provides or is authorized to provide water and/or sewer service.

SHUT-OFF NOZZLE. A device attached to the end of a hose that completely shuts off the flow, even if left unattended.

SOAKER HOSE. A flexible hose designed to emit a trickle of water along its entire length, either through numerous small-diameter (less than 1/32-inch) perforations or through the permeable material of its composition.

SPRAY IRRIGATION. The application of water to landscaping by means of a device, other than a hand-held hose or watering container, that projects water through the air in the form of small particles or droplets.

SPRINKLER HEAD. A device that projects water through the air in the form of small particles or droplets.

UNDERGROUND SYSTEM. An irrigation system with emitters installed beneath the ground surface.

WATER CONSERVATION PLAN (OWASA-APPROVED). A written document submitted by the owner or operator of a public purpose athletic field, recreational field, and/or a public purpose botanical site and approved by OWASA's Executive Director or his/her designee that specifies the conservation measures and irrigation operating modes that will be employed year-round at those public purpose facilities and the specific practices that will be employed to achieve Stage 1, 2, and 3 Water Shortage conservation goals enumerated in these Standards.

WATER WASTE. The non-beneficial use of OWASA potable water. Non-beneficial uses include but are not restricted to:

- a. Landscape water applied in such a manner, rate and/or quantity that it overflows the landscaped area being watered and runs onto adjacent property or public right-of-way; or landscape water applied during periods of rainfall or when soil moisture is already adequate.
- b. The use of water for washing vehicles, equipment, or hard surfaces, such as parking lots, aprons, pads, and driveways in such quantities to flow onto adjacent property or the public right-of-way.

- c. Water applied in sufficient quantity to cause ponding on impervious surfaces.
- d. Water lost through plumbing leaks that can be readily identified and corrected.

WATERING BAG. A container used to hold and slowly dispense water around the base of a tree or shrub. These are commonly called “Gators.”

XERISCAPING. An approach to landscape design and maintenance that uses small amounts of water but sustains a traditional look through the proper conditioning of soil, the selection of appropriate drought-tolerant plants, generous use of mulch, efficient use of water, and other proven techniques.

Article II – Water Waste Prohibited, Penalties for Violating Standards

II. A. Water Waste Prohibited

No person, party, or entity shall use, cause, waste, or permit to be wasted any OWASA-supplied potable water in violation of the Standards set out herein.

II. B. Penalties

OWASA may discontinue water service to any customer where, after notice of a prohibited use is delivered to the service address, OWASA-supplied potable water continues to be used or wasted in violation of the Water Conservation Standards set out herein.

Article III – Year-Round Requirements, Policy and Practice

III. A. Exterior Use

1. The following outdoor or exterior use requirements shall apply to all customers using OWASA-supplied potable water:
 - a. Spray irrigation shall not occur more than three days per week. Even-numbered properties may be irrigated with spray systems only on Sundays, Wednesdays, and/or Fridays. Odd-numbered properties may be irrigated with spray systems only on Tuesdays, Thursdays, and/or Saturdays. All spray irrigation shall occur only between the hours of 6:00 p.m. and 10:00 a.m., and shall apply no more than one inch of water in any given week. These restrictions shall not apply to properties using underground, drip irrigation, micro spray, low precipitation bubblers, soaker hoses, hand watering, tree or shrub watering bags, or where watering of containerized plants and commercial plant stock in trade is maintained for resale.

- b. All irrigation systems shall be equipped with automatic controllers that activate the system according to a desired frequency and duration, and shall also be equipped with rain or soil moisture sensors that will prevent irrigation during periods of rainfall or when there is sufficient moisture in the ground for plant health and survival.
 - c. All hoses used for hand watering, vehicle washing, or other allowable outdoor uses shall be equipped with shutoff nozzles.
 - d. No exterior use of OWASA-supplied potable water shall result in the flow of water onto adjacent property or public right-of-way, and all irrigation systems shall be designed and maintained to prevent to the extent practicable water from flowing onto paved or other impervious surfaces.
 - e. Outdoor water leaks on property or facilities of OWASA customers shall be repaired within ten (10) days of discovery by the customer and/or notification by OWASA.
2. Owners of public purpose athletic fields, recreational fields, and/or public purpose botanical sites shall not be subject to the year-round limitations of III.A.1.a-e if those facilities are operated in compliance with an OWASA-approved Water Conservation Plan that specifies the conservation measures and irrigation operating modes to be employed at that facility year-round and during successive stages of a declared water shortage.
3. Unless superseded by the declaration of a Water Supply Shortage or Emergency, the year-round requirements of III.A.1.a and III.A.1.b above shall not apply to the following:
 - a. Outdoor irrigation necessary for the establishment of newly sodded or seeded lawns and for the establishment of new non-turf plant materials within the first 45 days of planting, provided that such irrigation occurs only between the hours of 6:00 p.m. and 10:00 a.m.
 - b. Irrigation necessary for one day only where treatment with an application of chemicals requires immediate watering to preserve an existing landscape or to establish a new landscape, provided that such irrigation occurs only between the hours of 6:00 p.m. and 10:00 a.m.
 - c. Water used to control dust or to compact soil when alternate methods are not available.
 - d. Visually supervised operation of watering systems for short periods of time to check system condition and effectiveness.
 - e. Water used for construction or maintenance activities where the application of water is the appropriate methodology and where no other practical alternative exists.

- f. Water used for firefighting, firefighter training, fire hose testing, fire pumper testing, and other emergency situation mitigation purposes.
- g. For situations in which there is no practical alternative, OWASA-supplied potable water may be used for other special purposes, such as washing out garbage trucks, cleaning up hazardous or unsanitary materials, etc., or for other purposes necessary to protect public health, safety, and welfare – provided that such water is used in the least quantity needed to accomplish the task.

III. B. Interior Use

- 1. The following indoor or interior use requirements shall apply to all customers using OWASA-supplied potable water:
 - a. Restaurants and dining facilities shall serve water only upon request of the customer.
 - b. Hotels, motels, and other facilities providing sleeping accommodations shall change bed linens only upon request of the customer, or upon customer changeover, or every five days for long-term customers.
 - c. Indoor water leaks on property or facilities of OWASA customers shall be repaired within ten (10) days of discovery by the customer and/or notification by OWASA.
- 2. Unless superseded by the declaration of a Water Supply Shortage or Emergency, the year-round requirements of III.B.1. above shall not apply to the following:
 - a. Visually supervised operation and flushing of plumbing systems for short periods of time to check system condition and effectiveness.
 - b. Water used for construction or maintenance activities where the use of water is the appropriate methodology and where no other practical alternative exists.

III. C. Year-Round Policy and Practice

- 1. It shall be OWASA's policy and practice to publicize periodically water conservation methods, including but not limited to, methods of conserving water both indoors and outdoors; methods of collecting and storing harvested water in appropriate devices, such as rain barrels and cisterns; as well as information about the availability, feasibility and allowable uses of reclaimed water from OWASA. It shall be OWASA's policy to strongly encourage and promote the following voluntary conservation measures year-round, regardless of water supply conditions:

- a. Operate dishwashers and clothes washers only when loaded to their maximum capacity or at water level settings appropriate for the size of the load.
- b. Where not otherwise required, install ultra-low flow toilets, tank dams, flow restrictors (aerators) and low-flow showerheads.
- c. Repair and maintain plumbing systems to prevent water leaks.
- d. Use harvested rainwater and/or reclaimed water for indoor and outdoor purposes where allowable and practical.

Article IV – Determination of a Water Supply Shortage or Emergency

IV. A. Drought Condition Shortage

OWASA's drought response strategy and Water Supply Shortage declarations will be guided primarily by the risk that OWASA's water supplies will decline to 20 percent or less of total storage capacity within the next 12-month period. A Stage One Water Shortage declaration will generally correspond to a two percent (or greater) risk that reservoir levels will decline to 20 percent or less of total storage capacity within the next 12 months; provided, however, that in making such a determination, OWASA will also consider the actual and projected severity of the ongoing drought relative to historical droughts included in OWASA's water supply simulation models; existing and anticipated demand, including expected customer response to water use restrictions; availability of supplemental supplies, including water purchases from neighboring communities; regional water supply conditions, including, but not limited to, the concurrent drought response status of neighboring jurisdictions; guidance or directives from the State of North Carolina; and other elements of reasonable professional judgment and management.

More severe Water Supply Shortage Stages will subsequently be declared if the risk level increases and/or if other factors indicate that further action is needed. Similarly, OWASA will reduce the severity of, or rescind, a Water Supply Shortage declaration as the risk level and related factors improve.

IV. B. Water Treatment, Storage, or Distribution Capacity Shortage

In addition to conditions caused by drought, OWASA may declare a Water Supply Shortage or Emergency whenever customer demand – as averaged over three consecutive days – exceeds 85 percent of OWASA's capability of treating and delivering water. The stage and duration of such a Water Supply Shortage or Emergency shall be guided by the degree to which customer demands approach or exceed OWASA's capacity to meet those demands, and by the degree to which conservation efforts successfully reduce short-term demands.

IV. C. Disasters and Catastrophic Equipment or Plant Failure Shortage

Any other circumstances, including service losses caused by equipment or facility failure, human error, deliberate act, weather, or other natural disaster, which constrain OWASA's water supply, treatment, or distribution capacity to less than that reasonably needed by its customers, shall constitute a Water Supply Shortage up to and including a Water Supply Emergency, requiring immediate action by OWASA.

Article V – Required Actions Under Water Supply Shortage or Emergency Conditions

In the event of a water supply shortage, OWASA shall, using its best professional judgment, determine which of the following stages is the most appropriate response to the estimated level of risk considering factors in IV.A above.

V. A. Stage One (1) Water Shortage

In the event that OWASA declares a Stage One Water Shortage, OWASA shall advise the Mayors of Carrboro and Chapel Hill and the Chair of the Orange County Board of Commissioners of its declaration and shall request that they issue Proclamations of a Stage One Water Supply Shortage. Upon OWASA's declaration of a Stage One Water Shortage, the following actions shall be taken with the goal of reducing overall water demand by ten (10) percent:

1. Spray irrigation of turf grass using OWASA-supplied potable water shall not occur more than one day per week with a maximum of one-half inch of water applied to plant material in any given week. Odd-numbered properties shall be allowed to spray irrigate only on Tuesdays; even-numbered properties shall be allowed to spray irrigate only on Thursdays. Spray irrigation of turf grass shall occur only between the hours of 6:00 p.m. and 10:00 a.m. Owners of public purpose athletic fields, recreational fields, and/or public purpose botanical sites shall not be subject to the limitations of this subsection V.A.1 if those facilities are operated in compliance with an OWASA-approved Water Conservation Plan.
2. Spray irrigation of non-turf plant materials may occur up to three days per week as provided under the year-round requirements specified in Section III.A.1.a.
3. Irrigation of non-turf plant materials by underground, drip irrigation, micro spray, low precipitation bubblers, soaker hose systems with automatic shutoffs, or by hand held hoses or watering cans may occur at any time or frequency.

Notwithstanding the restrictions specified in Sections V.A.1 through V.A.3, the protection of public health, safety, and welfare may, under special circumstances, require the use of limited amounts of OWASA-supplied potable water for such purposes as washing out garbage trucks, cleaning up hazardous or other materials. Such uses shall be permitted during declared Water

Shortages or Emergencies, provided that other practical alternatives are not available and water is used in the least practical amount.

V. B. Stage Two (2) Water Shortage

In the event that OWASA declares a Stage Two Water Shortage, OWASA shall advise the Mayors of Carrboro and Chapel Hill and the Chair of the Orange County Board of Commissioners of its declaration and shall request that they issue Proclamations of a Stage Two Water Supply Shortage, if not already issued. Upon OWASA's declaration of a Stage Two Water Shortage, the following actions shall be taken with the goal of reducing overall water demand by fifteen (15) percent:

1. Spray irrigation of turf grass with OWASA-supplied potable water shall not be permitted, except at public purpose athletic and recreational fields and public purpose botanical sites operating under OWASA-approved Water Conservation Plans.
2. Spray irrigation of non-turf plant materials shall not occur more than one day per week according to the schedule specified in Section V.A.1 and in quantities of no more than ½ inch per week, except at public purpose botanical sites operating under OWASA-approved Water Conservation Plans.
3. Irrigation of non-turf plant material by underground, drip irrigation, micro spray, low precipitation bubblers, soaker hose systems with automatic shutoffs, tree or shrub watering bags, or by hand held hoses or watering cans may occur at any time or frequency.
4. No OWASA-supplied potable water shall be used to re-fill ornamental fountains, ponds, and like devices; provided, however, that OWASA water may be used to fill and re-fill bird baths and other backyard-scale facilities used to support wildlife.
5. No OWASA-supplied potable water shall be used for washing vehicles, except at commercial or institutional car washes in which at least 50 percent of the water has either been recycled, is from a non- potable source, or is supplied by a well.
6. No OWASA-supplied potable water shall be used for cleaning or washing exterior building surfaces, decks, or paved areas, such as sidewalks, driveways, roadways, and parking lots. This restriction shall not apply to the cleaning of exterior building surfaces or decks prior to painting or re-painting.
7. No OWASA-supplied potable water shall be used for fire department training or equipment testing unless required by State or Federal regulations.

Notwithstanding the restrictions specified in Sections V.B.1 through V.B.7, the protection of public health, safety, and welfare may, under special circumstances, require the use of limited amounts of OWASA-supplied potable water for such purposes as washing out garbage trucks, cleaning up hazardous or other materials. Such uses shall be permitted during declared Water

Shortages or Emergencies, provided that other practical alternatives are not available and water is used in the least practical amount.

V. C. Stage Three (3) Water Shortage

In the event that OWASA declares a Stage Three Water Shortage, OWASA shall advise the Mayors of Carrboro and Chapel Hill and the Chair of the Orange County Board of Commissioners of its declaration and shall request that they issue Proclamations of a Stage Three Water Supply Shortage, if not already issued. Upon OWASA's declaration of a Stage Three Water Shortage, the following actions shall be taken with the goal of reducing overall water demand by twenty (20) percent:

1. The use of OWASA-supplied potable water for heating and/or cooling purposes shall be reduced in all but the most essential facilities to the extent practical in consideration of indoor air quality standards, weather conditions, and health and safety requirements.
2. No OWASA-supplied potable water shall be used for irrigation of turf grass, except for public purpose athletic and/or recreational fields and public purpose botanical sites operating under water conservation plans that have been approved by OWASA's Executive Director or by his/her designee.
3. No OWASA-supplied potable water shall be used for irrigating non-turf plant material unless applied (a) via hand held hoses or watering cans, watering bags, drip irrigation or soaker hoses, or (b) at public purpose botanical sites operating under OWASA-approved Water Conservation Plans.
4. OWASA-supplied potable water may be used to fill, re-fill, or top off swimming pools, or to fill or re-fill bird baths and other backyard-scale facilities used to support wildlife. OWASA supplied potable water shall not be used for any other outdoor purposes, except for emergency fire suppression or other activities necessary to maintain public health, safety, or welfare.
5. No bulk sale of potable OWASA water shall occur except for the wholesale transmission of potable OWASA water to neighboring communities, or for other purposes necessary to maintain public health, safety, or welfare.
6. No OWASA-supplied potable water may be used for washing any vehicles.
7. No OWASA-supplied potable water may be used for pressure washing building exteriors.
8. No OWASA-supplied potable water may be used for fire department training or equipment testing.

Notwithstanding the restrictions specified in Sections V.C.1 through V.C.8, the protection of public health, safety, and welfare may, under special circumstances, require the use of limited amounts of OWASA-supplied potable water for such purposes as washing out garbage trucks,

cleaning up hazardous or other materials. Such uses shall be permitted during declared Water Shortages or Emergencies, provided that other practical alternatives are not available and water is used in the least practical amount.

V. D. Water Supply Emergency

In the event that OWASA declares a Water Supply Emergency, OWASA shall so advise the Mayors of Carrboro and Chapel Hill and the Chair of the Orange County Board of Commissioners and shall request the issuance of a Proclamation of a Water Supply Emergency. In addition to those applicable measures listed above for a Stage Three Water Shortage, the following actions shall be taken upon OWASA's declaration of a Water Supply Emergency:

1. No OWASA-supplied potable water may be used for any outdoor purposes other than emergency fire suppression or other activities necessary to maintain public health, safety, or welfare.
2. No OWASA-supplied potable water shall be used to fill, refill or top off the water level in any private or public purpose swimming pool.
3. No OWASA-supplied potable water shall be used for the flushing or pressure testing of new distribution lines unless that water is returned to the OWASA water supply system through methods approved by OWASA. This restriction shall not apply to the testing of in-building fire control sprinkler systems
4. The use of OWASA-supplied potable water for heating and/or cooling purposes shall be reduced in all but the most essential facilities to the extent practical in consideration of indoor air quality standards, weather conditions, and health and safety requirements.
5. Water service may be discontinued or reduced to designated users or in designated portions of the OWASA service area in order to preserve the availability of water for essential public health and safety requirements, such as fire protection, hospitals, clinics, and other critical community needs.

APPENDIX B

EXAMPLE OF MAILINGS TO CUSTOMERS

As discussed in Section 4 of the WSRP, during a declared Water Shortage OWASA uses several methods to inform its customers of the consideration and implementation of water use restrictions in a shortage, including but not limited to:

- paid media advertising;
- e-mails using our distribution list for local and University officials, customers who have shared their e-mail addresses, etc.;
- news releases (by e-mail);
- reports and announcements in televised and other public meetings of the OWASA Board;
- posters in public facilities such as municipal offices; and
- website postings including water supply/demand/rain data that are updated on weekdays (and e-mailed to interested parties)

Following are examples of two information brochures that OWASA mailed directly to its customers during the 2007/2008 drought, and an example of an ad that was placed in a local newspaper during that drought.

(The water use restrictions and water rate surcharges have been revised since that drought.)



ADDITIONAL WATER USE RESTRICTIONS IN EFFECT DUE TO STAGE ONE WATER SHORTAGE

IMPORTANTE BOLETÍN INFORMATIVO SOBRE RESTRICCIONES EN EL USO DEL AGUA (NIVEL I); PARA SOLICITAR UNA TRADUCCIÓN EN ESPAÑOL, LLAME AL 537-4221 O ENVÍE UN CORREO ELECTRÓNICO A WEBMASTER@OWASA.ORG.

On September 27th, the OWASA Board of Directors declared a Stage One Water Shortage with the goal of reducing the community's water demand by at least 10%. We request and very much appreciate your help in conserving our drinking water during this extreme drought and throughout the year.

The extended dry weather has resulted in steady declines in our reservoir levels, and there has been essentially no water flow since early August in the creeks and streams that drain to the Cane Creek Reservoir and University Lake. Drinking water demand in September averaged about 11 million gallons per day (MGD), compared to the previously projected demand of about 9.6 MGD for September.

The Stage One mandatory water use restrictions listed below will be in effect until further notice.

Stage One Water Shortage Use Restrictions for OWASA Customers

- **Spray irrigation is limited to one day per week, and is allowed only before 9:00 AM and after 8:00 PM. Irrigation is limited to 1/2 inch per week. At even-numbered addresses, spray irrigation is allowed only on Tuesdays; at odd-numbered addresses, only on Thursdays.** These restrictions do not apply to watering of containerized plants and commercial plants for sale at local nurseries and businesses.
- Spray irrigation is defined as "The application of water to landscaping by means of a device that projects water through the air in the form of small particles or droplets." You can measure irrigation with a small container such as a tuna can. If you have an irrigation system, you may wish to have the control system adjusted and soil and rain sensors checked by a company that installs or maintains irrigation systems.
- Spray irrigation systems are required to have automatic timer systems and rain or soil moisture sensors, and hoses for outdoor use are required to have automatic shut-offs.
- Water waste is prohibited. Water waste includes using so much water that it runs onto adjacent properties or street rights-of-way or causes ponding on impervious surfaces; failing to fix leaks; and irrigation during rainfall or when soil moisture is already adequate.
- **If water use by an individually-metered residential customer or by an individually-metered single family residential irrigation-only customer exceeds an average of 1,000 gallons per day during any monthly billing cycle, OWASA MAY TERMINATE SERVICE.**
- The previous exemption for watering new plants, sod, seeding and reseeding of lawns is no longer in effect. That means the maximum amount of water that can be applied to a new lawn or landscaped area is limited to a total of one-half inch per week.
- Watering with a hand-held hose or watering can or with underground, drip irrigation, micro spray, soaker hose or low precipitation "bubbler" watering systems is allowed on any day of the week and at any time of day, but is limited to the maximum of one-half inch of water per week.
- No OWASA water may be used to re-fill ornamental fountains, ponds, and like devices.
- No OWASA water may be used for routine cleaning or washing of paved areas such as sidewalks, decks, driveways, roadways, or parking lots. (However, pressure cleaning of exterior building surfaces is allowed under the Stage One restrictions.)
- Hotels, motels, etc. shall change bed linens only upon request of the customer, upon customer changeover or every five days for long-term customers.
- Restaurants shall serve water only upon request.

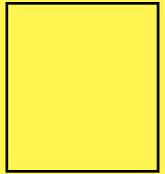
OWASA customers are strongly encouraged to conserve in other ways, such as:

- Taking shorter showers, not letting faucets run unnecessarily, and flushing the toilet only when necessary.
- Installing low-flush toilets and low-flow showerheads and faucet aerators where they are not already in place as required by current plumbing codes.
- Using rain barrels, cisterns, etc. to store rainwater for irrigation and other suitable purposes. Rain barrels are available at some retail outlets and local Boy Scout Troop #42 (telephone: 942-4830).
- Dishwashers and clothes washers should be used only with full loads or with water level settings appropriate for the load size.



400 Jones Ferry Road
Carrboro, NC 27510

IMPORTANT NOTICE: WATER USE RESTRICTIONS



WATER RATE SURCHARGES TO BEGIN IN NOVEMBER FOR HIGH RESIDENTIAL WATER USE (11,000 OR MORE GALLONS PER MONTH)

In addition to declaring the Stage One Water Shortage, the OWASA Board decided that surcharges for high residential water use will go into effect on November 1st. The surcharges are set forth in OWASA's schedule of rates and fees for water and sewer service as approved in June, 2007.

As previously announced, OWASA's new rates effective on October 1st will include increasing block water rates for individually-metered residential customers:

	Volume of Use	Water Rate
Block 1	1 – 2,999 gallons per month	\$1.98 per 1,000 gallons
Block 2	3,000 – 5,999 gallons per month	\$4.70 per 1,000 gallons
Block 3	6,000 – 10,999 gallons per month	\$5.53 per 1,000 gallons
Block 4	11,000 – 15,999 gallons per month	\$7.46 per 1,000 gallons
Block 5	16,000 or more gallons per month	\$13.05 per 1,000 gallons

(The typical residential OWASA customer uses about 6,000 gallons per month; water use over 10,000 gallons per month is very likely for outdoor purposes such as irrigation)

On November 1st, under the Stage One Water Shortage surcharges, the Block 4 water rate will increase to \$11.19 per 1,000 gallons (1.5 times the normal Block 4 rate) and the Block 5 water rate will increase to \$26.10 per 1,000 gallons (2 times the normal Block 5 rate). The surcharges are intended to strongly discourage high water use.

During a Stage One Water Shortage, there are no surcharges on water rate blocks 1 through 3 and there are no surcharges for non-residential and multi-family master-metered customers, who will pay seasonal water conservation rates rather than block rates. Additional and higher surcharges would apply if the OWASA Board declares a more severe water shortage.

THANK YOU VERY MUCH FOR YOUR HELP!

We sincerely appreciate your assistance in helping to conserve our essential drinking water supply during this extended drought and throughout the year. We welcome and encourage you to contact us for information about ways to conserve water, or to report actual or possible water leaks, water waste or water use that is not consistent with the conservation requirements.

Your conservation efforts now will help to reduce our community's risk in the event the current drought continues in the months ahead.

TO CONTACT OWASA

Please call us at 968-4421; send e-mail to webmaster@owasa.org; visit our website, www.owasa.org; send a fax to 968-4464 or visit or write to us at 400 Jones Ferry Road, PO Box 366, Carrboro, NC 27510

OWASA is the community-owned, non-profit public water and sewer agency serving the Carrboro-Chapel Hill community.

WATER CONSERVATION:

part of our community's **SUSTAINABLE** quality of life



STAGE 2 WATER SHORTAGE DECLARED; WATER USE RESTRICTIONS TIGHTENED

IMPORTANTE BOLETÍN INFORMATIVO SOBRE RESTRICCIONES EN EL USO DEL AGUA (NIVEL 2); PARA SOLICITAR UNA TRADUCCIÓN EN ESPAÑOL, LLAME AL 537-4221 O ENVIE UN CORREO ELECTRÓNICO A WEBMASTER@OWASA.ORG.

On October 18th, the OWASA Board declared a Stage Two Water Shortage with the goal of reducing water demand by at least 15%. The decision to declare the Stage Two Water Shortage was due to factors including:

As a result of the ongoing exceptional drought, reservoir levels and total water storage on hand have continued to decline and there has been no inflow to OWASA's reservoirs for more than two months.

The U.S. Drought Monitor rates the drought as "Exceptional," and continuation of the drought into 2008 is forecast.

The Cane Creek Reservoir and University Lake, which are the Carrboro-Chapel Hill-southeast Orange County community's primary public water sources, were about 50% full as of October 22, 2007.

Water demand in early and mid-October was well above the Stage One Water Shortage goal of 8.2 million gallons per day or less.

STAGE TWO WATER USE RESTRICTIONS

Spray irrigation with OWASA drinking water is not permitted, except by people regularly engaged in the sale of plants, who are allowed to irrigate their commercial stock in trade.

Irrigation by underground, drip irrigation, micro-spray, low precipitation bubblers, soaker hose systems with automatic shutoffs, or by hand held hoses or watering cans is limited to a maximum of one-half inch of water applied to plant material in any given week.

Water waste, which includes the following, is prohibited.

- ◆ Landscape watering applied in such a manner, rate and/or quantity that it overflows the landscaped area being watered and runs onto adjacent property or public right-of-way; or landscape water applied during periods of rainfall or when soil moisture is already adequate.
- ◆ The use of water for washing vehicles, equipment, or hard surfaces, such as parking lots, aprons, pads, driveways, or other surfaced areas, in such quantities to flow onto adjacent property or the public right-of-way.
- ◆ Water applied in sufficient quantity to cause ponding on impervious surfaces.
- ◆ Water lost through plumbing leaks that can be readily identified and corrected.

Water use by individually metered residential customer accounts and by individually metered single-family residential irrigation-only accounts is limited to no more than an average of 800 gallons per day during any monthly billing cycle beginning after the declaration of the Stage Two Water Shortage and ending while such restrictions are still in effect. **OWASA MAY TERMINATE SERVICE FOR WATER USE OVER THE 800 GALLON PER DAY LIMIT.**

Water shall not be used for washing vehicles, except at commercial or institutional car washes where at least 50 percent of the water is recycled.

Water shall not be used for filling or re-filling empty swimming pools. OWASA drinking water may be used to top off operating swimming pools.

Water shall not be used to re-fill ornamental fountains, ponds, and like devices.

Water shall not be used for the routine cleaning or washing of exterior building surfaces, decks or paved areas such as sidewalks, driveways, roadways, and parking lots. This restriction shall not apply to the pressure cleaning of exterior building surfaces or decks before painting or re-painting that is necessary to protect or maintain the physical integrity of the structure.



400 Jones Ferry Road
Carrboro, NC 27510

IMPORTANT NOTICE: STAGE TWO WATER SHORTAGE AND WATER USE RESTRICTIONS

Prsrt First Class
US Postage
PAID
Chapel Hill, NC
Permit #251

(continued from other side)

Restaurants and dining facilities shall serve water only on request of the customer.

Hotels, motels, and other facilities providing sleeping accommodations shall change bed linens only upon request of the customer, or upon customer changeover, or every five days for long-term customers.

The operation of dishwashers and clothes washers only when loaded to their maximum capacity, or at water level settings appropriate for the size of the load being washed; and installation of ultra-low flush toilets, tank dams, faucet aerators and low-flow shower heads are strongly encouraged if not already required.

Water leaks must be repaired within 10 days of notification by OWASA.

STAGE TWO SURCHARGES TO BEGIN IN NOVEMBER FOR HIGH RESIDENTIAL WATER USE

Stage Two surcharges for high water use by individually-metered residential customers will go into effect on November 1st. (Previously, Stage One water surcharges had been approved to go into effect on November 1st.)

OWASA's current block water rates are:

OCTOBER 1 BLOCK WATER RATES

Block 1	1 – 2,999 gallons per month	\$1.98 per 1,000 gallons
Block 2	3,000 – 5,999 gallons per month	\$4.70 per 1,000 gallons
Block 3	6,000 – 10,999 gallons per month	\$5.53 per 1,000 gallons
Block 4	11,000 – 15,999 gallons per month	\$7.46 per 1,000 gallons
Block 5	16,000 or more gallons per month	\$13.05 per 1,000 gallons

A typical residential OWASA customer uses about 5,500 gallons per month.

ON NOVEMBER 1:

- The block 3 water rate will increase to \$8.295 per 1,000 gallons.
- The block 4 water rate will increase to \$14.92 to per 1,000 gallons.
- The block 5 water rate will increase to \$39.15 per 1,000 gallons.

The surcharges are intended to strongly discourage high water use. During a Stage Two Water Shortage, there are no surcharges on water rate blocks 1 and 2 and there are no surcharges for non-residential and multi-family master-metered customers, who will pay seasonal water conservation rates rather than block rates. Additional and higher surcharges would apply in more severe water shortage conditions.

THANK YOU VERY MUCH FOR YOUR HELP!

We sincerely appreciate your assistance in helping to conserve our essential drinking water supply during this extended drought and throughout the year. We welcome and encourage you to contact us for information about ways to conserve water, or to report actual or possible water leaks, water waste or water use that is not consistent with the conservation requirements. Your conservation efforts now will help to reduce our community's risk in the event the current drought continues in the months ahead.

TO CONTACT OWASA

Please call us at 968-4421; send e-mail to webmaster@owasa.org; visit our website, www.owasa.org; send a fax to 968-4464 or visit or write to us at 400 Jones Ferry Road, PO Box 366, Carrboro, NC 27510.

OWASA is the community-owned, non-profit public water and sewer agency serving the Carrboro-Chapel Hill community.

THE DROUGHT AND OUR WATER SUPPLIES

How much water do we have now?

As of Thursday, November 29th, our Cane Creek Reservoir, University Lake and Stone Quarry Reservoir were about 47% full with a total of 1.665 billion gallons. Based on average water demand of 7.6 million gallons per day in the last 30 days, we have an estimated 6 to 7 months of supply assuming no rainfall.

Since we have several months of supply on hand, why is conservation important?

- We are in a severe drought as is much of the southeast U.S. and rainfall continues to be well below normal. There is essentially no water flow in the streams and creeks that feed our reservoirs.
- The National Weather Service has forecast that the drought will continue into 2008 due to La Niña conditions in the Pacific.
- Although winter and early spring rains would refill our reservoirs under normal conditions, we cannot assume that will happen in 2008. We need to continue conserving to help ensure that we will have an adequate supply in 2008.

What are the current water use restrictions?

Stage Two restrictions on use of OWASA drinking water include a ban on spray irrigation (except by businesses that regularly sell plants, which may water their inventory). However, we strongly recommend using water only for essential purposes.

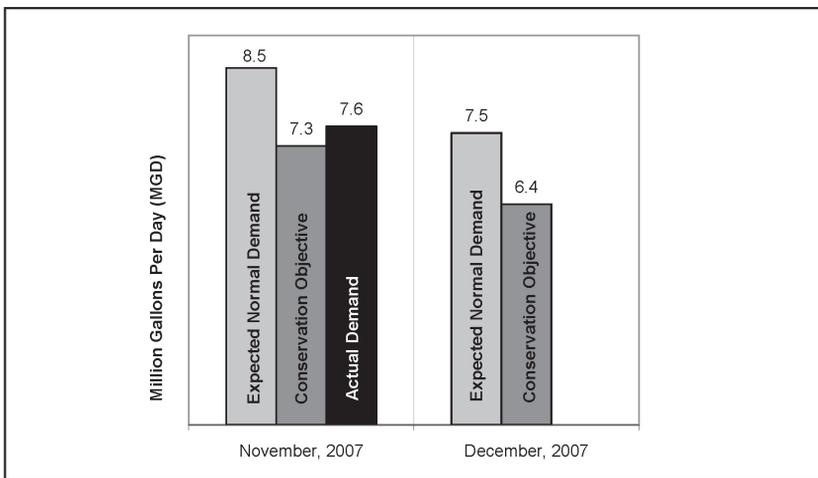
For a complete list of current restrictions or if you have any questions or comments, please contact OWASA at 968-4421 or webmaster@owasa.org, or visit our website, www.owasa.org.

Are water rate surcharges in effect?

Yes. Stage Two water rate surcharges have been in effect since November 1 for water use at or above 6,000 gallons per month at individually-metered residences. The average single-family residential customer in our community uses about 5,500 gallons per month. (The current surcharges do not apply to non-residential customers or master-metered multi-family locations.) For more detailed information, please contact OWASA at 968-4421 or by e-mail to webmaster@owasa.org, or visit our website, www.owasa.org.

What is our present water conservation objective?

Our objective for December is 6.4 million (or fewer) gallons per day or 15% below normal demand for December. Demand in November averaged about 7.6 million gallons per day, so more conservation is needed.



What are the most important conservation opportunities?

- Based on a national study of water use, about 31% of indoor residential water use is for toilet flushing. Therefore, flush less often and reduce an old toilet's flush volume by putting a container of water in the tank or installing a quick-closing flapper available free from OWASA at 400 Jones Ferry Road, Carrboro. Consider replacing old toilets with one that uses only 1.28 gallons (a "high efficiency" toilet) or 1.6 gallons (the plumbing code standard since 1994) per flush. Toilets installed before 1980 typically use 5 or more gallons per flush and toilets installed in the 1980s and early 1990s likely use 3.5 gallons per flush. New toilets may pay for themselves in a few years!
- About 25% of indoor residential water use is for clothes washing and 2% is for washing dishes. Wash clothes and dishes only when there is a full load. If you are ready to replace your clothes washer, choose a water- and energy-efficient front-loading model. Water-efficient dishwashers are also available. Please visit the EPA's WaterSense website, www.epa.gov/owm/water-efficiency/pp/het.htm, for information on independently certified water-saving fixtures, appliances, etc.
- Showers and baths account for 21% of indoor residential water use. Take short showers and install water-saving showerheads if you do not already have them. We give away low flow showerheads at our office in Carrboro.
- Faucet use totals about 18% of indoor residential water use. Don't leave the water running when it is not needed while you wash your hands, etc.
- Regularly check plumbing pipes, hoses and fixtures for leaks. Toilets are a very common place for leaks. To check a toilet, put food dye in the tank and do not flush for 15 to 20 minutes. If dye appears in the bowl, there is a leak, probably at the flapper.
- Cease non-essential outdoor use of OWASA drinking water if you have not already.

Questions or comments?

If you have questions or comments, or to report water waste, please call us at 968-4421, send e-mail to webmaster@owasa.org or visit our website, www.owasa.org.

Orange Water and Sewer Authority

400 Jones Ferry Road, Carrboro, NC
968-4421; webmaster@owasa.org; www.owasa.org



**WATER CONSERVATION: part of our community's
SUSTAINABLE quality of life**

APPENDIX C

RESOLUTIONS APPROVING OWASA'S WATER SHORTAGE RESPONSE PLAN

DRAFT

RESOLUTION APPROVING OWASA'S WATER SHORTAGE RESPONSE PLAN

WHEREAS, North Carolina General Statute 143-355(l) requires that each unit of local government that provides public water services or plans to provide such services shall, either individually or together with other such units of local government, prepare and submit a Water Shortage Response Plan; and

WHEREAS, as required by said statute and in the interest of sound local water supply planning and management, OWASA has developed a Water Shortage Response Plan; and

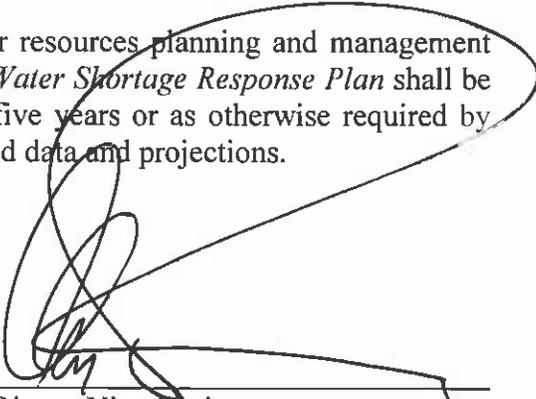
WHEREAS, the proposed Plan incorporates the Water Conservation Standards approved by OWASA in 2009 following an extensive public input process; and

WHEREAS, the OWASA Board of Directors finds that the Water Shortage Response Plan meets the requirements of North Carolina General Statute 143-355(l) and that said Plan will provide appropriate guidance for the future management of OWASA's water supplies, as well as useful information to the North Carolina Department of Environment and Natural Resources (NCDENR) for the development of a State water supply plan as required by statute;

NOW, THEREFORE, BE IT RESOLVED:

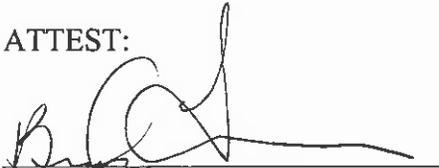
1. The Board of Directors hereby approves and adopts the *OWASA Water Shortage Response Plan* dated November 11, 2010 and attached hereto and made part of this Resolution.
2. The Executive Director shall submit OWASA's plan to NCDENR's Division of Water Resources, and copies shall be provided to the managers of the Town of Carrboro, Town of Chapel Hill, and Orange County.
3. In accordance with State law and sound water resources planning and management practice, the Board of Directors intends that the *OWASA Water Shortage Response Plan* shall be reviewed and revised, as necessary, at least once every five years or as otherwise required by law, to reflect changes in relevant water supply and demand data and projections.

Adopted this 11th day of November, 2010.



Alan Rimer, Vice Chair

ATTEST:



Braxton Foushee, Secretary

**RESOLUTION APPROVING OWASA'S 2012 LOCAL WATER SUPPLY PLAN AND
WATER SHORTAGE RESPONSE PLAN UPDATE SUBMITTED TO THE NC
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, DIVISION OF
WATER RESOURCES**

WHEREAS, North Carolina General Statute (NCGS) 143-355(1) requires that each unit of local government that provides public water services or plans to provide such services shall, either individually or together with other such units of local government, prepare and submit a Local Water Supply Plan that must be revised at least once every five years; and,

WHEREAS, 15A NCAC 02E 0.0606 requires each such unit of local government to develop a Water Shortage Response Plan for incorporation into its Local Water Supply Plan; and,

WHEREAS, in March 2013 Orange Water and Sewer Authority (OWASA) staff submitted a draft 2012 Local Water Supply Plan to the Department of Environment and Natural Resources, Division of Water Resources (DWR) in accordance with NCGS 143-355(1); and,

WHEREAS, on November 20, 2014, DWR approved OWASA's 2012 Local Water Supply Plan; and,

WHEREAS, on April 8, 2010 the OWASA Board of Directors adopted a *Long-Range Water Supply Plan, Final Report* (subsequently revised through January 25, 2013) that was developed by OWASA staff and consultants to serve as the Board's principal guide for future water supply policy and investment decisions; and,

WHEREAS, said *Long-Range Water Supply Plan* (as revised through January 25, 2013) is consistent with OWASA's 2012 Local Water Supply Plan originally submitted to DWR in March 2013 (as updated annually through April 2014); and,

WHEREAS, the 2012 Local Water Supply Plan cannot be considered compliant with NCGS 143-355(1) until DWR receives a Resolution of Approval by the OWASA Board of Directors; and

WHEREAS, OWASA submitted and DWR approved OWASA's Water Shortage Response Plan in September 2012; and

WHEREAS, in November 2010, the OWASA Board of Directors approved OWASA's Water Shortage Response Plan; and

WHEREAS, the OWASA Board of Directors adopted a Drought Response Operating Protocol in January 2013 to describe procedures and criteria OWASA will follow for making water supply and demand management decisions; and

WHEREAS, the Drought Response Operating Protocol is consistent with the Water Shortage Response Plan; and

WHEREAS, OWASA would like to update its Water Shortage Response Plan to include the Drought Response Operating Protocol; and

WHEREAS, OWASA desires to update its Water Shortage Response Plan on the same schedule as obtaining a Resolution of Approval for the Local Water Supply Plan by the OWASA Board of Directors and has accordingly updated its Water Shortage Response Plan to include the Drought Response Operating Protocol.

