



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

Meeting of the OWASA Board of Directors

Thursday, July 14, 2022, 6:00 P.M.

Due to the ongoing North Carolina State of Emergency, 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.

Announcements

1. 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.
 - Welcome New OWASA Board Members Pedro Garcia and David Gorelick (Chapel Hill Appointees) and Melody Kramer and Elmira Mangum (Carrboro Appointees)
2. Announcements by Board Members
3. Announcements by Staff
 - Coleman Olinger, OWASA's new Asset Manager (Vishnu Gangadharan)

Petitions and Requests

1. Public
2. Board
3. Staff

Consent Agenda

Information and Reports

1. Quarterly Report on Attendance at Board and Committee Meetings (Andrea Orbich)

Action

2. Resolution Approving the Long-Range Water Supply Plan (Ruth Rouse)
3. Resolution Adjusting the Executive Director's Compensation (Bruce Boehm)
4. Minutes of the June 9, 2022 OWASA Board of Directors Meeting (Andrea Orbich)
5. Minutes of the June 9, 2022 Closed Session of the OWASA Board of Directors for the Purpose of Discussing a Personnel Matter (Ray DuBose)

Regular Agenda

Discussion and Action

6. Proposed Elimination of Account Delinquency Fee (Mary Tiger)
7. Review Proposed Work Plan for OWASA's Executive Director (Todd Taylor)

Discussion

8. Review Board Work Schedule
 - A. Request(s) by Board Committees, Board Members, General Counsel and Staff (Bruce Boehm)
 - Discuss Returning to In-Person Meetings (Bruce Boehm)
 - Discuss Alternative Committee Structure (Bruce Boehm)
 - Consider cancelling the August 11, 2022 Board Meeting (Todd Taylor)
 - B. Draft August 11, 2022 Board Meeting (Todd Taylor)
 - C. 12 Month Board Meeting Schedule (Todd Taylor)
 - D. Pending Key Staff Action Items (Todd Taylor)

Summary of Board Meeting Items

9. Executive Director will Summarize the Key Staff Action Items from the Meeting

Closed Session

10. The Board of Directors will Meet in a Closed Session for the Purpose of Discussing a Personnel Matter, as provided in N.C. General Statutes 143.318.11(6) (Bruce Boehm)

Agenda Item 1:

ORANGE WATER AND SEWER AUTHORITY - QUARTERLY REPORT

ATTENDANCE AT BOARD AND COMMITTEE MEETINGS

BOARD OF DIRECTORS	APRIL 2022	MAY 2022	JUNE 2022
JODY EIMERS, CHAIR	April 14 Board (Canceled) April 28 Board (Meeting)	May 12 Board (Meeting) May 26 Board (Canceled)	Jun 9 Board (Meeting) Jun 23 Board (Canceled) Jun 23 SPWS (Meeting)
YINKA AYANKOYA, VICE CHAIR	April 14 Board (Canceled) April 28 Board (Meeting)	May 12 Board (Meeting) May 26 Board (Canceled)	Jun 9 Board (Meeting) Jun 23 Board (Canceled) Jun 23 SPWS (Meeting)
JOHN N. MORRIS, SECRETARY	April 14 Board (Canceled) April 28 Board (Meeting)	May 12 Board (Meeting) May 26 Board (Canceled)	Jun 9 Board (Meeting) Jun 23 Board (Canceled) Jun 23 SPWS (Meeting)
TODD BENDOR	April 14 Board (Canceled) April 28 Board (Meeting)	May 12 Board (Meeting) May 26 Board (Canceled)	Jun 9 Board (Meeting) Jun 23 Board (Canceled) Jun 23 SPWS (Meeting)
BRUCE BOEHM	April 14 Board (Canceled) April 28 Board (Meeting)	May 12 Board (Meeting) May 26 Board (Canceled)	Jun 9 Board (Meeting) Jun 23 Board (Canceled) Jun 23 SPWS (Meeting)
RAY DUBOSE	April 14 Board (Canceled) April 28 Board (Meeting)	May 12 Board (Meeting) May 26 Board (Canceled)	Jun 9 Board (Meeting) Jun 23 Board (Canceled) Jun 23 SPWS (Meeting)
KEVIN LEIBEL	April 14 Board (Canceled) April 28 Board (Meeting)	May 12 Board (Meeting) May 26 Board (Canceled)	Jun 9 Board (Meeting) Jun 23 Board (Canceled) Jun 23 SPWS (Absent)
VACANT CARRBORO SEAT			
VACANT CHAPEL HILL SEAT			
TOTAL MEETINGS HELD:	1	1	2

Board – Board of Directors Meeting
SPWS – Strategic Plan Work Session

July 14, 2022

Agenda Item 2:

Resolution Approving the Long-Range Water Supply Plan

Purpose:

To adopt the Long-Range Water Supply Plan (LRWSP) for use as a guide for future policy and investment decisions regarding OWASA's long-term water supply.

Background:

- The OWASA Board of Directors approved a Strategic Plan on March 13, 2014 and subsequently updated it on June 9, 2016; this Strategic Plan included an action to update the 2010 LRWSP to provide reliable and high quality supply of water for the next 50 years.
- In accordance with that Strategic Plan, OWASA followed a thoughtful and inclusive process that included discussion at 29 Board meetings and two public processes where public interest and participation were solicited and received, with more than 800 pages of written informational reports and materials provided by OWASA staff to inform the Board of Directors and assist in their decision making as to how best to meet the community's water supply needs over the next fifty years. OWASA also provided opportunities for neighboring utilities to provide input to the process.
- At the June 10, 2022 Board of Directors meeting, the Board authorized staff to work with the Western Intake Partnership (City of Durham, Chatham County, and Town of Pittsboro) to invest in the intake and transmission infrastructure as the preferred alternative to meet our 50-year water supply needs. The Board recognized that this alternative invests in infrastructure that is difficult and costly to expand in the future, secures our Jordan Lake allocation, addresses drought vulnerability, and meets our 50-year needs.
- At the June 10, 2022 Board of Directors meeting, the Board also authorized staff to fund OWASA's share of studies currently underway by the Western Intake Partnership to plan, permit, and design the intake and transmission infrastructure.
- The Board of Directors further noted on June 10, 2022 that there are several steps along the Western Intake Partnership planning process at which this decision could be re-evaluated.
- The attached LRWSP report summarizes the process and decisions made during the planning process.

Staff and Counsel Recommendation and Board Action:

Staff and counsel recommend that the Board of Directors adopt the Long-Range Water Supply Plan. If the Board concurs with staff and General Counsel, we recommend that the Board of Directors approve the resolution. Draft motion language follows: *Motion that the Board of Directors approve the Resolution to Adopt the Long-Range Water Supply Plan.*

Information:

- Attachment 1: Long-Range Water Supply Plan
- Attachment 2: Resolution to Adopt the Long-Range Water Supply Plan

July 14, 2022

Draft Long-Range Water Supply Plan

July 14, 2022



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.

DRAFT Long-Range Water Supply Plan

July 14, 2021

Executive Summary

OWASA is committed to supplying reliable and high-quality water to our growing community and economy for years to come. The planning, permitting, and partnerships required in water supply development can take decades to develop and secure. That is why OWASA is planning for the water needs of our community two generations ahead.

In coordination with local planners, OWASA recently updated our 50-year forecast for water demands in the Chapel Hill-Carrboro community, as well as our projected water supply with current resources in a changing climate. These analyses show that OWASA has enough water under most circumstances for the next few decades.

We do have one vulnerability: the watershed that fills the Cane Creek Reservoir, which stores most of the community's water, is relatively small and the reservoir is slow to refill. University Lake has a relatively large watershed for its size, but offers significantly less water storage than Cane Creek Reservoir and by itself does not meet the community's needs. Thus, when we experience an extended drought or back-to-back droughts in the future, we risk low water supplies, particularly in light of climate variability.

OWASA used a thoughtful, inclusive process to identify and evaluate supply and demand management (conservation) alternatives. OWASA staff met with local government planners, UNC Chapel Hill (UNC), and developers, obtained input from Board members and neighboring utilities, and reviewed existing plans and documents to identify demand management, reuse, and supply alternatives to meet our long-term needs through 2070.

We used a multi-step process to evaluate the alternatives which included opportunities for the community to provide input on two separate occasions. Feedback from the first round of community engagement was considered by the Board of Directors as they developed guiding principles to evaluate alternatives against. This evaluation resulted in the Board of Directors selecting an alternative which provides access to Jordan Lake as the best method to meet our long-term needs. At this stage, the Board directed staff to obtain feedback from the community on this decision; they later evaluated three alternatives to access our Jordan Lake allocation against criteria that included improving OWASA's water supply resiliency and reliability, cost, and feedback from the community. Ultimately the Board of Directors selected working with neighboring utilities to invest in a new intake and transmission facilities on the west side of Jordan Lake; the Board postponed investing in a proposed new treatment plant on the west side of the lake. By focusing investment in new infrastructure on the facilities that are difficult and costly to expand in the future, OWASA seeks to balance securing our future water supply in Jordan Lake with minimizing cost.

OWASA recognizes that working to further conserve water is important to our customers. Conservation by residents and customers across the service area in recent years has greatly reduced our average daily water use, to the point that our future water supply needs could not be

met through additional day-to-day conservation measures. However, OWASA is developing a Water Conservation Plan that will serve as a companion document to this Long-Range Water Supply Plan. Conservation alternatives that are cost-effective will be included and further evaluated through that program.

What is OWASA’s Long-Range Water Supply Plan?

OWASA’s Long-Range Water Supply Plan is an evaluation of our 50-year water needs (through 2070) and an evaluation of alternatives to meet those needs to ensure we have enough water for our community two generations from now.

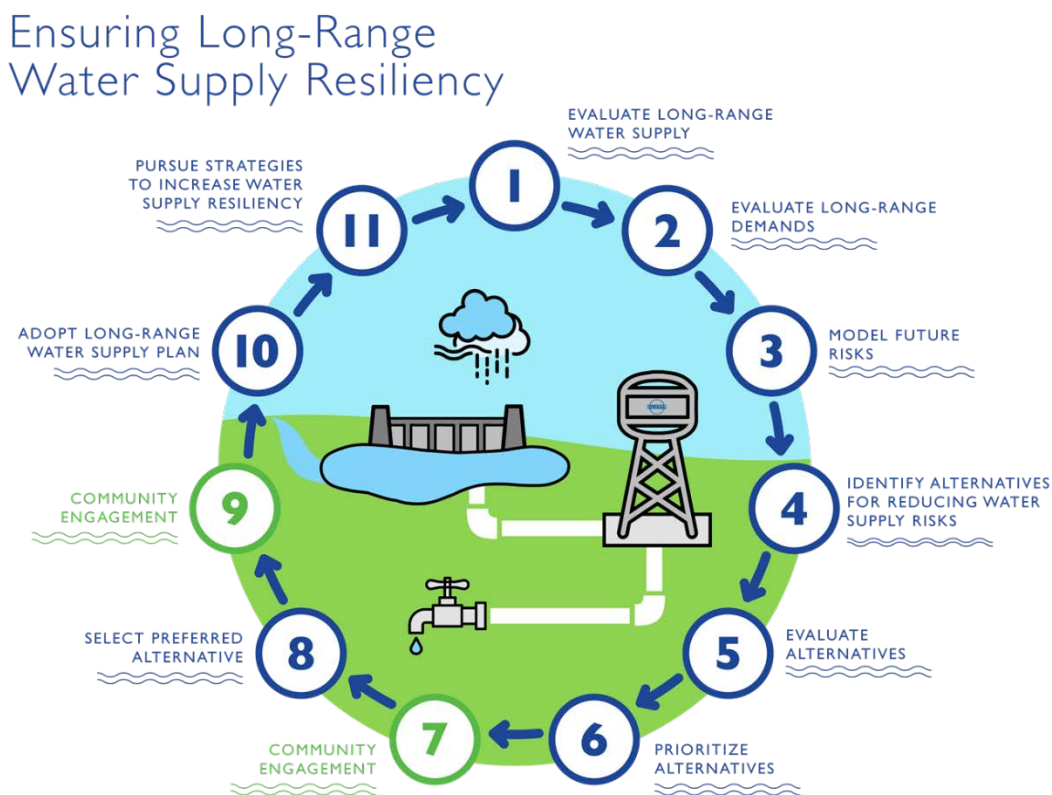
Why do we need to look out 50 years?

