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, March 11, 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.
   - Effective June 30, 2021, Bruce Runberg, Chapel Hill Appointee, will resign from the OWASA Board of Directors

b. Announcements by Board Members
   - Update on the March 1, 2021 ad hoc Committee Meeting (Kevin Leibel)

c. Announcements by Staff
   - Vishnu Gangadharan, OWASA's New Director of Engineering and Planning (Todd Taylor)

d. Additional Comments, Suggestions, and Information Items by Board Members (Chair)

Consent Agenda

Action

1. Minutes of the February 11, 2021 Work Session of the Board of Directors (Andrea Orbich)

2. Minutes of the February 25, 2021 Closed Session of the Board of Directors for the Purpose of Discussing a Personnel Matter (Jody Eimers)

Regular Agenda

3. Community Engagement Summary on the Update of OWASA's Long-Range Water Supply Plan (Ruth Rouse)
4. Draft Fiscal Year 2022 Operating and Capital Equipment Budgets (Stephen Winters)
5. Review Board Work Schedule
    a. Request(s) by Board Committees, Board Members and Staff (Ray DuBose)
    b. March 25, 2021 Board Meeting (Todd Taylor)
    c. April 8, 2021 Work Session (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
6. Discuss Staff and General Counsel Feedback Received on Board Self-Assessment (Peg Carlson, UNC School of Government)

Summary of Work Session Items

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

Orange Water and Sewer Authority

Virtual Work Session of the Board of Directors

February 11, 2021

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, February 11, 2021, 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, Kevin Leibel, Robert Morgan, John N. Morris and Bruce Runberg. Board Members absent: none.

OWASA staff present: Amy Armbruster, Mary Darr, Jesse DuClau, Monica Dodson, Robert Epting, Esq. (Epting and Hackney), Vishnu Gangadharan, Stephanie Glasgow, Andrea Orbich, Dan Przybyl, Ruth Rouse, Todd Taylor, Mary Tiger, Stephen Winters and Richard Wyatt.

Others present: Meg Holton (UNC Water Resources Manager), Michelle Mayes (Jacobs Engineering), Dennis Kaebisch, Ed Kerwin, Simon Lobdell and Kelly Satterfield.

Motions

1. Bruce Boehm made a Motion to approve the Minutes of the January 14, 2021, Work Session of the Board of Directors; second by Bruce Runberg and the Motion was unanimously approved.

2. Jody Eimers made a Motion that the Board of Directors approves the proposed Affordability Program Plan Update and authorizes staff to proceed in accordance with the approach described in the proposed Plan, second by Kevin Leibel 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.

Mr. DuBose provided an update on the Boards February 4, 2021 special meeting to discuss the process to develop a new Strategic Plan, specifically to review and comment on the Guiding Principles for the process of developing the plan. He said the revised Guiding Principles will be presented for the Board's approval on February 25, 2021.

Mr. DuBose announced that on February 16, 2021, Jody Eimers and he will provide OWASA's Annual Update and Ruth Rouse, Planning and Development Manager, will provide a Long-Range

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Water Supply Plan Update to the Orange County Board of County Commissioners at its virtual meeting.

John Morris announced a virtual Zoom meeting between Chapel Hill's OWASA Committee and Chapel Hill Appointees to the OWASA Board on February 23, 2021 at 3:00 p.m. Mr. Morris notes agenda topics include: an update on Agua Vista; methods for engaging with residents of multifamily housing properties as it pertains to water conservation; ensuring sufficient capacity for meeting water and sewer needs of new development; OWASA COVID update; an update on OWASA's Diversity and Inclusion Program; and Chapel Hill Appointments to the OWASA Board.

Yinka Ayankoya announced that Robert Morgan and she will provide an OWASA Update to the Carrboro Town Council at its meeting on Tuesday, April 20, 2021 at 7:00 p.m. on topics of mutual interest.

Mary Tiger, Strategic Initiatives Manager, announced that on February 2, 2021, the Orange County Board of County Commissioners' approved Climate Action Grant Funding for OWASA to advance the Cane Creek Reservoir Solar PV Project.

Item One: Minutes

Bruce Boehm made a Motion to approve the Minutes of the January 14, 2021, Work Session of the Board of Directors; second by Bruce Runberg and the Motion was unanimously approved. Please see Motion 1.

Item Two: Affordability Program Update

Mary Tiger (Strategic Initiatives Manager) provided a presentation on the Affordability Program in 2020 and the proposed Affordability Program in 2021.

Kevin Leibel asked about the communication of Care to Share, why the program is called Care to Share, and if it is possible to test messages on the bill. He suggested optimizing the program and asked what other resources were needed to increase donations as well as what the Board could do to assist.

John Morris said the report was well done, and he would email his contacts informing them of and inviting them to support Care to Share.