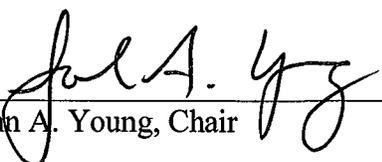
NOW, THEREFORE, BE IT RESOLVED BY THE OWASA BOARD OF DIRECTORS THAT:

1. OWASA's 2012 Local Water Supply Plan as submitted to DWR in March 2013 is hereby approved for the purposes of NCGS 143-355(l) and the OWASA Board intends that this plan shall be revised to reflect changes in relevant data and projections at least once every five years or as otherwise requested by DWR, in accordance with the statute and sound planning practice; and,

2. OWASA's Water Shortage Response Plan as updated in January 2015 is hereby approved for the purposes of NCGS 143-355(l) and the OWASA Board of Directors intends that this plan shall be reviewed and revised as needed, which will be at least once every five years; and,

3. Not inconsistent with the requirements of NCGS 143-355(l) and 15A NCAC 02E 0.0600 OWASA's 2010 *Long-Range Water Supply Plan Final Report* (as revised through January 25, 2013) or its update remains the principal guide for future water supply policy and investment decisions of the Orange Water and Sewer Authority.

Adopted this 22nd day of January, 2015.



John A. Young, Chair

ATTEST:



Heather Payne, Secretary

Resolution Approving OWASA's 2017 Local Water Supply Plan and (Revised) Water Shortage Response Plan as Approved by the NC Department of Environmental Quality, Division of Water Resources

Whereas, North Carolina General Statute (NCGS) 143-355(1) requires that each unit of local government that provides public water services shall, prepare and submit a Local Water Supply Plan, and that such Plans be revised at least once every five years; and

Whereas, NCGS 143-355(1) also requires each such unit of local government to develop a Water Shortage Response Plan for incorporation into its Local Water Supply Plan; and

Whereas, in March 2018 Orange Water and Sewer Authority (OWASA) staff submitted a draft 2017 Local Water Supply Plan to the Department of Environmental Quality, Division of Water Resources (DWR) for its review and approval, in accordance with NCGS 143-355(1); and

Whereas, on April 18, 2018, DWR approved OWASA's 2017 Local Water Supply Plan; and

Whereas, the 2017 Local Water Supply Plan must be approved and adopted by the OWASA Board of Directors after DWR approval in order to be compliant with NCGS 143-355(1); and

Whereas, OWASA has concurrently updated, and DWR has approved, its Water Shortage Response Plan; and

Whereas, OWASA desires to update and obtain approvals for its Water Shortage Response Plan on the same schedule of five-year renewals as that exercised for obtaining updates and approvals for its Local Water Supply Plan, and accordingly, has updated and requested approval of its Water Shortage Response Plan, and DWR has approved this update as of May 2018;

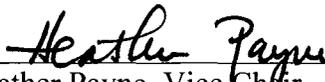
Now, Therefore, Be It Resolved By the OWASA Board of Directors That:

1. OWASA's 2017 draft of its Local Water Supply Plan as approved by DWR in April 2018, is hereby approved and adopted for the purposes of NCGS 143-355(1), and the OWASA Board intends and directs that this plan should be revised to reflect changes in relevant data and projections at least once every five years or as otherwise requested by DWR, in accordance with the statute and sound planning practice.

2. OWASA's Water Shortage Response Plan as approved by DWR in May 2018 is hereby approved and adopted for the purposes of NCGS 143-355(1), and the OWASA Board of Directors intends and directs that this plan shall be reviewed and revised as needed, which will be at least once every five years; or otherwise as requested by DWR, in accordance with the statute and sound planning practice.

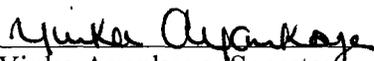
Resolution Approving OWASA's 2017 Local Water Supply Plan and (Revised) Water Shortage Response Plan
June 14, 2018
Page 2 of 2

Adopted this 14th day of June 2018.



Heather Payne, Vice Chair

ATTEST:



Yinka Ayankoya, Secretary

Note: This version includes the approved June 2018 Water Shortage Response Plan (WSRP) with suggested changes in revisions made if Board decides to move forward with incorporating DROP provisions into WSRP

WATER SHORTAGE RESPONSE PLAN

DECEMBER 10, 2020

Orange Water and Sewer Authority
Carrboro, North Carolina



**ORANGE WATER AND SEWER AUTHORITY
WATER SHORTAGE RESPONSE PLAN**

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APPENDIX C – DROUGHT RESPONSE OPERATING PROTOCOL	
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SECTION 1.

PURPOSE AND BACKGROUND

This Water Shortage Response Plan (WSRP) describes the actions Orange Water and Sewer Authority (OWASA) will take during a water shortage condition due to drought or special operational constraints, including the measures that OWASA will implement to reduce potable water use during such shortage conditions. This plan has been prepared as required by North Carolina General Statute (NCGS) 143-355(1).

That statute requires most public water systems in the State to have a State-approved WSRP as a component of their Local Water Supply Plan. State regulations governing water use during droughts and water emergencies (15A NCAC 02E .0607) and Session Law 2008-143 passed in July 2008 set forth specific items that must be included in local WSRPs.

OWASA's WSRP is generally organized along the lines of the North Carolina Division of Water Resources' (DWR) *Water Shortage Response Plan (WSRP) Guidelines* issued in January 2009. This plan meets the following criteria as required by the State, including:

- ✓ tiered levels of water conservation measures or other response actions based on the severity of a water shortage condition;
- ✓ each tier is based on increased severity of drought or water shortage condition and represents increasingly stringent conservation measures;
- ✓ specific measurements of available water supply, water demand and system conditions that OWASA *must use* to determine the severity of water shortage conditions and to initiate water use reduction measures and the movement between various water shortage stages;
- ✓ procedures that will be followed to ensure compliance with the provisions of the plan;
- ✓ procedures for affected parties to review and comment on the plan prior to final adoption;
- ✓ procedures to receive and review applications for variances from specific requirements, and the criteria that will be used to evaluate such requests;
- ✓ general method for evaluating the effectiveness of the plan; and
- ✓ procedures for reviewing and revising the plan, which must be done at a minimum of every five years concurrent with the update of the state-required Local Water Supply Plan.

DWR is responsible for reviewing all Water Shortage Response Plans to ensure they meet the State's minimum requirements.

This plan is only one part of OWASA's long-term water conservation and demand management efforts. The OWASA Board of Directors approved a Long-Range Water Conservation and Demand Management Goal and Objectives in April, 2005. OWASA's primary strategies for

achieving its long-term conservation goals and objectives, and which are complementary to this WSRP but not described in this document, are:

- ✓ implementing aggressive conservation pricing structures, including increasing block water rates for residential customers, year-round water rates for all irrigation use, and seasonal water rates applicable to all other customers;
- ✓ promoting the use of reclaimed water for non-drinking purposes;
- ✓ treating and recycling drinking water treatment plant process water back to the head of the water plant; and
- ✓ providing education and awareness, including targeted water use audits for customers, technical assistance to developers, etc.

Additionally, water demands by OWASA's existing and future customers will be shaped by factors outside the control of OWASA, including but not limited to:

- ✓ Session Law 2007-546 (Senate Bill 668), "*An Act to Promote the Conservation of Energy and Water Use in State, University, and Community College Buildings;*"
- ✓ changes in water use efficiency standards of the NC Plumbing Code, as suggested in the North Carolina Department of Environment and Natural Resources' report titled "*Recommendations for Water Efficiency Standards for Water-Using Fixtures in Residential and Commercial Buildings*" (January 2009); and
- ✓ changes in climate, precipitation, and/or land use, which would affect rates and patterns of inflows into OWASA's water supply reservoirs, as well as customer demands.

Additional information about OWASA's comprehensive water conservation efforts is available on OWASA's website at www.owasa.org; by e-mail to info@owasa.org; by phone at 919-968-4421; by fax to 919-968-4464; or by mail to OWASA, 400 Jones Ferry Road, Carrboro, NC 27510.

SECTION 2.

AUTHORIZATION

OWASA's Executive Director is responsible for: (a) declaring a Water Shortage as described in this Plan; (2) enacting the applicable provisions of this WSRP; and (3) overseeing implementation of the Plan. In the Executive Director's absence, OWASA's General Manager of Operations is responsible for such actions.

As required by NCGS 143-355, OWASA will implement the provisions of this Plan whenever the trigger conditions established herein (and/or as they may be revised from time to time in accordance with Section 10 of this plan) occur.

Following is the contact information for the above-listed individuals as of the date of this plan:

PRIMARY RESPONSIBILITY

~~Todd Taylor~~~~Ed Kerwin~~, or Successor

Executive Director

Orange Water and Sewer Authority

400 Jones Ferry Road

Carrboro, NC 27510

Telephone: 919-537-4216

E-Mail: ~~ekerwin@owasa.org~~~~ttaylor@owasa.org~~

ALTERNATE

~~Mary Darr~~~~Todd Taylor~~, or Successor

General Manager of Operations

Orange Water and Sewer Authority

400 Jones Ferry Road

Carrboro, NC 27510

Telephone: 919-537-4216

E-Mail: ~~ttaylor@owasa.org~~~~mdarr@owasa.org~~

SECTION 3.

NOTIFICATION OF EMPLOYEES AND CUSTOMERS

OWASA will, as soon as possible, notify its employees, customers, and the public if and when a Water Shortage declaration is issued as described in Sections 4 and 5. Such notification will be provided via several methods, including but not limited to the following:

1. OWASA's Executive Director (or designee) will notify the following officials and agencies:
 - ✓ OWASA Board of Directors;
 - ✓ OWASA General Counsel;
 - ✓ Managers of the Towns of Carrboro and Chapel Hill, and Orange County; and
 - ✓ Division of Water Resources and the Public Water Supply Section within the NC Department of Environment and Natural Resources.
2. The Executive Director (or designee) will inform all OWASA employees of changes in Water Shortage stages and conservation requirements applicable to OWASA customers. This will be communicated via one or more methods, including but not limited to:
 - ✓ e-mail through the OWASA Local Area Network;
 - ✓ presentations at staff and crew meetings; and
 - ✓ memoranda or other written materials.

Employees will be reminded of their role and responsibility and applicable procedures for monitoring and responding to potential or actual violations of applicable water use restrictions. If an employee observes such an event, he/she will be instructed to attempt to inform the customer of the restrictions in effect, the observed violation, the need for corrective action by the customer, and consequences of repeat violations.

3. OWASA's Communications and Community Relations Officer (or designee) will contact the news media (including newspapers, television, and radio) and provide them with information about the applicable declaration, associated requirements, water rate surcharges if applicable, etc. Such notifications may be made by e-mail, website postings, news releases, telephone, etc. News releases will include the name(s) and contact information of the OWASA staff member(s) that will be primarily responsible for addressing media inquiries.

As in the past, OWASA will make extensive use of e-mail, the media, the OWASA website, etc. to provide information to its customers about the need to conserve water, the use restrictions in effect, and water rate surcharges if applicable.

4. The Communications and Community Relations Officer (or designee) will be responsible for updating the OWASA website in a timely manner regarding current information on the status of local water supply and demands, Water Shortage declarations, conservation requirements, and water rate surcharges if applicable.

- |
5. The Communications and Community Relations Officer (or designee) will assist OWASA staff in responding to customer inquiries.
 6. The Communications and Community Relations Officer (or designee) will contact local law enforcement personnel about the applicable water conservation requirements in effect during the declared Water Shortage.
 7. If feasible, OWASA will notify residential and non-residential customers of water restrictions via media and e-mail. In addition, OWASA staff may provide targeted information to the following customers:
 - ✓ The University of North Carolina at Chapel Hill;
 - ✓ UNC Hospitals;
 - ✓ Chapel Hill-Carrboro City Schools;
 - ✓ multi-family residential property owners/managers/residents;
 - ✓ irrigation customers;
 - ✓ hotels, motels, and restaurants; and
 - ✓ others as appropriate.
 8. OWASA may place informational signs at high-visibility locations, such as the OWASA Administration Building, local town halls, entranceways to Carrboro and Chapel Hill, etc.

SECTION 4.

WATER SHORTAGE RESPONSE PROGRAM

The cornerstones of OWASA's water shortage response strategy are:

1. Water Conservation Standards, including year-round water use restrictions;
2. OWASA's water rate surcharges that are implemented during a declared water shortage and increase as the severity of the shortage increases; and
3. Public education and awareness, including provisions for voluntary issuance of a water shortage advisory by OWASA during unusually dry periods.

Water Conservation Standards

OWASA has established Water Conservation Standards that apply to the use of OWASA drinking water by all customers. The current Standards, which went into effect in June 2009, include year-round water use restrictions and four tiers of increasingly strict requirements depending on the severity of water shortage conditions.

The Water Conservation Standards are summarized in Table 4-1. The full text of the current Standards is included as Appendix A.

To complement and support OWASA's water shortage response program, the Town of Carrboro, Town of Chapel Hill, and Orange County enacted local water conservation ordinances which incorporate all of OWASA's Water Conservation Standards. The applicable provisions of the local ordinances go into effect upon a request by OWASA and subsequent proclamation by the chief elected official of each jurisdiction.

(The implementation and associated enforcement actions under the local water conservation ordinances is outside the direct control of OWASA. OWASA works very closely with the local governments to coordinate monitoring and enforcement efforts to promote compliance with applicable use restrictions.)

Table 4-1.

SUMMARY OF KEY CONSERVATION STANDARDS FOR OWASA DRINKING WATER *

Effective June, 2009

Water Use	Year-Round	Stage 1	Stage 2	Stage 3	Emergency
Spray Irrigation of Turf / Grass (on designated days of the week as noted)	3 days per week, up to 1 inch per week, 6 pm - 10 am only ** Odd Addresses: Tu/Th/Sat Even Addresses: Sun/W/F	1 day per week, up to 1/2 inch per week, 6 pm - 10 am only ** Odd Addresses: Tues. Even Addresses: Thurs.	X**	X**	X
Spray Irrigation of Non-Turf Plant Materials (on designated days of the week as noted)	3 days per week, up to 1 inch per week, 6 pm - 10 am only ** Odd Addresses: Tu/Th/Sat Even Addresses: Sun/W/F	3 days per week, up to 1 inch per week, 6 pm - 10 am only ** Odd Addresses: Tu/Th/Sat Even Addresses: Sun/W/F	1 day per week, up to 1/2 inch per week, 6 pm - 10 am only ** Odd Addresses: Tues. Even Addresses: Thurs.	X***	X
Drip irrigation, underground drip emitters, soaker hose, hand-watering, and other non-spray methods allowed <i>at any time</i> or frequency	✓	✓	✓	✓	X
Washing of Building Exteriors Before Painting	✓	✓	✓	X	X
General Cleaning of Building Exteriors, Paved Areas, Etc.	✓	✓	X	X	X
Filling, Refilling, or Topping Off Ornamental Ponds, Fountains, etc.	✓	✓	X	X	X
Vehicle Washing	✓	✓	Only at commercial or institutional facilities where at least 50% of the water is being recycled, or is from a non-potable source or well	X	X
Filling, Refilling, or Topping Off of Swimming Pools and Backyard-Scale Facilities to Support Wildlife	✓	✓	✓	✓	X
Flushing or Pressure Testing New Water Lines	✓	✓	✓	✓	Only if captured and returned to system
Year-Round Requirements, Regardless of Water Shortage Condition					
<ul style="list-style-type: none"> > Automatic controllers and rainfall or soil moisture sensors required on all irrigation systems > "Wasteful" water use* prohibited at all times > Water leaks must be repaired within 10 days of discovery and/or notification by OWASA > Water may be served in restaurants and other dining facilities only at customer's request > Hotel/motel linens may only be changed upon customer changeover, every 5 days, or upon customer request 					
Symbols and Notes					
* For the actual text of OWASA's Water Conservations Standards, <i>please see Appendix A please use the following link:</i> http://www.owasa.org/conservationstandardsmarch26_2009					
✓ Water use is allowed.					
X Water use is not allowed.					
** Restrictions may not apply to public purpose athletic fields, recreational fields, or public purpose botanical sites operated in compliance with OWASA-approved Water Conservation Plans.					
*** Restrictions may not apply to public purpose botanical sites operated in compliance with OWASA-approved Water Conservation Plans.					

Water Rate Surcharges During Declared Water Shortages

In 2007, OWASA adopted water rate surcharges to be imposed during declared water shortages. The surcharges were implemented during the 2007-2008 drought and resulted in a substantial reduction in water use.

Based on that experience, OWASA refined the surcharges in 2008 to apply more equitably to all customer classes throughout all drought stages.

Table 4-2 summarizes the water rate surcharges included in OWASA's October 1, 2020~~17~~ schedule of rates and fees. When the surcharges are implemented, the applicable water rates in effect are increased by the factors shown in the table. The OWASA Board of Directors, at its discretion, may from time to time revise the water rate surcharges following a public hearing on OWASA's rates, fees and charges.

Table 4-2.

WATER RATE SURCHARGES IN DECLARED WATER SHORTAGES

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

Calculating OWASA's Water Rates With Water Shortage Surcharges in Effect

Based on the water rates in effect as of October 1, 2017 (and which will be revised at the discretion of the OWASA Board of Directors), here are a couple illustrations of how OWASA's water rates change when water rate surcharges are in effect.

Example 1: The Block 3 water rate for individually-metered residences is ~~\$8,397.83~~ per 1,000 gallons of water use (use between 6,000 and 10,000 gallons). When the Stage 1 water rate surcharge is in effect, the Block 3 rate would increase to ~~\$10,499.7875~~ per 1,000 gallons (an increase of 25%).

Example 2: The Peak Season (May – October) water rate for all non-residential and ~~non-irrigation-~~only customers is ~~\$8,477.91~~ per 1,000 gallons of water use. Under Stage 3 surcharges, the Peak Season water rate would increase to ~~\$12,711.865~~ per 1,000 gallons (an increase of 50%).

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Major Water Conservation Initiatives of OWASA

Following the extreme droughts of 2001-2002 and 2007-2008, OWASA implemented a number of important strategies to reduce and manage customer demands throughout the year, including:

1. Implementing a permanent process water recycling system at the Jones Ferry Road Water Treatment Plant. This has reduced average daily raw water withdrawals by about 7% since the fall of 2002.
2. Establishing seasonal water rates for all customers beginning in 2002 and subsequently implemented a five-tiered increasing block rate structure for all individually-metered residential customers beginning in 2007.
3. Implementing a new reclaimed water system to initially serve the University of North Carolina at Chapel Hill. This system reduces drinking water demands by approximately 0.765 million gallons a day (mgd).
4. Continuing water conservation education and awareness efforts for OWASA customers, including information and technical assistance for customers interested in implementing cost-effective conservation measures.

As a result of these strategies and the conservation efforts by OWASA customers, average day water sales in the OWASA service area are about the same now as they were ~~in 1991~~ about 30 years ago despite about a ~~7060~~ 706% increase in OWASA's customer ~~base~~ accounts during that period.

Together, these measures have reduced the community's risk to droughts and other water shortage conditions, thereby reducing the need for additional restrictions during such events. It is, however, essential that OWASA have a water shortage response program in place to respond to such events because the potential for a water shortage due to drought or other event always exists.

SECTION 5.

MANDATORY WATER SHORTAGE RESPONSE TRIGGERS

As required by NCGS 143-355, OWASA has established a set of specific measurements of available water supply and demand conditions to: assess the severity of water shortage conditions during extended droughts; guide the initiation of water use reduction measures; and guide the transition between the various water shortage stages described in this Plan. The measurements and rationale are explained below.

From time to time, it may be necessary to implement water use restrictions in response to certain drinking water system emergencies, such as water main breaks, water quality problems, planned and unplanned maintenance events, natural disasters, etc. OWASA's water shortage response strategy for operational emergencies is also described below.

OWASA staff continually monitors and evaluates the operational status of water supply, treatment, and distribution system components to ensure that customer demands can be met at any given time. Staff also tracks customer demands and the amount of raw water supply remaining in each supply source on a daily basis. USGS streamflow gaging data are monitored closely to determine conditions and trends in inflows to the reservoirs. This and other information is used to guide OWASA's water shortage response strategy.

Triggers for Implementing Water Shortage Response Stages During Extended Droughts

OWASA's drought management decisions are guided primarily by the estimated level of risk that usable reservoir storage will decline to 20 percent (approximately 700 million gallons [MG]) or less during the next 12 months. At a raw water demand level of 7.5 mgd, 700 MG of raw water supply on-hand would meet customer needs for approximately three months during an extreme drought, thus providing time to implement emergency water supply augmentation and conservation measures.

Water supply risk is determined from OWASA's Reservoir Optimization Model (OWASA-ROM), which includes a statistical analysis of 82 years of actual and simulated streamflow records (1926-2007) for the Cane Creek/University Lake/Quarry Reservoir supply system. The model simulates what reservoir storage levels would be under various levels of annual average-day demand, storage volume remaining at a given time of the year, and historical streamflows and evaporation rates.

The average-day demand for the year is adjusted to reflect historical monthly demand ratios for the OWASA system. The model reflects OWASA's operating protocols and the capacities of existing raw water pumping and transmission facilities. It simulates reservoir inflows, levels and demands on a daily time-step, and evaluates the reliability of the system to meet demands while maintaining a minimum emergency storage reserve target of 20% of total capacity as a margin of safety.

OWASA-ROM has been used to estimate the total reservoir storage volumes (percent remaining) that correspond to approximately 2% (2 years in 82), 10% (8 years in 82) and 20% (16 years in 82) probabilities that reservoir storage will be drawn down to 20% or less of storage during the

following 12 months under various annual average-day demand levels and assuming no other action taken to reduce demands and/or augment the supply.

In the late fall, winter and early spring, when inflows are typically higher and demand lower, reservoir storage can drop to relatively low levels before the risk of drawdown to 20% or less during the following 12 months becomes significant. From late spring through fall, when demand rises and inflows decline, the level of risk for a given demand increases.

This analysis has been used to establish the trigger levels that will automatically result in OWASA's implementation of the various Water Shortage stages and associated restrictions.

Figures 5-1 through 5-4 show the trigger levels that will apply to the implementation of successive Water Shortage response stages under annual average-day demands of 7.0, 8.0, 9.0, and 10.0 mgd, respectively. (OWASA projects average-day raw water withdrawals will be about 7 mgd in Fiscal Year 2021~~18~~.)

Figures 5-1 through 5-4 also include a water shortage advisory level, which is represented by a black dashed line on the graphs. OWASA will declare a Water Shortage Advisory no later than when the total water storage in the reservoirs drops to within 10 percent of the mandatory Stage 1 triggers as shown on Figures 5-2 through 5-4. At such time, OWASA will communicate with the Carrboro and Chapel Hill Town Councils, Orange County Board of Commissioners, and the University of North Carolina at Chapel Hill about the potential need for water use restrictions should the situation worsen. OWASA will also provide public notice to its customers and other stakeholders about the likelihood for water use restrictions and request that customers voluntarily conserve water.

OWASA's Executive Director will declare the appropriate Water Shortage stage (including the Advisory) within five (5) working days after the trigger has been reached (assuming storage remains at or below the applicable level). However, OWASA may declare a Water Shortage or Advisory or implement stages before the specific trigger is reached (sooner than the applicable Figure would indicate) if other factors indicate such an action is appropriate or required upon approval by the Board of Directors.

Staff will provide regular informational reports to the Board and community during extended droughts. Other factors that will be considered when determining whether to declare a Water Shortage or Advisory before a specific trigger is reached include but are not be limited to:

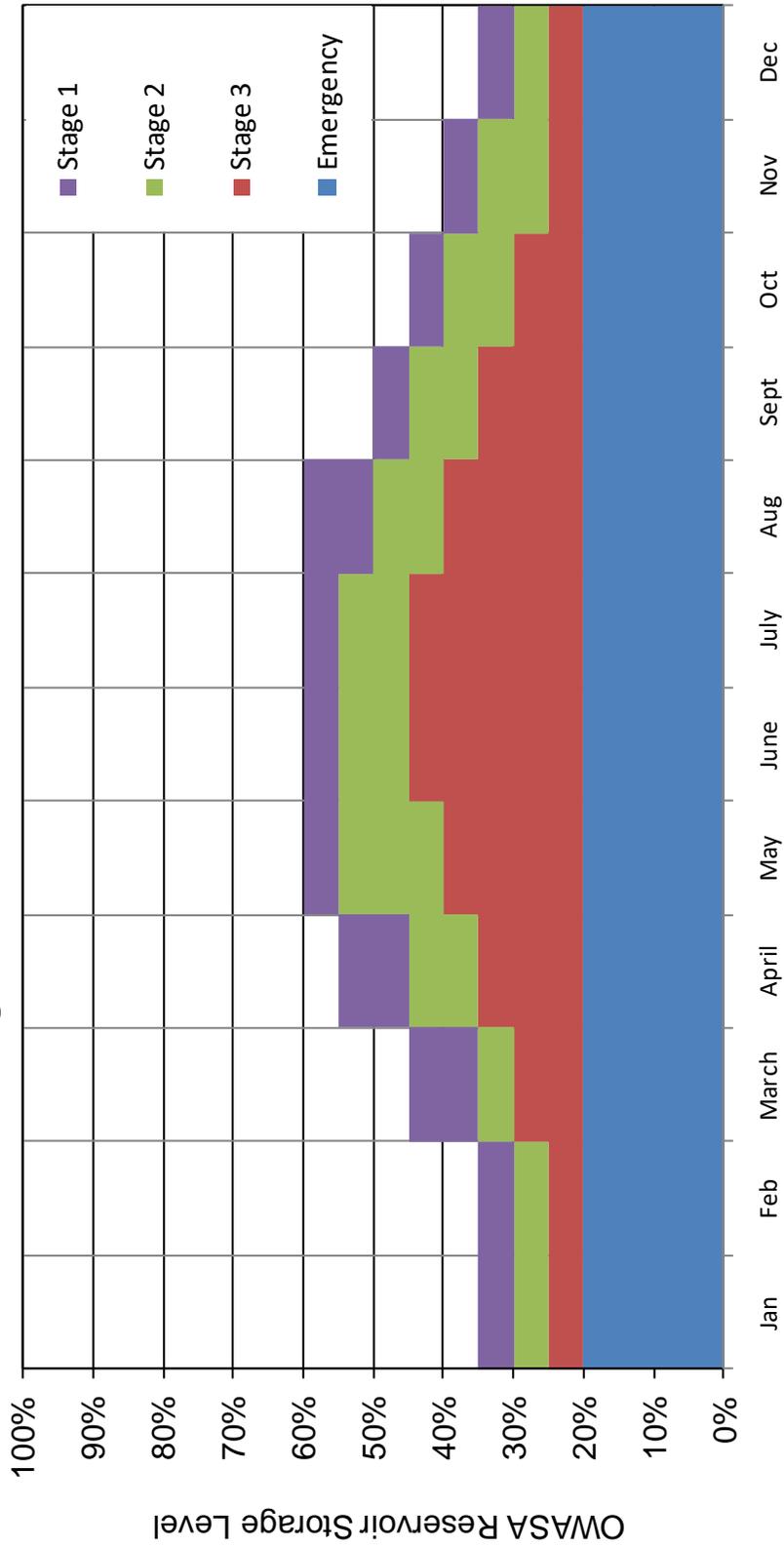
- regional water supply and demand conditions and forecasts;
- likelihood of obtaining raw or finished water from other utilities;
- Drought Advisory issued by the NC Drought Management Advisory Council; and
- long-term weather forecasts.

It is also possible that Water Shortage response stages may not necessarily be implemented sequentially if water supply and/or demand conditions change rapidly.

If and when OWASA determines a Water Shortage stage is in effect, it will clearly explain to its customers and the public the basis for the decision, including the estimated risk that the local water supply could be drawn down to very low levels (at or below 20% of total storage) over the following 12 months.

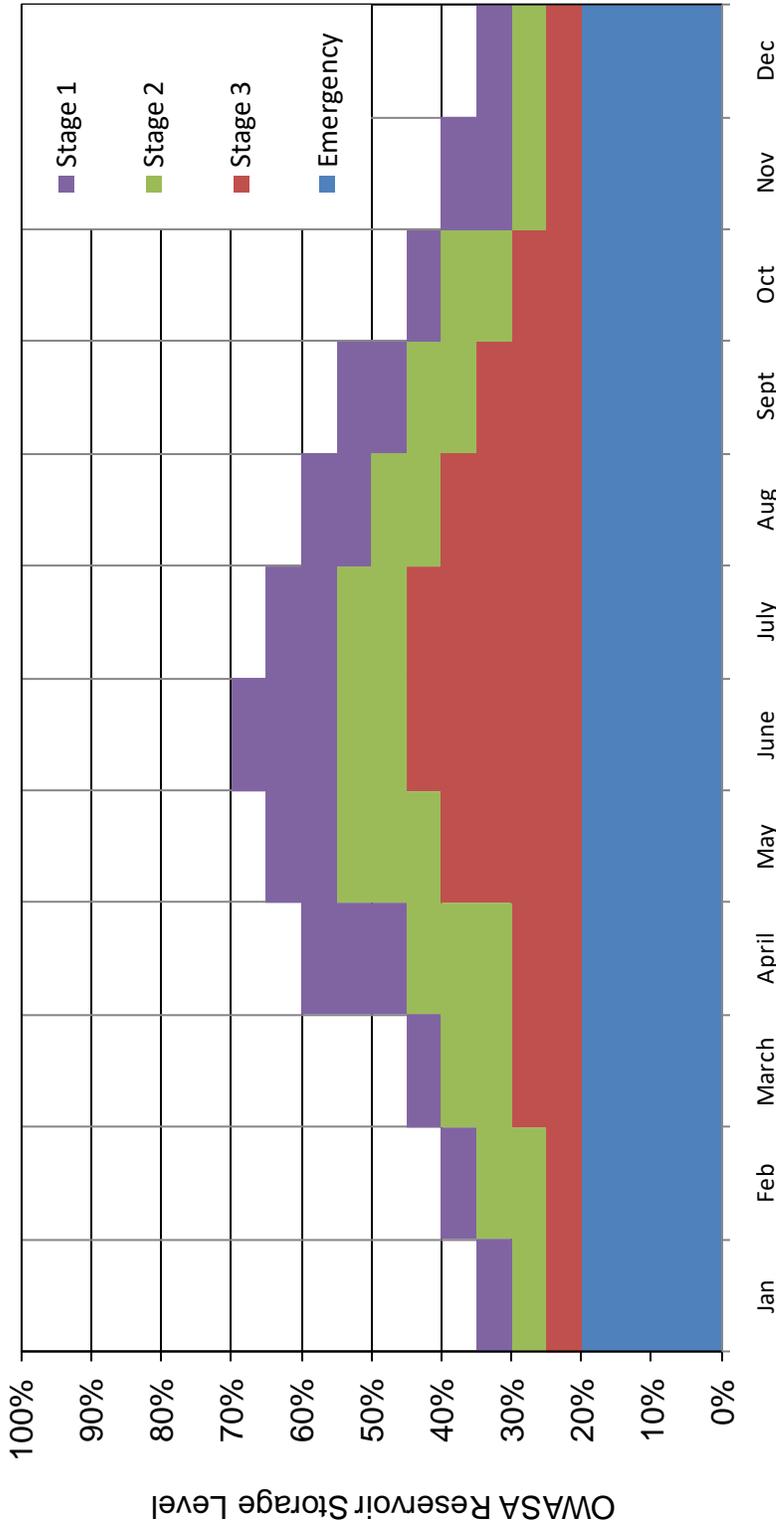
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Figure 5-1
OWASA Water Shortage Trigger Levels for
Average Annual Demand of 7.0 MGD



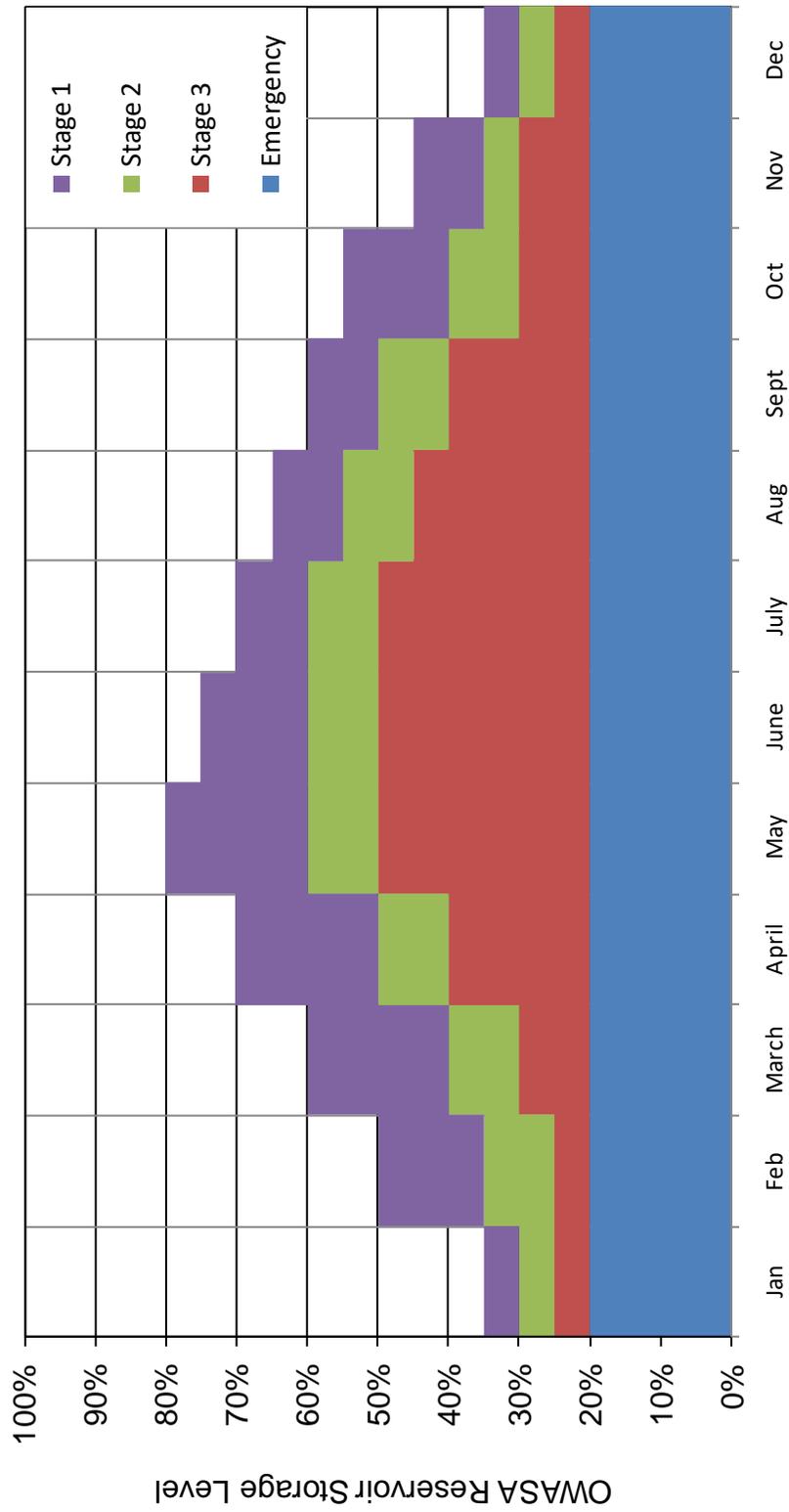
PROPOSE DELETING THIS GRAPH

Figure 5-2
OWASA Water Shortage Trigger Levels for
Average Annual Demand of 8.0 MGD



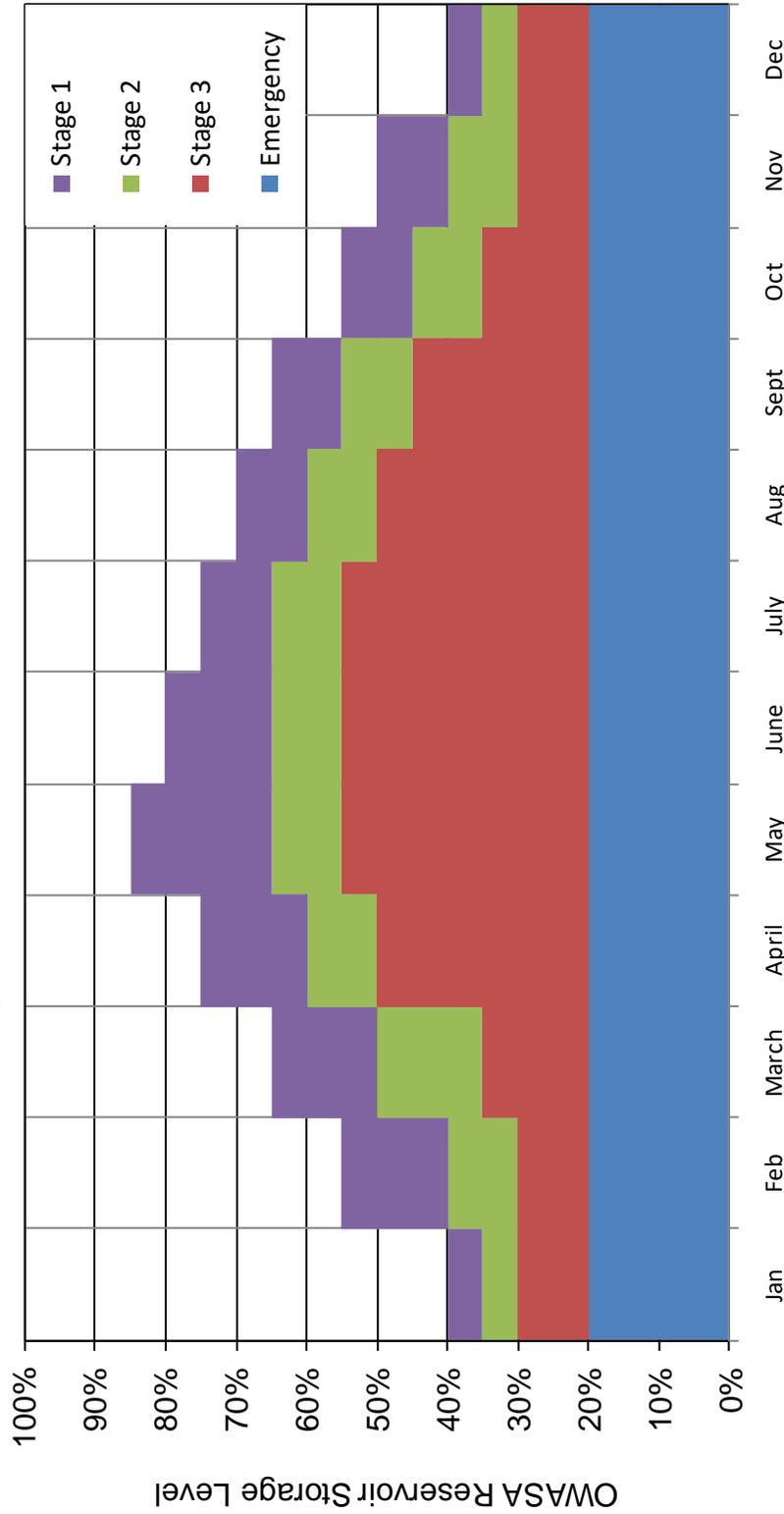
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Figure 5-3
OWASA Water Shortage Trigger Levels for
Average Annual Demand of 9.0 MGD