The planning, permitting, and partnerships required to develop new water supplies can take decades to develop and secure. Thus, it is common practice for water utilities to plan for water needs 30-50 years into the future, and even longer.

What are the key steps to develop the Long-Range Water Supply Plan?

Figure 1 illustrates the key steps to develop the LRWSP.

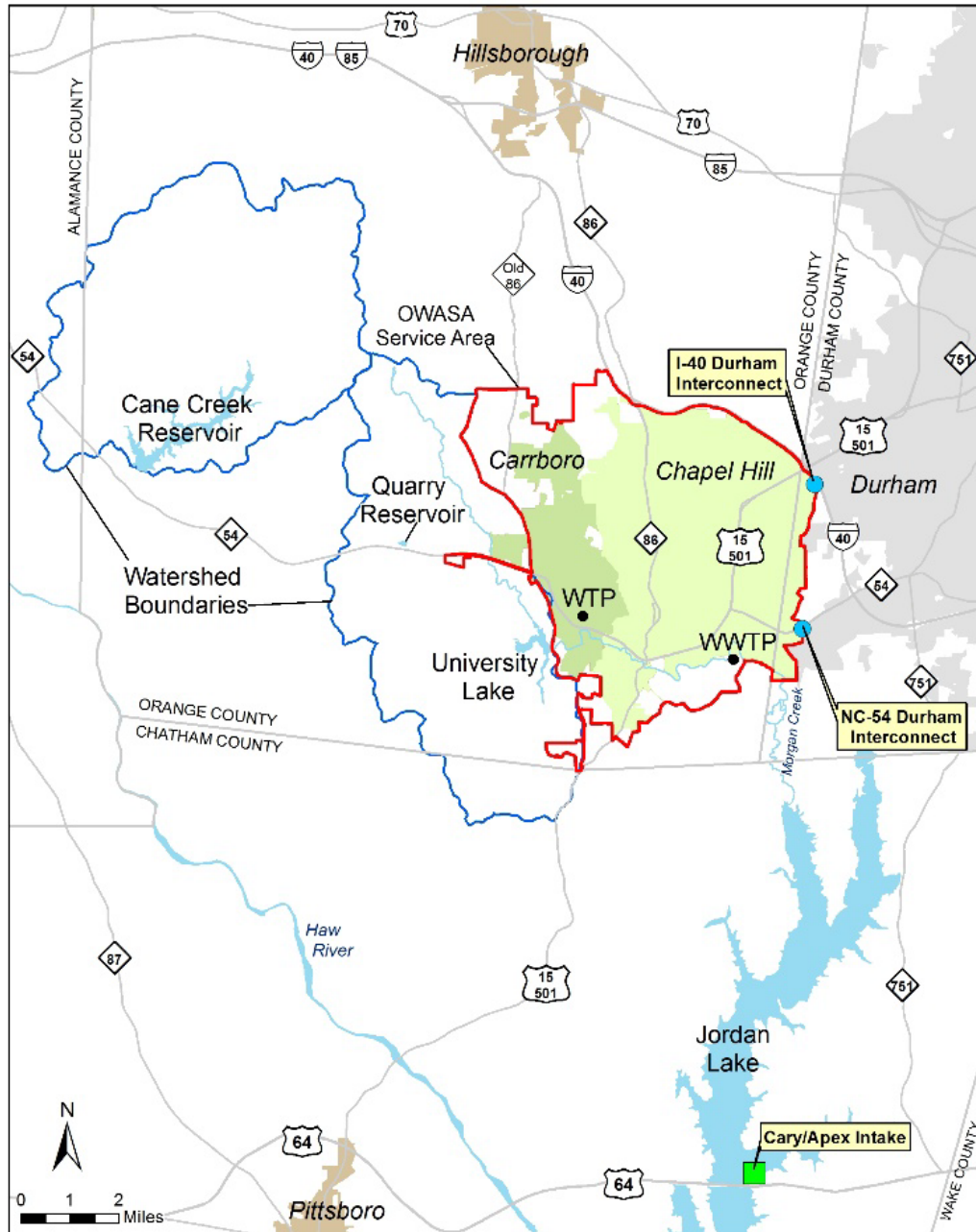
Figure 1: Long-Range Water Supply Planning Process



Where does OWASA currently get its water?

OWASA has three locally managed water supply sources including Cane Creek Reservoir, University Lake, and its Quarry Reservoir as illustrated in Figure 2. OWASA also has an allocation of 5 percent of Jordan Lake’s water supply pool which we can access on an emergency basis through our mutual aid agreements with the Town of Cary and City of Durham.

Figure 2: OWASA’s Water Supply Sources



How much water do we currently have?

OWASA’s three local reservoirs can provide approximately 10.5 million gallons per day (mgd) of water over the course of a year, assuming the drought-of-record. There are plans to expand our Quarry Reservoir, and when that expansion is completed in approximately 2035, we will have about 12.6 mgd of water. The blue line in Figure 3 illustrates the amount of water over time these local water supplies provide. We expect that our allocation from Jordan Lake can reliably provide approximately 5 mgd, but we do not have the infrastructure in place to access that water on a permanent basis and have no guaranteed access to it. Thus, our allocation of water is not included in the estimated yield line shown on Figure 3.

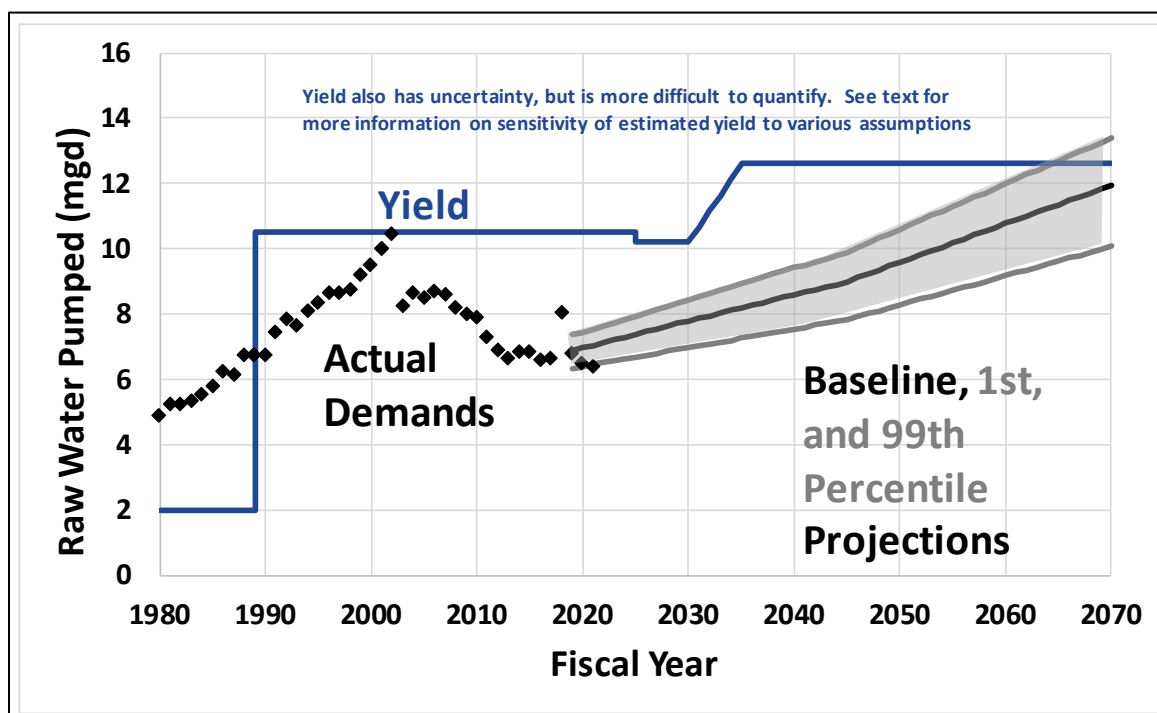
How much water do we currently use?

We currently use about 7 mgd of water on an annual average basis.

How much water will we need in the future?

Figure 3 illustrates the amount of water we can obtain from our existing water supplies and planned Quarry Reservoir expansion (shown by the increase in yield starting in 2030 on Figure 3) along with our 50-year estimated water demands. The figure shows that under most circumstances we have enough water to meet our needs for several decades.

Figure 3: The Yield of OWASA’s Water Supplies and Long-Term Water Demands



How did OWASA develop its water demand projections?

OWASA based its water demand projections on regional growth projections that were finalized in 2018 for the regional Metropolitan Transportation Plan that the Towns of Carrboro and Chapel

Hill and Orange County participated in. The transportation planning effort also included information obtained from UNC about its expected growth. This regional transportation planning effort used a model to estimate the number of new single family and multi-family dwelling units and non-residential square footage for 2045 and build-out conditions based on land use plans provided by the local governments. OWASA then applied water use factors estimated from billing data for each residential dwelling unit and each square foot of non-residential space. We assumed that build-out will occur in 2070. We tested this assumption and it appeared reasonable assuming a linear rate of growth. More details on the methods used to develop the water demands can be found in this [report](#).

OWASA recognizes that estimating water demands in 50 years has much uncertainty. Growth could occur faster or slower than anticipated, different types of growth could occur than anticipated (new large water user could move to area), our service area boundary could change, and water demands could change depending on behaviors and technology. Climate change could also impact the rate of growth (will people relocate from coastal areas to the Triangle?) and water use (will we use more water as temperatures rise?). Thus we included an uncertainty analysis in our demand projections as illustrated by the grey shading in Figure 3 (more information is [here](#)).

Is there also uncertainty in our yield estimates?