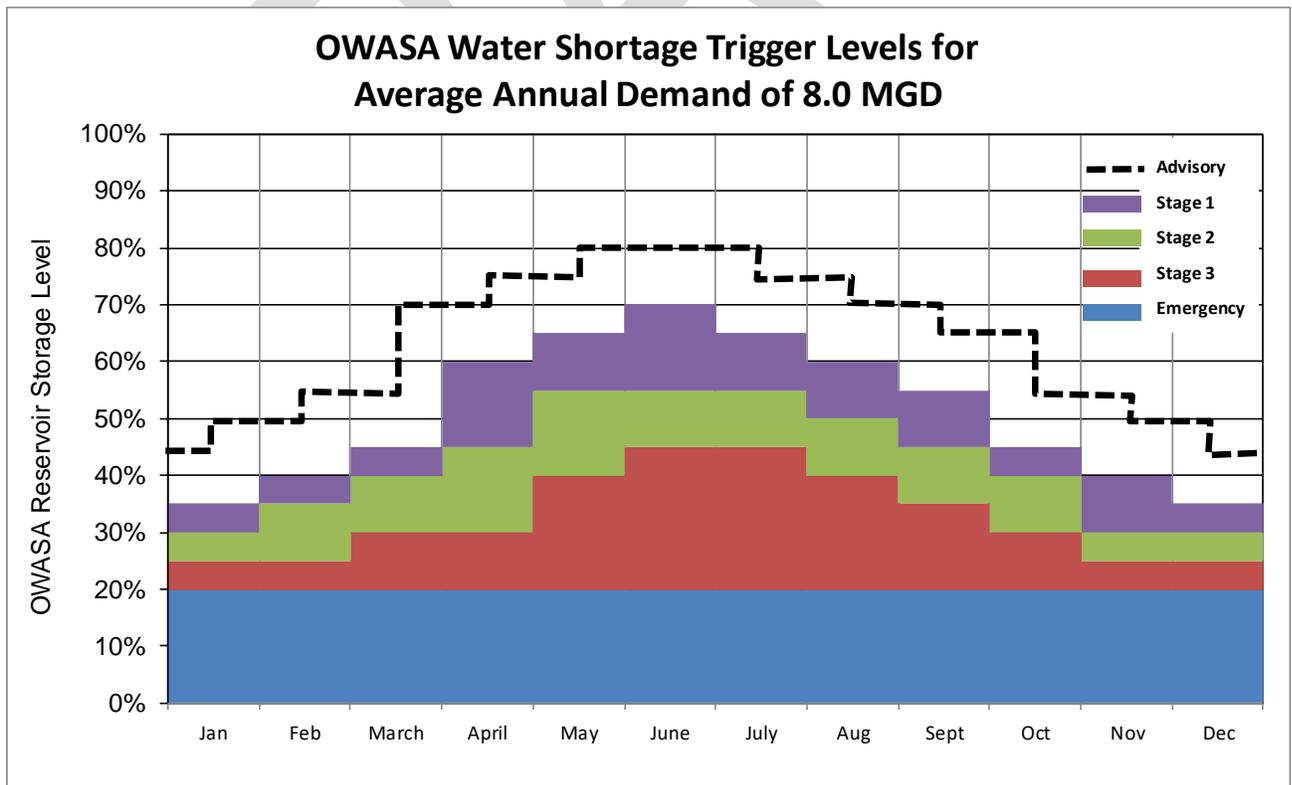
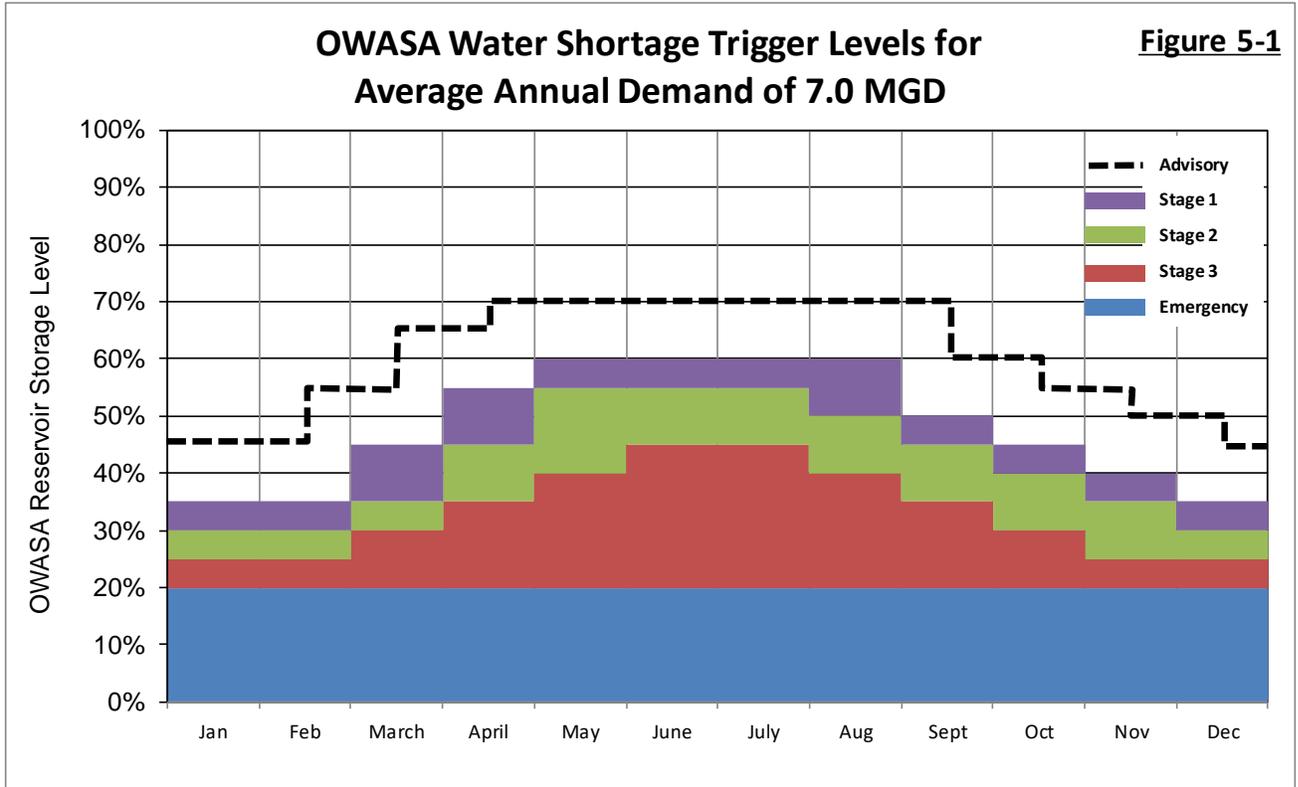
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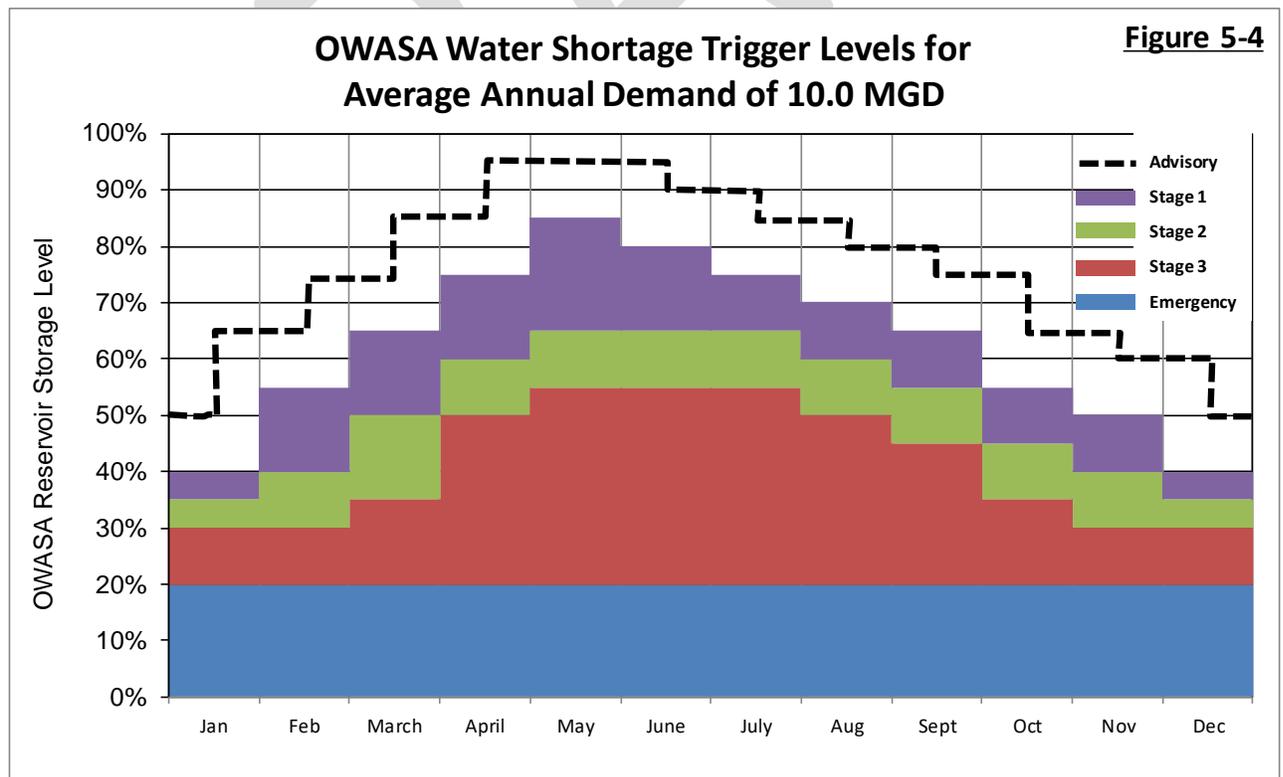
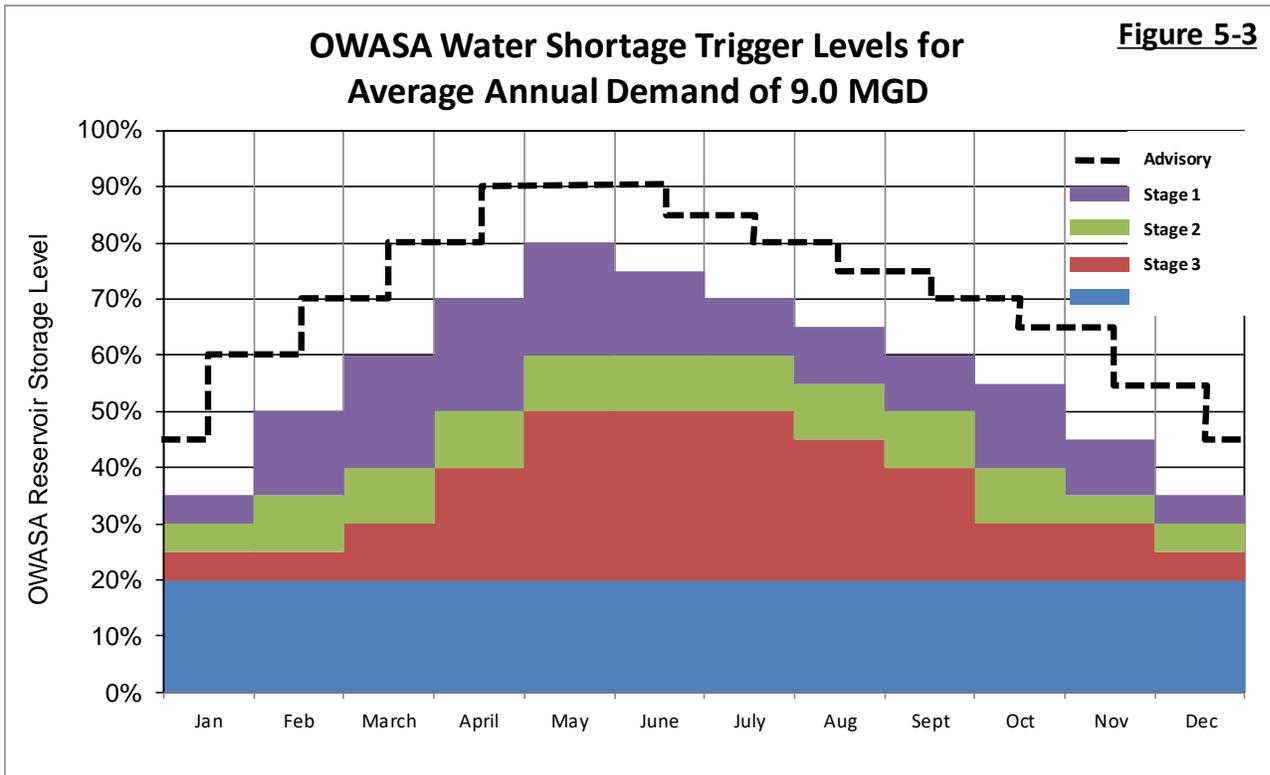
Figure 5-4
OWASA Water Shortage Trigger Levels for
Average Annual Demand of 10.0 MGD



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Triggers for Rescinding Water Shortage Response Stages During Extended Droughts

For a Water Shortage stage to be rescinded, the water supply storage volume must be at least ten percent (10%) above the specified Water Shortage initiation trigger for the applicable stage. However, OWASA's Executive Director may delay the rescission of a Water Shortage stage depending on water supply and demand conditions, extended weather forecast, regional water supply conditions and outlook, and other factors.

As with initiation, rescission of Water Shortage stages may not always occur sequentially, depending on how quickly supply and/or demand conditions change.

Water Shortage Response Triggers for Operational Emergencies

OWASA may occasionally need to implement mandatory water use restriction to address abnormal operating conditions – other than extended droughts – when current demand cannot be met. Such events include, but are not limited to:

- production problems at the Jones Ferry Road Water Treatment Plant;
- pump, tank, or pipeline failures;
- raw or treated drinking water quality problems;
- planned or unplanned maintenance events; and
- natural disasters.

OWASA may declare a Water Supply Shortage or Emergency whenever customer demand – as averaged over three consecutive days – exceeds 85 percent of OWASA's capability of treating and delivering water. The stage and duration of such a Water Supply Shortage or Emergency shall be guided by the degree to which customer demands approach or exceed OWASA's capacity to meet those demands, and by the degree to which conservation efforts successfully reduce short-term demands.

Operational emergencies are typically characterized by the need for rapid response by OWASA and its customers, and may require major curtailment of water use in a short period of time.

Non-drought water emergencies are unique because of the potential lack of preparation time and the need for immediate and potentially large-scale demand reductions. Because each emergency scenario is different, no single strategy can meet OWASA's needs during all emergency scenarios.

If OWASA's Executive Director determines that an emergency operating condition exists, he/she may implement a Water Shortage response stage and associated mandatory water use restrictions that he/she deems necessary and appropriate given the nature, extent, and expected duration of the emergency condition.

The Water Shortage response stage initially selected may be quickly modified as operating conditions are further assessed and there is a better understanding of the length of time that may be needed to restore normal operating and/or demand conditions.

SECTION 6.
ENFORCEMENT

OWASA does not have statutory authority to establish water conservation ordinances; therefore, as described in Section 4, it has established Water Conservation Standards applicable to all OWASA customers. The Standards include year-round mandatory water use restrictions as well as a system of increasingly stringent restrictions for different stages of a declared water shortage.

OWASA does not have statutory authority to directly impose civil or criminal penalty provisions for violations of its Conservation Standards. The Standards provide for the temporary disconnection of water service to any customer that repeatedly violates the Standards.

Upon learning of an actual, reported, or suspected violation, OWASA staff will contact the customer by phone, in person, and/or in writing to inform them of:

- ✓ the restrictions in effect;
- ✓ the nature of the actual, reported, or suspected violation;
- ✓ the need for corrective action by the customer; and
- ✓ the potential consequences of continued violations, including temporary disconnection of service for non-compliance with the Standards and the potential for citation by local government law enforcement officers.

In addition to OWASA's authority and approach to enforcing its Standards, the Carrboro, Chapel Hill and Orange County ordinances include civil penalty provisions for violations of their respective conservation ordinances, which, as noted before, are based on the OWASA Standards.

SECTION 7.

PROCEDURES FOR REVIEW OF VARIANCE REQUESTS

OWASA's Water Conservation Standards allow exemptions only for the following water uses during declared Water Shortages:

- ✓ Public purpose athletic fields and public purpose botanical sites are exempt from certain irrigation restrictions provided that an OWASA-approved site-specific Water Conservation Plan is in place.
- ✓ Car washes are exempt from certain restrictions provided that at least 50% of their water has been recycled, is from a non-potable water source, or is supplied from a well.

(Exemptions from water use restrictions do not include exemptions for water rate surcharges.)

Customers may request a variance from the Water Conservation Standards by submitting a letter or e-mail to OWASA's Executive Director (or designee) specifically describing the nature and reason for the requested variance and the customer's specific plan to reduce water use or to maintain a high level of water use efficiency during the declared shortage.

A decision to approve or deny individual variance requests will be provided to the customer within two weeks of receipt of the request, after careful consideration of the following criteria:

- ✓ purpose and necessity for use of drinking water;
- ✓ social and economic importance/hardship imposed by compliance with the Standards;
- ✓ the prevention of structural damage impact;
- ✓ expected duration of the use for which the variance is requested;
- ✓ expected direct and indirect impact on water demands; and
- ✓ practicality of options for alternative water sources.

Required Water Conservation Plans may be submitted at any time and will be reviewed and either approved or denied by OWASA within six weeks of receipt. To be considered for approval, a Water Conservation Plan must include:

1. Estimated amount of water use per day during both an average winter month and an average summer month for various purposes, including drinking water, basic sanitation, process water, irrigation, and other major uses specific to the customer
2. Description of alternate water sources available
3. Description of existing measures or high-efficiency fixtures in place to reduce water use
4. Measures that could be taken during each Water Shortage Response Stage for which a variance is requested in order to meet the percentage reductions in Table 8-1.

5. Description of the impact to the customer (e.g. reduced production, reduction of business hours, employment impacts, structural damage, etc.) of meeting the Table 8-1 water use reduction percentages during each Water Shortage Response Stage for which a variance is requested.
6. Proposed alternative measures to be taken during each Water Shortage Response Stage for which a variance is requested, and the resulting expected percentage reduction in water use for the categories listed in item 1, under both average winter and average summer conditions.

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SECTION 8.

EXPECTED AND ACTUAL EFFECTIVENESS OF THIS PLAN

Because OWASA revised its Water Conservation Standards in June 2009 and no drought has occurred subsequent to that date, there is no actual data or experience regarding the effectiveness of these Standards. However, based on customer response to water use restrictions and other measures in place during the 2001-2002 and 2007-2008 droughts, OWASA has the following water use reduction objectives associated with the Water Shortage Response Stages in the Standards:

Table 8-1.

Expected/Targeted Water Use Reductions for OWASA’s Water Shortage Stages

Water Shortage Response Stage	Target Reductions Relative to Normal* Water Use
Stage 1	10%
Stage 2	15%
Stage 3	20%
Emergency	To be Determined

* Normal Water Use is the level of customer demands that would be expected to occur during the time of the year that the Water Shortage Response Stage is in effect.

OWASA will periodically evaluate the effectiveness of its Water Shortage response actions through several methods, including but not limited to:

- ✓ comparing actual demand reductions achieved to the objectives of the Water Conservation Standards, as well as demand information for the same period for prior years;
- ✓ monitoring the frequency, severity, and duration of declared Water Shortage conditions;
- ✓ identifying any situations where action should have been taken but was not required under this plan;
- ✓ monitoring the number, type and recurrence of violations of applicable water use restrictions, and any required enforcement actions; and
- ✓ reviewing the inquiries and feedback received from customers during declared Water Shortages.

SECTION 9.

PUBLIC REVIEW AND COMMENT

In accordance with State law, OWASA's draft 2010 WSRP was issued for public review and comment and all comments received were considered prior to the OWASA Board of Directors' formal approval of the WSRP.

The core components of this Plan – OWASA's Water Conservation Standards, Water Shortage response stages, and associated water use restrictions – were adopted by OWASA in June 2009 following an extensive public review and comment process that included stakeholder meetings, review and comments from local governments and the Chapel Hill–Carrboro Chamber of Commerce, and a formal public hearing. Notice of the proposed Standards and restrictions was provided in the local newspaper and on OWASA's website.

The draft 2010 WSRP was made available for public review and comment for two weeks in advance of final consideration by the OWASA Board of Directors. Public review and comment was invited by:

- ✓ posting the draft on OWASA's website (www.owasa.org);
- ✓ providing copies for public review at OWASA's main office and the Chapel Hill Public Library;
- ✓ providing notice in the local newspaper of the draft plan's availability and the deadline for submitting written and/or verbal comments; and
- ✓ issuing electronic news releases announcing the availability of, and inviting comments on, the draft plan.

OWASA invited interested persons to submit written comments via e-mail or letter, and/or verbal comments at the public meeting when the draft was considered by the OWASA Board of Directors. Following consideration of the public comments, the OWASA Board of Directors formally approved OWASA's WSRP on November 11, 2010 (Appendix CD).

The 2015 update of the WSRP included minor updates such as contact information changes. It also included information about water shortage advisories, which would be declared when storage dropped to within 10 percent of mandatory stage 1 triggers. The advisories would request that customers voluntarily conserve water. a summary of OWASA's Drought Response Operating Protocol which was approved by the Board of Directors on January 10, 2013, which was developed to align with the 2010 WSRP. The advisories were not shown ~~DROP made no modifications to on~~ the trigger graphs included in Section 5 of this Plan. This version of the WSRP was presented to the Board at a work session on December 11, 2014 and approved by the Board of Directors along with OWASA's Local Water Supply Plan at its January 22, 2015 meeting (Appendix CD).

The ~~2018~~^{is} update of the WSRP includes minor updates (Table 4-2 is updated to reflect the change in multi-family, master-metered residential rates, the reclassification of our Public Affairs Administrator to Communications and Community Relations Officer, and other minor formatting

changes. This version of the WSRP was presented to the Board of Directors at a work session on June 14, 2018 along with OWASA's 2017 Local Water Supply Plan (Appendix ~~C~~D).

The main changes in this version were adding the advisory stage lines to the trigger tables illustrated in Figures 5-1 through 5-4, modifying language concerning the advisory stage in section 4, adding text regarding the advisory stage in Section 5. These changes negated the need for a Board policy, which was removed from an appendix. The OWASA Board of Directors discussed these modifications at their November 12, 2020 meeting, which was open to the public. OWASA staff also held a webinar for members of the public on November 17, 2020. While the main purpose of the webinar was to provide information about OWASA's Long-Range Water Supply Plan and receive feedback on the work completed to date, staff also included information about these potential changes to the WSRP. Other changes included updated staff contacts and other minor edits. This updated version of the WSRP was acted upon by the Board on December 10, 2020 (Appendix C).

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SECTION 10.

FUTURE REVIEW AND REVISION OF OWASA'S WSRP

In accordance with State requirements, OWASA will review the local WSRP, and revise it where necessary, as follows:

- ✓ concurrent with the update of OWASA's Local Water Supply Plan as required per NCGS 143-355(1), which occurs a minimum of once every five years;
- ✓ following the rescission of all mandatory water use restrictions that were imposed during an event that required declaration of a Stage 1, Stage 2, Stage 3, or Emergency Water Shortage condition; and/or
- ✓ at any time as deemed necessary to reflect changes in water supply and demand conditions, new information regarding the effectiveness of conservation management practices including the water use restrictions in OWASA's Water Conservation Standards, experience gained with implementation of the plan, and other factors.

Prior to the OWASA Board's final consideration of any proposed major revisions to the ~~local~~ WSRP, OWASA will provide its customers and the public an opportunity to review and comment on the proposed revisions. Information about proposed revisions and requests for comments on such proposals will be provided via OWASA's website, e-mail communications, news releases, notices of availability published in the local newspaper, etc. The draft plan will be available at OWASA's main office building and on our website (www.owasa.org) for public review.

The Executive Director (or designee) will be responsible for initiating all major WSRP updates, and for ensuring that OWASA customers and the public have the opportunity to comment on the plan and any proposed changes prior to final approval by the OWASA Board of Directors.

It has been OWASA's practice to meet with representatives of organizations such as the Chamber of Commerce, green industry, and local governments to receive information, comments, and suggestions regarding the effectiveness of existing water use restrictions and potential changes to those restrictions. OWASA will continue this practice as part of future evaluations and major updates of this plan.

APPENDIX A
OWASA WATER CONSERVATION STANDARDS

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APPENDIX B

EXAMPLE OF MAILINGS TO CUSTOMERS

As discussed in Section 4 of the WSRP, during a declared Water Shortage OWASA uses several methods to inform its customers of the consideration and implementation of water use restrictions in a shortage, including but not limited to:

- paid media advertising;
- e-mails using our distribution list for local and University officials, customers who have shared their e-mail addresses, etc.;
- news releases (by e-mail);
- reports and announcements in televised and other public meetings of the OWASA Board;
- posters in public facilities such as municipal offices; and
- website postings including water supply/demand/rain data that are updated on weekdays (and e-mailed to interested parties)

Following are examples of two information brochures that OWASA mailed directly to its customers during the 2007/2008 drought, and an example of an ad that was placed in a local newspaper during that drought.

(The water use restrictions and water rate surcharges have been revised since that drought.)

APPENDIX C
~~DROUGHT RESPONSE OPERATING PROTOCOL~~

DRAFT

APPENDIX CD

RESOLUTIONS APPROVING OWASA'S WATER SHORTAGE RESPONSE PLAN

DRAFT

RESOLUTION APPROVING OWASA'S REVISED WATER SHORTAGE RESPONSE PLAN AND RESCINDING ITS DROUGHT RESPONSE OPERATING PROTOCOL

Whereas, North Carolina General Statute (NCGS) 143-355(1) requires that each unit of local government that provides public water services to develop a Water Shortage Response Plan and update it at least every five years; and,

Whereas, OWASA, in accordance with said statute, developed its initial Water Shortage Response Plan in November 2010 and revised it in January 2015 and June 2018; and,

Whereas, the OWASA Board of Directors adopted a Drought Response Operating Protocol in January 2013 to describe procedures and criteria OWASA will follow for making water supply and demand management decisions during an extended drought; and,

Whereas, the Drought Response Operating Protocol includes a water shortage advisory trigger to encourage voluntary water conservation which is not explicitly shown on the trigger tables included in OWASA's approved Water Shortage Response Plan; and,

Whereas, the Drought Response Operating Protocol also includes language that prohibits OWASA from proactively purchasing water from neighboring utilities or from using water originating from our Jordan Lake water supply allocation before a Stage 1 (or more severe stage) water shortage has been met as outlined in the Water Shortage Response Plan; and

Whereas, this prohibition of proactive water purchases could result in OWASA not being able to access its allocation of water from Jordan Lake when needed during an extended drought and is counter to regional water supply planning and modeling which indicates that proactively transferring water helps maximize the regional water supply; and,

Whereas, proactively purchasing water from OWASA's Jordan Lake allocation helps OWASA meet its affordability goals by delaying mandatory conservation measures and their associated drought surcharges; and,

Whereas, this prohibition of proactive use of water originating from our Jordan Lake water supply allocation before a Stage 1 water shortage is also counter to OWASA's Long-Range Water Supply Plan approved in April 2010 which recommended that OWASA seek permanent access to its Jordan Lake allocation through partnership with other utilities either through purchases or other arrangements; and,

Whereas, OWASA is currently updating its Long-Range Water Supply Plan and our risk of running out of water is low. However, Cane Creek Reservoir's watershed area is small relative to its storage volume and has long refill times which leaves us vulnerable during extended drought, which may occur more frequently with increasing climate variability. Preliminary evaluation of alternatives indicates that securing permanent access to our Jordan Lake allocation addresses this vulnerability and is one of the more cost-effective alternatives to meet our 50-year needs; and,

Whereas, OWASA desires to consolidate documents and policies to eliminate the potential for conflicting language.

Now, therefore be it resolved by the OWASA Board of Directors that:

1. OWASA's Water Shortage Response Plan which incorporates the water shortage advisory triggers from the Drought Response Operating Protocol is hereby approved and adopted for the purposes of NCGS 143-355(1), and the OWASA Board of Directors intends and directs that this plan shall be reviewed and revised as needed, which will be at least once every five years; or otherwise as requested by the North Carolina Division of Water Resources, in accordance with the statute and sound planning practice; and,

2. OWASA's Drought Response Operating Protocol, adopted on January 10, 2013, is hereby rescinded.

Adopted this 10th day of December 2020.

Raymond E. DuBose, P.E., Chair

ATTEST:

Jo Leslie Eimers, Secretary

Agenda Item 5:

Discussion to possibly amend COVID Annual Leave Benefits for Employees

Purpose:

Information and update from staff and Board discussion.

Background:

On April 9, 2020 the Board approved providing employees up to 40 hours of COVID-19 Annual Leave; this benefit expires December 31, 2020. This temporary benefit provides employees an opportunity to address personal and/or family situations related to COVID-19 and serves as an option in lieu of the Families First Coronavirus Response Act benefits of Emergency Sick Leave and Expanded Family and Medical Leave.

The Families First Coronavirus Response Act benefits of Emergency Sick Leave and Expanded Family and Medical Leave expire on December 31, 2020. There has been no indication that these benefits will be extended.

Information:

As of November 30, 2020, eighteen (18) employees have used all their allotted 40 hours of COVID-19 Annual Leave and thirty-five (35) employees have used a portion. Most common reasons for use have been:

- child care issues related to virtual learning
- caring for a loved one diagnosed with COVID-19
- self-monitoring/quarantining when the employee has come in close contact with a COVID-19 positive person at home or on the job

Since the Board-approved benefit expires on December 31, 2020 and the impacts of the pandemic continue, staff is providing information to the Board should they wish to amend the current temporary benefit. Below are three options for the Board's consideration.

Option 1

Extend the benefit to July 1, 2021.

- This would extend the time for employees who have not exhausted their COVID-19 Annual Leave to July 1, 2021.

Option 2

Allow the current 40-hour benefit to expire on December 31, 2020 and provide all employees with 40 hours of COVID-19 Annual Leave effective January 1, 2021 with an expiration date of July 1, 2021.

- Essentially everyone's balance would reset to 40 on January 1, 2021.

Option 3

Extend the expiration date of the current benefit to July 1, 2021 and provide all employees an additional 40 hours of COVID-19 Annual Leave on January 1, 2021 to be used by July 1, 2021.

- This would allow employees who have not exhausted their COVID-19 Annual Leave to carry it over until July 1, 2020
- All employees would be allocated an additional 40 hours from January 1, 2021 through July 1, 2021.

Should the Board take no action, the current COVID-19 Annual Leave benefit will expire on December 31, 2020.

Action Requested:

Discussion and questions by the Board of Directors and guidance to staff.

Staff recommendation is to approve Option 2 and proposed Motion is below:

Proposed Motion: "Motion to approve allowing the current 40-hour benefit to expire on December 31, 2020 and provide all employees with 40-hours of COVID-19 Annual Leave effective January 1, 2021 with an expiration date of July 1, 2021."

Agenda Item 6:

Sewer Use Ordinance and Sewer Policy Updates to Align with NC Session Law 2020-61 (HB873)

Purpose:

1. To discuss preliminary staff recommendations for changes to Board policies to align with S.L. 2020-61, and receive Board guidance and feedback prior to receiving feedback from the public.
2. To discuss preliminary staff recommendations for changes in the OWASA Sewer Use Ordinance and to adopt a “Resolution Approving OWASA’s Declaration of Intent to Adopt and Amend Its Sewer Use Ordinance.”

Background:

Responding to interest in simplifying the permitting processes for accessory buildings in the state, and in particular accessory dwelling units for low income housing, North Carolina ratified [Session Law 2020-61 \(HB873\)](#). This bill allows, under certain circumstances, one accessory building to connect to the same sewer lateral as a one- or two-family home on the same lot if both buildings are “deemed permitted” under the NC Division of Water Resources’ 15A NCAC 02T Rules. The threshold for “deemed permitted” for OWASA’s residential customers is determined by flow rates and limits the flow to a maximum of 600 gallons per day (equal to 5 bedrooms) between the two buildings. OWASA policy, since our inception, has required that each building have its own sewer lateral. Updates are therefore necessary to conform to the new law. In the interim, a variance process has been implemented to ensure State law is being followed.

Existing sewer extension and sewer lateral policies and regulations, as well as the OWASA Sewer Use Ordinance, were reviewed to determine which needed revision due to the new law. Not all the policies listed below prohibit combined building sewer laterals, however the broad review exposed potentially confusing overlap, unnecessary redundancies, and situations where similar topics were incompletely covered in each policy: all complicating the ability for someone to find complete information. It quickly became apparent that consolidating the related policies into one overarching policy on the extension of sewer mains and sewer laterals while addressing the statutory change would be beneficial.

Policy Change Recommendations

Staff recommends the five Board policies and one OWASA Regulation listed below be replaced with one unified “Policy on Extension of Public Sewer Mains and Sewer Laterals:”

- “Policy on Extension of Sewer Service into Existing Neighborhoods,” (March 9, 1995);
- “Policy on Extension of Sewer Service to Undeveloped Areas,” (May 11, 1995);
- “Policy on Sewer Lines Crossing Creeks and Easements,” (January 11, 1996);
- “Policy on Ownership, Installation, and Maintenance of Sewer Service Laterals,” (February 8, 2001); and

- “Policy on Replacement of Common Four-Inch Sewage Collection Lines,” (March 27, 2008).
- OWASA “Sewer Extension Regulations,” (May 11, 1995)

The text from the existing policies was combined and reorganized to provide a clearer presentation, and minor wording changes were made to reconcile text variation between policies and provide improved readability. These changes are not highlighted in the draft policy provided, as no meaningful distinction which would need review should be present. The existing policies are, however, attached for reference. Areas where new concepts or wording modifications that change the meaning or intent of the policies have been proposed are indicated in revision mode or by comment. Comments have been added where beneficial to explain a proposed change.

Sewer Use Ordinance Recommendations

While the OWASA Sewer Use Ordinance (SUO) was last adopted in January 2020, it also contained text incompatible with the new law. The text that would have been modified for statutory conformance is more analogous to the topics covered within the proposed “Policy on Extension of Public Sewer Mains and Sewer Laterals,” and therefore was relocated from the SUO. Minor additional changes are proposed.

State law requires that before amending the Sewer Use Ordinance, the OWASA Board:

1. pass a declaration of intent to adopt the amendment(s);
2. submit the declaration of intent to governing boards of Orange County and the Towns of Carrboro and Chapel Hill for review and comment; and
3. consider comments or suggestions offered by the governing bodies.

The OWASA Board may adopt sewer ordinance amendment(s) no earlier than 60 days following submittal of the declaration of intent to the above three governing bodies.

Action Needed:

Following Board discussion of the proposed amendments, the Board has the option of adopting a Resolution Approving OWASA’s Declaration of Intent to Adopt and Amend Its Sewer Use Ordinance and start the 60-day comment period to local entities.

Staff seeks Board input on changes that should be made or concerns that should be addressed prior to sharing the draft “Policy on Extension of Public Sewer Mains and Sewer Laterals” with the public, however, no formal action from the Board regarding the policy recommendations is needed at this time. A request to adopt the changes to the policy documents will be made when staff return for adoption of the revised Sewer Use Ordinance.

A request to adopt the revised Sewer Use Ordinance and adopt the “Policy of Extensions to Sewer Mains and Sewer Laterals” will be made in February 2021 and include comments received.

Information:

- Draft “Resolution Approving OWASA’s Declaration of Intent to Adopt and Amend Its Sewer Use Ordinance.”
- Draft “Policy on Extension of Sewer Mains and Sewer Laterals”
- “Policy on Extension of Sewer Service to Undeveloped Areas” (May 11, 1995)
- “Sewer Service Extension Regulations,” (May 11, 1995)
- “Policy on Ownership, Installation, and Maintenance of Sewer Service Laterals” (February 8, 2001)
- “Policy on Replacement of Common Four-Inch Sewage Collection Lines” (March 27, 2008)
- “Policy on Extension of Sewer Service into Existing Neighborhoods” (March 9, 1995)
- “Policy on Sewer Lines Crossing Creeks and Easements” (January 11, 1996)
- Session Law 2020-61
- OWASA Sewer Use Ordinance (in revision mode)

**Resolution Approving OWASA’s Declaration of Intent
To Adopt and Amend Its Sewer Use Ordinance**

Whereas, Chapter 162A-6(a)(14c) of the North Carolina General Statutes empowers Orange Water and Sewer Authority to adopt and enforce ordinances “Concerning the regulation and control of the discharge of sewage or stormwater into any sewerage system” owned or operated by the Authority, and OWASA has done so, its last previous such ordinance having been adopted on January 9, 2020; and

Whereas, in order to conform the existing Ordinance to statutory changes and to clarify certain inconsistencies in previous versions, staff has prepared for review and adoption by the Board of Directors the draft revised Ordinance, bearing the date December 10, 2020, a copy of which is attached hereto, and which will be considered by the Board of Directors on or after February 9, 2021 for possible adoption; and

Whereas, North Carolina General Statute 162A-6(a)(14c) requires that OWASA pass a "declaration of intent" to adopt a Sewer Use Ordinance at least 60 days prior to adoption of a revised Sewer Use Ordinance, and that such "declaration of intent" shall describe the ordinance proposed for adoption and be submitted to each governing body for review and comment for a the 60-day notice period;

Now, Therefore, Be It Resolved:

1. That the Board of Directors of the Orange Water and Sewer Authority hereby declares its intent to revise and adopt its Sewer Use Ordinance in the form of the proposed, attached revision dated December 10, 2020, and that it invites interested comments from the governing boards of Orange County, the Town of Carrboro, and the Town of Chapel Hill on prior to that date.

2. That the Executive Director is directed to submit this "Resolution Approving OWASA’s Declaration of Intent to Adopt and Amend Its Sewer Use Ordinance” along with the proposed revision dated December 10, 2020, attached, to the managers of Orange County, the Town of Carrboro, and the Town of Chapel Hill, for submission to their governing Boards, to comply with North Carolina General Statute 162A-6(a)(14c) relative to adoption of such ordinances.

Adopted this 10th day of December, 2020.

Raymond E. DuBose, P.E., Chair

ATTEST:

Jo Leslie Eimers, Secretary

ORANGE WATER AND SEWER AUTHORITY

POLICY ON EXTENSION OF SEWER MAINS AND SEWER LATERALS

I. PURPOSE

An integral part of OWASA's operation is extension of public sewer service from existing mains or construction of new facilities, including acceptance of facilities conveyed to OWASA from developers. This extension of public service may consist of 1) construction of new public sewer mains, sewer laterals, and appurtenances as necessary to bring a public sewer main adjacent to a lot, or 2) connection of a private sewer lateral to OWASA's public sewer main.

The purpose of this policy is to establish the conditions and requirements for extension of public sewer mains and private sewer lateral connections to the Orange Water and Sewer Authority (OWASA) public sewer system within the developed and undeveloped portions of the service area, to assure that extensions and connections are made in a uniform manner, to encourage extensions to serve all of the lots without public sewer in the service area, and to minimize to the extent practicable the environmental impact and total costs of such projects.

II. DEFINITIONS

Cleanout - A structure or device which is designed to provide access to the sewer lateral for the purpose of removing deposits or accumulated material. A cleanout is typically located at the edge of the public road right-of-way or public sewer easement.

Combined Building Sewer Lateral - A sewer lateral that receives sanitary waste from more than one structure or building on the same lot. Combined building sewer laterals are only permitted in the OWASA public sewer system by specific exception to this policy or upon approval of a variance.

Common Sewer Lateral - A sewer lateral that receives sanitary waste from more than one lot. Common sewer laterals have not been permitted in OWASA's public sewer system since it began operation on February 16, 1977.

Infiltration - Water that seeps into sewer pipes through holes, cracks, joint failures, and faulty connections.

Inflow - Water that flows into sewers via illegal connections (such as roof drain downspouts, foundation drains, broken cleanout caps, and cross connections) as well as overland flow that can enter into holes and voids in manholes.

Lot - Land bounded by lines legally established for the purpose of property division.

Commented [JG1]: This is a new definition and concept for OWASA, needed to distinguish between laterals serving more than one lot (common) from laterals serving more than one building on a single lot (combined).

Commented [JG2]: This text is a new definition and reflects the definition of "lot" by Orange County and the Town of Chapel Hill.

OWASA - Orange Water and Sewer Authority. OWASA began operation February 16, 1977.

Property Owner – A person or entity owning a lot within the OWASA service area. As used in the context of this policy, references to “property owner” may also include a person or entity acting as the developer of a subdivision, commercial, or industrial lot as the context of the policy provision requires. The property owner may currently be served by OWASA, desire OWASA sewer service, or be otherwise impacted by an extension project of a public sewer main or a private lateral.

Commented [JG3]: Different policies used different terminology for the impacted entity. We have settled on property owner throughout this document, expanded herein to include those operating on behalf of the owner, such as a developer.

Public Sewer Main - The public sewer main as used herein refers to any OWASA-owned and maintained sewer pipe and includes a sewer pipe that receives sanitary waste from one or more sewer laterals. A new public sewer main is typically installed by a property owner and dedicated and conveyed to OWASA upon completion.

Public Sewer System – The network of OWASA’s public sewer mains used to convey sanitary waste from OWASA customers to the wastewater treatment facility.

Pump Station - The pump station (also called lift station) is the sewer appurtenance which pumps sanitary waste from a sewer main of lower elevation to a sewer main of higher elevation.

Sewer Easement - A strip of land dedicated to OWASA for the installation, maintenance, repair and/or replacement of a public sewer main.

Sewer Lateral - A sewer lateral is the horizontal pipe that extends from a building or structure and conveys sanitary waste from the building or structure to the public sewer main and includes a sewer cleanout. It is called “building sewer” in the North Carolina Plumbing Code. A sewer lateral typically serves a single building unit. In the OWASA system, the sewer lateral is installed, owned, maintained, and repaired by the property owner.

Commented [JG4]: To be moved to the OWASA – “Manual of Specifications, Standards and Design”

III. GENERAL PRINCIPLES FOR PUBLIC SEWER MAINS AND SEWER LATERALS

A. OWASA Standards

OWASA shall set standards for design, location, materials, and construction for sewer system components to be served by or be a part of the sewer system. The specifications shall include the size of all lines, their location, grade, materials used, manner of installation, type of support and such other specifications deemed necessary by OWASA. Design, construction, installation, and maintenance of new or replacement

public sewer mains and sewer laterals shall be in accordance with the policies, standards, specifications, and fees established by OWASA.

B. Approval by Local Government & Agencies

Prior to installation of any facilities the property owner shall provide to OWASA certification and/or documentation that the proposed property to be served has been approved by the appropriate political subdivision and/or regulatory agencies having review authority.

C. Discharges to OWASA Public Sewer System

Sanitary waste discharged to the public sewer system by any means shall be in accordance with the OWASA Sewer Use Ordinance.

D. Property Owner Responsible for Costs of Construction

Property owners shall be solely responsible for:

1. costs for the design and construction of all improvements to sewer system components within, by, or through their lot of a size and in accordance with OWASA's requirements for the orderly development of its sewer system;
2. costs and expenses incidental to the installation of the sewer lateral;
3. costs of extending and connecting public sewer mains between their lot and the existing public sewer system;
4. costs to improve existing public sewer mains, pump stations, and appurtenances necessary to serve the property;
5. costs for such work in accordance with the OWASA Schedule of Rates, Fees, and Charges when a connection is to be made to the public sewer main by OWASA; and
6. the initial financing of service extensions both inside and outside the lot of the property owner, with reimbursement to the property owner for costs in excess of their proportionate share as provided by OWASA's excess capacity credit policy.

E. OWASA Construction Observation

OWASA shall periodically inspect all expansions or additions to the public sewer system during construction. The property owner is responsible for ensuring construction occurs in accordance with the OWASA – *Manual of Specifications, Standards and Design* and may

Commented [JG5]: This has not been explicitly stated in policy before but is beneficial for context.

be required to modify, rearrange or do over any work to bring it into conformity. OWASA may require work buried before inspection to be exposed for inspection to occur. Construction observation by OWASA does not imply supervision and/or acceptance of the work.

Commented [JG6]: This has not been explicit in policy, but when contractors bury work that OWASA needs to see (specs state some items be inspected before burying), we do make them expose for inspection. It is beneficial to have a clear policy statement.

F. Fees and Charges

Fees and charges shall be made in accordance with the current Schedule of Rates, Fees, and Charges adopted by the OWASA Board of Directors.

Commented [JG7]: Previous policies contained details on antiquated and incorrect fees. All such text has been stricken and replaced with this statement. As the Schedule of Rates, Fees, and Charges is adopted every year, any changes to the OWASA fee structure would be captured and maintained in a current version. Statements on specific fees that have been renamed have been updated.

IV. GENERAL PRINCIPLES FOR INDIVIDUAL LOTS AND SEWER LATERALS

A. Public Sewer Mains Adjacent to Lot

Each lot to be served by OWASA shall have a public sewer main extended on or immediately adjacent to such lot at a location secured by a sewer easement, license (for Town of Chapel Hill or Town of Carrboro property), or franchise (for University of North Carolina property) in behalf of OWASA in such a manner that the sewer lateral serving the lot may be connected directly to the public sewer main.

Commented [JG8]: Both the towns and UNC own property where main extensions are required yet no road ROW or easement exists.

1. Public sewer service is deemed “available” to a lot that is located adjacent to an OWASA public sewer main; a new sewer lateral for such lot may be connected to that main upon payment of appropriate fees.
2. Public sewer service is deemed “not available” to a lot that is not located adjacent to an OWASA public sewer main. Sewer service will be provided by OWASA only if the property owner extends the OWASA public sewer main to a point adjacent to the lot and dedicates to OWASA an easement across the lot as required for the future orderly development and maintenance of the system.
3. A variance to this policy may be granted for emergency circumstances, such as those arising from failure of existing septic treatment facilities. A lot may be connected by a sewer lateral extended to an existing public sewer main through private easement on an adjoining lot(s) at the expense of the property owner. The property owner shall contractually agree that in the event a public sewer main is later extended to a point adjacent to their lot, the connection for the emergency sewer lateral shall be disconnected and the lot shall be connected to the sewer main adjacent to the lot, both at the expense of the property owner. If it becomes necessary for OWASA to disconnect an emergency sewer lateral connection and connect to the sewer main, the property owner shall be responsible for reimbursing OWASA for the cost of performing the work.

4. Non-conforming lots predating OWASA's creation which have sewer laterals that cross adjacent lots to access the public sewer main, whether within or without of a private easement, and where sewer service remains "not available," shall be permitted to maintain, repair, or replace the sewer lateral.

Commented [JG9]: This is a new policy statement. Concern has been expressed that some property owners with old sewer laterals crossing their neighbors lots to reach an OWASA main may be reluctant to repair or replace their lateral, uncertain if the lateral will somehow now be disallowed, even with no other service option. OWASA has not prohibited such work, so this statement will not allow additional activities that are currently prohibited, but it hopefully can provide clarity to property owners.

B. Individual Building Sewer Laterals

Sewer laterals connect to the public sewer main in the public road right-of-way or within a sewer easement that has been dedicated and conveyed to OWASA. Each building or structure shall have a separate and independent connection to the public sewer system of OWASA, with the following exceptions:

1. Where state law explicitly allows a combined building sewer lateral: the owner of a single main one- or two-family dwelling with a sewer lateral that OWASA has determined it to be deemed permitted under the North Carolina Division of Water Resources' 15A NCAC 02T Regulations, may create a combined building sewer lateral for the main building and a single accessory building on the same lot, if the accessory building is also deemed permitted. Documentation that both buildings are deemed permitted shall be submitted to OWASA. Subsequent subdivision of the lot resulting in the main building and accessory building being located on separate lots no longer meets this exception and a new building sewer lateral shall be constructed such that each lot has its own sewer lateral; or

Commented [JG10]: This major policy change has the primary language needed to conform to Session Law 2020-61 (HB873).

2. In case-by-case instances where the Executive Director determines that an exception is necessary.

Commented [JG11]: As OWASA cannot predict the variety of reasons where the Executive Director finds compelling need for an exception, a general statement is provided.

OWASA does not and will not assume any obligation or responsibility for damage caused by or resulting from any such single connection or combined building sewer lateral aforementioned.

Commented [JG12]: Relocated from the Sewer Use Ordinance

C. Ownership of Sewer Laterals

The property owner shall retain ownership and responsibility for the sewer lateral connecting the building or structure plumbing to the public sewer main. The property owner shall provide OWASA access to the sewer lateral as a condition of service.

D. Installation of Sewer Laterals

The installation of the sewer lateral between the public sewer main and the public road right-of-way or sewer easement to serve a building, residence or other structure, including furnishings and setting cleanouts, shall be the responsibility of the property owner.

1. Any required or applicable regulatory permits must be obtained by the property owner or plumbing contractor prior to the installation of any sewer lateral.
2. All sewer laterals located within the public road rights-of-way or sewer easements dedicated to OWASA shall be inspected by OWASA or OWASA's designee prior to backfilling the trench or repaving the roadway.
3. Existing sewer laterals may be kept in service or used in connection with new buildings only if, in the sole opinion of OWASA, they meet all the requirements of this policy, are in acceptable structural condition, and operate satisfactorily. The property owner shall provide video of the interior condition of the full length of the sewer lateral, including cleanouts and manholes, upon request to assist OWASA in making that determination.
4. OWASA shall make all sewer connections (taps) to the public sewer main. The property owner's contractor is responsible to prepare the site as outlined in the current OWASA "Schedule of Rates, Fees, and Charges."

~~The normal location for the first cleanout of the sewer lateral upstream of the main will be at the curb, property line, sewer easement boundary, or edge of the public road right of way. Cleanouts should be of the same nominal diameter as the sewer lateral but in no case less than four inches in diameter.~~

~~Sewer lateral is installed within or crosses an easement that will receive vehicular traffic, the lateral will be constructed of ductile iron pipe material and installed at a depth which provides sufficient protection from damage due to traffic loads or be placed within a casing or other protective arrangement suitable to OWASA.~~

5. The property owner(s) shall indemnify OWASA from any loss or damage that may directly or indirectly be caused by the installation of the sewer lateral provided, however, that such indemnification shall not extend to loss or damage due solely to willful misconduct or negligence on the part of OWASA.
6. To avoid future cutting of street surface where sewer service is not immediately desired, the sewer lateral may be stubbed out to the lot at the expense of the property owner.

E. Maintenance and Repair of Sewer Laterals

It shall be the responsibility of the property owner to maintain and repair the entire sewer lateral from the building or structure served to the public sewer main in a manner and form that provides for the proper transmission or conveyance of sanitary waste between the building served and the public sewer main and prevents inflow and infiltration into the public sewer system.

Commented [JG13]: This text is from The Sewer Use Ordinance, although there, the "sole opinion" belonged to the SUO Administrator.

Commented [JG14]: This new text reflects standard practice at OWASA but helps clarify the expectation on the property owner.

Commented [JG15]: Policy text to be moved to the OWASA – "Manual of Specifications, Standards and Design"

~~The sewer service lateral from the building or structure served to the public sewer main is to be owned and maintained by the property owner. The property owner is responsible for the removal of all blockages from the sewer service lateral caused by roots, grease or other debris. If it is determined that the portion of the sewer service lateral located in the public road right-of-way is in disrepair, settled, broken or has structural problems that prevent it from properly conveying sanitary waste from the building or structure to the public sewer main, OWASA will undertake the repair and/or replacement of that portion of the sewer service lateral at no cost to the property owner.~~

1. The property owner is responsible for maintenance and repair of their sewer lateral, including the removal of all blockages from the sewer lateral caused by roots, grease or other debris; repairing a failed or failing lateral; and replacing a sewer lateral that no longer provides proper transmission or conveyance of sanitary waste, has reached the end of its useful life, or is damaged by a third party.
2. If it is determined that the portion of a sewer lateral serving a single customer and located in the public road right-of-way or crossing a creek or stream is not properly conveying sanitary waste from the building or structure to the public sewer main and the problem resulted from faulty installation of the lateral versus failure of the property owner to provide proper maintenance and/or repair, OWASA may agree to repair or replace the failing portion of the sewer lateral to bring it into conformance with OWASA's standards, with the Executive Director or their designee to determine the apportionment of cost. If the deficient sewer lateral is wholly within the property owner's lot, the property owner will be solely responsible for the cost of the reconstruction.

In order for OWASA to make an assessment for repair of the portion of the sewer lateral within the public road right-of-way, a cleanout must be accessible at the edge of the right-of-way line. If no cleanout is available, the property owner shall be responsible for having a cleanout installed at their cost.

3. In cases where OWASA is replacing or upgrading a public sewer main as part of its Capital Improvements Program, the existing sewer lateral between the public sewer main and the edge of the public road right-of-way may be replaced in whole or in part by OWASA to meet standards prescribed by OWASA and state or local standards and codes. When sewer laterals located within the public road right-of-way are replaced as part of a Capital Improvements Project there will be no charge to the property owner.
4. The property owner shall be responsible for keeping the cleanout accessible and protecting the cleanout from damage at all times. Any cleanout repair and the cost for such repairs shall be the property owner's responsibility.

Commented [JG16]: The stricken policy text implied that the property owner was only responsible for clearing roots, grease, and debris, and OWASA would fix any structural failure within the roadway at our cost, even if due to their failure to repair or replace the lateral over time. The type of reasons a lateral could fail that would be the responsibility of the property owner are expanded and the Executive Director is authorized to determine the appropriate share of the costs for each party to pay.

Commented [JG17]: Two concepts from prior policies have been combined into one: deficient laterals crossing road rights-of-way and crossing creeks or streams. The concept of the lateral only serving a single customer previously only applied to crossing of creeks and easements and is newly applied to road rights-of-way.

5. Failure by the property owner to operate and maintain the sewer lateral in accordance with the standards, specifications, ordinances, policies, and regulations of the OWASA may result in fines, injunctions, civil penalties and/or the termination of water and/or sewer service.
6. The property owner shall be responsible for making necessary repairs, at their own expense, to the sewer lateral when notified in writing by OWASA that repairs are necessary. Should the property owner fail to repair the sewer lateral within 60 days after receiving written notification that such repairs are necessary, OWASA may make the necessary repairs to the sewer lateral and the property owner shall be responsible for paying for the cost of the repairs.

F. Replacement of Common Four-Inch Sewer Laterals

The OWASA service area contains some historical private, common four-inch sewer laterals that cross more than one lot. These nonconforming common sewer laterals pre-date OWASA's prohibition of such installation and many have no recorded easement. Property owners shall be permitted to continue use of such common sewer laterals and to repair or replace them at their own expense without OWASA requiring the installation of separate sewer laterals for each lot unless all lots on the common sewer lateral now have available sewer service.

Recognizing the challenges that come with multiple property owners being involved with the operation and maintenance of a common sewer lateral and the cost associated with replacing these lines as they deteriorate, OWASA may assume responsibility for maintenance and eventual replacement of these nonconforming common sewer laterals under the following conditions and requirements:

1. Prior to OWASA assuming maintenance responsibilities, all property owners of lots that the common sewer lateral crosses will provide to OWASA a signed statement indicating a willingness to provide to OWASA, without remuneration, the easements necessary to allow OWASA's assumption of maintenance responsibilities for the designated portion of the common sewer lateral.
2. Unless otherwise approved by OWASA, the sewer easement to be granted to OWASA shall meet OWASA standards. and be no less than 30 feet in width.
3. OWASA will prepare the necessary survey and easement documents and will have the documents officially recorded at no cost to the property owners.
4. OWASA will install a manhole on the common service lateral at no cost to the property owners that will delineate the point where OWASA maintenance responsibility begins.

Commented [JG18]: There is benefit to property owners keeping their laterals in good working order. This new policy concept explicitly allows continued use of a common sewer lateral until all owners sharing the lateral have sewer service available to their lots. Once sewer was available to all the lots served by the common sewer lateral, OWASA would not allow a new service tap (perhaps needed for repair of the common lateral) to be made.

5. OWASA will notify all property owners with lots containing the common sewer lateral of its intention to accept maintenance responsibility and the responsibility for replacement of the designated portion of the nonconforming common sewer laterals after the necessary documents have been recorded and the manhole has been installed.
6. Replacement of the portion of the common sewer lateral where OWASA has assumed maintenance responsibility will be performed at OWASA's discretion as part of its Capital Improvements Program. OWASA staff will prioritize the work according to public health needs, lateral condition, maintenance history, neighborhood petitions, crew availability, and finances. All costs associated with this replacement will be borne by OWASA. Each property owner ~~will~~ shall be required to separately connect to the newly installed main within 90 days. All required actions and costs associated with connecting the sewer lateral for the lot to this new main ~~will~~ shall be at the sole expense of the property owner.
7. OWASA will assume no operation, maintenance, or replacement responsibilities for common sewer laterals when a public sewer main is already adjacent to or abutting a lot or lots being served by a common service lateral, or for common sewer laterals created without approval after February 16, 1977, when OWASA began operations and the Sewer Extension Policy requiring separate building sewer laterals was in effect. In these cases, all required actions and costs associated with connecting to the public sewer main will be at the sole expense of the property owner.

V. GENERAL PRINCIPLES FOR EXTENSION OF PUBLIC SEWER MAINS

A. Local Land Use Plans

The extension of public sewer mains to provide sewer service shall reflect the principles and policies of the land use plans of the respective local governmental unit.

B. Consistency with OWASA Policies

Extensions of public sewer mains shall be made in accordance with other policies of OWASA's Board of Directors, such as policies on extending water and sewer lines or service into University Lake and Cane Creek Reservoir watersheds.

C. Future Expansion and Orderly Development

Extensions to public sewer mains shall be made in a manner to appropriately serve the property owner's lot, other dischargers, and unserved lots in accordance with OWASA

Commented [JG19]: With this exclusion in place, common sewer laterals installed in direct violation of OWASA policy would not be eligible for relief. This would include owners of combined building sewer laterals that subdivide the lot in the future.

Records may not exist in all cases for the original lateral installation date. OWASA maintains no such records. Locating existing town or county records would be the responsibility of the property owner.

policies. Any addition to the public sewer system to serve a lot, including assessment projects, must include adequate provisions for such easements, rights-of-way, etc. for sewer laterals or public sewer main extensions as required to support future expansion and orderly development of the public sewer system. OWASA shall have the right to make, or allow to be made, additional extensions to the public sewer system beyond or laterally from the extension.

D. Approval by State and Federal Regulatory Agencies

Prior to approval by OWASA, the construction drawings and specifications for the extension of sewer service must be submitted to and reviewed by the appropriate regulatory agencies. These agencies may include but are not limited to the Department of Transportation; the North Carolina Division of Water Resources; the North Carolina Division of Energy, Minerals and Land Resources; and the U.S. Army Corps of Engineers.

E. Approval by OWASA

Construction shall not commence until a permit has been issued by OWASA for specifications shown on detailed construction drawings prepared for the property owner by a professional engineer licensed in the State of North Carolina. A permit will be granted after OWASA has determined the construction drawings meet OWASA requirements and received notification of approval by the required regulatory agencies. Where conflicts exist between the requirements and standards of the various regulatory agencies, the more stringent standard or requirement shall apply.

F. Sewer Taps

OWASA shall make all sewer connections (taps) to the public sewer main, either with OWASA or contract personnel. See Section IV.D.4.

G. Utility Contractor

Extension of sewer mains shall be performed by an independent, North Carolina-licensed utility contractor complying with the *OWASA – Manual of Specifications, Standards and Design* with all work subject to inspection and approval by ~~the Engineering Manager or their authorized agent~~OWASA.

H. Dedicated Easements or Rights-of-Way

Public sewer mains shall be installed only in dedicated streets, roadways, or rights-of-way secured by encroachment agreements or recorded easements, or by ~~license or franchise~~. The property owner is responsible for providing or securing the necessary encroachment agreements, easements, and rights-of-way required for the project and sufficient for the construction, operation, repair, and expansion of the sewer system, including sufficient

Commented [JG20]: As noted earlier, a license is with UNC and a franchise is with a town.

isolation from adjoining facilities within or without of such easement or right-of-way. Easements shall be granted or dedicated to OWASA.

I. Stop Work Order

If in OWASA's judgment ~~of the Engineering Manager~~ there is demonstrated lack of competent supervision of a contractor, ~~the Engineering Manager may,~~ upon approval of the Executive Director or their designee, OWASA may (1) halt work until OWASA- approved supervision is obtained and the work is performed in accordance with approved specifications, or (2) provide constant construction observation by OWASA personnel or personnel contracted by OWASA at the expense of the property owner.

J. Dedication of Assets

As a condition of service, properties connected to OWASA sewer mains shall be deemed subject to easements for the construction, operation, maintenance and replacement of facilities necessary to serve that connection and the orderly development of the system; properties without necessary sewer easement documentation shall not be connected until appropriate document is obtained and recorded with the Register of Deeds.

K. OWASA Exclusive Control

OWASA shall have exclusive control and be responsible for maintenance and operation of all public sewer system facilities dedicated and accepted by OWASA. OWASA may from time to time contract to provide maintenance or operation of wastewater facilities owned by others.

L. Warranty

The property owner shall be responsible for guaranteeing the entire project against defective material and workmanship and consequential damages resulting therefrom for a period of twelve months from the date of acceptance of the project, including such incidental damages as may arise from such claims. At the completion of the construction and prior to acceptance of any fees for connection of service, OWASA may require the property owner ~~must to~~ supply a letter of credit for the benefit of OWASA in an amount equal to 5% of the total extension construction cost or such other amount as OWASA may require for the duration of the warranty period. The letter of credit does not relieve the property owner of the responsibility to repair defective materials or workmanship and consequential damages resulting therefrom arising within the warranty period.

Commented [JG21]: Current policy requires a letter of credit, but this policy is not followed. Staff recommend allowing the provision to remain as an option rather than a requirement.

No timeframe had been included; linking to the warranty period is recommended.

VI. EXTENSION OF PUBLIC SEWER MAINS AND SEWER LATERALS ACROSS CREEKS AND STREAMS

Due to the topographical characteristics of certain areas, sewer mains and/or laterals may need to cross a creek or stream in order to connect with the facilities of OWASA. The crossing of creeks and streams with a public sewer main and/or sewer lateral could result in environmental problems if the line is damaged or fails. If there is a reasonable and feasible alternative for the provision of sewer service, approval for the crossing of creeks and streams with sewer laterals will not be granted.

Where approval for a stream crossing is granted, the public sewer main and/or sewer lateral design shall place the pipe below the level of the stream bed. Where it is not possible to install the pipe below the stream bed, an aerial crossing of the creek or stream will be considered. All aerial crossings of a creek or stream, whether public or private shall be designed and constructed so that their placement does not adversely affect the quality or capacity of the stream flow or the carrying capacity of the water course.

VII. PUBLIC SEWER MAIN EXTENSION PROJECTS CONSTRUCTED BY OWASA AND REPAID THROUGH PROPERTY ASSESSMENT

A. Petition for Assessment Project

A neighborhood or area may petition OWASA to extend the public sewer system to provide sewer service where the cost of the extension is initially paid by OWASA and recovered from the benefitting property owners through assessment.

B. Need for Assessment Project

OWASA staff shall review each sewer main connection or extension request in light of the need for extending the public sewer system to serve the rest of the affected area and the local support for the project determined by the percentage of the impacted property owners signing the petition. Where deemed appropriate, OWASA staff shall recommend to the Board of Directors its opinion regarding the need for an assessment project to serve either the petitioning area or entire drainage subarea.

C. Service to All Lots

In general, and to the extent determined practicable, sewer extension projects constructed by OWASA should be planned, designed, and constructed to provide public sewer mains adjacent to every unserved lot within the affected area, in accordance with current policy.

Commented [JG22]: Assessment projects are not likely to be successful if there is not broad local support. OWASA staff would not typically propose assessment projects that are not widely supported.

Commented [JG23]: There may be a neighborhood area short of the entire drainage subarea that would request and support an assessment project.

D. Exclude Served and Undevelopable Lots

OWASA may not extend public sewer mains adjacent to lots already connected to an OWASA public sewer main in a manner satisfactory to OWASA or to a lot made undevelopable by recorded instrument suitable to OWASA.

Lots having existing, direct, available, serviceable sewer connections to an OWASA main, and which have paid applicable system development fees, but which are not connected in accordance with current OWASA policy may exist in the assessment area. Such lots will be released from the assessment obligation and treated as rehabilitation projects if they connect at their expense to the OWASA main in accordance with current OWASA policy within ninety days of notice of confirmation of the final assessment roll for that project.

E. Deletion of Lots from Extension Projects

The Executive Director shall ~~determine, implement regulations which govern~~ whether an existing sewer service connection is satisfactory, and under what conditions particular lots in an area service may be omitted from an extension project. No lot within the area affected shall be deleted from an extension project unless its deletion shall be determined to serve the public interest when considering the following factors, and any other factor, material to such a determination:

1. Whether the lot is presently served by an adequate, serviceable connection, including the manner in which the connection is made: whether the physical connection was lawfully made originally, and any other information relating to the useful life and integrity of the sewer lateral or connection;
2. The topographic and geologic conditions of the area: whether the lot is serviceable by a gravity public sewer main;
3. The status of easements in the area: whether the sewer lateral is located within easements established by written, recorded legal documents, and whether it is maintained pursuant to an enforceable maintenance agreement;
4. The proximity of the lot to the public sewer main to be constructed. Once the Final Assessment Resolution is adopted, OWASA intends not to allow property owners to avoid the present assessment in anticipation that their costs of construction of any future extension may be lower or passed to a subsequent property owner;
5. Whether the extension necessary to serve the affected lot requires clearing, grading, or other undesirable impacts upon the natural environment;
6. Whether deletion of the lot requested would impair the ability of OWASA to provide for the future orderly development of the system;

Commented [JG24]: Prior policy obligated the Executive Director to implement regulations governing deletion of lots from extension projects. As the list of factors is comprehensive, no regulations were ever developed or needed. This policy contains text in Section VIII which provides the Executive Director the ability to create necessary regulations if deemed necessary

7. Whether all fees and charges, including system development fees, and monthly service and commodity charges, have been paid for the existing connection;
8. Whether the property owner of the lot to be deleted agrees in a written, recorded agreement not to permit any other connections to the lot's existing sewer lateral: that there will be no further subdivision of the lot, no other dwelling units on the premises during the period the sewer lateral continues in use, and that the lot will be properly connected to the new sewer main at the property owner's expense if and when one is constructed adjacent to the lot; and
9. For undeveloped lots, whether the lot is or may be developed with improvements requiring sanitary sewer service.
10. If a property owner received a variance from this policy to resolve an emergency situation and a public sewer main is later extended adjacent to their lot through an assessment extension project, in addition to the cost of reconnection, they shall pay the applicable assessment amount less credit for the system development fees required for the emergency connection.

Commented [JG25]: A written, recorded agreement is needed to ensure it can be enforced. Potential purchasers of property would also then be made aware of the requirements.

Commented [JG26]:
If a property owner is on an assessment roll, they benefit from the project. To be deleted from the roll regardless, under #8 the property owner must commit not to permit any connections to their existing lateral. The list of ways that might happen now explicitly includes new dwelling units.

F. Additional Fees for Future Lot Subdivision

Subdivided lots which were created from the division of a larger lot which was part of the benefitted area of a previous sewer assessment project may be required to pay, in addition to system development fees, a fee in lieu of assessment for each new connection made to OWASA-built public sewer mains which were constructed under a subsidized assessment project. The fee in lieu of assessment shall be calculated such that the total of that fee plus the original assessment on the original lot are the equivalent of the assessments which would have been made had the lots existed at the time of the original assessment project, less credit for the assessment originally made and paid.

Commented [JG27]: The calculation methodology is a new addition to the policy.

G. Program to Encourage Connection

The Executive Director shall develop and upon approval by the Board of Directors, implement a program to encourage property owners to connect to new sewer lines extended adjacent to their properties. This program may include financial incentives or assistance with initial charges for installing sewer laterals and connecting to sewer mains.

H. Alternatives to Gravity Sewer

~~The Executive Director~~OWASA shall investigate public sewer service alternatives to gravity service during the conceptual design phase of extending sewer service to existing

neighborhoods, where appropriate. Typical alternatives include but are not limited to pressure, vacuum systems, and septic tank effluent pump (STEP) systems.

VIII. INTERPRETATION AND AUTHORIZATION

Interpretation and implementation of the *Policy on Extension of Public Sewer Mains and Sewer Laterals* is the responsibility of the Executive Director and the administrative staff. The Executive Director is authorized to establish and implement regulations for the implementation of this policy. Such regulations are to be uniformly and equitably implemented but deviations may be approved by the Executive Director for unusual technical situations.

The Executive Director is authorized to withhold or terminate sewer service for noncompliance with the policies and regulations of OWASA.

IX. APPEALS

Decisions or interpretations of the Executive Director and/or the administrative staff regarding the implementation of the *Policy on Extension of Public Sewer Mains and Sewer Laterals* may be appealed in writing to the OWASA Board of Directors. The appeal should state clearly and specifically the matters in dispute, the relief sought, and reasons therefore.

X. REFERENCES

- A. OWASA Sewer Use Ordinance
- B. OWASA "Policy on Excess Capacity Credit for Water and Sewer Facility Extensions"
- C. OWASA "Policy on Water and Sewer Lines or Connections Thereto in the University Lake Watershed"
- D. OWASA – "Manual of Specifications, Standards and Design"
- E. North Carolina State Building Code - Vol. II –Plumbing
- F. OWASA "Schedule of Rates, Fees, and Charges"
- G. Procedure for Approval of Water and/or Sewer Extension Projects

Reviewed by General Counsel:

Robert Epting, Esq.

General Counsel

Adopted by the Board:

Andrea Orbich

Clerk to the Board

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ORANGE WATER AND SEWER AUTHORITY

POLICY ON THE EXTENSION OF SEWER SERVICE TO UNDEVELOPED AREAS

PURPOSE:

The purpose of this policy is to establish the conditions and requirements for extension of and connections to the OWASA public sewer system within the undeveloped portion of the service area, to assure that extensions and connections are made in a uniform manner, and to minimize to the extent practicable the environmental impact and total costs of such projects.

BACKGROUND:

An integral part of the operation of the Orange Water and Sewer Authority is extension of sewer service from existing facilities or construction of new facilities. This extension of service may consist of 1) construction of new collectors, interceptors, mains, pump stations and other appurtenances necessary to serve a property or 2) connection of a primary sewer lateral to the main sewer lines of the Authority.

POLICY:

The extension of sewer service from the system of the Orange Water and Sewer Authority shall:

1. Be in accordance with the Authority Sewer Extension Regulations, Authority's Standard Specifications and the Authority's Schedule of Rates and Fees.
2. Reflect the principles and policies of the land use plans of respective local governmental unit.
3. Be made in a manner to appropriately serve individual dischargers and to allow for future orderly development of the sewer system to serve other dischargers in accordance with policies of the Orange Water and Sewer Authority.
4. Be in accordance with other policies of the Board of Directors such as policies on extending water and sewer lines or service into University Lake and Cane Creek watersheds.

The Authority shall be responsible for maintenance, operation, and control of all sewerage facilities dedicated and accepted by the Authority and may from time to time contract to provide maintenance or operation of sewerage facilities owned by others.

The Authority shall set standards for design, location, materials and construction for sewer system components to be served or be a part of the wastewater utility system.

Applicants, whether as the benefiting party or acting as the developer of a subdivision, commercial or industrial property shall be responsible for:

1. The cost of installing all sewer system components within or to a point which is adjacent to their property.
2. The costs of connecting sewer mains between their properties and the existing wastewater collection system and/or improvement of existing mains, pump stations and appurtenances.
3. The initial financing of service extensions both inside and outside the property of the applicant with reimbursement to the applicant for costs in excess of their proportionate share as provided by reimbursement policies of the Authority.
4. Providing easements and rights-of-way sufficient for the construction, operation, repair and expansion of the sewer system, including sufficient isolation from adjoining facilities within or without the boundaries of such easement or right-of-way.

AUTHORIZATION:

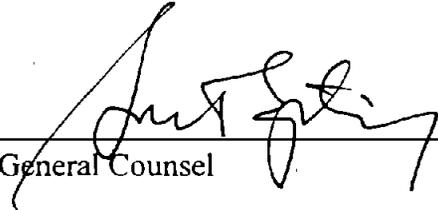
The Executive Director is authorized and empowered to direct on behalf of the Orange Water and Sewer Authority extension of sewer service as provided under this policy, to establish regulations for the implementation of this policy and without further authorization by the Board of Directors to take administrative actions for the security and control of the system of Orange Water and Sewer Authority.

The Executive Director is authorized to withhold or terminate sewer service for noncompliance by the party with the policies and regulations of the Authority. Where unusual circumstances exist, the Executive Director may request that the Board of Directors make the determination on extension of sewer service or extension of the sewer system.

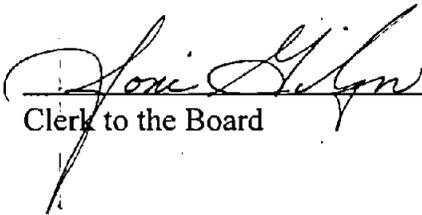
APPEALS :

The appeal of decisions or interpretations of the Executive Director regarding the implementation of the *Policy on the Extension of Sewer Service to Undeveloped Areas* may be made in writing to the Board of Directors of the Orange Water and Sewer Authority. The appeal should state clearly and specifically the relief sought and reasons therefor.

Reviewed by General Counsel:

5/26/95 _____
Date General Counsel 

Adopted by the Board:

5/11/95 _____
Date Clerk to the Board 

ORANGE WATER AND SEWER AUTHORITY SEWER SERVICE EXTENSION REGULATIONS

PURPOSE

The purpose of this regulation is to set forth the conditions and standards for the extension of sewer service and the attachment to the mains and facilities of the Orange Water and Sewer Authority as provided under the Policy for Extension of Sewer Service to Undeveloped Areas adopted by the OWASA Board of Directors May 11, 1995.

GENERAL PRINCIPLES

- A. The extension of sewer service from the system of the Authority shall be in accordance with the policies, standards and fees established by the Orange Water and Sewer Authority.
- B. Extension of service consists of:
1. construction of new sewer collectors, interceptors, mains, pump stations and appurtenances to serve the property.
 2. the connection of a private sewer lateral to the main sewer line.

GLOSSARY

SEWER LATERAL. The sewer lateral is the pipe which connects the building to the collector sewer located in the street. It is usually four inches in diameter. In the OWASA system, the sewer lateral is owned and maintained by the property owner.

SEWER COLLECTOR. The sewer collector is the pipe which receives wastewater from one or more sewer laterals. The minimum diameter of the collector sewer is eight (8) inches. The collector sewer is owned and maintained by the Authority.

SEWER MAINS. The sewer main is the pipe which receives wastewater from one or more collector sewers. The term is herein used to mean interceptors, mains and collector sewers.

SEWER INTERCEPTOR. The interceptor sewer is the pipe which receives wastewater from the sewer mains and collectors and conveys it to the wastewater treatment plant. The interceptor sewer is owned and maintained by the Authority.

PUMP STATION. The pump station (also called lift station) is the sewer appurtenance which pumps the wastewater from a sewer main of lower elevation to a sewer main of higher elevation.

EXTENSION OF SEWER MAINS

Extension of sewer mains shall meet the following requirements:

A. Approval By Local Government & Agencies

Prior to installation of any facilities the applicant for service shall provide to the Authority certification and/or documentation that the proposed property to be served has been approved by the appropriate political subdivision and/or regulatory agencies having review authority.

B. Review By The Authority

All installations shall meet minimum specifications set by the Authority. The specifications shall include the size of all lines, their location, grade, materials used, manner of installation and such other specifications deemed necessary by the Authority.

C. Approval by Regulatory Agencies

Prior to approval by the Authority the construction drawings and specifications for the extension of sewer service must be submitted to and reviewed by the appropriate regulatory agencies. These agencies may include but are not limited to the Department of Transportation, the Division of Environmental Management, the Division of Environmental Health, the Division of Land Resources and the U.S. Army Corps of Engineers.

D. Approval by the Authority

Construction shall not commence until approval has been given in writing by the Authority to specifications shown on detailed construction drawings prepared for the applicant by an engineer registered in the State of North Carolina. This approval will be granted by the Authority after it has received notification of approval by the various regulatory agencies.

E. Construction

The public main shall not be less than eight (8) inches in diameter, must be laid to line and grade, with manholes at any change of line and grade of the sewer and in no case more than 400' apart, and in all other respects meet the specifications used by the Authority for construction of sewer lines.

Any addition to the system must extend to the applicant's property with adequate provisions including easements, rights-of-way, etc. for laterals or extensions as required to support future development and extension of the system.

Extension of sewer mains shall be performed by an independent contractor under contract to the Authority or to the applicant complying with the Authority's Standards and Specifications for Water Distributions and Wastewater Collections Systems with all work subject to inspection and approval by the Engineering Manager or his authorized agent.

If in the judgment of the Engineering Manager there is demonstrated lack of competent supervision of a contractor, the Engineering Manager may, upon approval of the Executive Director (1) halt work until approved supervision is obtained and the work performed in accordance with approved specifications, or (2) provide constant construction observation by Authority personnel at the expense of the applicant.

The applicant is solely responsible for the design and construction of the project. The applicant may be required to modify, rearrange or redo any work to bring it in conformity with the Authority's Standards and Specifications. Construction observation by the Authority does not imply supervision and/or acceptance of the work.

F. Rights-Of-Way

Sewer mains will be installed only in dedicated streets, roadways, or rights-of-way secured by encroachments or recorded easements or license. Applicant for service is responsible for providing or securing the necessary encroachments and easements required for the project. Easements necessary to serve the project and allow for the orderly development and expansion of the sewer system shall be dedicated in behalf of the Authority.

G. Ownership and Control

All sewer mains constructed and connected to the facilities of the Authority under the policies stipulated herein shall be conveyed to and become the property of the Authority upon completion and acceptance. Connection to the system and acceptance by the Authority shall constitute dedication of a sewer main extension by the applicant but the applicant may be required to furnish to the Authority documentation of specific conveyance.

The Authority shall have exclusive control of all such lines and shall be responsible for their maintenance, repair and operation.

H. Warranty

The conveyor of an extension to the system shall guarantee the entire project against defective material and workmanship and consequential damages resulting therefrom for a period of twelve months from the date of completion and acceptance of the project, including such incidental damages as may arise from such claims. At the completion of the construction and prior to acceptance of any fees for connection of service, the conveyor must supply to the

Authority a letter of credit in behalf of the Authority in an amount equal to 5% of the total extension construction cost or such other amount as the Authority may require.

I. System Expansion

Requirements herein do not preclude the use and extension of mains by the Authority for the expansion and orderly development of the sewer system. The Authority shall have the right to make, or allow to be made, additional extensions of a sewer main beyond or laterally from the extension.

SERVICE CONNECTIONS

A. Service

Each lot or parcel to be served shall have a public sewer extended on or immediately adjacent to such property at a location secured by a utility easement or franchise in behalf of the Authority in such a manner that the private lateral serving the property may be tied directly into the public sewer.

Public sewer service is deemed available to property located adjacent to an OWASA public sewer main, and property located adjacent to an OWASA public sewer main may be connected to that main, upon payment of appropriate acreage, connection, availability and footage fees.

Public sewer service is not deemed available to property not located adjacent to an OWASA public sewer main. Such service will be provided by OWASA only if the property owner extends the OWASA public main to a point adjacent to such property, and dedicates to OWASA an easement across the property as required for the future orderly development of the system.

B. Installation

Installation of the line from the house to the main sewer line, including furnishing and setting cleanouts, will be the responsibility of the property owner. The normal location for the first cleanout in the private lateral upstream of the main will be at the curb, property line or edge of right-of-way. Taps into the sewer mains in service will be made only by Authority personnel.

C. Stub Out and Subsequent Connection

To avoid future cutting of street surface where sewer service is not immediately desired, the service line may be stubbed out to the property.