Yes. The following factors contribute to uncertainty in the yield estimates:

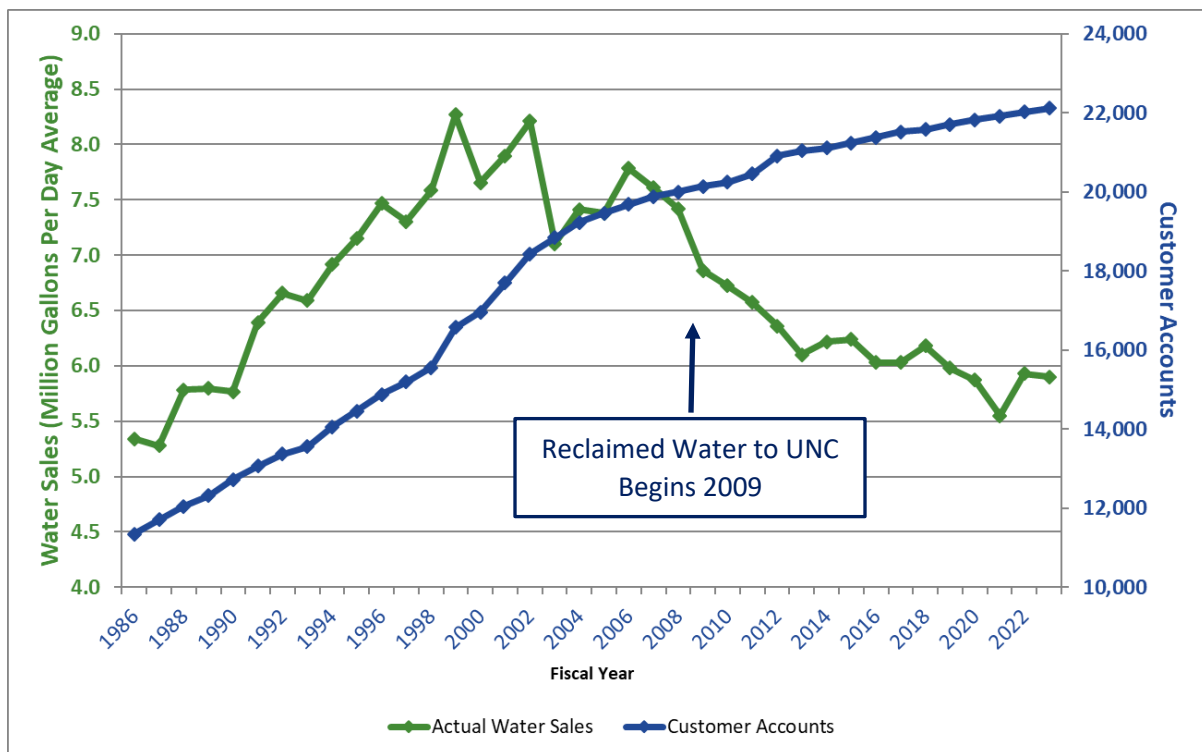
- Streamflow records – the stream flow records available to estimate the yield of our reservoirs have measurement errors and limited spatial and temporal extent. They may not be representative of long-term historical flows.
- Estimates in storage volume – potential errors in storage volume include (1) the accuracy of the original survey data, and (2) the rate of sedimentation into the reservoir
- Climate change – climate change will impact flows into our reservoirs and evaporation rates. The majority of climate change models indicate that the southeast will receive approximately the same or more rainfall on an average basis, but we will have more frequent high flow events. Some of those models also indicate there will be more intense droughts. The [North Carolina Climate Science Report](#) states that it is likely that future severe droughts will likely be more frequent and intense due to higher temperatures and their associated increase in evaporation. Thus OWASA wants to be prepared for when a new drought of record occurs.

Because of the difficulty in estimating uncertainty around climate change and the cost to develop an analysis similar to the one completed for the demand projections, OWASA opted not to perform a similar analysis for yield. However, our consultant did perform a sensitivity analysis around the inputs and noted that changing inflows to the reservoir have the highest impact on our estimated yield. Based on the sensitivity runs performed, OWASA's estimated yield after the expanded Quarry Reservoir is online could vary between 11.5 and 15 mgd (baseline estimated yield is 12.6 mgd).

What role does water conservation and water recycling and reuse play in our water needs?

Water conservation and recycling water have played a very important role in OWASA’s service area resulting in reduced drinking water demands and energy use. As illustrated in Figure 4, we are selling the same amount of water as in the early 1990s despite an increase of about 70 percent in customer accounts. Following the droughts of 2001-02 and 2007-08, our customers conserved water and have continued to save water. This is in part due to conservation-based rate structures implemented in 2002 and 2007. In addition, UNC partnered with us to develop a reclaimed water system that allows them to use highly treated wastewater to meet non-drinking water needs such as for cooling buildings and irrigation. Our reclaimed water system now meets over 10 percent of the community’s water needs. OWASA also developed a system to recycle water within its Jones Ferry Road WTP, which saves approximately 7 percent of our drinking water.

Figure 4: OWASA Water Sales and Customer Accounts



Our water demand projections assume that our customers will continue to look for ways to save water. We’ve assumed that conservation practices will continue to result in unit demands decreasing by 5 to 10 percent (factors varied depending on whether new/existing development and whether residential or commercial development) over the next 25 years.

Why do we need additional supplies or demand management strategies?

As seen in Figure 3, we will have plenty of water under most circumstances. However, we want to plan for an unclear future given the uncertainty in our demand projections, the uncertainty in the model used to estimate the reliable yield of our reservoirs, and the uncertainty of a changing

climate. We also need to be prepared to reliably meet demands should we have a major operational emergency at one of our water supplies.

While we have plenty of water under most circumstance, Cane Creek Reservoir is vulnerable to extended drought or back-to-back droughts. It was designed to maximize storage, which is generally good and provides us a higher yield. However, it has a relatively small drainage area for its storage volume and can take a long time to refill. Figure 5 illustrates the drainage area and storage for Cane Creek Reservoir and other water supply reservoirs in the Triangle region. University Lake refills quickly, but it does not hold enough water to meet our daily needs; Cane Creek Reservoir could take over a year to refill depending on weather conditions. When the expanded Quarry Reservoir is online in approximately 2035, this issue will be exacerbated. The small watershed area of Cane Creek Reservoir leaves our water supply susceptible for a period of time after a drought.

Having options to meet future needs helps ensure the reliability and resiliency of our water. Running out of water is not an option.

Figure 5: Cane Creek Reservoir (CCR) and Other Triangle Water Supply Reservoir Volume to Drainage Area Ratios

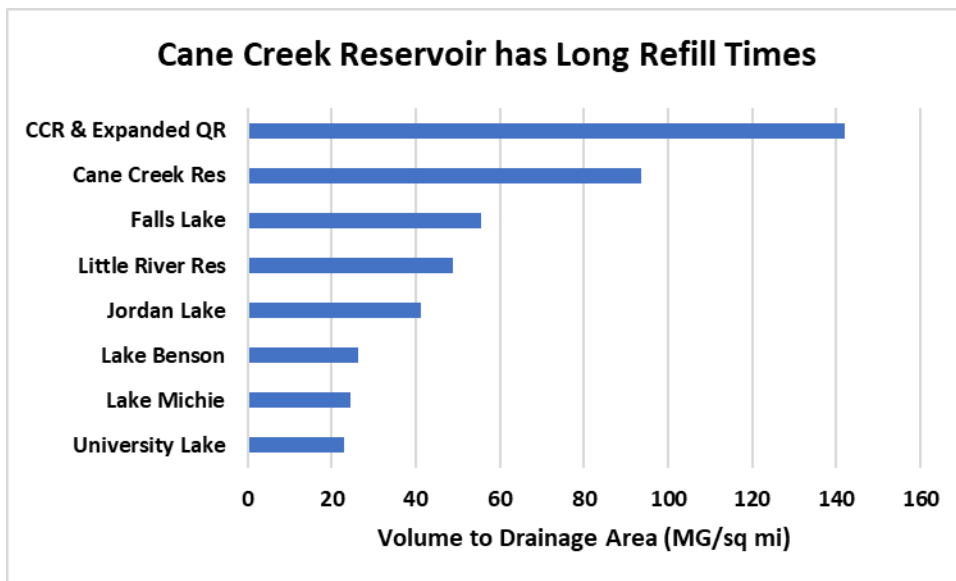


Figure 3 shows higher demands than yield in the 1980s. Did we run out of water then?

Before Cane Creek Reservoir came online in 1989, OWASA’s estimated yield was 2 mgd. This estimated yield is based on the drought of record, so years with higher flows than the drought of record would result in actual yields higher than 2 mgd and we would not have a water shortage. However, in the 1980s, we often had to impose mandatory restrictions on our customers, and we also had to purchase a lot of water from our neighboring utilities.

If we have an allocation of water from Jordan Lake, do we need additional supply?

We do have an allocation of water from Jordan Lake that is not accounted for in Figure 3. However, we do not have a method to access that allocation of water on a regular basis. We can use our mutual aid agreements with the Town of Cary and City of Durham to access it on an emergency basis. However, there could be constraints in infrastructure such as the capacity of the Cary-Apex water treatment plant or the interconnections between Cary and Durham. If capacity constraints would jeopardize their water customers or other regional utilities, OWASA's request for water could be denied under the current agreements. If we had guaranteed access to Jordan Lake, we would not need to find an alternative supply.

Are there opportunities to work on water supply more cost-effectively with our neighboring utilities?

Yes. OWASA and other utilities in the Triangle have a history of working proactively to plan for regional water supply and emergencies. OWASA and twelve other local governments worked collaboratively through the Jordan Lake Partnership to develop the Triangle Regional Water Supply Plan which identified supplies to meet the region's needs through 2060. This Partnership has been reformed as the Triangle Water Supply Partnership (TWP). The TWP is currently updating an interconnection model that is being used to plan for water emergencies such as water treatment plants being offline. The TWP also plans to update the Regional Water Supply Plan in the next decade.

A subset of these Partners have been working together to develop a new water supply intake and treatment facility on the western side of Jordan Lake. The City of Durham, Chatham County, and the Town of Pittsboro have formed the Western Intake Partnership (WIP) and are funding studies to plan, design, permit, and construct a new intake, treatment plant, and transmission facilities on the west side of Jordan Lake. OWASA has been attending meetings, but to date has not participated financially. As part of this LRWSP process, OWASA evaluated different ways of partnering with the WIP. Based on that evaluation, the Board of Directors has determined that OWASA will participate in the permitting, preliminary design of the intake and transmission routes, and the governance planning projects and begin to participate financially in the WIP beginning in July 2022.