D. Codes

All private laterals shall be installed in accordance with applicable North Carolina or Local plumbing codes and regulations.

FEES

A. General

Fees and charges shall be made in accordance with the current schedule of rates and fees adopted by the Authority Board of Directors.

B. Availability Fees

1. Purpose

The purpose of this charge is to recover a portion of the cost associated with providing wastewater system facility capacity. This charge is applicable to each connection to a sewer line regardless of who may have paid for the installation of the line to which the connection is made.

2. Applicability

Availability charges are composed of two factors: the size of the property and the demand on the system as represented by water meter size. All lands not requiring sewer service and dedicated to public use such as for streets, highways, alleys, parks, playgrounds and recreation areas associated with public schools shall be excluded from the total acreage against which the fees apply as long as the properties continue in such exempt uses. Unusual and unique circumstances with minimal impact on the sewer facilities may be eligible for a variance based upon an evaluation by the Engineering Manager and approval by the Executive Director.

The owner of any large tract or parcel of land exceeding three acres in size and on which there is but one residential dwelling unit may, upon the approval of the Authority, by recorded plat designate a lot containing the dwelling of not less than three acres in area against which the acreage fee will apply.

C. Footage Charge

1. Purpose

The purpose of this charge is to defray, in part, the cost of installing sewer mains, manholes, etc. which are necessary to provide sewer service to abutting properties and which have been provided at the expense of the Authority or persons, firms or corporations other than the applicant.

2. Applicability

A Footage Charge for each separate connection to an existing sewer main shall be paid by each applicant who wishes to secure service therefrom, which charge shall be paid prior to the approval of the application for a service connection; provided, however, that in any instance where satisfactory evidence shows that an applicant for a connection has paid the cost of installation of the main to which the connection is to be made, either by installing the main at his expense and then conveying same to the Authority (or its predecessors) or by reimbursing the Authority (or its predecessors) for the cost of such main, the Footage Charge shall be waived.

3. Computation

i. The footage charge shall be computed on the basis of the footage of the property abutting the line. On lots abutting two or more streets in which lines are installed, the footage shall be based upon the average of the sides.

ii. The minimum frontage for each connection shall be that for property with 50 feet frontage, regardless of actual frontage.

iii. When a line passes through a tract which may be served to either side from the line, the footage and acreage fees shall apply separately to each side.

D. Private Lateral Tap Charge

1. Purpose

The purpose of this charge is to recover costs of making the tap into the sewer main or mains and providing a connection point for the lateral connection. Where properties have been provided a stub out to the property line, edge of easement or right of way no tap fee will apply. Charges will be made for the cutting of a tap into an existing sewer main or manhole. These charges include all labor and materials to complete the physical tap, but do not include cost for excavating, backfilling or pavement repairs necessary to expose the main or manhole. Obtaining and paying for the street cut permit from units of local government or obtaining encroachment approval from the Department of Transportation are the responsibility of the applicant.

2. Applicability

The applicable charges shall apply as set forth in the Schedule of Rates and Fees adopted by the Authority's Board of Directors.

PAYMENTS

All fees and payments due the Authority shall be made at the following address:

Orange Water and Sewer Authority
Customer Relations Department
400 Jones Ferry Road
P.O. Box 366
Carrboro, N.C. 27510

INTERPRETATION AND REVISIONS

These regulations are pursuant to the Policy on the Extension of Sewer Service to Undeveloped Areas adopted by the Orange Water and Sewer Authority's Board of Directors and incorporated by reference as a part hereof.

Implementation and interpretation of the Sewer System Extension Regulations are the responsibility of the Executive Director and the administrative staff. The Executive Director is authorized to establish and implement regulations for the extension of the sewer system. Such regulations are to be uniformly and equitably implemented but deviations may be approved by the Executive Director for unusual technical situations.

APPEALS

The appeal of decisions or interpretations of the Executive Director regarding the implementation of the *Policy on the Extension of Sewer Service to Undeveloped Areas* may be made in writing to the Board of Directors of the Orange Water and Sewer Authority. The appeal should state clearly and specifically the relief sought and reasons therefore.

REFERENCES

- A. OWASA Schedule of Rates and Fees
- B. OWASA Standard Specifications for Water Distribution and Wastewater Collection Systems
- C. Procedure for Approval of Water and/or Sewer Extension Projects
- D. OWASA Policy on Reimbursement for Costs of Contributed Capital Facilities
- E. Policy on the Extension of Sewer Service to Existing Neighborhoods
- F. Policy on the Extension of Sewer Service to Undeveloped Areas

ORANGE WATER AND SEWER AUTHORITY

POLICY ON THE OWNERSHIP, INSTALLATION AND MAINTENANCE OF SEWER SERVICE LATERALS

I. *PURPOSE*

The purpose of this policy is to establish the principles, conditions, standards and requirements concerning the ownership, installation and maintenance of sewer service laterals connected to the public sewer system owned and operated by Orange Water and Sewer Authority.

II. *GENERAL PRINCIPLES*

Each lot or parcel to be served by the sewerage facilities of Orange Water and Sewer Authority shall have a public sewer extended on or immediately adjacent to such property such that the building sewer/sewer service lateral serving the property can be tied directly into the public sewer main.

The property owner shall retain ownership of the sewer service lateral connecting the building or structure plumbing to the public sewer main. The property owner shall provide OWASA access to the sewer service lateral as a condition of service.

Sewer service laterals are typically 4" or 6" in diameter and connect the building or structure plumbing to the public sewer main located in the public road right-of-way or within a sewer easement that has been properly dedicated and conveyed to OWASA.

Each building or structure shall have a separate connection to the public sewer system of OWASA. Connection of two or more structures to a single sewer service lateral will not be permitted (common sewer lateral).

All sewer laterals shall be installed in accordance with the policies, standards and specifications of Orange Water and Sewer Authority. Wastewater discharged through the sewer service lateral to the public sewer system shall be in accordance with the Orange Water and Sewer Authority Sewer Use Ordinance.

Sewer service laterals must be maintained in a manner and form that provides for the proper transmission or conveyance of sanitary waste between the building served and the public sewer system and prevents the inflow and infiltration of extraneous water into the public sewer system.

Failure to operate and maintain the building sewer/sewer service lateral in accordance with the standards, specification and regulations of the Orange Water and Sewer Authority may result in the termination of water and/or sewer service in accordance with the Orange Water and Sewer Authority Sewer Use Ordinance.

III. **DEFINITIONS:**

Building Sewer/Sewer Service Lateral – The building sewer/sewer service lateral is the horizontal pipe that extends from the building or structure and conveys sanitary waste from the building or structure to the public sewer main. The minimum diameter for a building sewer is four inches (4”). The building sewer/sewer service lateral includes a sewer clean out that is located at the edge of the public road right-of-way. The building sewer/sewer service lateral is owned and maintained by the building or property owner.

Cleanout – A structure or device which is designed to provide access to the sewer service pipe for the purpose of removing deposits or accumulated material. A cleanout is typically located at the edge of the public road right-of-way or public sewer easement.

Common Sewer Lateral – A sewer lateral that receives sanitary waste from more than one property, structure or building.

Extraneous Flow – Groundwater that infiltrates the sewer system through pipes, cracks, defects, joint connections, or manhole walls; or any surface water that inflows into the sewer system through manhole covers, cleanout caps or other pipe openings at streams, ditches or low lying areas.

Infiltration – The quantity of groundwater that leaks into sewer laterals, pipes and mains through joints, porous walls or breaks.

Inflow – The extraneous flow which enters the sewer system from sources such as roof leaders, basement drains, broken cleanout caps and manhole covers.

Public Sewer Main – The public sewer main is the pipe that receives sanitary waste from one or more building sewers/sewer service laterals. The minimum diameter of a public sewer main is eight inches (8”). The public sewer main is owned, operated and maintained by the Orange Water and Sewer Authority.

Sewer Easement – A strip of land dedicated to OWASA for the installation, maintenance, repair and/or replacement of the public sewer system. OWASA sewer easements are typically thirty feet (30’) in width.

OWASA – Orange Water and Sewer Authority

IV. **POLICY:**

All sewer service laterals shall be installed and maintained in accordance with the policies, standards and specifications of Orange Water and Sewer Authority. Construction and installation must meet the requirements and standards of OWASA, the

North Carolina Plumbing Code and the requirements of the local code officials and public works department. Where conflicts exist between the requirements and standards of the various regulatory agencies, the more stringent standard or requirement shall apply.

Any required or applicable regulatory permits must be obtained by the property owner or plumbing contractor prior to the installation of any sewer service lateral.

OWASA shall make all sewer connections (taps), either with their forces or contract forces, to the public sewer main. The installation of the sewer service lateral between the public sewer main and the public road right-of-way or sewer easement line to serve a new building, residence or other structure shall be the responsibility and at the cost of the property owner. All sewer service laterals located within the public road right-of-way or sewer easements dedicated to OWASA shall be inspected by OWASA or OWASA's designee prior to backfilling the trench or repaving the roadway.

When a connection is to be made to the public sewer main by OWASA, the property owner shall pay all costs for such work in accordance with the Rates and Fees Schedule adopted by the OWASA Board of Directors.

The sewer service lateral from the building or structure served to the public sewer main is to be owned and maintained by the property owner. The property owner is responsible for the removal of all blockages from the sewer service lateral caused by roots, grease or other debris. If it is determined that the portion of the sewer service lateral located in the public road right-of-way is in disrepair, settled, broken or has structural problems that prevent it from properly conveying sanitary waste from the building or structure to the public sewer main, OWASA will undertake the repair and/or replacement of that portion of the sewer service lateral at no cost to the property owner.

A cleanout shall be installed on the sewer service lateral at the edge of the public road right-of-way or sewer easement boundary. Cleanouts should be of the same nominal diameter as the sewer service pipe but in no case less than four inches (4") in diameter. The property owner shall be responsible for keeping the cleanout accessible and protecting the cleanout from damage at all times. Any cleanout repair and the cost for such repairs shall be the property owner's responsibility. In order for OWASA to make an assessment for replacement of the portion of the sewer service lateral within the public road right-of-way, a cleanout must be accessible at the edge of the right-of-way line. If no cleanout is available, the property owner shall be responsible for having a cleanout installed at their cost.

In cases where OWASA is replacing or upgrading the public sewer main as part of their capital improvements program, the existing sewer service lateral between the public sewer main and the edge of the public road right-of-way may be replaced by OWASA so as to meet standards prescribed by OWASA, State or local standards and codes. Where

sewer service laterals, located within the public road right-of-way, are replaced as part of a capital improvements project there will be no additional charge to the property owner.

The ownership, installation, maintenance and repair of that portion of the sewer service lateral outside of the public road right-of-way or within a sewer easement shall be the responsibility of the property owner.

Failure to operate and maintain the sewer service lateral in accordance with the Orange Water and Sewer Authority Sewer Use Ordinance may result in fines, injunctions, civil penalties and/or the termination of water and/or sewer service.

IV. *IMPLEMENTATION AND INTERPRETATION*

Implementation and interpretation of the Policy on the Ownership, Installation and Maintenance of Sewer Service Laterals is the responsibility of the Executive Director or his/her designee.

V. *APPEALS*

The appeal of decisions or interpretations of the administrative staff regarding the implementation of the Policy on the Ownership, Installation and Maintenance of Sewer Service Laterals may be made in writing to the Executive Director of the Orange Water and Sewer Authority. The appeal should state clearly and specifically the relief sought and reasons therefore.

VI. *REFERENCES*

- A. OWASA Standard Specifications for Water Distribution and Wastewater Collection Systems
- B. Policy on the Extension of Sewer Service to Undeveloped Areas
- C. Policy on the Extension of Sewer Service to Existing Neighborhoods
- D. Policy on the Replacement of Common Four Inch Sewerage Collection Lines
- E. OWASA Sewer Use Ordinance
- F. North Carolina State Building Code – Vol. II - Plumbing

ORANGE WATER AND SEWER AUTHORITY

POLICY ON REPLACEMENT OF COMMON FOUR-INCH SEWER SERVICE LINES

PURPOSE:

The purpose of this policy is to establish the conditions and requirements for OWASA's assumption of responsibility for maintenance and replacement, when deemed necessary, of nonconforming common four-inch sewer service lines.

BACKGROUND:

OWASA's current policy on sewer service extensions for the development of new parcels requires that each lot or parcel to be served shall have a public sewer extended on or immediately adjacent to that lot or parcel and that each private lateral serving a particular lot or parcel be tied directly into the public sewer (**common service laterals, defined as a lateral serving more than one home, are not allowed**).

However, there are a number of pre-existing private, common four-inch sewer service lines in the OWASA service area which cross more than one property and many have no recorded easements.

Recognizing the challenges that come with multiple property owners being involved with the operation and maintenance of a common sewer service lateral and the cost associated with replacing these lines as they begin to deteriorate, this policy outlines the conditions and requirements in order for OWASA to assume responsibility for maintenance and eventual replacement of common sewer service laterals.

POLICY:

1. Prior to OWASA assuming maintenance responsibilities, all owners of property that the common line crosses will provide to OWASA a signed statement indicating a willingness to provide to OWASA, without remuneration, the easements necessary to allow OWASA's assumption of maintenance responsibilities for the designated portion of the common 4-inch sewer service line.
2. Unless otherwise approved by OWASA, the easement to be granted to OWASA shall meet the standards of OWASA and be no less than 30 feet in width.
3. OWASA will prepare the necessary survey and easement documents at no cost to the benefitting parties and will have the documents officially recorded.
4. OWASA will install a manhole on the common service lateral at no cost to the benefitting properties that will delineate the point where OWASA maintenance responsibility begins.

5. OWASA will notify all benefitting parties of its intention to accept maintenance responsibility and the responsibility for replacement, when deemed necessary, of the designated portion of the nonconforming common four-inch sewer service lines after the necessary documents have been recorded and the manhole has been installed.
6. Replacement of the portion of the line where OWASA has assumed maintenance responsibility will be performed at OWASA's discretion as part of its Capital Improvement Program. OWASA staff will prioritize the work according to public health needs, pipe condition, maintenance history, neighborhood petitions, crew availability and finances. All costs associated with this replacement will be borne by OWASA. However, each property owner will be required to separately connect to the newly installed main within 90 days. All required actions and costs associated with connecting to this new main will be at the sole expense of the benefitting party.
7. OWASA will assume no operation, maintenance or replacement responsibilities for common service laterals when public sewer is already adjacent to or abutting property or properties being served by a common service lateral. In these cases, when the common sewer service line is abandoned all required actions and costs associated with connecting to the public sewer will be at the sole expense of the benefitting party.

INTERPRETATION AND REVISIONS

Implementation and interpretation of the *Policy on Replacement of Common Four-Inch Sewer Service Lines* is the responsibility of the Executive Director and designated staff.

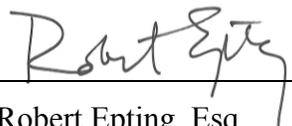
APPEALS

The appeal of the decisions or interpretations of the Executive Director regarding the implementation of the *Policy on Replacement of Common Four-Inch Sewer Service Lines* may be made in writing to the Board of Directors of the Orange Water and Sewer Authority. The appeal should state clearly and specifically the relief sought and reason therefore.

Reviewed by General Counsel:

3-27-2008

Date



Robert Epting, Esq.
General Counsel

Adopted by the Board:

3-27-2008

Date



Andrea Orbich
Clerk to the Board

ORANGE WATER AND SEWER AUTHORITY

POLICY ON THE EXTENSION OF SEWER SERVICE TO EXISTING NEIGHBORHOODS

PURPOSE:

The purpose of this policy is to establish the conditions and requirements for extension of and connections to the OWASA public sewer system within the developed portion of the service area, to assure that extensions and connections are made in a uniform manner to provide sewer service to all unsewered properties within the service area, to encourage extensions to serve all of the lots without public sewer in the service area, and to minimize to the extent practicable the environmental impact and total costs of such projects.

POLICY:

1. Public sewer service is deemed available to property located adjacent to an OWASA public sewer main, and property located adjacent to an OWASA public sewer main may be connected to that main, upon payment of appropriate acreage, connection, availability and footage fees.
2. Public sewer service is not deemed available to property not located adjacent to an OWASA public sewer main. Such service will be provided by OWASA only if the property owner extends the OWASA public main to a point adjacent to such property, and dedicates to OWASA an easement across the property as required for the future orderly development of the system.
3. OWASA staff shall review each sewer main connection or extension request in light of the need in the affected area for extension of public sewer service, and where appropriate, shall recommend to the Board of Directors its opinion as to the need for an assessment project to serve the entire drainage subarea. Reports of extension and connection requests shall be provided to the Board of Directors on a quarterly basis.
4. In general, sewer extension projects, to the extent determined practicable, constructed by OWASA should be planned, designed, and constructed so as to provide acceptable public sewer service adjacent to every lot within the affected area which is not connected to the public sewer system in accordance with current policy.

OWASA may not extend public sewer mains adjacent to lots already connected to an OWASA public sewer in a manner satisfactory to OWASA or to a lot made undevelopable by recorded instrument suitable to the Authority.

The Executive Director shall implement regulations which govern whether an existing sewer service connection is satisfactory, and under what conditions particular lots in an area service may be omitted from an extension project. No lot within the area affected shall be deleted from an extension project unless its deletion shall be determined to serve the public interest in light of the following factors, and any other factor, material to such a determination:

- a) Whether the lot is presently served by an adequate, serviceable connection, including the manner in which the connection is made; whether the physical connection was lawfully made originally; and any other information relating to the useful life and integrity of the lateral or connection;
- b) The topographic and geologic conditions of the area; whether the lateral is located within easements established by written, recorded legal documents; and whether it is maintained pursuant to an enforceable maintenance agreement;
- c) The proximity of the lot to the sewer main to be constructed, it being the intent of the Authority after adoption of a Final Assessment Resolution not to allow exceptions where they may be sought in order to avoid the present assessment in anticipation that the costs of constructing the future extension may be less than the present assessment;
- d) Whether the extension necessary to serve the affected lot may avoid otherwise necessary clearing, grading, or other undesirable impacts upon the natural environment;
- e) Whether deletion of the lot requested would impair the ability of the Authority to provide for the future orderly development of the system;
- f) Whether all fees and charges, including availability and connection fees and monthly service and commodity charges, have been paid for the existing connection;
- g) Whether the owner of the lot to be deleted is willing to agree not to permit any other connections to the existing lateral, and that there will be no further subdivision of the lot, and that there will be no other dwelling units on the premises during the period the private lateral continues in use, and that the property will be properly connected to the new sewer main at his expense if and when one is constructed adjacent to the property;
- h) For undeveloped lots to be deleted, whether the lot is or may be developed with improvements requiring sanitary sewer service.

5. The Executive Director shall develop, and after review and approval by the Board implement regulations under which, with the consent of the lot owner, OWASA may acquire an easement for the future installation of a sewer main to serve lot(s) to be omitted at the owner(s) request from the benefited area of a present assessment project; provided the lot owner(s) shall acknowledge responsibility for the costs of the future extension through the easement.

6. In general, lots having existing, direct, serviceable sewer connections to an OWASA main, and which have paid applicable acreage and connection fees, but which are not connected in accordance with current OWASA policy, will be removed from the assessment roll and treated as a rehabilitation project if they connect at their expense to the OWASA main in accordance with current OWASA policy within ninety days of notice of confirmation of the final assessment roll for that project.

7. In emergency circumstances, such as those arising from failure of existing septic treatment facilities, a lot may be connected by a lateral extended to an existing OWASA sewer main, at the expense of the lot owner, as a variance to this connection policy, provided the lot owner contractually agrees to reconnect to the public main at his expense if one is later extended adjacent to his lot, and to pay a one-lot assessment in the amount assessed against other lots in the benefited area of the assessment extension project by which the main is extended adjacent to his property, less credit for the acreage and connection fees required for the emergency connection.

In the event the main is later extended to a point adjacent to a lot which was earlier permitted as an emergency connection, the emergency connection shall be disconnected, and the lot shall reconnect to the main adjacent to his property, both at the expense of the lot owner. If it becomes necessary for OWASA to disconnect and reconnect the lot, OWASA's reasonable charges therefore may be added to the monthly service bill for the lot.

8. Subdivided lots which were created from the division of a larger lot which was part of the benefitted area of a previous sewer assessment project may be required to pay, in addition to availability and tap fees, an access fee for each new connection made to OWASA built mains which were constructed under a subsidized assessment project.

9. The Executive Director shall develop and upon approval by the Board of Directors, implement a program to encourage property owners to connect to new sewer lines extended adjacent to their properties. This program may include financial incentives or assistance with initial charges to installation and connection of house mains and laterals.

10. The Executive Director shall investigate sewer service alternative to gravity service during the conceptual design phase of extending sewer service to existing neighborhoods. Typical alternatives include but are not limited to pressure, vacuum systems, and step systems.

INTERPRETATION:

Implementation and interpretations of the *Policy on the Extension of Sewer Service to Existing Neighborhoods* is the responsibility of the Executive Director and the administrative staff. The Executive Director shall establish and implement regulations for the extension of the

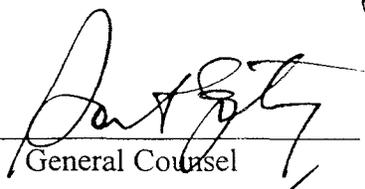
sewer system. Such regulations are to be uniformly and equitably implemented but deviations may be approved by the Executive Director for unusual technical situations.

APPEALS:

The appeal of decisions or interpretations of the Executive Director regarding the implementation of the *Policy on the Extension of Sewer Service to Existing Neighborhoods* may be made in writing to the Board of Directors of the Orange Water and Sewer Authority. The appeal should state clearly and specifically the relief sought and reasons therefore.

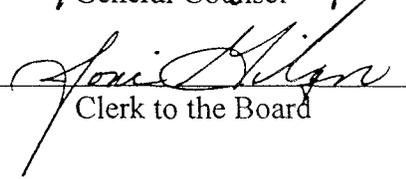
Reviewed by General Counsel:

3-15-95
Date


General Counsel

Adopted by the Board:

03/09/95
Date


Clerk to the Board

ORANGE WATER AND SEWER AUTHORITY
POLICY ON SEWER LINES CROSSING
CREEKS AND EASEMENTS

I. PURPOSE

The purpose of this policy is to set forth the conditions and standards for the extension of public sewer collectors, sewer mains and private service laterals which require the crossing of creeks, streams or easement.

II. GENERAL PRINCIPLES

A. The extension of sewer service from the system of the Authority shall be in accordance with the policies, standards and fees established by the Orange Water and Sewer Authority.

B. Extension of service consists of:

1. construction of new sewer collectors, interceptors, mains, laterals and appurtenances to serve the property.
2. the connection of a private sewer lateral to the main sewer line.

C. The crossing of creeks and streams with sewer lines could result in environmental problems if the line is damaged or fails. If there is a reasonable and feasible alternative for the provision of sewer service, approval for the crossing of creeks and streams with private sewer service lines will not be granted.

III. GLOSSARY

SEWER LATERAL. The sewer lateral is the pipe which connects the building to the collector sewer located in the street or easement. It is usually four inches in diameter and serves a single building unit. In the OWASA system, the sewer lateral is owned and maintained by the property owner.

SEWER COLLECTOR. The sewer collector is the pipe which receives wastewater from one or more sewer laterals. The minimum diameter of the collector sewer is eight (8) inches. The collector sewer is owned and maintained by the Authority.

SEWER MAINS. The sewer main is the pipe which receives wastewater from one or more collector sewers. The term is herein used to mean interceptors, mains and collector sewers. The sewer mains are owned and maintained by the Authority.

SEWER INTERCEPTOR. The interceptor sewer is the pipe which receives wastewater from the sewer mains and collectors and conveys it to the wastewater treatment plant. The interceptor sewer is owned and maintained by the Authority.

IV. EXTENSION OF SEWERS ACROSS CREEKS AND EASEMENTS

Sewer mains shall be extended in a manner such that each lot or parcel to be served shall have a public sewer extended on or immediately adjacent to such property in such a manner that the sewer lateral or laterals serving the building or buildings on the property may be tied directly into the public sewer.

Each building, even if on property of single ownership, connecting to the sewer system of the Authority shall be served by a separate sewer lateral. Gravity sewer laterals shall not be less than four inches in diameter and shall be tied directly to the public sewer main. If a pumped lateral is required because of topography it shall discharge into a gravity sewer lateral whenever possible.

Due to the topographical characteristics of certain areas, public sewer mains and/or private sewer laterals may need to cross a creek, stream or easement in order to connect with the facilities of the Authority. Where there is a reasonable and feasible alternative for the provision of sewer service, OWASA will not approve the crossing of creeks and streams with private sewer service lines.

Where approval for a stream crossing is granted, the sewer line design shall place the pipe below the level of the stream bed. Where it is not possible to install the pipe below the stream bed aerial crossing of the creek or stream will be considered. All aerial crossings of a creek or stream, whether public or private, shall be designed and constructed so that their placement does not adversely affect the quality or capacity of the stream flow or the carrying capacity of the water course.

Design and construction of all sewer mains and laterals shall be in accordance with the Orange Water and Sewer Authority's Standards for Construction of Water Distribution and Wastewater Collection Systems and where applicable the requirements of the Plumbing Inspector of the governing jurisdiction. The specifications shall include the size of all lines, their location, grade, materials used, manner of installation, type of support and such other specifications deemed necessary by the Authority.

When a private sewer lateral is installed within or crosses an easement that will receive vehicular traffic, the lateral will be constructed of ductile iron pipe material and installed at a depth which provides sufficient protection from damage due to traffic loads or be placed within a casing or other protective arrangement suitable to the Authority.

For newly constructed facilities the applicant is solely responsible for the cost and construction of the improvements. The applicant may be required to modify, rearrange or do over any work to bring it into conformity with the Authority's Standards and Specifications.

In the case of existing private sewer service laterals crossing creeks or streams, serving a single customer, which are found to be deficient the Executive Director may determine the apportionment of costs for reconstructing the deficient private laterals to bring them into conformance with the Authority's standards or provide a reasonable alternative for service. If the deficient private sewer service laterals are wholly within the customer's property the property owner will be solely responsible for the cost of the reconstruction.

V. INTERPRETATION AND REVISIONS

Implementation and interpretation of the Policy on Sewer Lines Crossing Creeks and Easements is the responsibility of the Executive Director and the administrative staff.

VI. APPEALS

Decisions or interpretations of the Executive Director and/or the administrative staff regarding the implementation of the Policy on Sewer Lines Crossing Creeks and Easements may be appealed in writing to the Authority Board of Directors. The appeal should state clearly and specifically the matters in dispute, the relief sought and reasons therefor.

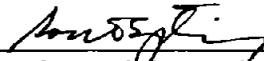
VII. APPENDIX

- A. OWASA Standard Specifications for Water Distribution and Wastewater Collection Systems
- B. OWASA Policy on the Extension of Sewer Service to Undeveloped Areas
- C. North Carolina Plumbing Code
- D. OWASA Policy for the Control of Connections to the Public Sanitary Sewerage System
- E. OWASA Policy on the Extension of Sewer Service to Existing Neighborhoods

Orange Water and Sewer Authority
Policy on Sewer Lines Crossing Creeks and Easements
Page 4

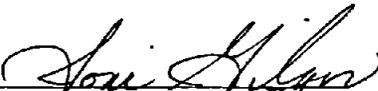
Reviewed by General Counsel:

2-8-96
Date


General Counsel

Adopted by the Board:

1/11/96
Date


Clerk of the Board

**GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2019**

**SESSION LAW 2020-61
HOUSE BILL 873**

AN ACT TO CLARIFY THE TIMING OF COLLECTION OF SYSTEM DEVELOPMENT FEES AND TO REQUIRE THE DEPARTMENT OF ENVIRONMENTAL QUALITY TO AMEND A RULE THAT CURRENTLY ALLOWS A SEWER THAT SERVES A SINGLE BUILDING TO BE DEEMED PERMITTED, TO ALLOW A SEWER SHARED WITH AN ACCESSORY BUILDING ON THE SAME PROPERTY TO BE DEEMED PERMITTED AS WELL.

The General Assembly of North Carolina enacts:

SECTION 1.(a) G.S. 162A-213(a)a. is recodified as G.S. 162A-213(a)(1).

SECTION 1.(b) G.S. 162A-213(a)b. is recodified as G.S. 162A-213(a)(2).

SECTION 1.(c) G.S. 162A-213(b)a. is recodified as G.S. 162A-213(b)(1).

SECTION 1.(d) G.S. 162A-213(b)b. is recodified as G.S. 162A-213(b)(2).

SECTION 2.(a) G.S. 162A-213, as amended by Section 1 of this act, reads as

rewritten:

"§ 162A-213. Time for collection of system development fees.

(a) Land Subdivision. – For new development involving the subdivision of land, the system development fee shall be collected by a local governmental unit at the later of either of the following:

(1) The time of ~~plat recordation~~ application for a building permit.

(2) When water or sewer service is committed by the local governmental unit.

(b) Other New Development. – For all other new development, the local governmental unit shall collect the system development fee at the earlier of either of the following:

(1) The time of application for connection of the individual unit of development to the service or facilities.

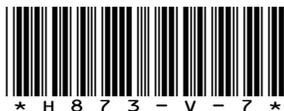
(2) When water or sewer service is committed by the local governmental unit.

(c) If the system development fee is collected under subdivision (a)(1) of this section and the local governmental unit that charges or assesses the system development fee is different from the local governmental unit that issues the building permit, the local governmental unit issuing the building permit shall require proof of collection of the system development fee prior to issuance of the building permit.

(d) No system development fee shall be charged or assessed with respect to any new development for which a system development fee under this Article has been collected at the time of plat recordation involving the subdivision of land and the amount of capacity associated with that payment of the system development fee has not increased at the time of application for the building permit. If the amount of capacity is increased at the time of application for a building permit, then a system development fee may be charged for the difference in the amount of the increased capacity minus the system development fee previously paid under this Article."

SECTION 2.(b) This section becomes effective January 1, 2021, and applies to system development fees collected on or after that date.

SECTION 3.(a) G.S. 162A-211 is amended by adding a new subsection to read:



"(a1) Revenue from system development fees calculated using the combined cost method may be expended for previously completed capital improvements for which capacity exists and for capital rehabilitation projects."

SECTION 3.(b) This section becomes effective July 1, 2020, and applies to system development fees expended or encumbered on or after that date.

SECTION 4.(a) Definitions. – For purposes of this section and its implementation, the following definitions apply:

- (1) "Permitting by Regulation for Building Sewer Systems Rule " means 15A NCAC 02T .0303 (Permitting by Regulation).
- (2) "Accessory building" means in one- and two-family dwellings not more than three stories above grade plane in height with a separate means of egress, a building, the use of which is incidental to that of the main building and which is detached and located on the same lot. An accessory building is a building that is roofed over and more than fifty percent (50%) of its exterior walls are enclosed. Examples of accessory buildings are garages, storage buildings, workshops, boat houses, treehouses, and dwelling units, etc. For purposes of this section, "main building" shall only include one- and two-family dwellings.
- (3) "Building sewer" means that part of the drainage system that extends from the end of the building drain and conveys the discharge by gravity or under pressure to a public sewer, private sewer, individual sewage disposal system, or other point of disposal.
- (4) "Lot" means a portion or parcel of land considered as a unit.

SECTION 4.(b) Permitting by Regulation for Building Sewer Systems Rule. – Until the effective date of the revised permanent rule that the Environmental Management Commission is required to adopt pursuant to subsection (d) of this section, the Commission shall implement the Permitting by Regulation for Building Sewer Systems Rule as provided in subsection (c) of this section.

SECTION 4.(c) Implementation. – Notwithstanding the requirements of General Permit No. WQG100000 and the limitation on applicability of 15A NCAC 02T .0303(a)(1), (a)(2), and (a)(3) to a building sewer that serves a single building, if a building sewer that serves a main building is deemed permitted pursuant to 15A NCAC 02T .0113, then a building sewer that serves an accessory building on the same lot that is connected to the building sewer for the main building, and a sewer shared between a main building and an accessory building, shall also be deemed permitted if the building sewer that serves the accessory building, and the sewer shared between the main building and the accessory building, meet the criteria in 15A NCAC 02T .0113 and all criteria required for that system in 15A NCAC 02T .0303, and no additional permit shall be required. This section shall only apply to sewers that serve one main building and one accessory building on the same lot.

SECTION 4.(d) Additional Rule-Making Authority. – The Commission shall adopt a rule to amend the Permitting by Regulation for Building Sewer Systems Rule consistent with subsection (c) of this section. Notwithstanding G.S. 150B-19(4), the rule adopted by the Commission pursuant to this section shall be substantively identical to the provisions of subsection (c) of this section. Rules adopted pursuant to this section are not subject to Part 3 of Article 2A of Chapter 150B of the General Statutes. Rules adopted pursuant to this section shall become effective as provided in G.S. 150B-21.3(b1), as though 10 or more written objections had been received as provided in G.S. 150B-21.3(b2).

SECTION 4.(e) Applicability and Sunset. – This section and rules adopted pursuant to this section shall apply to common sewer lines in existence on, or constructed on or after, the effective date of this act, which are shared by accessory dwelling units or accessory residential

buildings and a primary residence. This section expires when permanent rules adopted as required by subsection (d) of this section become effective.

SECTION 5. Except as otherwise provided, this act is effective when it becomes law.

In the General Assembly read three times and ratified this the 24th day of June, 2020.

s/ Philip E. Berger
President Pro Tempore of the Senate

s/ Tim Moore
Speaker of the House of Representatives

s/ Roy Cooper
Governor

Approved 12:23 p.m. this 30th day of June, 2020

ORANGE WATER AND SEWER AUTHORITY

SEWER USE ORDINANCE



~~Approved January 9, 2020~~TBD
Revised December 10, 2020

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OWASA SEWER USE ORDINANCE

SECTION 1 - GENERAL PROVISIONS

1.1 Purpose and Policy

This ordinance sets forth uniform requirements for users of the Publicly Owned Treatment Works for the Orange Water and Sewer Authority, hereinafter referred to as OWASA, to comply with all applicable State and Federal laws, including the Clean Water Act (33 United States Code § 1251 et seq.) and the General Pretreatment Regulations (40 Code of Federal Regulations Part 403). The objectives of this ordinance are:

- A. To prevent the introduction of pollutants and wastewater discharges into the publicly Owned Treatment Works that will interfere with its operation or contaminate the resulting biosolids;
- B. To prevent the introduction of pollutants and wastewater discharges into the Publicly Owned Treatment Works that will pass through the Publicly Owned Treatment Works, inadequately treated, into receiving waters, or otherwise be incompatible with the Publicly Owned Treatment Works;
- C. To promote reuse and recycling of reclaimed water and biosolids from the Publicly Owned Treatment Works;
- D. To protect both Publicly Owned Treatment Works personnel who may be affected by wastewater and sludge in the course of their employment and the general public;
- E. To provide for fees for the equitable distribution of the cost of operation, maintenance, and improvement of the Publicly Owned Treatment Works; and
- F. To enable OWASA to comply with its National Pollutant Discharge Elimination System permit conditions, biosolids and sludge use and disposal requirements, reclaimed water use and requirements, and any other Federal or State laws to which the Publicly Owned Treatment Works is subject.

This ordinance shall apply to all users of the Publicly Owned Treatment Works. The ordinance authorizes the issuance of wastewater discharge permits; provides for monitoring, compliance, and enforcement activities; establishes administrative review procedures; requires user reporting; and provides for the setting of fees for the equitable distribution of costs resulting from the program established herein.

1.2 Administration

Except as otherwise provided herein, the Executive Director shall administer, implement, and enforce the provisions of this ordinance. Any powers granted to or duties imposed upon the Executive Director may be delegated by the Executive Director to other OWASA personnel.

1.3 Abbreviations and Definitions

A. The following abbreviations, when used in this ordinance, shall have the designated meanings:

- BOD - Biochemical Oxygen Demand
- cBOD - Carbonaceous Biochemical Oxygen Demand
- CFR - Code of Federal Regulations
- COD - Chemical Oxygen Demand
- CWA - Clean Water Act
- NC DEQ – North Carolina Department of Environmental Quality
- DWR - Division of Water Resources, North Carolina Department of Environmental Quality
- EPA - U.S. Environmental Protection Agency
- gpd - gallons per day
- mg/l - milligrams per liter
- NCAC – North Carolina Administrative Code
- NCGS - North Carolina General Statutes
- NPDES -National Pollutant Discharge Elimination System
- O&M - Operation and Maintenance
- POTW - Publicly Owned Treatment Works
- RCRA - Resource Conservation and Recovery Act
- SIC - Standard Industrial Classification
- SIU – Significant Industrial User
- SU – Standard Unit
- TKN - Total Kjeldahl Nitrogen
- TRC – Technical Review Criteria
- TSS - Total Suspended Solids
- U.S.C. - United States Code

B. Unless a provision explicitly states otherwise, the following terms and phrases, as

used in this ordinance, shall have the meanings hereinafter designated:

1. Act or "the Act." The Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C. § 1251 *et seq.*
2. Administrator. The deputy, agent, or representative authorized by the Board of Directors of OWASA to act in behalf of OWASA in regard to implementation and enforcement of this Ordinance.
3. Approval Authority. The Director of the Division of Water Resources of the North Carolina Department of Environmental Quality or a duly authorized representative.
4. Authorized Representative of the User.
 - (a) If the user is a corporation:
 - (1) The president, secretary, treasurer, or a vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
 - (2) The manager of one or more manufacturing, production, or operation facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiate and direct comprehensive measures to assure long-term environmental compliance with environmental laws and regulation; can ensure that the necessary systems are established or actions taken to gather complete and accurate information for control mechanism requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate proceedings.
 - (b) If the user is a partnership or sole proprietorship a general partner or proprietor, respectively.
 - (c) If the user is a Federal, State, or local governmental facility: a director or highest official appointed or designated to oversee the operation and performance of the activities of the government facility, or a duly authorized representative.
 - (d) The individuals described in paragraphs a through c, above, may designate another authorized representative if the authorization is in writing, the authorization specifies the individual or position responsible for the overall operation of the facility from which the discharge originates or having

overall responsibility for environmental matters for the company, and the written authorization is submitted to OWASA.

- (e) If the designation of an authorized representative is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, or overall responsibility for environmental matters for the company, a new authorization satisfying the requirements of this section must be submitted to OWASA prior to or together with any reports to be signed by an authorized representative.
- 5. Biochemical Oxygen Demand or BOD. The quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedures for five (5) days at 20° centigrade, usually expressed as a concentration (e.g., mg/l). The term carbonaceous BOD, or cBOD, is the quantity of oxygen utilized in the biochemical oxidation of carbonaceous organic matter under standard laboratory procedures for five days at 20° centigrade.
- 6. Building Sewer. A sewer conveying wastewater from the premises of a user to the POTW.
- 7. Categorical Pretreatment Standard or Categorical Standard. Any regulation containing pollutant discharge limits promulgated by EPA in accordance with Sections 307(b) and (c) of the Act (33 U.S.C. § 1317) which apply to a specific category of users and which appear in 40 CFR Chapter I, Subchapter N, Parts 405-471.
- 8. Environmental Protection Agency or EPA. The U.S. Environmental Protection Agency or, where appropriate, the Regional Water Management Division Director, or other duly authorized official of said agency.
- 9. Existing Source. Any source of discharge, the construction or operation of which commenced prior to the publication by EPA of proposed categorical pretreatment standards, which will be applicable to such source if the standard is thereafter promulgated in accordance with Section 307 of the Act.
- 10. Grab Sample. A sample which is taken from a waste stream without regard to the flow in the waste stream and over a period of time not to exceed fifteen (15) minutes.
- 11. Indirect Discharge or Discharge. The introduction of pollutants into the POTW from any nondomestic source regulated under Section 307(b), (c), or (d) of the Act, into the POTW.
- 12. Interference. The inhibition, or disruption of the POTW collection system, treatment processes, operations, its sludge or biosolids processes, reclaimed water system, use or disposal which causes or contributes to collection system

treatment processes or operations or its sludge and biosolids processes, use or disposal; and therefore, is a cause of a violation of OWASA's collection system and/or NPDES permits or of the prevention of sewage sludge or biosolids use or reclaimed water system requirements or disposal in compliance with any of the following statutory/regulatory provisions or permits issued thereunder, or any more stringent State or local ordinances: Section 405 of the Act; the Solid Waste Disposal Act, including Title II commonly referred to as the Resource Conservation and Recovery Act (RCRA); any State regulations contained in any State sludge or biosolids management plan prepared pursuant to Subtitle D of the Solid Waste Disposal Act; the Clean Air Act; the Toxic Substances Control Act; and the Marine Protection, Research, and Sanctuaries Act.