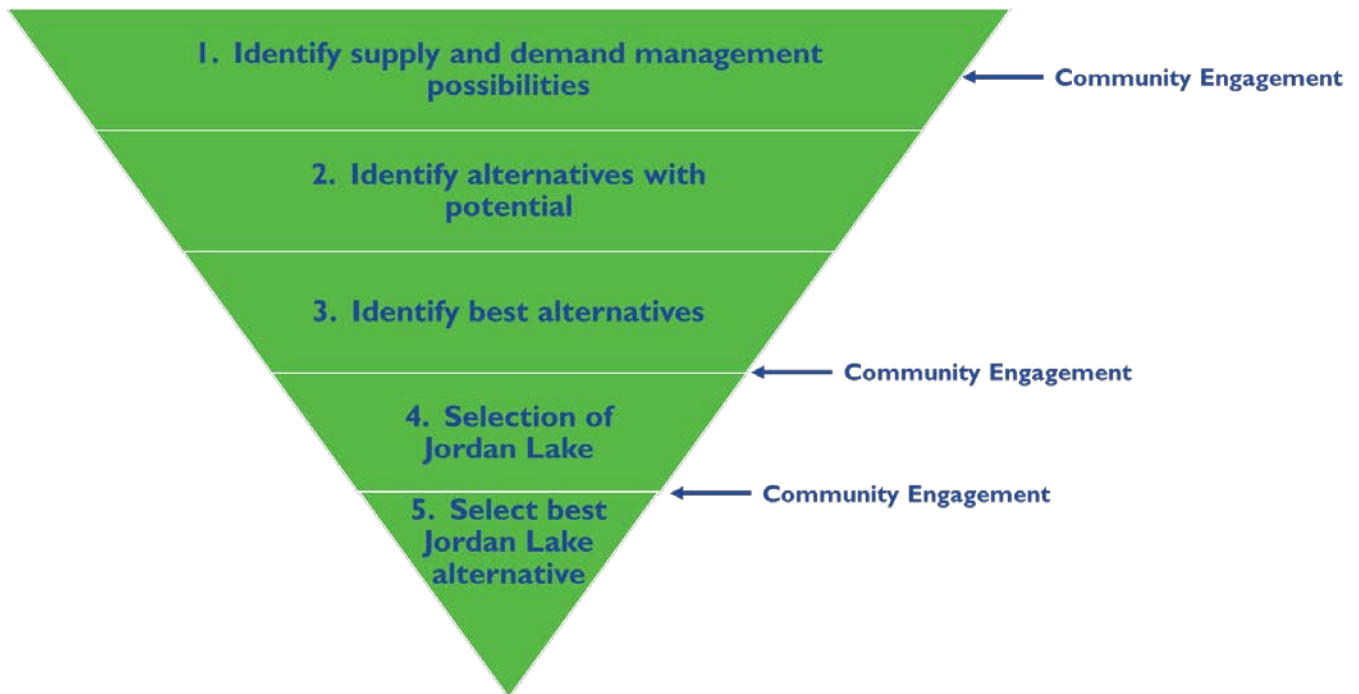
What are supply and demand management strategies?

Supply-side options are strategies which increase the total reliable yield of our water supply system. In other words, they would raise the blue line shown in Figure 3. Demand management options are strategies which reduce raw water demands from existing and/or new development or lower the black line shown in Figure 3.

What process did OWASA use to identify and evaluate supply and demand management alternatives?

OWASA used the process summarized in Figure 6 to identify and eliminate supply and demand side alternatives. Each of the steps illustrated in Figure 6 is described in the text below.

Figure 6: Process to Identify and Eliminate Supply and Demand Management Alternatives



Step 1: Identify supply and demand management possibilities

OWASA met with local government planners and UNC, obtained input from Board members and neighboring utilities, and reviewed existing plans and documents to identify potential alternatives to meet our long-term needs through 2070. Participants in meetings were asked to provide all their ideas and not to worry about any constraints that may impede their implementation. The goal of this step was to identify any demand management or supply alternative that may be feasible.

Step 2: Identify alternatives with potential

During this step, OWASA staff prescreened the various alternatives against the following criteria:

- Potential water provided or saved by the alternative
- Relative cost of the alternative
- Ease of implementation

Based on this analysis, OWASA identified nine supply alternatives that fell in 3 major categories:

1. Jordan Lake alternatives (4 alternatives)
2. Quarry Reservoir (2 alternatives)

3. Indirect and direct potable reuse (3 alternatives)

The four Jordan Lake alternatives are summarized below:

- **Alternative 1 – Full Partner in New Intake and Water Treatment Plant (WTP) on Western Side of Jordan Lake** – OWASA would partner with the Western Intake Partners (currently City of Durham, Town of Pittsboro, and Chatham County) on a new water supply intake, water treatment plant, and major transmission infrastructure on the western side of Jordan Lake.
- **Alternative 2 – Continue with Mutual Aid Agreements** - This is our existing baseline condition. Under this alternative, OWASA would access its Jordan Lake allocation using its mutual aid agreements with the Town of Cary and City of Durham. This alternative does not guarantee access to our allocation.
- **Alternative 3 – Develop New Agreement with Towns of Cary and Apex to Guarantee Access to Jordan Lake Water** – The Towns of Cary and Apex jointly own the only water supply intake on Jordan Lake and share a water treatment plant. Under this alternative, OWASA would develop a new agreement with the Towns to guarantee withdrawal and treatment of a certain amount of water on an annual basis.
- **Alternative 4 – Develop Agreement with Western Intake Partners to Guarantee Access to Jordan Lake Water** – OWASA would develop an agreement with the Western Intake Partners to guarantee capacity in the proposed intake and water treatment plant on the western side of Jordan Lake. This agreement would guarantee a certain amount of water on an annual basis in return for payment from OWASA.

Two Quarry Reservoir supply alternatives were evaluated:

- **Alternative 5 – Shallow Quarry** – access with existing pumping infrastructure. This is the alternative selected in the 2010 LRWSP and considered the future baseline alternative. The yield from the expanded Quarry Reservoir is included on Figure 3.
- **Alternative 6 – Deep Quarry** – deeper quarry depths would be accessed with new pumping infrastructure when the expanded Quarry Reservoir is online.

OWASA evaluated the use of reclaimed water (highly treated wastewater) for drinking (potable) water uses. As used in our LRWSP, indirect potable reuse involves mixing reclaimed water in an environmental buffer prior to being treated at the Jones Ferry Road WTP; direct potable reuse involves further treating the reclaimed water at the Mason Farm Wastewater Treatment Plant (WWTP) and then pumping it directly into our water distribution system. Potable reuse alternatives evaluated are summarized below:

- **Alternative 7a: Indirect Potable Reuse with Pretreatment Mixing Basin near Quarry Reservoir** – this alternative was developed to meet the requirements of a general statute which allows for indirect potable reuse mixed at specified ratios with another source water in an engineered pretreatment mixing basin. Reclaimed water from the

Mason Farm WWTP would be pumped to a new pretreatment mixing basin near the Quarry Reservoir. This water would be mixed with water from Cane Creek Reservoir in accordance with the statute.

- **Alternative 7b: Indirect Potable Reuse with Return to Quarry Reservoir** – This alternative is similar to Alternative 7a, but water from the Mason Farm WWTP is pumped to the Quarry Reservoir rather than a new pretreatment mixing basin.
- **Alternative 8: Indirect Potable Reuse with Return to University Lake** – Reclaimed water from the Mason Farm WWTP is returned to University Lake.
- **Alternative 9: Direct Potable Reuse** – Under this alternative, additional treatment would be constructed at the Mason Farm WWTP and treated water would then be pumped directly to our distribution system. Two methods of treating the reclaimed water were identified: (1) use of carbon (generally preferred since typically lower capital and operating/maintenance costs) and (2) reverse osmosis – may be required to removed total dissolved solids.

OWASA considered four main demand management alternatives. Three of these alternatives involve the use of reclaimed water and one is a series of programmatic demand management strategies that collectively had the potential to reduce water demand to a degree that could delay the need for additional supply.

- **Alternative 10: Reclaimed Water to UNC Cogeneration Facilities** – This alternative involves the installation, operation and maintenance of new infrastructure that would enable UNC to use RCW instead of drinking water at its Cogeneration Facility.
- **Alternative 11: Expanded Reclaimed Water Use at UNC Main Campus** – This alternative involves expanding the use of reclaimed water on UNC’s campus to meet certain non-drinking water demands in new buildings envisioned in the University’s recently updated Master Plan.
- **Alternative 12: Onsite Wastewater Treatment and Reuse** – This alternative evaluated the use of reclaimed water systems to meet non-drinking water needs at the building or major development scale.
- **Alternative 13: Programmatic Demand Management Strategies** – Four alternatives were evaluated:
 - **Alternative 13a: Unit Submetering and WaterSense Installation** – Multi-family development is projected to be a significant area of water use growth in our service area. Sub-metering will help to ensure that the users of water within those developments are aware of the amount of water they use. This strategy was coupled with a requirement for developers to use high efficiency WaterSense fixtures.

- **Alternative 13b: Water Efficiency Design Assistance and Conservation-Oriented System Development Fee** – Under this alternative, OWASA would provide individualized design review assistance for new development. This service would be complemented with a system development fee that further incentivizes efficiency beyond our current fee structure. Rather than a regulatory requirement, this alternative would act more as a customer service enhancement to encourage more efficient development.
- **Alternative 13c: On-bill Financing for Water Efficient Fixtures** – Older homes may have inefficient water fixtures, which became a requirement in 1994. Under this alternative, OWASA would loan a customer money to replace older fixtures, and the loan is paid back through an on-bill financing program.
- **Alternative 13d: Minimize Need for System Flushing for Water Quality Purposes** – OWASA flushes its water lines to maintain high levels of water quality. There are some regions in the system where low water flow results in “stale” water (dead end lines) that require more frequent flushing. Under this alternative, OWASA would loop lines to remove dead end areas.

Step 3: Identify best alternatives

During this step, OWASA evaluated the 13 alternatives against the three pillars of sustainability: social performance, environmental performance, and financial performance. Generally, these goals included the following criteria:

- Social – the social impacts include whether the source meets our long-term water supply needs; the impact on the diversity of our water supply; permit requirements and legality; whether the alternative requires a partnership; and impacts on the community during construction or operation of the source.
- Environmental – this includes impacts on energy use, greenhouse gas emissions, and streams and wetlands. In general, the greater the amount of new infrastructure needed, the greater the impacts. However, in order to permit any of the alternatives, many of the impacts would need to be minimized through planning and design and then mitigated.
- Financial – staff evaluated the capital costs in 2020 dollars and the life cycle costs (capital and operating/maintenance costs) of each alternative.

Based on this evaluation against the pillars of sustainability, the Board directed staff to continue to evaluate alternatives to access our Jordan Lake allocation. The Board also directed staff to complete the first round of community engagement. Based on the alternatives analysis described above and feedback from the community, OWASA selected the following alternatives to evaluate in the next step:

- **SQ: Status Quo** - Continue with mutual aid agreements and plans to access expanded Quarry Reservoir with existing pumping infrastructure (down 100 feet).

- **JL-P: Partner in new intake and WTP on Jordan Lake** at Phase 1 capacity of 0.5 mgd and Phase 2 capacity of 2 mgd.
- **JL-A: Agreement with Western Intake Partners (WIP)** to invest in a long-term option to join the WIP as a partner in Phase 2 with payments also serving as an option fee that would give OWASA the right to request water transfers from the WIP during Phase 1 under specified conditions such as drought. (Phase 1 facilities will be online in about 2031 and Phase 2 facilities will be available in about 2050).
- **DQ: Deep Quarry** - access deeper depths of expanded Quarry Reservoir with new pumping and transmission infrastructure.
- **DPR: Direct Potable Reuse** returning additionally treated wastewater from Mason Farm WWTP to the drinking water distribution system.