13. Medical Waste. Isolation wastes, infectious agents, human blood and blood products, pathological wastes, sharps, body parts, contaminated bedding, surgical wastes, and potentially contaminated laboratory wastes.

14. New Source.

- (a) Any building, structure, facility, or installation from which there is (or may be) a discharge of pollutants, the construction of which commenced after the publication of proposed pretreatment standards under Section 307(c) of the Act which will be applicable to such source if such standards are thereafter promulgated in accordance with that section, provided that:
 - (1) The building, structure, facility, or installation is constructed at a site at which no other source is located; or
 - (2) The building, structure, facility, or installation totally replaces the process or production equipment that causes the discharge of pollutants at an existing source; or
 - (3) The production or wastewater generating processes of the building, structure, facility, or installation are substantially independent of an existing source at the same site. In determining whether these are substantially independent, factors such as the extent to which the new facility is integrated with the existing plant, and the extent to which the new facility is engaged in the same general type of activity as the existing source, shall be considered.
- (b) Construction on a site at which an existing source is located results in a modification rather than a new source if the construction does not create a new building, structure, facility, or installation meeting the criteria of Section (1) (2) or (3) above but otherwise alters, replaces, or adds to existing process or production equipment.

- (c) Construction of a new source as defined under this paragraph has commenced if the owner or operator has:
- (1) Begun, or caused to begin, as part of a continuous onsite construction program;
 - (i) any placement, assembly, or installation of facilities or equipment;
or
 - (ii) significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or
 - (2) Entered into a binding contractual obligation for the purchase of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under this paragraph.
15. Noncontact Cooling Water. Water used for cooling which does not come into direct contact with any raw material, intermediate product, waste product, or finished product.
16. OWASA. The Orange Water and Sewer Authority, Carrboro, North Carolina acting through its Board of Directors.
17. Pass Through. A discharge which exits the POTW into waters of the States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, causes a violation, including an increase in the magnitude or duration of a violation, of any requirement of OWASA's NPDES, collection system permit, or a downstream water quality standard even if not included in the permit.
18. Person. Any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity, or any other legal entity; or their legal representatives, agents, or assigns. This definition includes all Federal, State, and local governmental entities.
19. pH. A measure of the intensity of the acid or base condition of a solution, expressed in standard units. A value of 7 is neutral, below 7 is acidic, and above 7 is basic.
20. Pollutant. Dredged spoil, solid waste, incinerator residue, filter backwash,

sewage, garbage, sewage sludge, munitions, medical wastes, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, municipal, agricultural and industrial wastes, and certain characteristics of wastewater (e.g., pH, temperature, TSS, turbidity, color, metals, BOD, COD, toxicity, and/or odor).

21. Pretreatment. The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to, or in lieu of, introducing such pollutants into the POTW collection system and/or treatment plant. This reduction or alteration can be obtained by physical, chemical, or biological processes; by process changes; or by other means, except by diluting the concentration of the pollutants unless allowed by an applicable pretreatment standard.
22. Pretreatment Requirements. Any substantive or procedural requirement related to pretreatment imposed on a user, other than a pretreatment standard.
23. Pretreatment Standards or Standards. Pretreatment standards shall mean prohibited discharge standards, categorical pretreatment standards, or local limit.
24. Prohibited Discharge Standards or Prohibited Discharges. Absolute prohibitions against the discharge of certain substances; these prohibitions appear in Section 2.2 of this ordinance and are developed under the authority of 307(b) of the Act and 40 CFR, Section 403.5.
25. Publicly Owned Treatment Works or POTW. A "treatment works," as defined by Section 212 of the Act (33 U.S.C. §1292) which is owned by OWASA. This definition includes any devices or systems used in the collection, storage, treatment, recycling, and reclamation of sewage or industrial wastes of a liquid nature and any conveyances which convey wastewater to a treatment plant.
26. Septic Tank Waste. Any sewage from holding tanks such as vessels, chemical toilets, campers, trailers, and septic tanks.
27. Sewage. Human excrement and gray water (household showers, dishwashing operations, etc.).
28. Shall is mandatory, and requires compliance: May is permissive and compliance is subject to the discretion of OWASA.
29. Significant Industrial User or SIU.
 - (a) A user subject to categorical pretreatment standards; or
 - (b) A user that:

- (1) discharges an average of twenty-five thousand (25,000) gpd or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blowdown wastewater); or
 - (2) contributes a process waste stream which makes up five (5) percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or
 - (3) is designated as such by OWASA on the basis that it has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement; or
 - (4) is found by OWASA, the Division of Water Resources or the U.S. Environmental Protection Agency (EPA) to have the potential for impact, either singly or in combination with other contributing industrial users, on the wastewater treatment system, the quality of sludge or biosolids, the system's effluent quality, or compliance with any pretreatment standards or requirements.
- (c) Upon a finding that a user meeting the criteria in Subsection (b) has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, OWASA may at any time, on its own initiative or in response to a petition received from a user, and in accordance with procedures in 40 CFR 403.8(f)(6), determine that such user should not be considered a significant industrial user.
30. Slug Load or Discharge. Any discharge which in concentration of any given constituent or in quantity of flow has a reasonable potential to cause interference or pass-through, or in any other way violates the POTW's regulations, local limits, or User Permit conditions. This can include but is not limited to spills and other accidental discharges; discharges of a non-routine, episodic nature; a non-customary batch discharge; or any other discharge that can cause a violation of the prohibited discharge standards in Section 2.2 of this ordinance.
31. Standard Industrial Classification (SIC) Code. A classification pursuant to the Standard Industrial Classification Manual issued by the United States Office of Management and Budget.
32. State. State of North Carolina.
33. Storm Water. Any flow occurring during or following any form of natural precipitation, and resulting from such precipitation, including snowmelt.

34. Total Suspended Solids. The total suspended matter that floats on the surface of, or is suspended in, water, wastewater, or other liquid, and which is removable by laboratory filtering.
35. User or Industrial User. A source of indirect discharge.
36. Wastewater. Liquid and water-carried industrial wastes and sewage from residential dwellings, commercial buildings, industrial and manufacturing facilities, and institutions, whether treated or untreated, which are contributed to the POTW.
37. Wastewater Treatment Plant or Treatment Plant. That portion of the POTW which is designed to provide treatment of municipal sewage and other compatible wastewater.
38. Waters of the State. All streams, rivers, brooks, swamps, sounds, tidal estuaries, bays, creeks, lakes, waterways, reservoirs and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private.

SECTION 2 - GENERAL SEWER USE REQUIREMENTS

2.1 Building Sewers and Connections

No unauthorized person(s) shall uncover, make any connections with or opening into, use, alter, or disturb any public sewer or appurtenance thereof without first obtaining written approval from the Administrator. ~~All costs and expenses incidental to the installation and connection of the building sewer shall be borne by the Owner(s). The Owner(s) shall indemnify OWASA from any loss or damage that may directly or indirectly be occasioned by the installation of the building sewer provided, however, that such indemnification shall not extend to loss or damage due solely to willful misconduct or negligence on the part of OWASA. Excluding industrial plant sites or other sites which have written approval from the Administrator for single discharge points, a separate and independent building sewer shall be provided for every building, except where one building stands at the rear of another on an interior lot and no private sewer is available or can be constructed to the rear building through an adjoining alley, courtyard, or driveway. The front building may be extended to the rear building and the whole considered as one building sewer; but OWASA does not and will not assume any obligation or responsibility for damage caused by or resulting from any such single connection aforementioned. Old building sewers may be used in connection with new buildings only when they are found, on examination and test by the Administrator, to meet all requirements of this ordinance. Existing building sewers may be kept in service if, in the opinion of the Administrator, they are in acceptable structural condition and operate satisfactorily. All new building sewers, including any necessary replacement of existing building sewers, must comply with the state plumbing code. The connection of the building sewer into the public sanitary sewer shall be made in accordance with the Sewer Extension Policy of OWASA.~~

No person(s) shall make connection of roof downspouts, foundation drains, areaway drains, or other sources of infiltration/inflow to a public sanitary sewer or to a building sewer or building drain which in turn is connected directly or indirectly to a public sanitary sewer. Connection of building sewers to OWASA public sewer mains and continued provision of sewer service are conditioned on adherence to the OWASA "Policy on Extension of Sewer Mains and Sewer Laterals."

~~It shall be the responsibility of the property owner to keep and maintain the building sewer connected to the public sewer in good repair. The Owner shall be responsible for making necessary repairs, at the Owner's own expense, to the building sewer when notified in writing by the Administrator that repairs are necessary. Should the Owner fail to repair the building sewer within 60 days after receiving written notification by the Administrator that such repairs are necessary, OWASA may make the necessary repairs to the building sewer and shall assess the Owner for the cost of the repairs.~~

Grease, oil, and sand interceptor sewers shall be provided when, in the opinion of the Administrator, they are necessary for the proper handling of liquid wastes containing floatable oil, sand, or other harmful ingredients; except that such interceptors shall not be required for private living quarters or dwelling units. All grease, oil, and sand interceptors shall be of a type and capacity approved by the Administrator and shall be located as to be readily and easily accessible for cleaning and inspection. Where installed, all grease, oil and sand interceptors shall be maintained by the Owner(s) at the Owner(s) expense in continuously efficient operation at all times. In the maintaining of these interceptors, the Owner(s) shall be responsible for the proper

Commented [JG2]: This text is more appropriate within the proposed "Policy on Extensions of Sewer Mains and Sewer Laterals" and is proposed for relocation there.

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Commented [JG4]: This text is more appropriate within the proposed "Policy on Extensions of Sewer Mains and Sewer Laterals" and is proposed for relocation there.

Commented [JG5]: This text is proposed as a cross reference to assist the community in navigating OWASA requirements.

Commented [JG6]: This text is more appropriate within the proposed "Policy on Extensions of Sewer Mains and Sewer Laterals" and is proposed for relocation there.

removal and disposal by appropriate means of the captured material and shall maintain records of the dates and means of disposal which are subject to review by the Administrator. Any removal and hauling of the collected materials not performed by Owner(s) personnel must be performed by a currently licensed waste disposal firm.

2.2 Prohibited Discharge Standards

- A. General Prohibitions. No user shall contribute or cause to be contributed, directly or indirectly, into the POTW any pollutant or wastewater which causes pass through or interference. These general prohibitions apply to all users of the POTW whether or not they are subject to categorical pretreatment standards or any other National, State, or local pretreatment standards or requirements.
- B. Specific Prohibitions. No user shall contribute or cause to be contributed into the POTW the following pollutants, substances, or wastewater:
1. Pollutants which create a fire or explosive hazard in the POTW, including, but not limited to, waste streams with a closed-cup flashpoint of less than 140°F (60°C) using the test methods specified in 40 CFR 261.21;
 2. Wastewater having a pH less than 6.0 or greater 10.0, or otherwise, having any corrosive characteristics capable of causing damage or hazard to treatment processes, structures, equipment and/or personnel of the POTW;
 3. Trucked or hauled pollutants, except at discharge points designated by the Administrator in accordance with Section 3.4 of this ordinance;
 4. Solid or viscous substances which may cause obstruction to the flow in a sewer or other interference with the operation of the POTW such as, but not limited to: floatable oil, garbage with particles greater than one-half inch (1/2") in any dimension, animal guts or tissues, paunch manure, bones, hair, hides or fleshings, entrails, whole blood, feathers, ashes, cinders, sand, spent lime, stone or marble dust, pottery, casting clays, metal, glass, straw, shavings, grass clippings, rags, flushable wipes, spent grains, spent hops, waste paper, wood, plastics, gas, tar, asphalt residues, residues from refining or processing of fuel or lubricating oil, mud or glass grinding or polishing wastes;
 5. Pollutants, including oxygen-demanding pollutants (BOD, etc.), released in a discharge at a flow rate and/or pollutant concentration which, either singly or by interaction with other pollutants, will cause interference with the POTW;
 6. Wastewater having a temperature greater than 150°F (66°C), or which will inhibit biological activity in the treatment plant resulting in interference, but in no case wastewater which causes the temperature at the introduction into the treatment plant to exceed 104°F (40°C);
 7. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin, in

amounts that will cause interference or pass through;

8. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems;
9. Hazardous waste as defined under 40 CFR Part 261;
10. Wastewater causing the treatment plant effluent to violate State Water Quality Standards for toxic substances as described in 15A NCAC 2B .0200;
11. Noxious or malodorous liquids, gases, solids, or other wastewater which, either singly or by interaction with other wastes, are sufficient to create a public nuisance or a hazard to life, or to prevent entry into the sewers for maintenance or repair;
12. Wastewater which imparts color which cannot be removed by the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions, which consequently imparts color to the treatment plant's effluent, thereby violating OWASA's NPDES permit;
13. Wastewater containing any radioactive wastes or isotopes except as specifically approved by the Administrator in compliance with applicable State or Federal regulations;
14. Storm water, surface water, ground water, artesian well water, roof runoff, subsurface drainage, swimming pool drainage, condensate, deionized water, noncontact cooling water, and unpolluted wastewater, unless specifically authorized by the Administrator;
15. No elevator sump, dumpster pad; heating, ventilating, and air conditioning (HVAC) condensate; or swimming pool filter backwash connection shall be installed or used by a user connected to the OWASA wastewater system unless first reviewed and approved by the Administrator (see section 2.9 for Guidelines);
16. Sludges, screenings, or other residues from the pretreatment of industrial wastes;
17. Medical wastes, except as specifically authorized by the Administrator in a wastewater discharge permit;
18. Materials containing ammonia, ammonia salts or other chelating agents which will produce metallic complexes that interfere with the POTW;
19. Wastewater causing, alone or in conjunction with other sources, the treatment plant's effluent to fail a toxicity test or violate any applicable Water Quality Standards;
20. Recognizable portions of the human or animal anatomy;

21. Wastes containing detergents, surface-active agents, or other substances which may cause excessive foaming in the POTW;
22. Fats, oils, or greases of animal or vegetable origin in concentrations greater than 325 mg/l, as identified by EPA Method 1664 or 275 mg/l as identified by EPA Method 413 unless authorized by the Administrator;
23. Wastewater causing two readings on an explosion hazard meter at the point of discharge into the POTW, or at any point in the POTW, of more than five percent (5%) or any single reading over ten percent (10%) of the Lower Explosive Limit of the meter. Materials specifically prohibited from discharge into the POTW include gasoline, kerosene, naphtha, fuel oil, paints, solvents, or any other substance which may cause a fire or explosives hazards to the POTW;
24. Any substance which may cause the POTW's effluent or any other product of the POTW such as residues, sludges, biosolids, or scums, to be unsuitable for reclamation and reuse or to interfere with the reclamation process. In no case, shall a substance discharged to the POTW cause the POTW to be in noncompliance with sludge or biosolids use or disposal regulations or permits issued under Section 405 of the Act; the Solid Waste Disposal Act, the Clean Air Act, the Toxic Substances Control Act, or State criteria applicable to the biosolids management method being used.

Pollutants, substances, or wastewater prohibited by this section shall not be processed or stored in such a manner that they could be discharged to the POTW.

2.3 National Categorical Pretreatment Standards

Users subject to categorical pretreatment standards are required to comply with applicable standards as set out in 40 CFR Chapter I, Subchapter N, Parts 405-471, which are hereby incorporated by reference.

- A. Where a categorical pretreatment standard is expressed only in terms of either the mass or the concentration of a pollutant in wastewater, the Administrator may impose equivalent concentration or mass limits in accordance with 40 CFR 403.6(c).
- B. When wastewater subject to a categorical pretreatment standard is mixed with wastewater not regulated by the same standard, the Administrator shall impose an alternate limit using the combined wastestream formula in 40 CFR 403.6(e).
- C. A user may obtain a variance from a categorical pretreatment standard if the user can prove, pursuant to the procedural and substantive provisions in 40 CFR 403.13, that factors relating to its discharge are fundamentally different from the factors considered by EPA when developing the categorical pretreatment standard.
- D. A user may obtain a net gross adjustment to a categorical standard in accordance with 40 CFR 403.15.

2.4 State Requirements

State requirements and limitations on discharges shall apply in any case where they are more stringent than Federal requirements and limitations or those in this ordinance.

2.5 Local Limits

Specific pollutant limitations may be established by OWASA through an industrial user permit to prevent discharge of any wastewater which may interfere with the proper operation of the POTW. The following pollutant limits are established to protect against pass through and interference. No person shall discharge wastewater containing in excess of the following average discharge limits unless authorized by OWASA through an individual permit:

- 25.0 mg/l ammonia nitrogen
- 1.5 mg/l antimony
- 0.003 mg/l arsenic
- 205 mg/l cBOD5
- 0.003 mg/l cadmium
- 0.05 mg/l chromium
- 0.061 mg/l copper
- 0.015 mg/l cyanide
- 0.049 mg/l lead
- 0.0003 mg/l mercury
- 0.003 mg/l molybdenum
- 0.021 mg/l nickel
- 0.011 mg/l selenium
- 0.005 mg/l silver
- 40.0 mg/l total kjeldahl nitrogen
- 5.0 mg/l total phenols
- 6.5 mg/l total phosphorus
- 235 mg/l total suspended solids
- 0.175 mg/l zinc

The above limits apply at the point where the wastewater is discharged to the POTW. All concentrations for metallic substances are for "total" metal unless indicated otherwise. The Administrator may impose mass limitations in addition to, or in place of, the concentration-based limitations above.

2.6 Pharmaceutical Waste

Unused pharmaceuticals (both over the counter and prescription only medications) should be disposed of following State and Federal Regulations and using best management practices and

should not be disposed of in the sanitary sewer system. The North Carolina Division of Waste Management's Safe Management of Household Waste Guidance Document states "To avoid the potential risks associated with household hazardous wastes [HHW] it is important that people always monitor the use, storage, and disposal of products with potentially hazardous substances in their homes. Improper disposal of HHW can include pouring them down the drain, on the ground, into storm sewers, or in some cases putting them out with the regular trash.

The dangers of such disposal methods might not be immediately obvious, but improper disposal of these wastes can pollute the environment and pose a threat to human health. Certain types of HHW have the potential to cause physical injury to sanitation workers, contaminate septic tanks or wastewater treatment systems if poured down drains or toilets. They can also present hazards to children and pets if left around the house."

2.7 OWASA's Right of Revision

OWASA reserves the right to establish, by ordinance or in wastewater discharge permits, more stringent standards or requirements on discharges to the POTW.

2.8 Dilution

No user shall ever increase the use of process water, or in any way attempt to dilute a discharge, as a partial or complete substitute for adequate treatment to achieve compliance with a discharge limitation unless expressly authorized by an applicable pretreatment standard or requirement. The Administrator may impose mass limitations on users who are using dilution to meet applicable pretreatment standards or requirements, or in other cases when the imposition of mass limitations is appropriate.

2.9 Guidelines for Elevator Sumps, Dumpster Pads, HVAC Condensate and Swimming Pool Backwash

No elevator sump, dumpster pad, heating, ventilating, and air conditioning (HVAC) condensate, or swimming pool filter backwash connection shall be installed and used by a customer connected to the OWASA wastewater system unless first reviewed and approved by OWASA.

Generally, it is recognized that these discharges are of a minor volume and will not be charged the monthly sewer commodity charge fees. If any of these discharges are of a significant volume, fees will be charged in accordance with the OWASA Schedule of Rates, Fees, and Charges.

Commented [JG7]: Text is proposed to clarify for which fee such discharges are charged.

- A. Elevator Sumps. In a situation where an elevator pit requires a drain or sump that must be connected to the wastewater system, either an oil/water separator or Oil-Minder Control System, or equivalent system, must be installed on the private service line. A plumbing plan showing the connections to the sewer must be submitted to OWASA's Engineering department for review and approval.
- B. Dumpster Pads. In a situation where a solid waste dumpster pad requires a drain to the sewer, the area around the dumpster pad must be graded so that all stormwater drains away from the pad and only the concrete pad itself drains to the sewer. The area of the

dumpster pad should be limited to the minimum dimensions necessary to hold the dumpster. An oil/water separator must be installed on the private service line. A plan showing grading, the oil/water separator, and service line must be submitted to OWASA's Engineering department for review and approval.

- C. HVAC Condensate. In a situation where HVAC condensate treated with a biocide or other form of chemical treatment is proposed to be discharged to the wastewater system, the NCDEQ Division of Water Resources' "Biocide/Chemical Treatment Worksheet – Form 101" or other approved OWASA form must be completed by the applicant and submitted to OWASA. Chemicals used in the treatment on HVAC condensate can be harmful to the biological processes at the WWTP and substances can pass-through the WWTP causing violations of the NPDES permits. Plumbing and site plans showing the connection to the sewer system must also be submitted to OWASA's Engineering department for review and approval.
- D. Swimming Pool Filter Backwash. In a situation where a swimming pool filter backwash system is proposed to discharge to the wastewater collection system, plumbing and site plans showing the connection to the sewer system must be submitted to OWASA's Engineering department for review and approval. Outdoor swimming pool perimeter drains are not allowed to be connected to the wastewater collection system. Swimming pools may not be drained to the sanitary sewer system without prior approval by the Administrator.

SECTION 3 - PRETREATMENT OF WASTEWATER

3.1 Pretreatment Facilities

Users shall provide wastewater treatment as necessary to comply with this ordinance and shall achieve compliance with all categorical pretreatment standards, local limits, and the prohibitions set out in Section 2.2 of this ordinance within the time limitations specified by EPA, the State, or the Administrator, whichever is more stringent. Any facilities necessary for compliance shall be provided, operated, and maintained at the user's expense. Detailed plans describing such facilities and operating procedures shall be submitted to the Administrator for review, and shall be acceptable to the Administrator before such facilities are constructed. The review of such plans and operating procedures shall in no way relieve the user from the responsibility of modifying such facilities as necessary to produce a discharge acceptable to OWASA under the provisions of this ordinance. Any subsequent changes to the pretreatment facilities or method of operations shall be reported to and be acceptable by the Administrator prior to the user's initiation of the changes.

3.2 Additional Pretreatment Measures

- A. Whenever deemed necessary, the Administrator may require users to restrict their discharge during peak flow periods, designate that certain wastewater be discharged only into specific sewers, relocate and/or consolidate points of discharge, separate sewage wastestreams from industrial wastestreams, and such other conditions as may be necessary to protect the POTW and determine the user's compliance with the requirements of this ordinance.
- B. The Administrator may require any person discharging into the POTW to install and maintain, on their property and at their expense, a suitable storage and flow-control facility to ensure equalization of flow. A wastewater discharge permit may be issued solely for flow equalization.
- C. Grease, oil, and sand interceptors shall be provided when, in the opinion of the Administrator, they are necessary for the proper handling of wastewater containing excessive amounts of grease and oil, or sand; except that such interceptors shall not be required for residential users. All interception units shall be of type and capacity approved by the Administrator and shall be so located to be easily accessible for cleaning and inspection. Such interceptors shall be inspected, cleaned, and repaired regularly, as needed, by the user at their expense.
- D. Users with the potential to discharge flammable substances may be required to install and maintain an approved combustible gas detection meter.

3.3 Accidental Discharge/Slug Control Plans

- A. The Administrator shall evaluate whether each significant industrial user needs a plan or other action to control and prevent slug discharges and accidental discharges as defined in Section 1.3(B)(30). All SIUs must be evaluated within one year of being designated an SIU. The Administrator may require any user to develop, submit for

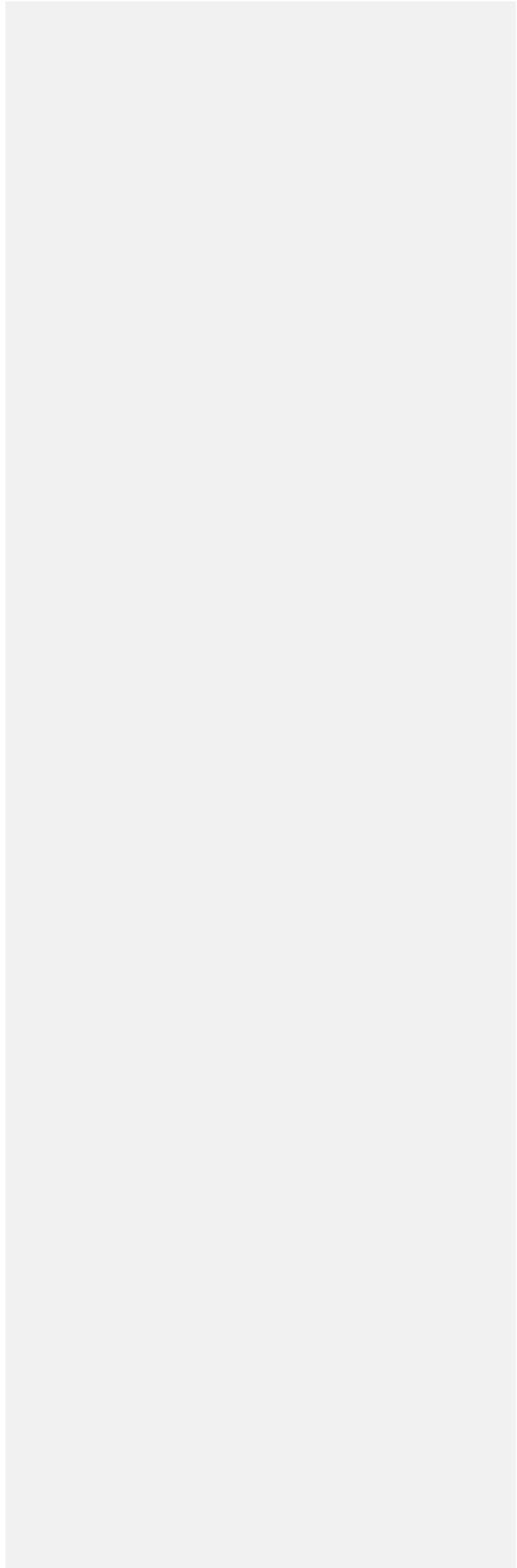
approval, and implement such a plan or other specific action. Alternatively, the Administrator may develop such a plan for any user.

- B. All significant industrial users are required to notify the Administrator immediately of any changes at its facility affecting the potential for spills and other accidental discharge, discharge of non-routine, episodic nature, a non- customary batch discharge, or a slug load. Also, see Sections 6.5 and 6.6.
- C. An accidental discharge/slug control plan shall address, at a minimum, the following:
 - 1. Description of discharge practices, including nonroutine batch discharges;
 - 2. Description of stored chemicals;
 - 3. Procedures for immediately notifying the Administrator of any accidental or slug discharge, as required by Section 6.6 of this ordinance; and
 - 4. Procedures to prevent adverse impact from any accidental or slug discharge. Such procedures include, but are not limited to, inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site runoff, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants, including solvents, and/or measures and equipment for emergency response.

3.4 Hauled Wastewater

- A. Septic tank waste may be introduced into the POTW only at locations designated by the Administrator, and at such times as are established by the Administrator. Such waste shall not violate Section 2 of this ordinance or any other requirements established by OWASA. The Administrator may require septic tank waste haulers to obtain wastewater discharge permits for use of OWASA's facility.
- B. The Administrator shall require haulers of industrial waste to obtain wastewater discharge permits. The Administrator may require generators of hauled industrial waste to obtain wastewater discharge permits. The Administrator also may prohibit the disposal of hauled industrial waste. The discharge of hauled industrial waste is subject to all other requirements of this ordinance.
- C. Industrial waste haulers may discharge loads only at locations designated by the Administrator. No load may be discharged without prior consent of the Administrator. The Administrator may collect samples of each hauled load to ensure compliance with applicable standards. The Administrator may require the industrial waste hauler to provide a waste analysis of any load prior to discharge.
- D. Industrial waste haulers must provide a waste-tracking form for every load. This form shall include, at a minimum, the name and address of the industrial waste hauler, permit number, truck identification, names and addresses of sources of waste, and volume and characteristics of waste. The form shall identify the type of industry,

known or suspected waste constituents, and whether any wastes are RCRA hazardous waste.



SECTION 4 - WASTEWATER DISCHARGE PERMIT APPLICATION

4.1 Wastewater Analysis

It shall be unlawful for any person to connect or discharge to the POTW without first obtaining the permission of OWASA. When requested by the Administrator, a user must submit information on the nature and characteristics of its wastewater within thirty (30) days of the request. The Administrator is authorized to prepare a form for this purpose and may periodically require users to update this information.

4.2 Wastewater Discharge Permit Requirement

- A. No significant industrial user shall discharge wastewater into the POTW without first obtaining a wastewater discharge permit from the Administrator, except that a significant industrial user that has filed a timely application pursuant to Section 4.3 of this ordinance may continue to discharge for the time period specified therein.
- B. The Administrator may require other users to obtain wastewater discharge permits as necessary to carry out the purposes of this ordinance.
- C. Any violation of the terms and conditions of a wastewater discharge permit shall be deemed a violation of this ordinance and subjects the wastewater discharge permittee to the sanctions set out in Sections 10 through 12 of this ordinance. Obtaining a wastewater discharge permit does not relieve a permittee of its obligation to comply with all Federal and State pretreatment standards or requirements or with any other requirements of Federal, State, and local law.

4.3 Wastewater Discharge Permitting: Existing Connections

Any user required to obtain a wastewater discharge permit who was discharging wastewater into the POTW prior to the effective date of this ordinance and who wishes to continue such discharges in the future, shall, within thirty (30) days after said date, apply to the Administrator for a wastewater discharge permit in accordance with Section 4.5 of this ordinance, and shall not cause or allow discharges to the POTW to continue after sixty (60) days of the effective date of this ordinance except in accordance with a wastewater discharge permit issued by the Administrator.

4.4 Wastewater Discharge Permitting: New Connections

Any user required to obtain a wastewater discharge permit who proposes to begin or recommence discharging into the POTW must obtain such permit prior to the beginning or recommencing of such discharge. An application for this wastewater discharge permit, in accordance with Section 4.5 of this ordinance, must be filed at least sixty (60) days prior to the date upon which any discharge will begin or recommence.

4.5 Wastewater Discharge Permit Application Contents

All users required to obtain a wastewater discharge permit must submit a permit application. The Administrator may require all users to submit as part of an application the following information:

- A. All information required by Section 6.1(B) of this ordinance;
- B. Description of activities, facilities, and plant processes on the premises, including a list of all raw materials and chemicals used or stored at the facility which are, or could accidentally or intentionally be, discharged to the POTW;
- C. Number and type of employees, hours of operation, and proposed or actual hours of operation;
- D. Each product produced by type, amount, process or processes, and rate of production;
- E. Type and amount of raw materials processed (average and maximum per day);
- F. Site plans, floor plans, mechanical and plumbing plans, and details to show all sewers, floor drains, and appurtenances by size, location, and elevation, and all points of discharge;
- G. Time and duration of discharges;
- H. Description of current and projected waste reduction activities in accordance with G.S. 143-215.1(g); and
- I. Any other information as may be deemed necessary by the Administrator to evaluate the wastewater discharge permit application. Incomplete or inaccurate applications will not be processed and will be returned to the applicant for revision.

4.6 Application Signatories and Certification

All wastewater discharge permit applications and user reports must be signed by the current authorized representative of the user on file with the Administrator as defined in Section 1.3(B)(4) and contain the following certification statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

4.7 Wastewater Discharge Permit Decisions

The Administrator will evaluate the data furnished by the user and may require additional information. Within sixty (60) days of receipt of a complete wastewater discharge permit application, the Administrator will determine whether or not to issue a wastewater discharge permit. The Administrator may deny any application for a wastewater discharge permit.

SECTION 5 - WASTEWATER DISCHARGE PERMIT ISSUANCE PROCESS

5.1 Wastewater Discharge Permit Duration

A wastewater discharge permit shall be issued for a specified time period, not to exceed five (5) years from the effective date of the permit. A wastewater discharge permit may be issued for a period less than five (5) years, at the discretion of the Administrator. Each wastewater discharge permit will indicate a specific date upon which it will expire.

5.2 Wastewater Discharge Permit Contents

A wastewater discharge permit shall include such conditions as are deemed reasonably necessary by the Administrator to prevent pass through or interference, protect the quality of the water body receiving the treatment plant's effluent, protect worker health and safety, facilitate biosolids or sludge management and disposal, and protect against damage to the POTW.

A. Wastewater discharge permits will contain:

1. A statement that indicates wastewater discharge permit duration, which in no event shall exceed five (5) years;
2. A statement that the wastewater discharge permit is nontransferable without prior notification to OWASA in accordance with Section 5.5 of this ordinance, and provisions for furnishing the new owner or operator with a copy of the existing wastewater discharge permit;
3. Effluent limits based on applicable pretreatment standards;
4. Self-monitoring sampling, reporting, notification, and record-keeping requirements. These requirements shall include an identification of pollutants to be monitored, sampling location, sampling frequency, and sample type based on Federal, State, and local law and made available to OWASA upon request;
5. Requirements for notifying the Administrator in the event of an accidental discharge or slug load as defined in Section 1.3(B)(29);
6. Requirements to implement a Plan or other controls for prevention of accidental discharges and/or slug loads as defined in Section 1.3(B)(29), if determined by the Administrator to be necessary for the User; and
7. Requirements for immediately notifying the Administrator of any changes at its facility affecting the potential for spills and other accidental discharges, or slug load as defined in 1.3(B)(29). Also see Section 6.5 and 6.6.
8. A statement of applicable civil and/or criminal penalties for violation of pretreatment standards and requirements, and any applicable compliance schedule. Such schedule may not extend the time for compliance beyond that required by applicable Federal, State, or local law.

- B. Wastewater discharge permits may contain, but are not be limited to, the following conditions:
1. Limits on the average and/or maximum rate of discharge, time of discharge, and/or requirements for flow ordinance and equalization;
 2. Limits on the instantaneous, daily and/or monthly average and/or maximum concentration, mass, or other measure of identified wastewater pollutants or properties;
 3. Requirements for the installation of pretreatment technology, pollution control, or construction of appropriate containment devices, designed to reduce, eliminate, or prevent the introduction of pollutants into the treatment works;
 4. Development and implementation of waste minimization plans to reduce the amount of pollutants discharged to the POTW;
 5. The unit charge or schedule of user charges and fees for the management of the wastewater discharged to the POTW;
 6. Specifications for monitoring programs which may include sampling locations, frequency of sampling, number, types, and standards for tests, and reporting schedules;
 7. Requirements for immediate reporting of any instance of noncompliance and for automatic resampling and reporting within (30) days where self-monitoring indicates a violation(s);
 8. Compliance schedules for meeting pretreatment standards and requirements;
 9. Requirements for submission of periodic self-monitoring or special notification reports;
 10. Requirements from maintaining and retaining plans and records relating to wastewater discharges as specified in Section 6.12 and affording the Administrator, or his/her representatives, access thereto;
 11. Requirements for the prior notification and approval by the Administrator of any change in the manufacturing and/or pretreatment process that affects the user's wastewater discharge, as described in Section 6.5.
 12. Requirements for installation and maintenance of inspection and sampling facilities and equipment;
 13. A statement that compliance with the wastewater discharge permit does not relieve the permittee of responsibility for compliance with all applicable Federal

and State pretreatment standards, including those which become effective during the term of the wastewater discharge permit; and

14. Other conditions as deemed appropriate by the Administrator to ensure compliance with this ordinance, and State and Federal laws, rules, and ordinances.

5.3 Wastewater Discharge Permit Appeals

Any person, including the user, may petition the Administrator to reconsider the terms of a wastewater discharge permit within fifteen (15) days of notice of its issuance.

- A. Failure to submit a timely petition for review shall be deemed to be a waiver of the administrative appeal.
- B. In its petition, the appealing party must indicate the wastewater discharge permit provisions objected to, the reasons for this objection, and the alternative condition, if any, it seeks to place in the wastewater discharge permit.
- C. The effectiveness of the wastewater discharge permit shall not be stayed pending the appeal.
- D. If the Administrator fails to act within thirty (30) days, a request for reconsideration shall be deemed to be denied. Decisions not to reconsider a wastewater discharge permit, not to issue a wastewater discharge permit, or not to modify a wastewater discharge permit shall be considered final administrative actions for purposes of judicial review.
- E. Aggrieved parties seeking judicial review of the final administrative wastewater discharge permit decision must do so by filing a complaint with the North Carolina Office of Administrative Hearings within thirty (30) days following the Administrator's decision.

5.4 Wastewater Discharge Permit Modification

The Administrator may modify a wastewater discharge permit for good cause, including, but not limited to, the following reasons:

- A. To incorporate any new or revised Federal, State, or local pretreatment standards or requirements;
- B. To address significant alterations or additions to the user's operation, processes, or wastewater volume or character since the time of wastewater discharge permit issuance;
- C. A change in the POTW that requires either a temporary or permanent reduction or elimination of the authorized discharge;

- D. Information indicating that the permitted discharge poses a threat to OWASA's POTW, OWASA's personnel, or the receiving waters;
- E. Violation of any terms or conditions of the wastewater discharge permit;
- F. Misrepresentations or failure to fully disclose all relevant facts in the wastewater discharge permit application or in any required reporting;
- G. Revision of or a grant of variance from categorical pretreatment standards pursuant to 40 CFR 403.13;
- H. To correct typographical or other errors in the wastewater discharge permit; or
- I. To reflect a transfer of the facility ownership or operation to a new owner or operator.

5.5 Wastewater Discharge Permit Transfer

Wastewater discharge permits may be transferred to a new owner or operator only if the permittee gives at least sixty (60) days advance notice to the Administrator and the Administrator approves the wastewater discharge permit transfer. The notice to the Administrator must include a written certification by the new owner or operator which:

- A. States that the new owner and/or operator has no immediate intent to change the facility's operations and processes;
- B. Identifies the specific date on which the transfer is to occur; and
- C. Acknowledges full responsibility for complying with the existing wastewater discharge permit.

Failure to provide advance notice of a transfer renders the wastewater discharge permit void as of the date of facility transfer.

5.6 Wastewater Discharge Permit Revocation

The Administrator may revoke a wastewater discharge permit for good cause, including, but not limited to, the following reasons:

- A. Failure to notify the Administrator of significant changes to the wastewater prior to the changed discharge;
- B. Failure to provide prior notification to the Administrator of changed conditions pursuant to Section 6.5 of this ordinance;
- C. Misrepresentation or failure to fully disclose all relevant facts in the wastewater discharge permit application;
- D. Falsifying self-monitoring reports;

- E. Tampering with monitoring equipment;
- F. Refusing to allow the Administrator timely access to the facility premises and records;
- G. Failure to meet effluent limitations;
- H. Failure to pay fines;
- I. Failure to pay sewer charges;
- J. Failure to meet compliance schedules;
- K. Failure to complete a wastewater survey or the wastewater discharge permit application;
- L. Failure to provide advance notice of the transfer of business ownership of a permitted facility; or
- M. Violation of any pretreatment standard or requirement, or any terms of the wastewater discharge permit or this ordinance.

Wastewater discharge permits shall be voidable upon cessation of operations or transfer of business ownership. All wastewater discharge permits issued to a particular user are void upon the issuance of a new wastewater discharge permit to that user.

5.7 Wastewater Discharge Permit Reissuance

A user with an expiring wastewater discharge permit shall apply for wastewater discharge permit reissuance by submitting a complete permit application, in accordance with Section 4.5 of this ordinance, a minimum of ninety (90) days prior to the expiration of the user's existing wastewater discharge permit.