Step 4: Selection of Jordan Lake

Based on feedback received from the community, OWASA developed and ranked guiding principles to evaluate the five best alternatives against:

1. We will continue to provide the community with high-quality treated drinking water that meets or surpasses federal and state public health requirements regardless of the source(s) of supply. Any supply alternative that cannot meet this guiding principle will be eliminated from further consideration.
2. We will consider the following factors for each supply option:
 - a. Highest Priority
 - i. ability to reduce our vulnerability to extended drought conditions
 - ii. ability to improve the reliability and resiliency of our water supply including addressing single points of failure;
 - iii. impact on current rates.
 - b. High Priority
 - i. impact on future rates;
 - ii. incremental long-term impacts on the environment from operation of the infrastructure needed to support the water supply;
 - iii. incremental impacts on the community from OWASA's participation in the construction and operation of the water supply source including impacts to landowners, recreation, and transportation;
 - iv. flexibility to change course as we learn more about future customer demands, growth, climate impacts, and other uncertainties.

c. Other Considerations

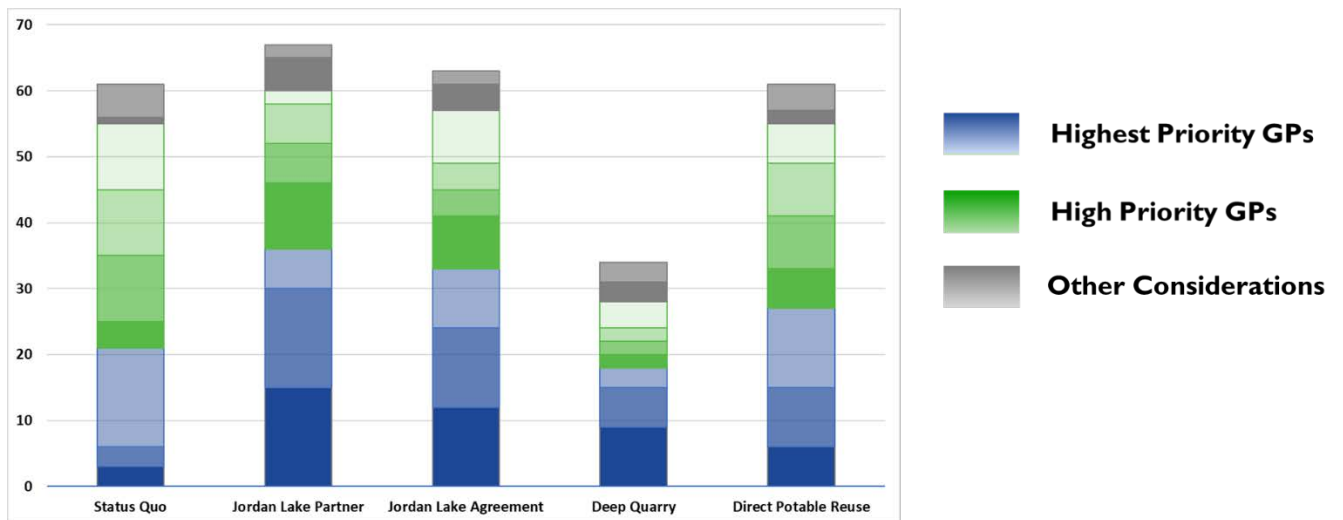
- i. support for regional water supply planning efforts, recognizing that we rely on neighboring water utilities to supply water during our occasional planned and unplanned interruptions to water supply;
- ii. incremental short-term impacts on the environment from development of the water supply and construction of the associated infrastructure including temporary impacts to streams, wetlands, aquatic and terrestrial habitat, and other environmental considerations.

Each of the five alternatives identified in Step 3 were evaluated against the guiding principles. The guiding principles were weighted as follows:

- Highest priority guiding principles – assigned a weight of 3
- High priority guiding principles – assigned a weight of 2
- Other considerations – assigned a weight of 1

The weighted results are illustrated in Figure 7. As illustrated in Figure 7, the two Jordan Lake alternatives scored highest overall and when looking only at the highest priority guiding principles (level of the stacked blue bars in Figure 7).

Figure 7: Results of Alternatives Evaluated Against Guiding Principles Using Weighted Scoring



Step 5: Select preferred alternative to access Jordan Lake allocation

After the Board of Directors identified Jordan Lake as the preferred alternative to augment our current water supply sources, staff held a second round of community engagement to provide information to the community on the process to come to that decision and to learn if there was widespread resistance to OWASA’s use of Jordan Lake. Outreach included activities to hear from the general public; targeted outreach to specific community groups such as local advisory

Boards and local elected bodies for Orange County, Town of Carrboro, and Town of Chapel Hill; and an interactive presentation to the Youth Water Academy and interested students at Chapel Hill High School's Tigerfest where students played the role of the OWASA Board of Directors to choose our next supply.

Overall, the community was glad that OWASA was proactively planning for future water supplies, addressing drought, and reaching out to provide information to them. The comments heard from the community reflected the highest and high priority guiding principles established by the Board of Directors and described above.

- Drinking water quality – people did express some concern over compounds of emerging concern, but these were largely allayed by fact that a new treatment plant on Jordan Lake would be designed to remove them. There was also a perception in the community that OWASA provides higher quality water to its customers than our neighboring utilities. Staff responded by stating that other communities also provide high quality drinking water, but the community seemed to want OWASA to have input on how a new intake and treatment plant were designed and operated.
- Reducing vulnerability to drought and improving water supply reliability and resiliency – commenters appreciated that we were proactively planning and some were happy that OWASA was finally securing access to Jordan Lake although there was a small group of people who were opposed to the use of Jordan Lake as a drinking water supply.
- Impact on rates – many commented that it was important to note that OWASA does not need water from Jordan Lake on a regular basis at this point in time and it was important to balance the financial costs with the benefits accessing Jordan Lake provides.

The Board of Directors authorized staff to evaluate three Jordan Lake alternatives:

- **JL-A: Agreement with WIP** to invest in a long-term option to join the WIP as a partner in Phase 2 with payments also serving as an option fee that would give OWASA the right to request water transfers from the WIP during Phase 1 under specified conditions such as drought.
- **JL-P-All: Partner in new intake, water treatment plant (WTP), and transmission infrastructure.** For purposes of comparison to the partner alternative in intake and infrastructure described immediately below, we assume that this option will enable OWASA to obtain its full allocation of water in Phase 1 (approximately 5 mgd on average day basis).
- **JL-P-Intake_Trans: Partner in new intake and transmission infrastructure** that would enable OWASA to withdraw and transfer its full allocation of water during Phase 1 (approximately 5 mgd on average day basis).

The Board of Directors agreed upon the following list of criteria to evaluate the three alternatives against:

Criteria reflecting water supply risk:

- Ability for OWASA to have access to its Jordan Lake allocation at any time
- Ability for OWASA to maintain its allocation of Jordan Lake water
- Likelihood that the water treatment plant, intake, and transmission infrastructure are built to meet OWASA’s future demands
- Likelihood that corporate structure and agreements developed for the alternative will match the goals set by the OWASA Board

Criteria reflecting financial impacts:

- Capital and net present cost through 2050
- Impact on rates through 2030

Criteria reflecting community input:

- Feedback from the community –We did not explicitly ask the community to rate these three alternatives, but comments made during the engagement process touch on the other evaluation criteria as described above.

Table 1 summarizes how the three alternatives rank against one another from the risk and cost evaluation criteria.

Table 1: Summary of the Three Jordan Lake Alternatives Against the Evaluation Criteria

	Risk				Cost		
	Access to JL Allocation at any time	Maintain JL Allocation	Water Treatment Plant, Intake & Transmission meet OWASA needs	Governance and Agreement match Goals	Capital Cost through 2050	Net Present Cost through 2050	Impact on Rates through 2030
JL-A	Yellow	Light Green	Yellow	Yellow	Dark Green	Dark Green	Dark Green
JL-P-All	Dark Green	Dark Green	Dark Green	Dark Green	Light Green	Light Green	Light Green
JL-P-Intake_Trans	Light Green	Dark Green	Light Green	Dark Green	Light Green	Light Green	Light Green

Darker shades of green indicate better alignment with criteria.
 Yellow indicates that an alternative may not meet the criteria.

Based on the evaluation, the Board of Directors selected alternative JL-P-Intake_Trans as the preferred alternative to include in this LRWSP. They made this decision based on the following reasons:

- Balances addressing water supply risk with the impact on rates
- Secures our Jordan Lake allocation for future rounds by investing in infrastructure
- Enables OWASA to access its allocation of water in Jordan Lake when it is needed
- Provides OWASA with more say in how the infrastructure is designed and operated than in the Agreement alternative

The Board of Directors did note that there is a lot of uncertainty associated with each of these Jordan Lake alternatives. They noted that they could decide to pursue an Agreement if OWASA's share in the cost of the infrastructure ended up being too high for our risk or if we could not negotiate an arrangement with the other Western Intake Partners that meets OWASA's needs and goals.

What are OWASA's next steps?

OWASA's next steps are as follows:

- OWASA staff and general council will work with the Western Intake Partners on a draft Memorandum of Understanding (MOU) that summarizes the governance structure of the Partnership and items that must be addressed in a future interlocal agreement (ILA).
- The Board of Directors approves the MOU.
- OWASA staff and general counsel work with the Western Intake Partners to draft an ILA based on the MOU.
- The Board of Directors approves the ILA.
- The Board of Directors will approve budget items related to OWASA's participation in the Western Intake Partnership's studies and capital investments on an annual basis.

When will the LRWSP be updated again?

The Plan will be updated if and when major changes in assumptions and conditions occur, such as if water demands increase at a much faster pace than projected, or the anticipated cost, complexity, and feasibility of a supply option changes considerably. At a minimum, the water demand projections will be updated at least every ten years.

Uncertainties that could impact the LRWSP and the timeline to update it include:

- Rate of population and employment growth
- The cost to implement the Jordan Lake alternative becomes too high to warrant the investment to meet long-term demands and address our drought vulnerability
- Adoption of water conservation and efficiency practices which reduce our demands

- Regulatory changes that may impact the feasibility of a given water supply option or result in change in our water supply demands
- Technology changes that may impact the feasibility of a given water supply option
- Declining source yields due to new drought of record, greater risk due to projected effects of climate change, or findings of studies which indicate that our reservoirs are silting in faster than anticipated

Resolution to Adopt Long-Range Water Supply Plan

Whereas, to update its 2010 Long Range Water Supply Plan, OWASA determined in its Strategic Plan adopted on March 13, 2014 and subsequently updated on June 9, 2016 to consider, develop and adopt plans and strategies to assure a sufficient, reliable and high quality water supply sufficient to serve the community's needs for the next fifty years; and,

Whereas, in accordance with that direction, OWASA has since followed an inclusive and thoughtful process to update the Long-Range Water Supply Plan including discussion at 29 Board meetings and two public processes where public interest and participation were solicited and received, with more than 800 pages of written informational reports and materials provided by OWASA staff, all to inform the Board of Directors and assist in its decision making as to how to best meet the community's water supply needs over the next fifty years; and,

Whereas, at the June 10, 2022 Board of Directors meeting, the Board authorized staff to work with the Western Intake Partnership (City of Durham, Chatham County, and Town of Pittsboro) to invest in the planned intake and transmission infrastructure on the west side of Jordan Lake and to include this as the preferred alternative in the Long-Range Water Supply Plan; and,

Whereas, the OWASA Board of Directors authorized staff to fund OWASA's share of studies currently underway by the Western Intake Partnership to plan, permit, and design the proposed intake and transmission infrastructure on the west side of Jordan Lake; and,

Whereas, the attached Long-Range Water Supply Plan summarizes the Long-Range Water Supply Plan process and decisions made by the Board of Directors:

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

1. That the Long-Range Water Supply Plan dated July 14, 2022, attached hereto, is hereby adopted as a principal guide for future policy and investment decisions concerning OWASA's water supply, and staff is directed to implement the Report's recommendations.

Adopted this 14th day of July 2022.

Bruce Boehm, Chair

ATTEST:

Raymond E. DuBose, P.E., Secretary

Agenda Item 3:

Resolution Adjusting the Executive Director's Compensation

Purpose:

Consider adjusting the Executive Director's annual salary commensurate with the Board's assessment of his performance.

Background:

The OWASA Board held a performance review meeting with the Executive Director on June 9, 2022, to discuss his Accomplishment Report on the Key Focus Areas and other matters related to his performance.

Information:

- Draft Resolution Adjusting the Executive Director's Compensation

July 14, 2022

Resolution Adjusting the Executive Director's Compensation

Whereas, the Board of Directors has reviewed the Executive Director's Accomplishment Report and overall performance for the period June 2021 to May 2022; and

Whereas, the Board of Directors has met with the Executive Director to discuss his performance review; and

Whereas, the Board of Directors has determined to adjust the Executive Director's compensation as provided herein:

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

1. That the Executive Director's annual base salary is hereby increased by 8.35%.
2. This increase shall be effective the first pay period in July 2022.

Adopted this 14th day of July 2022.

Bruce Boehm, Chair

ATTEST:

Raymond E. DuBose, P.E., Secretary

Agenda Item 4:

Orange Water and Sewer Authority
Meeting of the Board of Directors
June 9, 2022

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, June 9, 2022, at 6:00 p.m. utilizing Microsoft Teams software.

Board Members attending virtually: Jody Eimers (Chair), Yinka Ayankoya (Vice Chair), John N. Morris (Secretary), Todd BenDor, Bruce Boehm, Raymond (Ray) DuBose, and Kevin Leibel.

OWASA staff attending virtually: Mary Darr, Monica Dodson, Robert Epting, Esq. (Epting and Hackney), Stephanie Glasgow, Wil Lawson, Coleman Olinger, Andrea Orbich, Dan Przybyl, Ruth Rouse, Allison Spinelli, Todd Taylor, Mary Tiger, Stephen Winters, and Richard Wyatt.

Others attending virtually: Barbara Foushee (Carrboro Town Council Member), Meg Holton (UNC), Dennis Kaebisch, and Kelly Satterfield.

Motions

1. BE IT RESOLVED THAT the Board of Directors of the Orange Water and Sewer Authority adopts the Resolution Awarding a Construction Contract for the Rogerson Drive Water Main Replacement Project. (Motion by Ray DuBose, second by Bruce Boehm and the motion unanimously approved.)
2. BE IT RESOLVED THAT the Board of Directors of the Orange Water and Sewer Authority adopts the Resolution Accepting a Low-Interest Loan Offer from the State of North Carolina, and Authorizing Executive Director to Execute and Administer all Related Loan Offer and Acceptance Documents. (Motion by Ray DuBose, second by Bruce Boehm and the motion unanimously approved.)
3. BE IT RESOLVED THAT the Board of Directors of the Orange Water and Sewer Authority adopts the Resolution Approving an Interlocal Agreement for Phase IX of the Triangle Area Water Supply Monitoring Project. (Motion by Ray DuBose, second by Bruce Boehm and the motion unanimously approved.)
4. BE IT RESOLVED THAT the Board of Directors of the Orange Water and Sewer Authority adopts the Resolution Amend Article III of the Orange Water and Sewer Authority Bylaws Regarding Annual Meetings. (Motion by Ray DuBose, second by Bruce Boehm and the motion unanimously approved.)
5. Ray DuBose made a Motion to approve the Minutes of the May 12, 2022, Board of Directors Meeting; second by Bruce Boehm and the Motion was unanimously approved.

6. Ray DuBose made a Motion to approve the Minutes of the May 12, 2022, Closed Session of the OWASA Board of Directors for the Purpose of Discussing a Personnel Matter; second by Bruce Boehm and the Motion was unanimously approved.

7. BE IT RESOLVED THAT the Board of Directors of the Orange Water and Sewer Authority adopts the Resolution Honoring the Service of Yinka Ayankoya to the Carrboro-Chapel Hill-Orange County Community as a Member of the Orange Water and Sewer Authority's Board of Directors. (Motion by John Morris, second by Ray DuBose and the motion was unanimously approved.)

8. BE IT RESOLVED THAT the Board of Directors of the Orange Water and Sewer Authority adopts the Resolution Adopting the Schedule of Rates, Fees, and Charges that go into effect on October 1, 2022. (Motion by Bruce Boehm, second by Ray DuBose and the Motion was unanimously approved.)

9. BE IT RESOLVED THAT the Board of Directors of the Orange Water and Sewer Authority adopts the Resolution Adopting the Annual Budget for Orange Water and Sewer Authority for the Fiscal Year July 1, 2022, through June 30, 2023. (Motion by Bruce Boehm, second by Todd BenDor and the Motion was unanimously approved.)

10. BE IT RESOLVED THAT the Board of Directors of the Orange Water and Sewer Authority adopts the Resolution Approving the Capital Improvements Program and Budget for Fiscal Years 2023-2027. (Motion by Todd BenDor, second by Ray DuBose and the Motion was unanimously approved.)

11. BE IT RESOLVED THAT the Board of Directors of the Orange Water and Sewer Authority adopts the Capital Project Resolution for Fiscal Year 2023 Infrastructure Improvements. (Motion by Bruce Boehm, second by Kevin Leibel and the Motion was unanimously approved.)

12. BE IT RESOLVED THAT the Board of Directors of the Orange Water and Sewer Authority adopts the Resolution Updating the Schedule of Employee Classification and Authorized Compensation; Adjusting Affected Employees' Compensation to the Minimum of the Pay Range; Authorizing Cost of Labor and Merit Pay Increases for Eligible Employees; Increasing the Employer Contribution Rate to Employees' Deferred Compensation Plan; and Adding Three New Positions to the Schedule of Employee Classification and Authorized Compensation. (Motion by Ray DuBose, second by Todd BenDor and the Motion was unanimously approved.)

13. Ray DuBose made a Motion to authorize staff to include in the Long-Range Water Supply Plan the alternative in which OWASA would invest in the intake and transmission infrastructure proposed by the Western Intake Partnership as the preferred alternative to augment our current water supplies to meet our 50-year water supply needs and proceed with implementation of the Long-Range Water Supply Plan; second by Bruce Boehm and the Motion was unanimously approved.

14. Kevin Leibel made a Motion to elect Bruce Boehm as Chair by acclamation of the Board of Directors; second by Todd BenDor and the Motion was unanimously approved.

15. John Morris made a Motion to elect Todd BenDor as Vice Chair by acclamation of the Board of Directors; second by Jody Eimers and the Motion was unanimously approved.

16. Kevin Leible made a Motion to elect Ray DuBose as Secretary by acclamation of the Board of Directors; second by Bruce Boehm and the Motion was unanimously approved.

* * * * *

Announcements

Chair Jody Eimers announced that due to the ongoing North Carolina State of Emergency, the OWASA Board of Directors held the meeting virtually utilizing Microsoft Teams software. Chair Eimers stated that Board Members, General Counsel, and staff participated in the meeting remotely.

Chair Eimers 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.

Chair Eimers announced that on May 18, 2022, the Chapel Hill Town Council reappointed Bruce Boehm and appointed Pedro Garcia to the OWASA Board of Directors for a term of three years ending on June 30, 2025. Chair Eimers said a new Board Member orientation session will be held on Monday, June 27, 2022, at 1 p.m. in the OWASA Boardroom.

John Morris announced a meeting between the Chapel Hill Town Council OWASA Committee and Chapel Hill Appointees to the OWASA Board on Tuesday, June 28, 2022 at 3:30 p.m. via Zoom to discuss items of mutual interest.

Mary Tiger, Strategic Initiatives Manager, announced a Board Strategic Plan Work Session scheduled for Thursday, June 23, 2022, at 3:00 p.m. via Teams.

Mary Darr, General Manager of Operations, introduced Wil Lawson, OWASA's new Wastewater Treatment and Biosolids Recycling Manager.

Petitions and Requests

Chair Eimers said no petitions or requests were received from the public.

Chair Eimers asked for petitions and requests from the Board and staff; none were provided.

Item One: Review of the Orange County Board of Health Report on Drinking Water Fluoridation

The Board accepted this as an information item.

Item Two: Resolution Awarding a Construction Contract for the Rogerson Drive Water Main Replacement Project

Ray DuBose made a Motion to approve resolution; second by Bruce Boehm and the Motion was unanimously approved. Please see Motion 1.

Item Three: Resolution Accepting a Low-Interest Loan Offer from the State of North Carolina, and Authorizing Executive Director to Execute and Administer all Related Loan Offer and Acceptance Documents

Ray DuBose made a Motion to approve resolution; second by Bruce Boehm and the Motion was unanimously approved. Please see Motion 2.

Item Four: Resolution Approving an Interlocal Agreement for Phase IX of the Triangle Area Water Supply Monitoring Project

Ray DuBose made a Motion to approve resolution; second by Bruce Boehm and the Motion was unanimously approved. Please see Motion 3.

Item Five: Resolution to Amend Article III of the Orange Water and Sewer Authority Bylaws Regarding Annual Meetings

Ray DuBose made a Motion to approve resolution; second by Bruce Boehm and the Motion was unanimously approved. Please see Motion 4.

Item Six: Minutes of the May 12, 2022 OWASA Board of Directors Meeting

Ray DuBose made a Motion to approve the Minutes of the May 12, 2022, Board of Directors Meeting; second by Bruce Boehm and the Motion was unanimously approved. Please see Motion 5.

Item Seven: Minutes of the April 28, 2022 Closed Session of the OWASA Board of Directors Meeting

Ray DuBose made a Motion to approve the Minutes of the May 12, 2022, Closed Session of the OWASA Board of Directors for the purpose of discussing a personnel matter; second by Bruce Boehm and the Motion was unanimously approved. Please see Motion 6.

Item Eight: Resolution Honoring the Service of Yinka Ayankoya to the Carrboro-Chapel Hill-Orange County Community as a Member of the Orange Water and Sewer Authority Board of Directors

Barbara Foushee, Carrboro Town Council Member, read aloud the resolution and expressed appreciation to Yinka Ayankoya for her service as a Member of the OWASA Board of Directors.

John Morris made a Motion to approve the resolution; second by Ray DuBose and the Motion was unanimously approved. Please see Motion 7.