5.8 Regulation of Waste Received from **Other Jurisdictions**

- A. If another ~~municipality~~local government, or user located within another ~~local government~~municipality, contributes wastewater to the POTW, the Administrator shall enter into an ~~intermunicipal~~interlocal agreement with the contributing ~~municipality~~local government.
- B. Prior to entering into an agreement required by paragraph A, above, the Administrator shall request the following information from the contributing ~~municipality~~local government:
 1. A description of the quality and volume of wastewater discharged to the POTW by the contributing ~~municipality~~local government;
 2. An inventory of all users located within the contributing ~~municipality~~local

Commented [JG8]: "Other jurisdictions" in this section has been expanded from "another municipality" to "local government" to include any wastewater that Orange County might contribute. The referenced agreement then changes from "intermunicipal" to "interlocal."

government that are discharging to the POTW; and

3. Such other information as the Administrator may deem necessary.

C. An intermunicipal-interlocal agreement, as required by paragraph A, above, shall contain the following conditions:

1. A requirement for the contributing municipality-local government to adopt a sewer use ordinance which is at least as stringent as this ordinance and local limits which are at least as stringent as those set out in Section 2.5 of this ordinance. The requirement shall specify that such ordinance and limits must be revised as necessary to reflect changes made to OWASA's ordinance or local limits;
2. A requirement for the contributing municipality-local government to submit a revised user inventory on at least an annual basis;
3. A provision specifying which pretreatment implementation activities, including wastewater discharge permit issuance inspection and sampling, and enforcement, will be conducted by the contributing municipality-local government; which of these activities will be conducted by the Administrator; and which of these activities will be conducted jointly by the contributing municipality-local government and the Administrator;
4. A requirement for the contributing municipality-local government to provide the Administrator with access to all information that the contributing municipality-local government obtains as part of its pretreatment activities;
5. Limits on the nature, quality, and volume of the contributing municipality's-local government's wastewater at the point where it discharges to the POTW;
6. Requirements for monitoring the contributing municipality's-local government's discharge;
7. A provision ensuring the Administrator access to the facilities of users located within the contributing municipality's-local government's jurisdictional boundaries for the purpose of inspection, sampling, and any other duties deemed necessary by the Administrator; and
8. A provision specifying remedies available for breach of the terms of the intermunicipal-interlocal agreement.

SECTION 6 - REPORTING REQUIREMENTS

6.1 Baseline Monitoring Reports

- A. Within either one hundred eighty (180) days after the effective date of a categorical pretreatment standard, or the final administrative decision on a category determination under 40 CFR 403.6(a)(4), whichever is later, existing categorical users currently discharging to or scheduled to discharge to the POTW shall submit to the Administrator a report which contains the information listed in paragraph B, below. At least ninety (90) days prior to commencement of their discharge, new sources, and sources that become categorical users subsequent to the promulgation of an applicable categorical standard, shall submit to the Administrator a report which contains the information listed in paragraph B, below. A new source shall report the method of pretreatment it intends to use to meet applicable categorical standards. A new source also shall give estimates of its anticipated flow and quantity of pollutants to be discharged.
- B. Users described above shall submit the information set forth below.
1. Identifying Information. The name and address of the facility, including the name of the operator and owner.
 2. Environmental Permits. A list of any environmental control permits held by or for the facility.
 3. Description of Operations. A brief description of the nature, average rate of production, and standard industrial classifications of the operation(s) carried out by such user. This description shall include a schematic process diagram which indicates points of discharge to the POTW from the regulated processes.
 4. Flow Measurement. Information showing the measured average daily and maximum daily flow, in gallons per day, to the POTW from regulated process streams and other streams, as necessary, to allow use of the combined wastestream formula set out in 40 CFR 403.6(e). Calibration records shall be maintained on site and made available to OWASA upon request.
 5. Measurement of Pollutants.
 - (a) The categorical pretreatment standards applicable to each regulated process.
 - (b) The results of sampling and analysis identifying the nature and concentration, and/or mass, where required by the standard or by the Administrator, of regulated pollutants in the discharge from each regulated process. Instantaneous, daily maximum, and long-term average concentrations, or mass, where required, shall be reported. The sample shall be representative of daily operations and shall be analyzed in accordance with procedures set out in Section 6.9 of this ordinance.

- (c) Sampling must be performed in accordance with procedures set out in Section 6.10 of this ordinance and 40 CFR 403.12(b) and (g), including 40 CFR.12 (g)(4).
- 6. Certification. A statement, reviewed by the user's current authorized representative as defined in Section 1.3(B)(4) and certified by a qualified professional, indicating whether pretreatment standards are being met on a consistent basis, and, if not, whether additional operation and maintenance (O&M) and/or additional pretreatment is required to meet the pretreatment standards and requirements.
- 7. Compliance Schedule. If additional pretreatment and/or O&M will be required to meet the pretreatment standards, the shortest schedule by which the user will provide such additional pretreatment and/or O&M. The completion date in this schedule shall not be later than the compliance date established for the applicable pretreatment standard. A compliance schedule pursuant to this section must meet the requirements set out in Section 6.2 of this ordinance.
- 8. Signature and Certification. All baseline monitoring reports must be signed and certified in accordance with Section 4.6 of this ordinance.

6.2 Compliance Schedule Progress Reports

The following conditions shall apply to the compliance schedule required by Section 6.1(B)(7) of this ordinance:

- A. The schedule shall contain progress increments in the form of dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment required for the user to meet the applicable pretreatment standards (such events include, but are not limited to, hiring an engineer, completing preliminary and final plans, executing contracts for major components, commencing and completing construction, and beginning and conducting routine operation);
- B. No increment referred to above shall exceed nine (9) months;
- C. The user shall submit a progress report to the Administrator no later than fourteen (14) days following each date in the schedule and the final date of compliance including, as a minimum, whether or not it complied with the increment of progress, the reason for any delay, and, if appropriate, the steps being taken by the user to return to the established schedule; and
- D. In no event, shall more than nine (9) months elapse between such progress reports to the Administrator.

6.3 Reports on Compliance with Categorical Pretreatment Standard Deadline

Within ninety (90) days following the date for final compliance with applicable categorical pretreatment standards, or in the case of a new source following commencement of the

introduction of wastewater into the POTW, any user subject to such pretreatment standards and requirements shall submit to the Administrator a report containing the information described in Section 6.1(B)(4-6) of this ordinance. For users subject to equivalent mass or concentration limits established in accordance with the procedures in 40 CFR 403.6(c), this report shall contain a reasonable measure of the user's long-term production rate. For all other users subject to categorical pretreatment standards expressed in terms of allowable pollutant discharge per unit of production (or other measure of operation) this report shall include the user's actual production during the appropriate sampling period. All compliance reports must be signed and certified in accordance with Section 4.6 of this ordinance.

6.4 Periodic Compliance Reports

- A. All significant industrial users shall, at a frequency determined by the Administrator but in no case less than once every six months, submit a report indicating the nature and concentration of pollutants in the discharge which are limited by pretreatment standards and the applicable flows for the reporting period. Sampling and analysis must be performed in accordance with procedures set out in Sections 6.9 and 6.10 of this ordinance. All periodic compliance reports must be signed and certified in accordance with Section 4.6 of this ordinance.
- B. If a user subject to the reporting requirement in this section monitors any pollutant more frequently than required by the Administrator, using the procedures prescribed in Sections 6.9 and 6.10 of this ordinance, the results of this monitoring shall be included in the report.

6.5 Reports of Changed Conditions

Each user must notify the Administrator of any planned significant changes to the user's operations or system which might alter the nature, quality, or volume of its wastewater at least thirty (30) days before the change. The permittee shall not begin the changes until receiving written approval from the Administrator. See Section 6.6(D) for other reporting requirements.

- A. The Administrator may require the user to submit such information as may be deemed necessary to evaluate the changed condition, including the submission of a wastewater discharge permit application under Section 4.5 of this ordinance.
- B. The Administrator may issue a wastewater discharge permit under Section 4.7 of this ordinance or modify an existing wastewater discharge permit under Section 5.4 of this ordinance in response to changed conditions or anticipated changed conditions.
- C. For purposes of this requirement, significant changes include, but are not limited to, flow or pollutant increases of twenty percent (20%) or greater, and the discharge of any previously unreported pollutants. This includes, increases or decreases to production; increases in discharge of previously reported pollutants; discharge of pollutants not previously reported to OWASA; new or changed product lines; new or changed manufacturing processes and/or chemicals; or new or changed customers.

6.6 Reports of Potential Problems

- A. In the case of any discharge, including, but not limited to, accidental discharges, discharges of a non-routine, episodic nature, a non-customary batch discharge, or a slug load as defined in Section 1.3(B)(29), that may cause potential problems for the POTW, the user shall immediately telephone and notify the Administrator of the incident. This notification shall include the location of the discharge, type of waste, concentration and volume, if known, and corrective actions taken by the user.
- B. Within five (5) days following such discharge, the user shall, unless waived by the Administrator, submit a detailed written report describing the cause(s) of the discharge and the measures to be taken by the user to prevent similar future occurrences. Such notification shall not relieve the user of any expense, loss, damage, or other liability which may be incurred as a result of damage to the POTW, natural resources, or any other damage to person or property; nor shall such notification relieve the user of any fines, penalties, or other liability which may be imposed pursuant to this ordinance.
- C. A notice shall be permanently posted on the user's bulletin board or other prominent place advising employees whom to call in the event of a discharge described in paragraph A, above. Employers shall ensure that all employees, who may cause such a discharge to occur, are advised of the emergency notification procedure.
- D. All significant industrial users are required to notify the Administrator immediately of any changes at its facility affecting the potential for spills and other accidental discharge, discharge of a non-routine, episodic nature, a non- customary batch discharge, or a slug load as defined in Section 1.3(B)(29).

6.7 Reports from Unpermitted Users

All users not required to obtain a wastewater discharge permit shall provide appropriate reports to the Administrator as the Administrator may require.

6.8 Notice of Violation/Repeat Sampling and Reporting

- A. If sampling performed by a user indicates a violation, the user must notify the Administrator as soon as possible, but no later than ~~within~~ twenty-four (24) hours of becoming aware of the violation. The user shall also repeat the sampling and analysis and submit the results of the repeat analysis to the Administrator within thirty (30) days after becoming aware of the violation. If allowed by the Administrator, the user is not required to resample:
 - 1. if the Administrator monitors at the user's facility at least once a month; or
 - 2. if the Administrator samples between the user's initial sampling and when the user receives the results of this sampling.
- B. If the Administrator has performed the sampling and analysis in lieu of the user and

Commented [JG9]: New text is proposed to clarify that while 24 hours is the maximum reporting timeframe, OWASA wants to know about a violation as soon as possible.

the POTW sampling of the user indicates a violation, the Administrator shall repeat the sampling and obtain results of the repeat analysis within thirty (30) days after becoming aware of the violations, unless one of the following occurs:

1. the Administrator monitors the user's facility at least once a month; or
2. the Administrator samples the user between their initial sampling and when the POTW receives the results of this initial sampling; or
3. the Administrator requires the user to perform sampling and submit the results to the Administrator within the thirty (30) day deadline of the POTW becoming aware of the violation.

6.9 Analytical Requirements

All pollutant analyses, including sampling techniques, to be submitted as part of a wastewater discharge permit application or report shall be performed by a laboratory certified by the state to perform the wastewater analysis in accordance with the techniques prescribed in 40 CFR Part 136, unless otherwise specified in an applicable categorical pretreatment standard or unless otherwise performed in accordance with procedures approved by EPA or OWASA. If 40 CFR Part 136 does not contain sampling or analytical techniques for the pollutant in question, sampling and analyses must be performed in accordance with procedures approved by EPA and OWASA. Analyses must be performed by a State-certified lab for each parameter analyzed, if such certification exists for that parameter.

6.10 Grab and Composite Sample Collection

- A. All wastewater samples must be representative of the user's discharge. Wastewater monitoring and flow measurement facilities shall be properly operated, kept clean, and maintained in good working order at all times. The failure of a user to keep its monitoring facility in good working order shall not be grounds for the user to claim that sample results are unrepresentative of its discharge.
- B. Grab Samples must be used for pH, cyanide, total phenols, oil and grease, sulfide, volatile organic compounds, and any other pollutants as required by 40 CFR 136. The Administrator shall determine the number of grabs necessary to be representative of the user's discharge. See 40 CFR 403.12(g)(5) for additional grab sample number requirements for baseline monitoring reports and 90-day compliance reports. Additionally, the Administrator may allow collection of multiple grabs during a 24-hour period which are composited prior to analysis as allowed under 40 CFR 136.
- C. Composite Samples: All wastewater composite samples shall be collected with a minimum of hourly aliquots or grabs for each hour that there is a discharge. All wastewater composite samples shall be collected using flow proportional composite collection techniques, unless time-proportional composite sampling or grab sampling is authorized by the Administrator. When authorizing time-proportional composites

or grabs, the samples must be representative and the decision to allow the alternate sampling must be documented.

6.11 Timing

Written reports will be deemed to have been submitted on the date postmarked. For reports, which are not mailed, postage prepaid, into a mail facility serviced by the United States Postal Service, the date of receipt of the report shall govern.

6.12 Record Keeping

Users subject to the reporting requirements of this ordinance shall retain, and make available for inspection and copying, all records of information obtained pursuant to any monitoring activities required by this ordinance and any additional records of information obtained pursuant to monitoring activities undertaken by the user independent of such requirements. Records shall include the date, exact place, method, and time of sampling, and the name of the person(s) taking the samples; the dates analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses. These records shall remain available for a period of at least three (3) years. This period shall be automatically extended for the duration of any litigation concerning the user or OWASA, or where the user has been specifically notified of a longer retention period by the Administrator.

SECTION 7 - COMPLIANCE MONITORING

7.1 Right of Entry: Inspection and Sampling

OWASA shall have the right to enter the premises of any user to determine whether the user is complying with all requirements of this ordinance and any wastewater discharge permit or order issued hereunder. Users shall allow OWASA ready access to all parts of the premises for the purposes of inspection, sampling, records examination and copying and the performance of any additional duties.

- A. Where a user has security measures in force which require proper identification and clearance before entry into its premises, the user shall make necessary arrangements with its security guards so that, upon presentation of suitable identification, OWASA will be permitted to enter without delay for the purposes of performing specific responsibilities.
- B. OWASA shall have the right to set up on the user's property, or require installation of, such devices as are necessary to conduct sampling and/or metering of the user's operations.
- C. OWASA may require the user to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the user at its own expense. All devices used to measure wastewater flow and quality shall be calibrated in accordance with the manufacturer's recommendations to ensure their accuracy. Records shall be made available to OWASA upon request.
- D. Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the user at the written or verbal request of OWASA and shall not be replaced. The costs of clearing such access shall be borne by the user.
- E. Unreasonable delays in allowing OWASA access to the user's premises shall be a violation of this ordinance.

7.2 Search Warrants

If OWASA has been refused access to a building, structure, or property, or any part thereof, and is able to demonstrate probable cause to believe that there may be a violation of this ordinance, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program of OWASA designed to verify compliance with this ordinance or any permit or order issued hereunder, or to protect the overall public health, safety and welfare of the community, then OWASA may seek issuance of a search warrant from the North Carolina General Court of Justice.

SECTION 8 - CONFIDENTIAL INFORMATION

Information and data on a user obtained from reports, surveys, wastewater discharge permit applications, wastewater discharge permits, and monitoring programs, and from the Administrator's inspection and sampling activities, shall be available to the public without restriction, unless the user specifically requests, and is able to demonstrate to the satisfaction of the Administrator, that the release of such information would divulge information, processes, or methods of production entitled to protection as trade secrets under applicable State law. Any such request must be asserted at the time of submission of the information or data.

When requested and demonstrated by the user furnishing a report that such information shall be held confidential, the portions of a report which might disclose trade secrets or secret processes shall not be made available for inspection by the public, but shall be made available immediately upon request to governmental agencies for uses related to the NPDES program or pretreatment program, and in enforcement proceedings involving the person furnishing the report. Wastewater constituents and characteristics and other "effluent data" as defined by 40 CFR 2.302 will not be recognized as confidential information and will be available to the public without restriction.

SECTION 9 - PUBLICATION OF USERS IN SIGNIFICANT NONCOMPLIANCE

The Administrator shall publish annually, in a newspaper of general circulation that provides meaningful public notice within OWASA's service area, a list of the users which, during the previous twelve (12) months, were in significant noncompliance with applicable pretreatment standards and requirements. The term significant noncompliance shall mean:

- A. Chronic violations of wastewater discharge limits, defined here as those in which sixty-six percent (66%) or more of wastewater measurements taken during a six- (6) month period exceed the daily maximum limit or average limit for the same pollutant parameter by any amount;
- B. Technical Review Criteria (TRC) violations, defined here as those in which thirty-three percent (33%) or more of wastewater measurements taken for each pollutant parameter during a six- (6) month period are equal to or greater than the product of the daily maximum limit or the average limit multiplied by the applicable criteria (1.4 for cBOD, TSS, fats, oils and grease, and 1.2 for all other pollutants except pH);
- C. Any other discharge violation that the Administrator believes has caused, alone or in combination with other discharges, interference or pass through, including endangering the health of POTW personnel or the general public;
- D. Any discharge of pollutants that has caused imminent endangerment to the public or to the environment, or has resulted in the Administrator's exercise of emergency authority to halt or prevent such a discharge;
- E. Failure to meet, within ninety (90) days of the scheduled date, a compliance schedule milestone contained in a wastewater discharge permit or enforcement order for starting construction, completing construction, or attaining final compliance;
- F. Failure to provide within thirty (30) days after the due date, any required reports, including baseline monitoring reports, reports on compliance with categorical pretreatment standard deadlines, periodic self-monitoring reports, and reports on conformance with compliance schedules;
- G. Failure to accurately report noncompliance; or
- H. Any other violation(s) which the Administrator determines will adversely affect the operation or implementation of the local pretreatment program.

SECTION 10 - ADMINISTRATIVE ENFORCEMENT REMEDIES

10.1 Notification of Violation

When the Administrator finds that a user has violated, or continues to violate, any provision of this ordinance, a wastewater discharge permit or order issued hereunder, or any other pretreatment standard or requirement, the Administrator may serve upon that user a written Notice of Violation. Within fifteen (15) days of the receipt of this notice, an explanation of the violation and a plan for the satisfactory correction and prevention thereof, to include specific required actions, shall be submitted by the user to the Administrator. Submission of this plan in no way relieves the user of liability for any violations occurring before or after receipt of the Notice of Violation. Nothing in this section shall limit the authority of the Administrator to take any action, including emergency actions or any other enforcement action, without first issuing a Notice of Violation.

10.2 Consent Orders

The Administrator may enter into Consent Orders, assurances of voluntary compliance, or other similar documents establishing an agreement with any user responsible for noncompliance. Such documents will include specific action to be taken by the user to correct the noncompliance within a time period specified by the document. Such documents shall have the same force and effect as the administrative orders issued pursuant to Sections 10.4 and 10.5 of this ordinance and shall be judicially enforceable.

10.3 Show Cause Hearing

The Administrator may order a user which has violated, or continues to violate, any provision of this ordinance, a wastewater discharge permit or order issued hereunder, or any other pretreatment standard or requirement, to appear before the Administrator and show cause why the proposed enforcement action shall not be taken. Notice shall be served on the user specifying the time and place for the meeting, the proposed enforcement action, the reasons for such action, and a request that the user show cause why the proposed enforcement action shall not be taken. The notice of the meeting shall be served personally or by registered or certified mail (return receipt requested) at least fifteen (15) days prior to the hearing. Such notice may be served on any authorized representative of the user. A show-cause hearing shall not be a bar against, or prerequisite for, taking any other action against the user.

10.4 Compliance Orders

When the Administrator finds that a user has violated, or continues to violate, any provision of this ordinance, a wastewater discharge permit or order issued hereunder, or any other pretreatment standard or requirement, the Administrator may issue an order to the user responsible for the discharge directing that the user come into compliance within a specified time. If the user does not come into compliance within the time provided, sewer service may be discontinued unless adequate treatment facilities, devices, or other related appurtenances are installed and properly operated. OWASA may disconnect or permanently block from the wastewater system of OWASA the private sewer of any user whose permission to discharge has been revoked if such action is necessary to insure compliance with the order of revocation.

Action to enforce compliance with the order of permission to discharge may include at the discretion of the Administrator, termination of public water service provided by OWASA. Compliance orders also may contain other requirements to address the noncompliance, including additional self-monitoring and management practices designed to minimize the amount of pollutants discharged to the sewer. A compliance order may not extend the deadline for compliance established for a pretreatment standard or requirement, nor does a compliance order relieve the user of liability for any violation, including any continuing violation. Issuance of a compliance order shall not be a bar against, or a prerequisite for, taking any other action against the user.

10.5 Cease and Desist Orders

When the Administrator finds that a user has violated, or continues to violate, any provision of this ordinance, a wastewater discharge permit or order issued hereunder, or any other pretreatment standard or requirement, or that the user's past violations are likely to recur, the Administrator may issue an order to the user directing it to cease and desist all such violations and directing the user to:

- A. Immediately comply with all requirements; and
- B. Take such appropriate remedial or preventive action as may be needed to properly address a continuing or threatened violation, including halting operations and/or terminating the discharge.

Issuance of a cease and desist order shall not be a bar against, or a prerequisite for, taking any other action against the user.

10.6 Administrative Fines

- A. When the Administrator finds that a user has violated, or continues to violate, any provision of this ordinance, a wastewater discharge permit or order issued hereunder, or any other pretreatment standard or requirement, the Administrator may fine such user in an amount not to exceed \$1,000 per day. Such fines may be assessed on a per violation, per day basis. In the case of monthly or other long-term average discharge limits, fines shall be assessed for each day during the period of violation.
- B. Unpaid charges, fines, and penalties shall, after thirty (30) calendar days, be assessed an additional penalty of one hundred percent (100%) of the unpaid balance, and interest shall accrue thereafter at a rate of one and one-half percent (1.5%) per month. A lien against the user's property will be sought for unpaid charges, fines, and penalties.
- C. Users desiring to dispute such fines must file a written request for the Administrator to reconsider the fine along with full payment of the fine amount within fifteen (15) days of being notified of the fine. Where a request has merit, the Administrator may convene a hearing on the matter. In the event the user's appeal is successful, the payment, together with any interest accruing thereto, shall be returned to the user. The Administrator may add the costs of preparing administrative enforcement actions, such as notices and orders, to the fine.

- D. Issuance of an administrative fine shall not be a bar against, or a prerequisite for, taking any other action against the user.

10.7 Emergency Suspensions

The Administrator may immediately suspend sewer service to a user, after informal notice to the user, whenever such suspension is necessary to stop an actual or threatened discharge which reasonably appears to present or cause an imminent or substantial endangerment to the health or welfare of persons. The Administrator may also immediately suspend sewer service to a user, after notice and opportunity to respond, that threatens to interfere with the operation of the POTW, or which presents, or may present, an endangerment to the environment.

- A. Any user notified of a suspension of its sewer service shall immediately stop or eliminate its contribution. In the event of a user's failure to immediately comply voluntarily with the suspension order, the Administrator may take such steps as deemed necessary, including immediate severance of the sewer connection, to prevent or minimize damage to the POTW, its receiving stream, or endangerment to any individuals. The Administrator may allow the user to recommence its discharge when the user has demonstrated to the satisfaction of the Administrator that the period of endangerment has passed, unless the termination proceedings in Section 10.8 of this ordinance are initiated against the user.
- B. A user that is responsible, in whole or in part, for any discharge presenting imminent endangerment shall submit a detailed written statement, describing the causes of the harmful contribution and the measures taken to prevent any future occurrence, to the Administrator prior to the date of any show cause or termination hearing under Section 10.3 or 10.8 of this ordinance. Nothing in this section shall be interpreted as requiring a hearing prior to any emergency suspension under this section.

10.8 Termination of Permission to Discharge

The Administrator may revoke permission to discharge for good cause, including, but not limited to, the following reasons:

- A. Violation of wastewater discharge permit conditions;
- B. Failure to accurately report the wastewater constituents and characteristics of its discharge;
- C. Failure to report significant changes in operations or wastewater volume, constituents, and characteristics prior to discharge;
- D. Refusal of reasonable access to the user's premises for the purpose of inspection, monitoring, or sampling; or,
- E. Violation of the pretreatment standards in Section 2 of this ordinance or any applicable State and Federal Regulations.

Such user will be notified of the proposed termination of its sewer service and be offered an opportunity to show cause as provided for under Section 10.3 of this ordinance why the proposed action shall not be taken. Exercise of this option by the Administrator shall not be a bar to, or a prerequisite for, taking any other action against the user.

SECTION 11 - JUDICIAL ENFORCEMENT REMEDIES

11.1 Injunctive Relief

When the Administrator finds that a user has violated, or continues to violate, any provision of this ordinance, a wastewater discharge permit, or order issued hereunder, or any other pretreatment standard or requirement, the Administrator may petition the North Carolina General Court of Justice through OWASA's Attorney for the issuance of a temporary or permanent injunction, as appropriate, which restrains or compels the specific performance of the wastewater discharge permit, order, or other requirement imposed by this ordinance on activities of the user. The Administrator may also seek such other action as is appropriate for legal and/or equitable relief, including a requirement for the user to conduct environmental remediation. A petition for injunctive relief shall not be a bar against, or a prerequisite for, taking any other action against a user.

11.2 Civil Penalties

- A. A user who has violated, or continues to violate, any provision of this ordinance, a wastewater discharge permit, or order issued hereunder, or any other pretreatment standard or requirement shall be liable to OWASA for a maximum civil penalty of \$25,000 per violation, per day. In the case of a monthly or other long-term average discharge limit, penalties shall accrue for each day during the period of the violation.
 1. Penalties between \$10,000 and \$25,000 per day per violation may be assessed against a violator only if:
 - (a) for any class of violation, only if a civil penalty has been imposed against the violator within the five years preceding the violation, or
 - (b) in the case of failure to file, submit, or make available, as the case may be, any documents, data, or reports required by this ordinance, or the orders, rules, regulations and permits issued hereunder, only if the Administrator determines that the violation was intentional and a civil penalty has been imposed against the violator within the five years preceding the violation.
- B. The Administrator may recover reasonable attorneys' fees, court costs, and other expenses associated with enforcement activities, including sampling and monitoring expenses, and the cost of any actual damages incurred by OWASA.
- C. In determining the amount of civil liability, the Court shall take into account all relevant circumstances, including, but not limited to, the extent of harm caused by the violation, the magnitude and duration of the violation, any economic benefit gained through the user's violation, corrective actions by the user, the compliance history of the user, and any other factor as justice requires.
- D. Filing a suit for civil penalties shall not be a bar against, or a prerequisite for, taking any other action against a user.

11.3 Remedies Nonexclusive

The remedies provided for in this ordinance are not exclusive. The Administrator may take any, all, or any combination of these actions against a noncompliant user. Enforcement of pretreatment violations will generally be in accordance with OWASA's enforcement response plan. However, the Administrator may take other action against any user when the circumstances warrant. Further, the Administrator is empowered to take more than one enforcement action against any noncompliant user.

SECTION 12 - SUPPLEMENTAL ENFORCEMENT ACTION

12.1 Water Supply Severance

Whenever a user has violated or continues to violate any provision of this ordinance, a wastewater discharge permit, or order issued hereunder, or any other pretreatment standard or requirement, water service to the user supplied by OWASA may be severed. Service will only recommence, at the user's expense, after it has satisfactorily demonstrated its ability to comply.

12.2 Public Nuisance

A violation of any provision of this ordinance, a wastewater discharge permit, or order issued hereunder, or any other pretreatment standard or requirement is hereby declared a public nuisance and shall be corrected or abated as directed by the Administrator. Any person(s) creating a public nuisance shall be subject to the provisions of laws governing such nuisances, including reimbursing OWASA for any costs incurred in removing, abating, or remedying said nuisance.

12.3 Contractor Listing

Users which have not achieved compliance with applicable pretreatment standards and requirements are not eligible to receive a contractual award for the sale of goods or services to OWASA. Existing contracts for the sale of goods or services to OWASA held by a user found to be in significant noncompliance with pretreatment standards or requirements may be terminated at the discretion of the Administrator.

SECTION 13 - AFFIRMATIVE DEFENSES TO DISCHARGE VIOLATIONS

13.1 Upset

- A. For the purposes of this section, "upset" means an exceptional incident in which there is unintentional and temporary noncompliance with categorical pretreatment standards because of factors beyond the reasonable control of the user. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- B. An upset shall constitute an affirmative defense to an action brought for noncompliance with categorical pretreatment standards if the requirements of paragraph (C), below, are met.
- C. A user who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
1. An upset occurred and the user can identify the cause(s) of the upset,
 2. The facility was at the time being operated in a prudent and workman-like manner and in compliance with applicable operation and maintenance procedures; and
 3. The user has submitted the following information to the Administrator within twenty-four (24) hours of becoming aware of the upset [if this information is provided orally, a written submission must be provided within five (5) days]:
 - (a) A description of the indirect discharge and cause of noncompliance;
 - (b) The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and
 - (c) Steps being taken and/or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
- D. In any enforcement proceeding, the user seeking to establish the occurrence of an upset shall have the burden of proof.
- E. Users will have the opportunity for a judicial determination on any claim of upset only in an enforcement action brought for noncompliance with categorical pretreatment standards.
- F. Users shall control production of all discharges to the extent necessary to maintain compliance with categorical pretreatment standards upon reduction, loss, or failure of its treatment facility until the facility is restored or an alternative method of

treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

13.2 Prohibited Discharge Standards

A user shall have an affirmative defense to an enforcement action brought against it for noncompliance with the general prohibitions in Section 2.2(A) of this ordinance or the specific prohibitions in Sections 2.2(B)(4) through (21)¹ of this ordinance if it can prove that it did not know, or have reason to know, that its discharge, alone or in conjunction with discharges from other sources, would cause pass through or interference and that either:

- A. A local limit exists for each pollutant discharged and the user was in compliance with each limit directly prior to, and during, the pass through or interference; or
- B. No local limit exists, but the discharge did not change substantially in nature or constituents from the user's prior discharge when OWASA was regularly in compliance with its NPDES permit, and in the case of interference, was in compliance with applicable biosolids or sludge use or disposal requirements.

13.3 Bypass

- A. For the purposes of this section,
 - 1. "Bypass" means the intentional diversion of wastestreams from any portion of a user's treatment facility.
 - 2. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- B. A user may allow any bypass to occur which does not cause pretreatment standards or requirements to be violated, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of paragraphs (C) and (D) of this section.
- C.
 - 1. If a user knows in advance of the need for a bypass, it shall submit prior notice to the Administrator, at least ten (10) days before the date of the bypass, if possible.
 - 2. A user shall submit oral notice to the Administrator of an unanticipated bypass that exceeds applicable pretreatment standards within twenty-four (24) hours from the time it becomes aware of the bypass. A written submission shall also be provided within five (5) days of the time the user becomes aware of the bypass. The written submission shall contain a description of the bypass and its cause; the duration of the bypass, including exact dates and times, and, if the bypass has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate and prevent reoccurrence of the

bypass. The Administrator may waive the written report on a case-by-case basis if the oral report has been received within twenty-four (24) hours.

- D. 1. Bypass is prohibited, and the Administrator may take an enforcement action against a user for a bypass, unless
 - (a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment shall have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (c) The user submitted notices as required under paragraph (C) of this section.
2. The Administrator may approve an anticipated bypass, after considering its adverse effects, if the Administrator determines that it will meet the three conditions listed in paragraph (D)(1) of this section.

SECTION 14 - WASTEWATER TREATMENT RATES AND FEES

Fees shall be assessed to users for wastewater discharges into the POTW and for executing or enforcing the provisions of this ordinance. These charges shall be developed by the Administrator and approved by OWASA in accordance with the user charge system and other regulations and policies of OWASA and applicable statutes of the State. The existing charges for the previous year will be reviewed prior to adopting each annual budget. Charges shall be developed for the following purposes:

- A. Industrial monitoring, inspections, and surveillance procedures;
- B. Reviewing accidental discharge procedures and construction;
- C. Reviewing permit applications;
- D. Reviewing appeals;
- E. Special industrial discharges;
- F. Recovering capital related expenditures;
- G. Other charges, including user charges based on billable flow and excessive pollutant discharges to the POTW, necessary to recover the operation and maintenance costs of the wastewater disposal system.

Charges for Items A through E shall be based on the actual cost to OWASA for each specific user or incident. However, a fixed rate may be proposed by the Administrator, subject to OWASA approval, for those procedures that are repetitive and do not differ substantially within each class of users. Charges for Items F through G shall be developed and assessed in accordance with the user charge system.

The charges and fees developed in accordance with the provisions of this Article shall be in the form of a resolution adopted by OWASA.

SECTION 15 - AUTHORITY

This ordinance is adopted under the authority granted by North Carolina General Statutes 162A.

SECTION 16 - SEVERABILITY

If any provision, paragraph, word, section or article of this ordinance is invalidated by any court of competent jurisdiction, the remaining provisions, paragraphs, words, sections, and chapters shall not be affected and shall continue in full force and effect.

SECTION 17 - CONFLICT

All other regulations and parts of other regulations inconsistent or conflicting with any part of this ordinance are hereby repealed to the extent of such inconsistency or conflict.

SECTION 18 - EFFECTIVE DATE

This ordinance shall be in full force and effect from and after its passage and approval as set forth in the attached Resolution of Adoption as provided by law.

Agenda Item 7:

Distribution System Key Performance Indicators (KPI's)

Purpose:

To recommend a revised KPI for Water Main Breaks and solicit feedback from the Board about response to Board discussion from the September 24, 2020 Board meeting

Background:

Staff has reported the performance of the water distribution system to the Board throughout OWASA's history. Initially, staff provided a Water Main Break metric as an annually reported tally of water main breaks in the system (a metric refined over the years to the current monthly KPI version shown in Figure 1a). In January 2018, following staff's [presentation to the Board about the Water Main Break KPI](#) in the monthly dashboard, staff began reporting a Water Service Reliability metric which tracks the percentage of total customer hours when water service is being provided (aka, the "Five 9's" KPI in Figure 2.1).

At the [September 24, 2020 Board meeting](#), staff recommended a revised Water Main Break KPI which would show a target range that would remain constant for a period of several years (rather than change annually as it does now). Subsequent Board discussion raised several points about the effectiveness of current distribution system KPIs (namely, Water Main Break KPI and Water Service Reliability KPI) in reflecting the health of the asset. The Board directed staff to provide alternatives to address the feedback and discussion from the meeting. The main discussion points and this memo's recommendations are summarized as follows:

1. The Water Main Break KPI goal should be a single number, not a range, and should remain constant for a period of several years.
Staff agrees and recommends that the Board adopt the revised Water Main Break KPI shown in Figure 1b via the proposed Motion at the end of this memo.
2. The current KPI's do not adequately capture the impact of system performance from the customer's standpoint; our goal should be to impact the fewest number of customers for the shortest amount of time.
The memo provides several options to display the data on unplanned service interruptions. Staff requests the Board's feedback on whether any of the alternatives reflects the reliability of service better than the current "five 9's" KPI.
3. An additional KPI may be useful for staff in tracking the validity and effectiveness of the water prioritization model itself (i.e., are breaks occurring in locations identified by the model?)
No action is recommended other than the planned periodic modification of the prioritization model assumptions based on ongoing break data collection.

Discussion:

Item #1: Water Main Break KPI

The reporting of water main breaks per 100 miles of distribution system is a ubiquitous metric in the industry, and a [staff presentation in January 2018](#) provided the Board with some additional background on the metric. The current and proposed KPI's are shown in Figures 1a and 1b below.

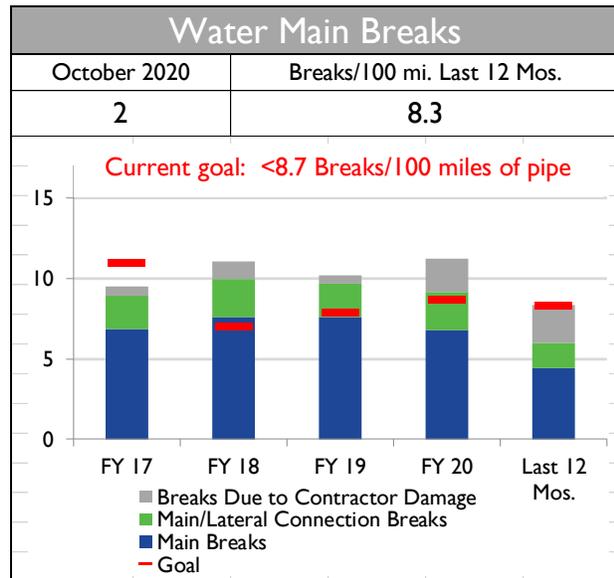


Figure 1a: Current Water Main Break KPI

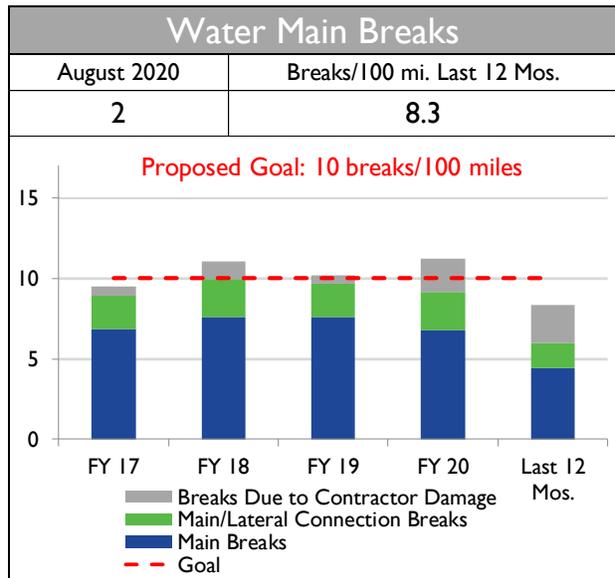


Figure 1b: Proposed Water Main Break KPI

As discussed in the [September 24, 2020 agenda item](#), the goal adjustment is beneficial because it aligns the goal with the timeframe of adjustments in the primary response strategy (i.e., water main replacement).