Item Nine: Approval of the Schedule of Rates, Fees and Charges; Annual Budget; Five-Year Capital Improvements Program (CIP); and Cost of Living and Merit Pay Increases

The Board noted that this budget is an investment in OWASA's staff and infrastructure and includes funding for evaluating investing in intake and transmission infrastructure for accessing OWASA's allocation of water from Jordan Lake.

Bruce Boehm made a Motion to adopt the Resolution Adopting the Schedule of Rates, Fees, and Charges that go into effect on October 1, 2022; the Motion was seconded by Ray DuBose and unanimously approved. Please see Motion 8.

Burce Boehm made a Motion to adopt the Resolution Adopting the Annual Budget for Orange Water and Sewer Authority for the Fiscal Year July 1, 2022, through June 30, 2023; the Motion was seconded by Todd BenDor and unanimously approved. Please see Motion 9.

Todd BenDor made a Motion to adopt the Resolution Approving the Capital Improvements Program and Budget for Fiscal Years 2023-2027; the Motion was seconded by Ray DuBose and unanimously approved. Please see Motion 10.

Bruce Boehm made a Motion to adopt the Capital Project Resolution for Fiscal Year 2023 Infrastrcture Improvements; the Motion was seconded by Kevin Leibel and unanimously approved. Please see Motion 11.

Ray Dubose made a Motion to adopt the Resolution Updating the Schedule of Employee Classification and Authorized Compensation; Adjusting Affected Employees' Compensation to the Minimum of the Pay Range; Authorizing Cost of Labor and Merit Pay Increases for Eligible Employees; Increasing the Employer Contribution Rate to Employees' Deferred Compensation Plan; and Adding Three New Positions to the Schedule of Employee Classification and Authorized Compensation. The was Motion seconded by Todd BenDor and unanimously approved. Please see Motion 12.

Item Ten: Long-Range Water Supply Plan: Community Engagement Summary and Selection of Jordan Lake Alternative

Todd Taylor (Executive Director) introduced this item and Ruth Rouse (Planning and Development Manager) provided presentation on three Jordan Lake alternatives and an update on the feedback and questions received from the public/stakeholders.

The Board had considerable comments and discussion around the capital costs of the Western Intake Partnership (WIP) investment alternatives and the rate increases associated with them. Staff noted that while the cost analysis presented is useful for the purposes of evaluating the relative cost of the different alternatives, estimates will continue to change throughout the design

phase and until the project is bid and construction is completed. It was noted that the Board will have opportunities to change approaches and choose a different option as more information becomes available. Staff will follow up on other Board questions regarding the projected rate increases needed to pay for the investments to secure access to our Jordan Lake allocation.

Ray DuBose made a Motion to authorize staff to include in the Long-Range Water Supply Plan the alternative in which OWASA would invest in the intake and transmission infrastructure proposed by the Western Intake Partnership as the preferred alternative to augment our current water supplies to meet our 50-year water supply needs and proceed with implementation of the Long-Range Water Supply Plan; second by Bruce Boehm and the Motion was unanimously approved. Please see Motion 13.

Item Eleven: Review Board Work Schedule

There were no comments on this item.

Item Twelve: Election of Officers

Robert Epting, General Counsel, provided the Board an overview on how the election of officers will proceed and reminded the Board that the term of the new Board Officers will begin July 1, 2022. Mr. Epting said nominees for the office of Chair, Vice Chair and Secretary, were nominated and seconded by the Board on April 14, 2022, as required in the Bylaws, and no further nominations were allowed.

Mr. Epting said the candidate for Chair of the Board is Bruce Boehm.

Kevin Leibel made a Motion to elect Bruce Boehm as Chair by acclamation of the Board of Directors; second by Todd BenDor and the Motion was unanimously approved. Please see Motion 14.

Mr. Epting said the candidates for Vice Chair of the Board are Todd BenDor and Kevin Leibel.

Kevin Leibel announced he would withdraw his name as a candidate for election as Vice Chair.

Mr. Epting said the remaining candidate for Vice Chair of the Board is Todd BenDor.

John Morris made a Motion to elect Todd BenDor as Vice Chair by acclamation of the Board of Directors; second by Jody Eimers and the Motion was unanimously approved. Please see Motion 15.

Mr. Epting said the candidate for Secretary of the Board is Ray DuBose.

Kevin Liebel made a Motion to elect Ray DuBose as Secretary by acclamation of the Board of Directors; second by Bruce Boehm and the Motion was unanimously approved. Please see Motion 16.

Item Thirteen: Summary of Board Meeting Action Items

Todd Taylor said staff will follow up with additional information on rate impacts of Jordan Lake alternatives.

Item Fourteen: Closed Session

Without objection, the Board of Directors convened in a closed session for the purpose of discussing a personnel matter as provided in N.C. General Statutes 143.318.11(6).

Following the closed session, the Board reconvened in open session, reported no action was taken in the closed session, and the meeting was adjourned at 8:05 p.m.

Respectfully submitted by:

Andrea Orbich
Executive Assistant/Clerk to the Board

Attachments

DRAFT

Agenda Item 5:

Orange Water and Sewer Authority

Closed Session of the Board of Directors

June 9, 2022

The Board of Directors of Orange Water and Sewer Authority met virtually in Closed Session on Thursday, June 9, 2022, following the Board meeting.

Board Members attending virtually: Jody Eimers (Chair), Yinka Ayankoya (Vice Chair), John Morris (Secretary), Todd BenDor, Bruce Boehm, Ray DuBose, and Kevin Leibel.

Item One

The Board of Directors met in Closed Session with the Executive Director to evaluate the annual performance of Executive Director from June 2021 to May 2022.

No official action was taken. At the conclusion of the closed session, the Board convened in open session to adjourn the meeting.

The meeting was adjourned at 8:05 p.m.

Raymond E. DuBose, P.E., Chair
Human Resources Committee

Agenda Item 6:

Proposed Elimination of Account Delinquency Fee

Purpose:

To provide background on OWASA's Account Delinquency Fee and support for its elimination

Background:

What is OWASA's Account Delinquency Fee? Prior to OWASA's temporary suspension of standard collection practices in March 2020, a customer's bill was considered delinquent after the due date of the second consecutive unpaid bill. After this point, a customer was subject to service disconnection for non-payment. In order for service to be reconnected, the customer was required to pay their entire past due balance plus an account delinquency fee (often referred to as a cutoff or reconnection fee).

The account delinquency fee was charged to recover a portion of the costs borne by OWASA for disconnecting and reconnecting delinquent customers. OWASA's current rate schedule holds this fee at \$45. If a customer paid their bill after hours and needed to be reconnected after hours, an additional \$35 was charged to cover the cost of overtime for OWASA's on-call staff to reconnect the customer.

When OWASA upgraded its meters to Advanced Metering Infrastructure, we installed 37 remote disconnect meters on the meters serving customers that were most frequently disconnected for non-payment. These meters can be disconnected remotely from a computer. The marginal costs borne by OWASA for disconnecting and reconnecting these meters are minimal.

How much revenue has historically been collected from Account Delinquency Fees?

Between July 1, 2016 and June 30, 2019 (FY17, FY18, and FY19), OWASA collected \$33,615 in account delinquency fees per year, on average.

How many customers paid Account Delinquency Fees? In FY19, 595 customers were disconnected for non-payment at least once during the year. Over 17% of those households were disconnected twice during the year; over 5% were disconnected three times or more.

How does the Account Delinquency Fee impact the amount owed by households? From FY17 through FY19, the delinquency fee amounted to about 52% of the amount customers owed when they were cutoff, on average. In other words, the addition of the delinquency increased a bill that a customer was already struggling to pay by 52% (on average). This fee, in addition to the amount past due, had to be paid before service is restored to the customer.

How would the elimination of the Account Delinquency Fee impact the rates paid by all OWASA customers? Essentially, it would not. The revenue collected from Account Delinquency Fees in FY17-FY19 divided over the number of accounts equals \$1.53/year/account or \$0.004/day/account.

July 14, 2022

Have other NC utilities eliminated their account delinquency fee? In September 2020, the Durham City Council received a report on "[Cities Addressing Fines and Fees Equitably](#)" that recommended the elimination of Durham's account delinquency fee. Their analysis included interviews with residents who had experienced a water cutoff, as well as spatial and demographic analysis. The Council subsequently eliminated the account delinquency fee in the FY22 budget (and beyond).

Will this change impact the extent of service disconnections for non-payment? OWASA staff do not expect that this change will result in an increase of service disconnections for non-payment. Avoiding service disconnection for non-payment is a bigger motivator for payment than avoiding an account delinquency fee.

Action Requested:

In an effort to reduce the financial burden of restoring water service for a customer that has already demonstrated a difficulty to pay and help ensure that a customer has funding to pay the next monthly bill, it is recommended that the OWASA Board of Directors resolve to eliminate the account delinquency fee. Doing so will have a negligible impact on the cost of service for all OWASA customers.

A resolution is proposed for the Board's review and consideration.

Resolution Approving the Elimination of Account Delinquency Fee

Whereas, access to clean drinking water is fundamental to the health of a household and the quality of life of the residents therein; and

Whereas, OWASA is committed to protecting the health of the Chapel Hill and Carrboro community; and

Whereas, approximately 20% of households in Chapel Hill and Carrboro are estimated to have incomes below \$25,000; and

Whereas, the monthly bill for 4,000 gallons of water and sewer service from OWASA will increase to \$92.17 in October 2022, which represents over 4% of household income for those making \$25,000 per year; and

Whereas, the account delinquency fee, on average, increases the cost-of-service reconnection for non-payment by about 52% and can serve as a financial barrier to service reconnection; and

Whereas, the elimination of the account delinquency fee will help a customer more easily pay their next month's bill; and

Whereas, the elimination of revenue collected from account delinquency fees will have a negligible impact on bills for other OWASA customers:

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

1. That OWASA will eliminate its account delinquency fee charged to customers for reconnection of service after disconnection due to non-payment.

2. That this resolution be recorded in the minutes of the OWASA Board of Directors and part of the permanent records of OWASA.

Adopted this 14th day of July 2022.

Bruce Boehm, Chair

ATTEST:

Raymond E. DuBose, P.E., Secretary

Agenda Item 7:

Review Proposed Work Plan for OWASA's Executive Director

Purpose:

Review, discuss and approve the proposed Key Focus Areas for OWASA's new Executive Director for the period of June 2022 to May 2023.

Information:

- Draft Key Focus Areas for OWASA's Executive Director

July 14, 2022

Key Focus Areas for OWASA's Executive Director For the Period of June 2022 to May 2023

Under the Executive Director's leadership, the OWASA team works collaboratively to ensure the organization's mission and vision are realized. The Board of Directors expects the Executive Director to continue to use his judgement on the best use of his time to benefit the organization.

1) High Quality and Reliable Service

Goals and Objectives: Ensure OWASA's responsibility for protecting public health and safety is met by providing high quality and reliable drinking water, wastewater management, and reclaimed water services for the Carrboro-Chapel Hill community.