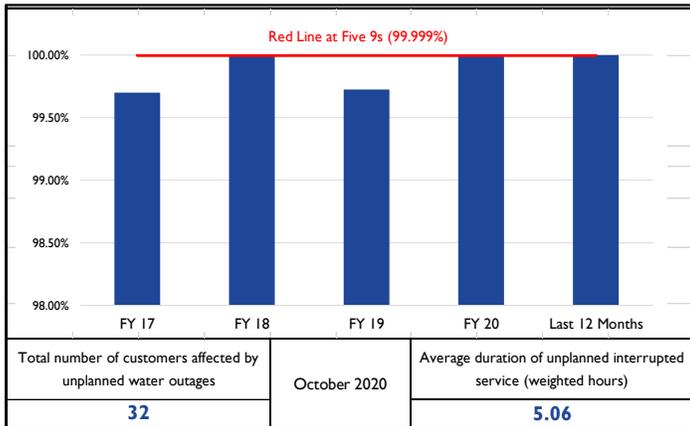
Several data points were referenced to inform the selection of the target value, including our system's recent performance, other local utilities break rates, and data from a national study. The target of 10 breaks/100 miles sets a value below these benchmark points:

- our system's average break rate over the previous 10 years (12.5 breaks/100 miles)
- information from seven local utilities (break rates from about 4 to 20 breaks/100 miles, with an average of 11.3 breaks/100 miles)
- a larger, more detailed, and more reliable data set than is available from the annual AWWA Benchmarking Survey (i.e., *Water Main Break Rates In the USA and Canada: A Comprehensive Study; Folkman, 2018*): This study found an overall average of 14 breaks/100 miles among the nearly 200,000 miles of pipe evaluated; of the water utilities of similar size to OWASA, the break rate was found to be 17.2 breaks/100 miles

Item #2: Customer-driven KPI for Water Service Reliability

The Water Service Reliability KPI was developed to capture the customer impact of water main breaks and provides a high-level view of the reliability of the system, as measured by the percentage of total annual customer hours with service. The Figures on the following pages provide various options for displaying the underlying data

Figure 2.1 Current KPI: Percentage of Total Customer Hours With Water Service



- indicator of infrastructure integrity, CIP prioritization, expediency in repairing outage, and customer service.
- Calculated as:

$$1 - \frac{\text{customers affected} \times \text{hrs unplanned outages}}{\# \text{ all billed customers} \times \text{total annual hrs}}$$
- Also displays number of customers and average duration of unplanned outages (for the current month only)

Figure 2.2a Customer Hours Without Water Service (annual)

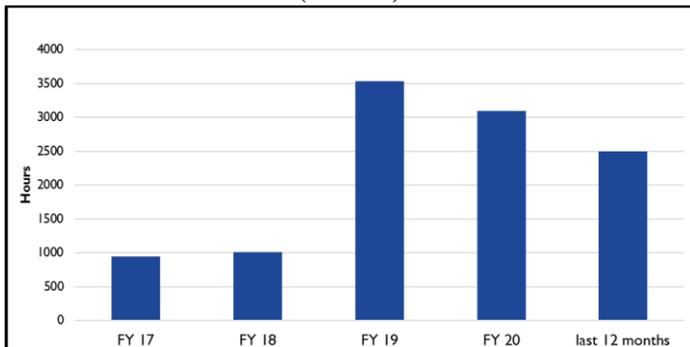


Figure 2.2b Customer Hours Without Water Service (monthly)

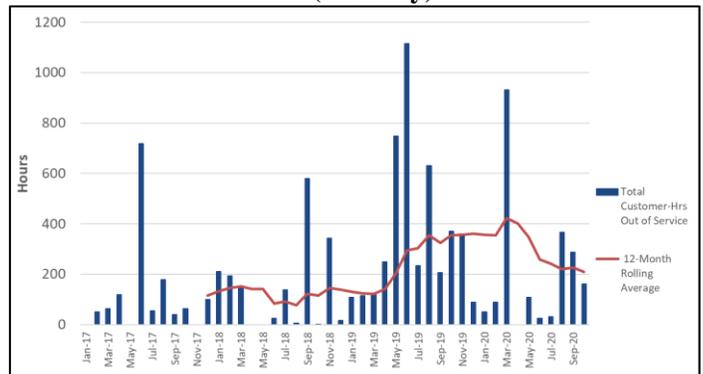


Figure 2.3a Number of Customers Affected by Outages (annual)

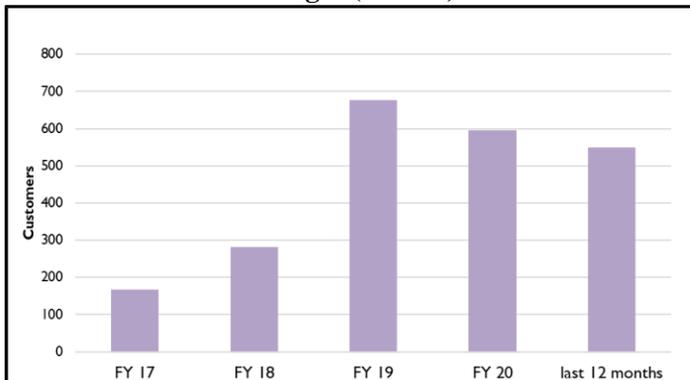


Figure 2.3b Number of Customers Affected by Outages (monthly)

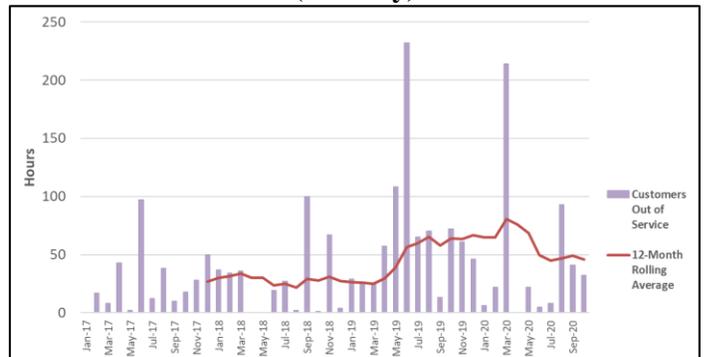


Figure 2.4a Average Duration of Unplanned Service Interruption

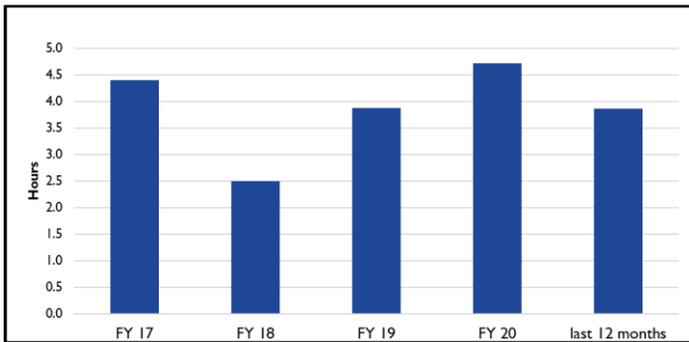
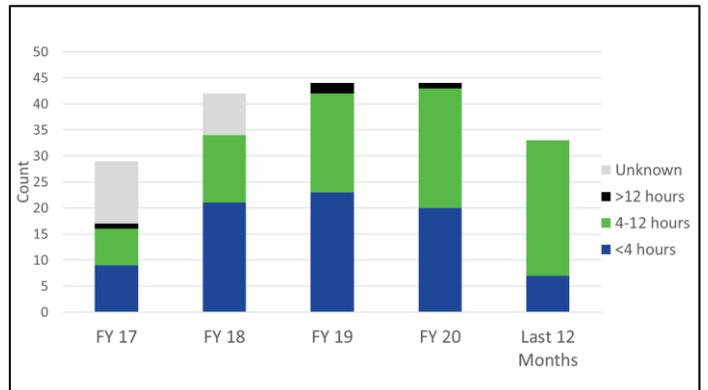


Figure 2.4b Water Main Breaks by Duration of Unplanned Service Interruption



A few comments about the Water Service Reliability KPI options:

- The current KPI (Figure 2.1) is commonly used in other utility industries (i.e. electric and gas), but to staff's knowledge, not in the water industry
- The information shown in the lower corners of the current KPI provide some relevant data about breaks during that given month, but the information is not trended.
- The Figures 2.2a and 2.3a correlate closely (as do Figures 2.2b and 2.3b) due to the relatively tight distribution of water outage duration (most outages range between 2 and 7 hours) in comparison to the range of customers affected by any given outage. Also, these four options are presented here without the effect of the February 2017 and November 2018 water emergencies; the inclusion of those outages with extremely high customer counts results in charts of very little value.
- Figures 2.2a and 2.2b appear to present the most readily understood data from a customer standpoint.
- Figure 2.4b is a metric tracked in the AWWA Annual Benchmarking Survey

In staff's opinion, the alternative KPI's shown above do not present compelling improvements over the current KPI shown in Figure 2.1; however, staff requests Board's feedback on this point.

Item #3: Internal KPI to track validity and effectiveness of model

The water main prioritization model recently developed by HDR Engineering, Inc. of the Carolinas (HDR) utilized staff input, Geographic Information System (GIS) data, distribution system hydraulics, and a substantial set of OWASA water main break data collected over decades. The resulting correlations between various factors and water main breaks provided the basis for a Likelihood of Failure (LoF) component of the risk prioritization framework. HDR also developed decision logic trees which utilized the model's risk scores to guide appropriate actions (replacement, condition assessment, etc.) for each pipe.

Some suggestions at the September 24, 2020 meeting included the reporting of water main break data in such a way to be able to track the effectiveness of the model outputs and the resulting main replacement decisions (e.g., did the actual breaks correspond with high LoF pipes predicted by the model?) This information would presumably be able to be used to adjust the model. However, the model updating process is not one that needs to be done on an annual basis, nor would the reanalysis of a year or two of additional break data be expected to change much in the ranking of the highest priority projects. It is anticipated that staff will update the statistical analysis used to formulate the LoF component approximately every three to five years and will assess the sensitivity of these changes to the underlying model.

Action Requested

Staff recommends revising the Water Main Break KPI to the format shown in Figure 1b. If the Board concurs with this recommendation, we recommend the Board formally document this revision. Draft motion language follows:

Motion to approve the revision to the Water Main Break Key Performance Indicator (KPI) setting a target range of 10 breaks per 100 miles and revising the KPI target range only after a period of five to seven years.

Staff also requests feedback on potential revisions to the Water Service Reliability KPI.

Agenda Item 8:

Discuss Process to Develop a New Strategic Plan

Purpose:

Discuss a proposed approach for developing a new Strategic Plan that will guide the organization's budget and action in years to come

Background:

On September 24, 2020, the OWASA Board of Directors decided to move forward with the development of a new strategic plan and requested that staff develop a draft approach to develop this plan.

The development of a strategic plan is a prime opportunity to engage OWASA staff and the community in setting priorities for our work ahead. The following memo lays out an approach for the Board's consideration in developing a new Strategic Plan that provides meaningful opportunities for staff, stakeholders, and the community to contribute.

Areas for Input:

The following memo proposes a high-level outline of the process to develop OWASA's new Strategic Plan that includes the following:

1. Eleven guiding principles that will guide how the plan is developed and used.
2. Ten step process that includes finalization of a new Strategic Plan by August 2022, as well as follow-on work to implement, monitor, review, and update the Strategic Plan.
3. Summary of key roles and responsibilities in the planning effort.

Action Needed:

1. The Board is asked to provide feedback the Guiding Principles for the Strategic Development Process.
2. The Board is asked to provide feedback on the overall approach to developing a Strategic Plan.
3. If there are no major changes to the Guiding Principles, staff recommends that the Board make the following motion to approve them.

“Motion that the Board of Directors approves the proposed Guiding Principles for the Development of OWASA's New Strategic Plan and authorizes staff to develop a more-detailed process, in light of these Principles, for the Board's approval.”

Information:

Memo on a proposed approach for developing a new Strategic Plan



Orange Water and Sewer Authority

OWASA is Carrboro-Chapel Hill's not-for-profit public service agency delivering high quality water, wastewater, and reclaimed water services.

MEMORANDUM

TO: Board of Directors

FROM: Todd Taylor and Mary Tiger

DATE: December 4, 2020

SUBJECT: Discuss Process to Develop a New Strategic Plan

Purpose

To discuss a proposed approach for developing a new Strategic Plan that will guide the organization's budget and action in years to come and the approval of Guiding Principles for that process

Background

The goals and objectives of OWASA's current strategic plan are complete or significantly underway. An updated strategic plan is needed to ensure that we are anticipating and preparing for the future that we want and setting a course for aligning scarce resources with our strategic goals and objectives. On September 24, 2020, the OWASA Board of Directors decided to move forward with the development of a new strategic plan and requested that staff develop a draft approach to develop this plan.

The development of a strategic plan is a prime opportunity to engage OWASA staff and the community in setting priorities for our work ahead. The following memo lays out an approach for the Board's consideration in developing a new Strategic Plan that provides meaningful opportunities for staff, stakeholders, and the community to contribute.

Guiding Principles

The following principles are proposed to summarize considerations that will guide how the Plan is developed.

1. An updated strategic plan is needed to ensure that we are anticipating and preparing for the future that we want and setting a course for aligning scarce resources with our strategic goals and objectives.
2. The strategic planning process will consider and/or reinforce OWASA's mission, vision, and values.
3. This process is a time to think comprehensively and identify broad-reaching strategic goals and initiatives.
4. The horizon for the strategic goals and objectives will be five to six years.
5. The strategic planning process will involve and engage the Board, staff and the community. We will actively seek feedback to include and consider diverse perspectives. An active communications strategy will be integral to the process.
6. The strategic planning process will be managed by OWASA staff with the assistance of consultants, as needed.

7. Staff leadership will work together with the Board of Directors to develop the strategic plan. The final Strategic Plan will be approved by the Board of Directors.
8. We will set strategic goals that align with our organizational priorities, needed to achieve our long-term vision.
9. SMART (Specific, Measurable, Attainable, Relevant, and Time-based) strategic objectives will be developed for each goal.
10. We will define a process for reporting on progress and updating the plan, including performance measures.
11. The strategic plan will be used to align resources and guide budgets in the coming decade. Where possible, desired outcomes will be related to budget requests.

Proposed Steps in the Process and Timeline

1. Develop a Plan and Set Guiding Principles (December 2020 – March 2021)

The purpose of this step is to develop consensus on the purpose and process for developing a new Strategic Plan. We are allowing ample time for this step in the process to better align associated budget requests (i.e. consultant assistance) with the Fiscal Year 2022 budget. This step involves:

- Two discussions at regularly scheduled work sessions by the OWASA Board of Directors
- Staff preparation for these discussions

2. Conduct Scan of Environment and Organization (May – September 2021)

The purpose of this step is to seek input and perspective on OWASA's strengths and weaknesses, as well as to review what is currently happening or emerging that presents opportunities and challenges for OWASA ahead. To do this, we will seek input from staff, stakeholders, individual Board members (past and present), and the community. The input will be sought primarily through survey, but also through focus groups with stakeholders and presentations to community groups. OWASA staff requests the assistance of a consultant to develop the survey instruments that will be used. This step will also involve the curation of relevant reports, such as the AWWA State of the Industry Report, the local Chamber of Commerce State of Community, and local Strategic Plans for consideration. This step will involve:

- Staff to select consultant
- Consultant assistance with the development of a Board, staff, and community survey instrument (in English and Spanish) – Start working with consultant in July 2021
- Stakeholder focus groups
- Staff time to develop and distribute survey, collect results, and lead discussions with partner agencies and stakeholders

3. Synthesize Environment and Organizational Scan (October – December 2021)

The purpose of this step is to compile and discuss findings from the scan. This step will engage staff and the Board in the review and discussion to come together on the identification of key trends that will influence our Strategic Plan. This step will involve:

- Staff discussion groups with all or most of the OWASA team
- One dedicated work session (i.e. not part of regularly-scheduled meeting) with Staff Leadership and Board of Directors, facilitated by professional facilitator
- Staff time to lead discussions with staff and compile the results from the scan and discussions

4. Review Mission, Vision and Values (January 2022)

The purpose of this step is to imagine and agree upon a shared picture of what the Board and Staff Leadership will look like in the future. This step will involve:

- One dedicated work session with Staff Leadership and the OWASA Board of Directors, facilitated by a professional facilitator
- Staff time to work with the consultant to prepare for the work session and to summarize takeaways

5. Set Strategic Goals and Initiatives (February – June 2022)

The purpose of this step is to identify and prioritize goals and initiatives that will advance OWASA toward our vision, as well metrics that we will use to measure success. This step will involve:

- One to two dedicated work sessions with Staff Leadership and the OWASA Board of Directors, facilitated by a professional facilitator, to draft goals and initiatives
- Staff work sessions to review and discuss draft goals and initiatives, as well as to develop an implementation plan
- Community outreach to inform the community of the strategic planning process and to seek feedback on the draft goals and initiatives
- Staff time to prepare for work sessions and summarize results, as well as to conduct community outreach on the draft Strategic Plan

6. Finalize Plan (July – August 2022)

In this step, we will consider any refinements to the overall Strategic Plan that are needed from the previous step. At the end of this step, we will have a Strategic Plan that spans six years, from Fiscal Year 2023 through Fiscal Year 2028. This step will involve:

- Staff time to develop and design the final Strategic Plan
- Time at a regularly scheduled OWASA Board of Director Work Session to approve the final Strategic Plan

7. Develop Working Groups to Initiate Plan (September 2022 – January 2023)

Once approved by the Board, staff will mobilize to develop working groups to develop plans for moving forward on initiatives identified in the Plan. Because of the timing, the first year of implementing the Strategic Plan will be largely spent in the planning stage (i.e. no significant budget expense).

8. Align Strategic Plan with Annual Budget (Fiscal Year 2024 – 2028)

As identified in the Guiding Principles, the Strategic Plan will be used to align resources and guide budgets in the coming years. The Strategic Plan will serve as a basis for related budget requests. Where possible, desired outcomes will be related to budget requests.

9. Monitor Progress; Evaluate and Communicate Results (Ongoing)

In finalizing the Strategic Plan, OWASA staff and Board will agree on an approach for regular monitoring and evaluation of our progress on the Strategic Plan.

10. Conduct Interim Review and Update (Every other year)

In addition, we will establish a modified process to review and update throughout the implementation period. This will allow for future Board and community members to have input on the Strategic Plan while allowing the Plan enough time to tackle longer-term strategies.

Key Roles and Responsibility in the Planning Effort

1. **Board of Directors:** The Board of Directors will set the Guiding Principles for the strategic planning process and approve the final process framework. Throughout the Strategic Planning process, the Board will participate in dedicated work sessions with the Staff Leadership Team outside of regularly scheduled Board meetings (Proposed 3-4 dedicated work sessions that take place between October 2021 and June 2022). Individual Board Members will be asked to participate in a survey as part of the organizational and environmental scan. Ultimately, the Board of Directors will approve the final Strategic Plan.
2. **Staff Leadership Team:** The Executive Director and OWASA Directors will participate in discussions with the Board of Directors review OWASA’s Mission, Vision, and Values; synthesize the environment and organization scan, and set strategic goals and initiatives. These discussions will take place in dedicated work sessions, outside of regularly scheduled Board meetings. The Staff Leadership Team will also act as a liaison between all OWASA staff and the Board of Directors. They will do this by participating in staff discussions and focus groups.
3. **Project Manager:** OWASA’s Sustainability Manager will manage the overall process, including the organization of meetings, facilitation of some meetings, and selection and oversight of consultants.
4. **Strategic Planning Team:** A group of OWASA staff will be encouraged to serve as a review board throughout the entire strategic planning process. They will review key documents and provide feedback on those documents for the Board and Leadership Team’s consideration. They will participate in focus groups and serve as ambassadors of the strategic planning process within their workgroups. The Strategic Planning Team will be critical to developing the strategic implementation plan.
5. **All OWASA Staff:** All OWASA staff will be invited to participate in the survey and provide feedback on draft strategic goals and initiatives.
6. **Community Stakeholders:** Representatives from key stakeholders in the community will be invited to participate in an interactive priority setting and budgeting exercise designed for water utilities. This event provides a meaningful opportunity to (a) solicit feedback of their priorities for OWASA and (b) provide insight into the various priorities of a water and wastewater utility. Each representative will be invited to bring a “plus one”.
7. **Community:** The community that we serve at-large will be invited to provide feedback throughout the strategic planning process, including participation in a community survey. The survey will be shared in English and Spanish. Staff will make additional effort to present an overview of the strategic planning process to certain community groups to encourage participation in the survey.
8. **Past OWASA Board Members:** Past OWASA Board Members will be invited to provide historical context through a survey.
9. **Consultants:** Staff sees the need to engage outside consulting for the following tasks.
 - a. Survey development
 - b. Board discussion facilitation
 - i. Synthesize Environmental and Organizational Scan: 1 session

Discuss Process to Update the Strategic Plan

December 4, 2020

Page 5

- ii. Review of Mission, Vision and Values: 1 session
- iii. Setting Strategic Goals and Initiatives: 1-2 session
- c. Provide feedback on the overall process

After discussing the overall process and the tasks with a few different consultants, we estimate that the cost to engage a consultant for the aforementioned tasks to be about \$15,000.

Next Steps

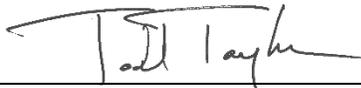
At the December 10 OWASA Board Meeting:

1. The Board is asked to provide feedback the Guiding Principles for the Strategic Development Process.
2. The Board is asked to provide feedback on the overall approach to developing a Strategic Plan.
3. If there are no major changes to the Guiding Principles, staff recommends that the Board make the following motion to approve them.

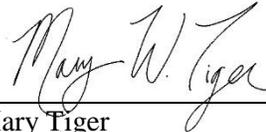
“Motion that the Board of Directors approves the proposed Guiding Principles for the Development of OWASA’s New Strategic Plan to and authorizes staff to develop a more-detailed process, in light of these Principles, for the Board’s approval.”

Following the December 10 OWASA Board Meeting:

4. Staff will form and work with an internal Strategic Planning Team to review and refine the approach and populate the Board’s 12-month calendar.
5. We will bring back a final, more-detailed proposed process for the Board’s approval by the end of March 2021.



Todd Taylor, P.E.
Executive Director



Mary Tiger
Sustainability Manager

Agenda Item 9:

One-time Additional Personal Leave for the Executive Director

Purpose:

Possible Board action to provide a one-time additional Personal Leave days for the Executive Director in lieu of traditional merit-based compensation adjustments.

Background:

On June 25, 2020, the OWASA Board of Directors appointed Todd Taylor as Executive Director of the Orange Water and Sewer Authority effective July 6, 2020, who previously held the position of General Manager of Operations.

The OWASA Board held two interim performance reviews without the Executive Director on August 27, 2020 and November 12, 2020.

Due to budget impacts from COVID-19, OWASA's Fiscal Year (FY) 2021 Budget does not include cost of labor or merit-based compensation adjustments for employees or the Executive Director. However, the Board recognizes that the Executive Director and employees are OWASA's most valuable asset, are considered essential and have continued to provide high quality and reliable service to the community throughout the pandemic.

The Board proposes to acknowledge the Executive Director's performance over the past year (including January through June when he served as General Manager of Operations) by providing the four (4) Personal Leave days in lieu of traditional compensation adjustments.

Action:

Proposed motion: "Motion to approve four (4) personal leave days in lieu of traditional compensation adjustments for the Fiscal Year 2021 for the Executive Director. These additional personal leave days are eligible for use during calendar year 2021."

Information:

- Excerpt from the Human Resources Policy Manual regarding Personal Leave

Excerpt from the Human Resources Policy Manual, K. Personal Leave
(Amended, September 10, 2020)

K. Personal Leave

Personal Leave is one full, eight hour day available to all permanent, full-time employees in each calendar year. This time does not carry over so employees must use it within each calendar year. The Leave is to be taken all in one eight hour day. While it is highly desirable that this Leave be pre-approved, it may be used for emergencies. The Personal Leave Day may be counted as "time worked" for overtime purposes only if it is preapproved. Personal Leave may not be donated as Compassionate Leave and may not be rolled into the employee's 457 Tax Deferred Compensation Plan account.

DRAFT

Agenda Item 10:

Review Board Work Schedule

Purpose:

- a) Request(s) by Board Committees, Board Members, Counsel and Staff
- b) January 14, 2021 Virtual Board Work Session
- c) January 28, 2021 Virtual Board Meeting
- d) Review 12 Month Board Meeting Schedule
- e) Review Pending Key Staff Action Items
- f) Review Action Items Recurring Every 3 to 5+ Years

Information:

- Draft agenda for the virtual January 14, 2021 meeting
- Draft agenda for the virtual January 28, 2021 meeting
- 12 Month Board Meeting Schedule
- Pending Key Staff Action Items from Board Meetings
- Action Items Recurring Every 3 to 5+ Years

December 10, 2020

OWASA Board of Directors – 12 Month Board Meeting Schedule (December 4, 2020)

Month	Board Meetings		Committee Meetings & Other Board Items
	Work Session	Business Meeting	
December 2020	Welcome New Board Member Kevin Leibel Resolution Declaring the Official Intent of OWASA to Reimburse Itself for Certain Capital Expenditures Related to the Construction of Certain Projects with Proceeds of Debt LRWSP – Drought Response Operating Protocol Possibly Amend COVID Annual Leave Benefits for Employees Sewer Use Ordinance and Sewer Policy Updates to Align with House Bill 873 Distribution System Key Performance Indicators Discuss Draft Plan for Developing Strategic Plan One-time Additional Personal Leave for the ED <p style="text-align: right;">12/10/2020</p>	<i>Holiday – no meeting</i>	Update on Customer Utility Bill Assistance to the BOCC (12-7-2020) Community Engagement Committee Meeting (12-9-2020)
January 2021	Appoint Audit Firm (C) Employee Health and Dental Insurance Update for FY 22 (C) (Tentative) Discuss Potential to Restore Streams and Wetlands on Biosolids Property (C) D&I Update (C) CS – Check-in on ED Performance (w/o ED) (C) <p style="text-align: right;">1/14/2021</p>	Annual Lakes Recreation Report (C) CIP Semiannual Report (C) Q2 Financial Report (C) Discuss FY 22 Budget Calendar, Planning Assumptions, and New Budget Format (C) Adopt Preliminary Resolution for Revenue Bonds <p style="text-align: right;">1/28/2021</p>	LRWSP staff update to the CTC (1-12-2021) Meeting between the CHTC OWASA Committee & Chapel Hill Appointees to the BOD (TBD)
February 2021	Department Managers FY 22 Budget Presentations (C) Affordability Outreach Program Update (C) Apprentice Program Update (C) CS – Prepare for GC Interim Review (C) <p style="text-align: right;">2/11/2021</p>	Adopt Series Resolution for Series 2021 Revenue Bonds (C) CS – GC Interim Review (C) <p style="text-align: right;">2/25/2021</p>	Annual Update and LRWSP staff update to the BOCC (2-16-2021)
March 2021	FY 22 Draft Budget and Rates (C) (Tentative) LRWSP – Summary of Community Engagement <p style="text-align: right;">3/11/2021</p>	Set date for Public Hearings – FY 22 Budget & Rates (C) <p style="text-align: right;">3/25/2021</p>	
April 2021	Review Employee Health and Dental Insurance Renewals (C) FY 22 Draft Budget and Rate Adjustment (C) BOD Eligible for Nominations to Election as Board Officers (include Officer descriptions) (C) Planning for BOD Self-Assessment (C) CS – Prepare for ED Interim Review (C) <p style="text-align: right;">4/8/2021</p>	Q3 Financial Report (C) FY 22 Draft Budget and Rates Adjustment Information and Authorize Staff to Publish Proposed Rates (C) CS – ED Interim Review (C) <p style="text-align: right;">4/22/2021</p>	
May 2021	(Tentative) LRWSP – Guiding Principles for Jordan Lake Alternatives Approve Employee Health and Dental Insurance Renewals (C) <p style="text-align: right;">5/13/2021</p>	Public Hearings – FY 22 Budget and Rates (C) <p style="text-align: right;">5/27/2021</p>	(Tentative) BOD Self-Assessment in Special Meeting
June 2021	(Tentative) LRWSP – Guiding Principles for Jordan Lake Alternatives Approve FY 22 Budget and Rates (C) Election of Officers (C) <p style="text-align: right;">6/10/2021</p>	TBD <p style="text-align: right;">6/24/2021</p>	(Tentative) BOD Self-Assessment in Special Meeting

OWASA Board of Directors – 12 Month Board Meeting Schedule (December 4, 2020)

Month	Board Meetings		Committee Meetings & Other Board Items
	Work Session	Business Meeting	
July 2021	D&I Update 7/8/2021 (C)	TBD 7/22/2021	Possible welcome of new Board member(s)
August 2021	CS – Prepare for GC Annual Review 8/12/2021 (C)	Preliminary 12 Month Financial Report (C) CIP Semiannual Report (C) CS – GC Annual Review (C) 8/26/2021	
September 2021	Annual Report on Disposal of Surplus Personal Property (C) EEO/Affirmative Action Report and D&I Update (C) 9/9/2021	Annual Report and Financial Audit (C) Approve GC Engagement (C) (Annual Meeting of the BOD) 9/23/2021	
October 2021	CS – Prepare for ED Annual Review (C) 10/14/2021	Strategic Trends Report (C) Annual Update of the Energy Management Plan (C) Reliability and Resiliency Improvements Update (C) CS – ED Annual Performance Review (C) 10/28/2021	
November 2021	TBD 11/11/2021	Holiday – no meeting	

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 Forest Management.
- Water Conservation Plan will be prepared concurrent with update of the Long-Range Water Supply Plan.
- Update of Strategic Plan. On October 24, 2019, the Board and staff agreed to begin updating the Strategic Plan in FY 2021.

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.

OWASA Board of Directors – 12 Month Board Meeting Schedule (December 4, 2020)

Abbreviations Used in Draft Schedule:

<p>(C) Recurring agenda item (generally these are “required” items)</p> <p>AV/AMI Agua Vista/Advanced Metering Infrastructure</p> <p>BOCC Orange County Board of County Commissioners</p> <p>BOD Board of Directors</p> <p>CE Community Engagement</p> <p>CEP Community Engagement Plan</p> <p>CHTC Chapel Hill Town Council</p> <p>CIP Capital Improvements Program</p> <p>COLA Cost of Labor Adjustment</p> <p>CS Closed Session of the Board</p> <p>CTC Carrboro Town Council</p> <p>CY Calendar Year</p> <p>D&I Diversity and Inclusion</p> <p>ED Executive Director</p> <p>EEO Equal Employment Opportunity</p> <p>EPA Environmental Protection Agency</p> <p>FY Fiscal Year</p> <p>GC General Counsel</p>	<p>HR Human Resources</p> <p>JLP Jordan Lake Partnership</p> <p>KPI Key Performance Indicator</p> <p>LRWSP Long-Range Water Supply Plan</p> <p>MOA Memorandum of Agreement</p> <p>MWBE Minority/Women-owned Business Enterprises</p> <p>MST Mountains-to-Sea Trail</p> <p>MFMM Multi-Family Master Meter</p> <p>NCDOT North Carolina Department of Transportation</p> <p>NRTS Natural Resources and Technical Services</p> <p>OC Orange County</p> <p>Q Quarter</p> <p>RFP Request for Proposals</p> <p>SRF State Revolving Fund</p> <p>SOW Scope of Work</p> <p>TBD To Be Determined</p> <p>WTP Water Treatment Plant</p> <p>WWTP Wastewater Treatment Plant</p>
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Agenda
Work Session of the OWASA Board of Directors
Thursday, January 14, 2021, 6:00 P.M.

Due to COVID-19 public health concerns, the Orange Water and Sewer Authority (OWASA) Board of Directors is conducting this meeting virtually utilizing [Microsoft Teams](#) software. Board Members, General Counsel and staff will be participating in the meeting remotely.

In compliance with the "Americans with Disabilities Act," interpreter services for non-English speakers and for individuals who are deaf or hard of hearing 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 virtual meetings online. Public comment is invited via written materials, ideally submitted at least two days in advance of the meeting to the Board of Directors by sending an email to board_and_leadership@owasa.org or via US Postal Service (Clerk to the Board, 400 Jones Ferry Road, Carrboro, NC 27510). Public comments are also invited during the Board Meeting via telephone, and you will need to be available to call-in during the meeting. Please contact the Clerk to the Board at aorbich@owasa.org or 919-537-4217 to make arrangements by 3:00 p.m. the day of the meeting.

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. The Board may take action on any item on the agenda.

Announcements

- a. Announcements by the Chair
 - 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. Announcements by Board Members
- c. Announcements by Staff
- d. Additional Comments, Suggestions, and Information Items by Board Members (Chair)

Consent Agenda

Information and Reports

1. Quarterly Report on Attendance at Board and Committee Meetings (Andrea Orbich)

Action

2. Resolution Awarding an Audit Contract and Authorizing Chair of the Board of Directors and the Finance Officer to Execute Said Contract (Stephen Winters)
3. Minutes of the December 10, 2020 Virtual Work Session of the Board of Directors (Andrea Orbich)

Regular Agenda

Discussion

4. Update on Employee Health and Dental Insurance for Fiscal Year 2022 (Stephanie Glasgow/Ellen Tucker, Gallagher)
5. Diversity and Inclusion Program Update (September – December 2020) (Stephanie Glasgow)
6. (Tentative) Discuss Potential to Restore Streams and Wetlands on Biosolids Property (Mary Tiger)
7. Review Board Work Schedule
 - a. Request(s) by Board Committees, Board Members and Staff (Ray DuBose)
 - b. January 28, 2021 Board Meeting (Todd Taylor)
 - c. February 11, 2021 Work Session (Todd Taylor)
 - d. 12 Month Board Meeting Schedule (Todd Taylor)
 - e. Pending Key Staff Action Items (Todd Taylor)

Summary of Work Session Items

8. Executive Director will summarize the key staff action items from the Work Session

Closed Session

9. The Board of Directors will Meet in Closed Session for the Purpose of Discussing a Personnel Matter, as provided in N.C. General Statutes 143.318.11(6) (Jody Eimers)

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Agenda
Virtual Meeting of the OWASA Board of Directors
Thursday, January 28, 2021, 6:00 P.M.

Due to COVID-19 public health concerns, the Orange Water and Sewer Authority (OWASA) Board of Directors is conducting this meeting virtually utilizing [Microsoft Teams](#) software. Board Members, General Counsel and staff will be participating in the meeting remotely.

In compliance with the "Americans with Disabilities Act," interpreter services for non-English speakers and for individuals who are deaf or hard of hearing 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 virtual meetings online. Public comment is invited via written materials, ideally submitted at least two days in advance of the meeting to the Board of Directors by sending an email to board_and_leadership@owasa.org or via US Postal Service (Clerk to the Board, 400 Jones Ferry Road, Carrboro, NC 27510). Public comments are also invited during the Board Meeting via telephone, and members of the public will need to be available to call-in during the meeting. Please contact the Clerk to the Board at aorbich@owasa.org or 919-537-4217 to make arrangements by 3:00 p.m. the day of the meeting.

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. The Board may take action on any item on the agenda.

Announcements

1. Announcements by the Chair
 - A. Any Board Member who knows of a conflict of interest or potential conflict of interest with respect to any item on the agenda tonight is asked to disclose the same at this time.
2. Announcements by Board Members
3. Announcements by Staff
4. Additional Comments, Suggestions, and Information Items by Board Members (Ray DuBose)

Petitions and Requests

1. Public
2. Board
3. Staff

Consent Agenda

Information and Reports

1. 12 Month Board Meeting Schedule (Todd Taylor)

Action

2. Minutes of the January 14, 2021 Closed Session of the Board of Directors for the Purpose of Discussing a Personnel Matter (Jody Eimers)

Regular Agenda

Information and Reports

3. Update on OWASA's COVID-19 Information and Discussion by the Board (Todd Taylor/ Mary Tiger)
4. 2020 Annual Lakes Recreation Report (Johnny Riley)
5. Capital Improvements Program Semiannual Report (Vishnu Gangadharan)
6. Financial Report for the Six-Month Period Ended December 31, 2020 (Stephen Winters)

Discussion

6. Fiscal Year 2022 Budget Calendar and Assumptions (Stephen Winters)

Discussion and Action

7. Adoption of Preliminary Resolution for Revenue Bonds (Stephen Winters)

Summary of Board Meeting Action Items

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

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Pending Key Staff Action Items from Board Meetings

No.	Date	Action Item	Target Board Meeting Date	Person(s) Responsible	Status
1.	11-12-2020	Send a doodle poll to schedule a Community Engagement Committee meeting in December to define the nature and type of public comments that require responses from the Board and draft those responses.	NA	Ayankoya Orbich	Doodle poll was sent to the Board week of November 16, 2020 and remote meeting scheduled for December 9, 2020 at 3:30 p.m.
2.	10-22-2020	Prepare a 360° Board Assessment for leadership staff.	TBD	Boehm Orbich Taylor	Survey emailed to staff on 11-16-2020.

OWASA Action Items Recurring Every 3 to 5+ Years

No.	Action Item	Purpose	Board Action Needed	Target Start Date	Target Completion Date	Frequency	Staff Lead
1.	Strategic Plan	Identify key strategic initiatives and corresponding actions for OWASA during the next 3-5 years (Note: the Board agreed to consider updating the 1996 Cane Creek Reservoir Watershed Study as part of the Strategic Plan process following completion of the Long-Range Water Supply Plan)	<ol style="list-style-type: none"> 1) Participate with and guide staff to develop an updated draft Strategic Plan 2) Invite and consider customer and stakeholder feedback on draft Plan 3) Approve Strategic Plan 4) Provide staff resources and guidance needed to execute the Plan 	September 2020 (tentative)	TBD	3-5 years	Executive Director and Sustainability Manager
2.	Local Water Supply Plan and Water Shortage Response Plan	NC General Statutes requires Local Water Supply Plan and Water Shortage Response Plan be updated at least every 5 years to be submitted to NC Department of Environmental Quality	<ol style="list-style-type: none"> 1) If staff identifies a policy or material change in the update of the Plans, Board guidance is required 2) Approve Plans 	Spring 2022 (if policy or material change)	Spring 2023 (Note: Board considering updating WSRP to include DROP on 12/10/20)	5 years	Planning and Development Manager
3.	Water Demand Projections will be updated approximately every 10 years, unless there is a significant change in assumptions	Periodically check the assumptions used to develop our water demand projections	<ol style="list-style-type: none"> 1) Provide staff feedback and guidance on assumptions and methods to develop demand projections 2) Invite and consider stakeholder feedback on draft demand projections 	2028	2029	10 years	Planning and Development Manager

OWASA Action Items Recurring Every 3 to 5+ Years

No.	Action Item	Purpose	Board Action Needed	Target Start Date	Target Completion Date	Frequency	Staff Lead
4.	Cost of Service Rate Study	<p>1) Ensure OWASA's rates, fees and charges continue to meet the goals of the organization (e.g. sustainability, conservation, affordability, etc.)</p> <p>2) Update cost allocations and adjust rates as necessary. NC General Statutes requires review of System Development Fees every 5 years.</p>	<p>1) Provide guidance to staff on draft Rate Study</p> <p>2) Invite and consider customer and stakeholder feedback on draft Rate Study</p> <p>3) Approve Rate Study and annual update of rates, fees and charges as needed</p>	2022	2023	5 years	Director of Finance and Customer Service
5.	Auditor	NC General Statutes requires an annual audit of OWASA's finances. It is a best-practice to invite proposals and select best-qualified audit firm every 3 years.	<p>1) Assign 1 or 2 Board Members to participate on staff's panel to select a best-qualified audit firm</p> <p>2) Award annual contract to audit firm</p>	Winter 2021	Spring 2022	3 years	Director of Finance and Customer Service
6.	Banking Services	It is a best-practice to invite proposals and select a best-qualified financial institution to provide OWASA's various banking needs.	<p>1) Provide guidance to staff on the social responsibility and environmental sustainability criteria to be considered when selecting a best-qualified financial institution for banking services</p> <p>2) Approve financial institution</p>	2028	2029	10 years	Director of Finance and Customer Service
7.	Employee Classification Pay and Compensation	It is best-practice every 5-7 years to thoroughly review employee jobs to ensure they are properly classified in their position and to ensure total compensation (pay and benefits) are competitive and meeting OWASA's needs.	<p>1) Provide guidance to staff about goals and objectives for employee total compensation</p> <p>2) Approve Employee Classification, Pay and Compensation Study & Pay Administration Guidelines</p>	2021	2022	5-7 years	Director of Human Resources and Safety

OWASA Action Items Recurring Every 3 to 5+ Years

No.	Action Item	Purpose	Board Action Needed	Target Start Date	Target Completion Date	Frequency	Staff Lead
8.	Financial Management Policy	It is a best-practice to review OWASA's Financial Management Policy periodically to ensure organizational fiscal objectives are appropriate.	<ol style="list-style-type: none"> 1) Provide guidance to staff about OWASA's Financial Management objectives 2) If needed, approve update to Financial Management Policy 	2021	2022	5 years	Director of Finance and Customer Service
9.	Audit of OWASA Board Policies and Ordinances (such as Cross-Connection, Sewer Use, Purchasing and Procurement, etc.)	It is a best-practice to have staff audit the various Board approved policies to ensure they are still appropriate. As needs change, staff is responsible to act and inform the Board.	<ol style="list-style-type: none"> 1) Provide guidance to staff on staff's recommended updates to various Board policies. 2) As needed, approve policy updates 	As needed	Ongoing	5+ years	Executive Director
10.	Communications and Community Engagement Plan	Review key communications and engagement initiatives to ensure they align with, and support, current and future business operations, as well as community engagement needs and priorities	<ol style="list-style-type: none"> 1) Update communications plan taking into consideration learnings from and measurement of the previous years' activities, and current and future fiscal year business priorities, as well as associated community engagement needs 	As needed	Ongoing	Annual	Communications and Community Relations Officer
11.	Human Resources Policy	As needs change, staff is responsible to act and inform the Board	<ol style="list-style-type: none"> 1) Provide guidance to staff on staff's recommended updates to various topics within the HR Policy. 2) As needed, approve policy updates 	As needed	As needed	As needed	Director of Human Resources and Safety