Expected results/tasks to complete:

- a) High Quality Services
 - i) Zero violations of primary drinking water standards.
 - ii) Maintain Excellence in Water Treatment Award status by the Partnership for Safe Water for Water Treatment.
 - iii) Maintain Presidents Award status by the Partnership for Safe Water for Distribution System Operation.
 - iv) Maintain Directors Award status by the Partnership for Clean Water for Wastewater Treatment.
 - v) Zero violations of treated wastewater standards.
 - vi) Zero violations of reclaimed water standards.
 - vii) Zero violations of biosolids recycling standards.
 - viii) Meet Financial Management Objectives as budgeted.
 - ix) No successful cyber-attacks which impact our operation.

The General Manager of Operations, Director of Finance and Customer Service, Director of Engineering and Planning, and Director of Information Technology have primary responsibility for ensuring these results are achieved and/or tasks are completed.

2) Employee Recruitment, Retention, and Development

Goals and Objectives: increase the number of applicants for entry-level and/or high-turnover positions; achieve and maintain competitive compensation; and ensure staff are prepared, informed, and engaged to lead OWASA into the future.

Expected results/tasks to complete:

- a) Develop a recruitment strategy for entry-level and high-turnover positions
- b) Select a consultant and conduct a Pay and Classification Study

- c) Develop a list of qualifications and scope of services for a consultant to assist with developing an Employee Development Plan
- d) Recruit for a Diversity and Inclusion Specialist
- e) Begin development of an action plan for OWASA's Diversity and Inclusion Program

The Director of Human Resources and Safety has primary responsibility for ensuring these results are achieved and/or tasks are completed.

3) Equitable Services

Goals and Objectives: decrease number of disadvantaged/underserved households not connected to OWASA's services and increase adequacy and accessibility of customer assistance funding.

Expected results/tasks to complete:

- a) Identify affected households and pursue outside funding sources
- b) Evaluate the effectiveness of the Care to Share program and explore alternatives

The Director of Finance and Customer Service, Director of Engineering and Planning, and the Strategic Initiatives Manager have the primary responsibility for ensuring these results are achieved and/or tasks are completed.

4) Climate and Land Use Change Adaptation

Goals and Objectives: increase drought resilience and prepare for organizational impacts of climate and land use change.

Expected results/tasks to complete:

- a) Finalize Cane Creek Solar Photovoltaic (PV) project and provide Board report on achievement of energy management goals
- b) Participate in the review and development of a Memorandum of Understanding with the Western Intake Partners for Board review and approval
- c) Develop scope and a list of qualifications for a consultant to assist with developing a Climate Action Plan

The Planning and Development Manager, Director of Engineering and Planning, General Manager of Operations, and Strategic Initiatives Manager have primary responsibility for ensuring these results are achieved and/or tasks are completed.

5) Community Engagement

Goals and Objectives: increase the quality and use of community feedback; and streamline customer account experience.

Expected results/tasks to complete:

- a) Develop a list of qualifications and scope of services for a consultant to design and implement a regular community survey
- b) Identify a Financial and Customer Billing Software that will help integrate online billing and water use portals

The Director of Finance and Customer Service, Director of Information Technology, and the Strategic Initiatives Manager have the primary responsibility for ensuring these results are achieved and/or tasks are completed.

6) Emergency Management and Cybersecurity

Goals and Objectives: ensure staff are prepared and ready for emergencies of all types; reduce risk exposure.

Expected results/tasks to complete:

- a) Develop and institute a Continuous Emergency Preparedness Model
- b) Develop approach to assess risk on wastewater collection and treatment system

The General Manager of Operations, Director of Engineering and Planning, Director of Information Technology, and Safety Manager have primary responsibility for ensuring these results are achieved and/or tasks are completed.

7) Service Reliability and Resiliency

Goals and Objectives: increase capital project execution; reduce downtime of critical infrastructure and equipment; improve the collection and use of real-time data to inform and drive decision-making; and establish capital investment goals.

Expected results/tasks to complete:

- a) Develop a project delivery optimization plan
- b) Update asset management plan
- c) Begin execution of Supervisory Control and Data Acquisition (SCADA) Master Plan

- d) Develop a list of qualifications for a consultant to assist with developing a capital investment strategy

The Director of Engineering and Planning, General Manager of Operations and Director of Finance and Customer Service have the primary responsibility for ensuring these results are achieved and/or tasks are completed.

Todd Taylor, P.E.
Executive Director

DRAFT

Agenda Item 8:

Review Board Work Schedule

Purpose:

- a) Request(s) by Board Committees, Board Members, General Counsel and Staff
 - Discuss Returning to In-Person Meetings (Bruce Boehm)
 - Discuss Alternative Committee Structure (Bruce Boehm)
 - Consider cancelling August 11, 2022 Board Meeting (Todd Taylor)
- b) Review draft Board Meeting Agenda for August 11, 2022 (if necessary)
- c) Review 12 Month Board Meeting Schedule
- d) Review Pending Key Staff Action Items

Information:

- Draft August 11, 2022 Board Meeting Agenda
- 12 Month Board Meeting Schedule
- Pending Key Staff Action Items from Board Meetings

July 14, 2022

Agenda
Meeting of the OWASA Board of Directors
Thursday, August 11, 2022, 6:00 P.M.

Due to the ongoing North Carolina State of Emergency, 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.

Announcements

1. 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.
2. Announcements by Board Members
3. Announcements by Staff

Petitions and Requests

1. Public
2. Board
3. Staff

Consent Agenda

Action

1. Minutes of the July 14, 2022 OWASA Board of Directors Meeting (Andrea Orbich)
2. Minutes of the July 14, 2022 Closed Session of the OWASA Board of Directors for the Purpose of Discussing a Personnel Matter (Bruce Boehm)

Regular Agenda

Discussion

3. Review Board Work Schedule

- A. Request(s) by Board Committees, Board Members, General Counsel and Staff (Bruce Bohem)
- B. Draft September 8, 2022 Board Meeting (Todd Taylor)
- C. 12 Month Board Meeting Schedule (Todd Taylor)
- D. Pending Key Staff Action Items (Todd Taylor)

Summary of Board Meeting Items

- 4. Executive Director will Summarize the Key Staff Action Items from the Meeting

Closed Session

- 5. The Board of Directors will Meet in a Closed Session for the Purpose of Discussing a Personnel Matter, as provided in N.C. General Statutes 143.318.11(6) (HR Committee Chair)

DRAFT

OWASA Board of Directors – 12 Month Board Meeting Schedule (July 14, 2022)

Meeting Date	Agenda Items	Committee Meetings & Other Board Items
<i>July 14 2022</i>	Approval of the LRWSP ED Compensation Proposed Elimination of Account Delinquency Fee Review Proposed ED Work Plan CS – Prepare GC Annual Review	Welcome new Board Members
<i>August 11 2022</i>	CS – GC Annual Review	
<i>September 8 2022</i>	Review Draft Strategic Plan (Tentative) Discuss Lake Recreation Report FAQs, Plan, and Potential Program Changes Approve GC Engagement	Meeting between the BOCC Members & OC Appointees to the BOD (TBD)
<i>October 13 2022</i>	Annual Meeting of the Board – Annual Report and Financial Audit Approve Strategic Plan Update on Development of New Budget Format Award Chapel Hill North Pump Station Improvements Project	Meeting between the CHTC OWASA Committee & Chapel Hill Appointees to the BOD (TBD)
<i>November 10 2022</i>	TBD	
<i>December 8 2022</i>	CS – Prepare for ED Interim Review	
<i>January 12 2023</i>	Approve Audit Firm Contract Discuss FY 24 Budget Calendar and Assumptions CS – ED Interim Performance Review	OWASA Orientation for newly elected officials
<i>February 9 2023</i>	CS – Prepare for GC Interim Review Department Managers FY 24 Budget Presentations	Annual Update to BOCC (TBD) Meeting between the CHTC OWASA Committee & Chapel Hill Appointees to the BOD (TBD)
<i>March 9 2023</i>	Set Date for Public Hearings on FY 24 Budget & Rates FY 24 Draft Budget and Rate Adjustment CS – GC Interim Review	
<i>April 13 2023</i>	Discuss Draft FY 2024 Budget and Authorize Staff to Publish FY 2024 Budget and Rate Information BOD Eligible for Nominations to Election as Board Officers (include Officer descriptions) Planning BOD Self-Assessment CS – Prepare ED Annual Review	
<i>May 11 2023</i>	Public Hearings – FY 24 Budget and Rates Approve Employee Insurance Renewals Discuss Employee Merit Pay for FY 24 CS – Prepare ED Annual Review	
<i>June 8 2023</i>	Approve FY 23 Budget and Rates (including Employee Merit Pay decision) Election of Officers ED Compensation	

Recurring Reports (included as part of monthly Consent Agendas)

- **January** - Employee Health and Dental Insurance Update; 2022 Annual Lakes Recreation Report; CIP Semiannual Report
- **February** - Reliability and Resiliency Report; Q2 Financial Report; Affordability Program Update

OWASA Board of Directors – 12 Month Board Meeting Schedule (July 14, 2022)

- **March** - Energy Management Plan
- **April** - TBD
- **May** - Q3 Financial Report
- **June** - TBD
- **July** - TBD
- **August** - Preliminary 12 Month Financial Report and CIP Semiannual Report
- **September** - Disposal of Surplus Personal Property; EEO/Affirmative Action Report and D&I Update
- **October** - Operating Trends Report
- **November** - Q1 Financial Report
- **December** - TBD

The 12 Month Board Meeting Schedule shows priority efforts the Board and staff plan to consider during the next twelve months. The schedule also shows annual updates to the Board which will be distributed on the consent agenda. This schedule does not show all the items the Board may consider in a meeting.

The 12 Month Board Meeting Schedule will be reviewed and updated by the Board each month.

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

Abbreviations Used in Draft Schedule:

(R)	Recurring agenda item (generally these are “required” items)	MOA	Memorandum of Agreement
ARPA	American Rescue Plan Act	MWBE	Minority/Women-owned Business Enterprises
BOCC	Orange County Board of County Commissioners	MST	Mountains-to-Sea Trail
BOD	Board of Directors	MFMM	Multi-Family Master Meter
CCR	Cane Creek Reservoir	NCDOT	North Carolina Department of Transportation
CE	Community Engagement	NRTS	Natural Resources and Technical Services
CEP	Community Engagement Plan	OC	Orange County
CHTC	Chapel Hill Town Council	Q	Quarter
CIP	Capital Improvements Program	RFP	Request for Proposals
COLA	Cost of Labor Adjustment	SRF	State Revolving Fund
CS	Closed Session of the Board	SOW	Scope of Work
CTC	Carrboro Town Council	TBD	To Be Determined
CY	Calendar Year	WIP	Western Intake Partnership
D&I	Diversity and Inclusion	WTP	Water Treatment Plant
ED	Executive Director	WWTP	Wastewater Treatment Plant
EEO	Equal Employment Opportunity		
EPA	Environmental Protection Agency		
FY	Fiscal Year		
GC	General Counsel		
HR	Human Resources		
JL	Jordan Lake		
KPI	Key Performance Indicator		
LRWSP	Long-Range Water Supply Plan		

Pending Key Staff Action Items from Board Meetings

No.	Date	Action Item	Target Board Meeting Date	Person(s) Responsible	Status
1.	6-9-2022	Follow up with information on rate impacts of Jordan Lake alternatives.	NA	Winters	Completed – email response to the Board on 6-29-2022