Mr. Leibel suggested a committee of the Board might be established to discuss Care to Share.

Ray DuBose asked Mr. Leibel and he agreed to Chair the ad hoc Committee; Bruce Boehm and John Morris also agreed to serve on the Committee. A doodle poll will be sent to the full Board to schedule the meeting.

Jody Eimers made a Motion that the Board of Directors approves the proposed Affordability Program Plan Update and authorizes staff to proceed in accordance with the approach described in

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the proposed Plan, second by Kevin Leibel and the Motion was unanimously approved. Please see Motion 2.

Item Three: Department Managers Fiscal Year (FY) 2022 Budget Presentation

Stephen Winters (Director of Finance and Customer Service) introduced and explained the FY 2022 budget schedule. Mr. Winters noted the Manager's presentations will provide information in advance of formal budget discussions that will give the Board better insight into the factors the Managers are considering in developing their budgets.

Jesse DuClau (Distribution and Collection Systems Manager) and Monica Dodson (Wastewater Treatment and Biosolids Recycling Manager) and Mary Darr (General Manager of Operations) provided departmental presentations that included updates on the individual department's mission, opportunities for improvements, and challenges to address in the future.

The Board expressed appreciation to staff for an exceptional presentation.

Item Four: Apprenticeship Program Update

Stephanie Glasgow (Director Human Resources and Safety) provided an update on the merits of implementing an apprenticeship program with the Rural Water Association and that a key focus of the program would be on expanding career opportunities for underrepresented groups. Ms. Glasgow said the program would not be implemented in Fiscal Year 2022 due to budget constraints.

Jody Eimers asked if the program included mentoring of basic skills such as living, food and other necessities; staff will share her suggestion with the Rural Water Association.

Item Five: Review Board Work Schedule

The Board agreed the February 25, 2021 consent agenda would include the Guiding Principles for the Development of OWASA's New Strategic Plan and the review of comments on Sewer Use Ordinance and Sewer Policy updates will be moved from the February 25th agenda to the March 25, 2021 agenda.

Item Six: Summary of Work Session Items

Todd Taylor said a doodle poll will be sent to the full Board to schedule ad hoc Committee Meeting to discuss efforts to raise awareness of the Care to Share program.

Item Seven: Closed Session

Without objection, the Board convened in a Closed Session for the Purpose of discussing a personnel matter as provided in North Carolina 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 8:24 p.m.

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Respectfully submitted by:

Andrea Orbich
Executive Assistant/Clerk to the Board

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ITEM 2

Orange Water and Sewer Authority

Closed Session of the Board of Directors

February 25, 2021

The Board of Directors of Orange Water and Sewer Authority met virtually in Closed Session on Thursday, February 25, 2021, following the Board meeting.

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

General Counsel present: Robert Epting and Robin Jacobs, Epting and Hackney.

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Item One

The Board of Directors met in Closed Session with General Counsel to discuss the semiannual summary of significant activities of General Counsel from September 2020 to February 2021.

No official action was taken at the meeting.

The meeting was adjourned at 7:32 p.m.

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Jo Leslie Eimers, Chair
Human Resources Committee

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Agenda Item 3:

Community Engagement Summary on the Update of OWASA's Long-Range Water Supply Plan

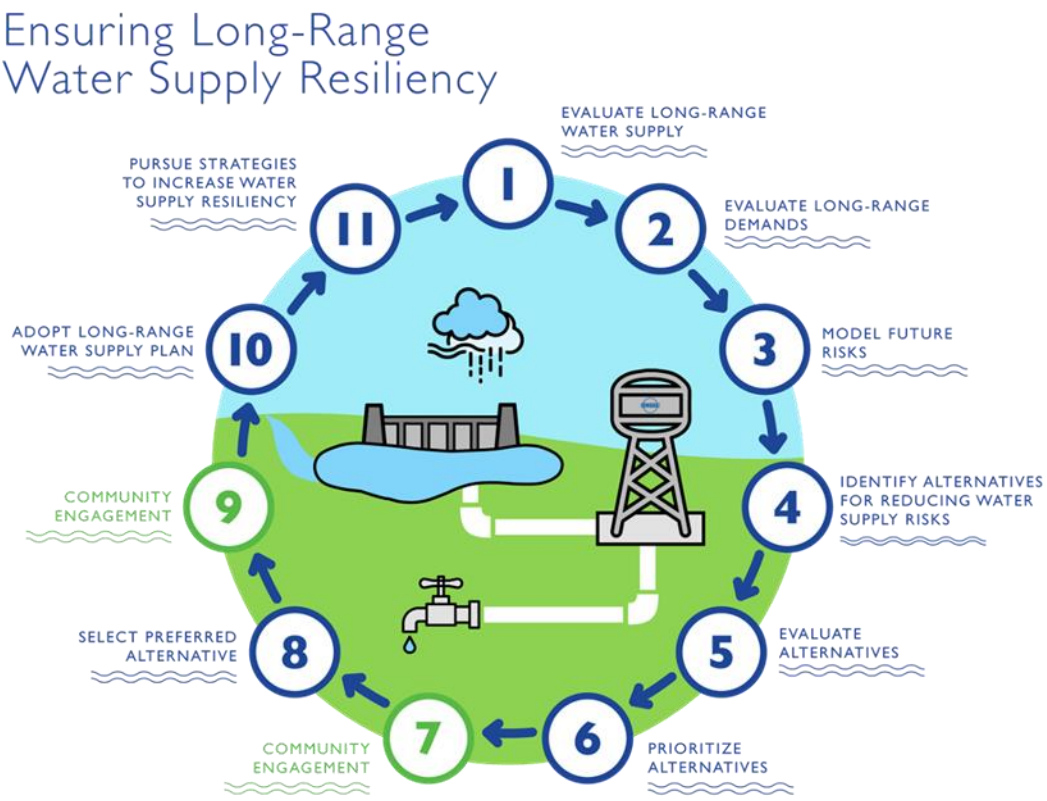
Purpose:

To receive guidance from the Board of Directors on the feedback received from the community on the update of OWASA's Long-Range Water Supply Plan (LRWSP) and our proposed path forward.

Background:

OWASA is updating its LRWSP to ensure that we have an adequate supply of water for our community through 2070. OWASA has updated its projections of water supply needs, estimated the yield of its planned supplies, and evaluated demand management and supply alternatives to meet its long-term needs. Figure 1 illustrates the LRWSP process; we are currently in Step 7: Community Engagement.

Figure 1: Long-Range Water Supply Planning Process



Community Engagement Opportunities

OWASA staff held the following activities to gauge community support for and concerns regarding the long-range water supply planning process and alternatives analysis. In addition to updating the community on our process thus far, the goal of this step of the process was to elicit any major concerns regarding our next step in the process (select preferred alternative). Throughout the engagement, we made a point that this would not be the last time that OWASA engaged the community on the LRWSP.

- Developed a web page to provide information on the work completed to date and opportunities to provide feedback.
- Advertised a webinar described below with our Long-Range Water Supply plan email list serve; staff at Towns of Carrboro and Chapel Hill and Orange County; UNC Chapel Hill; UNC Health; Environmental Commissions for the Board of County Commissioners, Town of Chapel Hill Town Council and Town of Carrboro Town Council; Affordability Outreach partners; Sierra Club; and the Chamber of Commerce.
- Appeared on Wonderful Water segment with Aaron Keck on October 27, 2020 to summarize the work completed to date and to advertise webinar described in next bullet.
- Hosted a public webinar on November 17, 2020 where staff presented more details on the LRWSP and provided opportunities for feedback and questions. Six participants from the community attended the webinar. Attachment 1 includes a summary of the questions we received during the webinar and staff responses; we did not receive any comments on the work completed or path forward during the webinar.
- Presented a summary of the work completed to date and our proposed path forward to the elected Boards of Town of Carrboro (January 12, 2021), Town of Chapel Hill (January 13, 2021), and Orange County (February16, 2021). Our role in these meetings was to listen to their comments and not to respond to each one; Attachment 1 summarizes the comments and includes responses. Attachment 2 includes the package of information and slides provided to the Board of County Commissioners; information provided to the other two elected Boards was very similar.
- Utilized social media throughout engagement to inform about events and opportunities for community members to provide feedback
- Developed a list of frequently asked questions (FAQs) based on the questions we heard at the webinar and elected Board meetings and posted to our web page.

Feedback Received from the Community

A summary of the main comments and feedback we received is provided in this section. Attachment 3 includes questions we received from the Town of Chapel Hill Council prior to our meeting with them along with our responses.

Jordan Lake

Several comments were made concerning Jordan Lake including the following:

- Water quality – Concerns were raised about the quality of Jordan Lake. Commenters noted that OWASA's local water supplies are highly protected and have fewer sources of pollutants than Jordan Lake. Concerns were raised about the presence of PFAS in the Haw River which feeds Jordan Lake. (Note: other commenters noted presence of PFAS in Cane Creek Reservoir). Some commenters also noted that there are initiatives underway such as Jordan Lake One Water to improve water quality.
- Cost – Some commenters noted the cost of participating as a full partner in the Western Intake Partnership and noted that OWASA may not need the water when the new intake and treatment facilities are available and could postpone this expense.
- Protection of our local water supplies – There was concern that if OWASA started using Jordan Lake as its main water supply source, there would be pressure to back off on the zoning and other watershed protection measures in the Cane Creek Reservoir and University Lake watersheds.
- Several commenters noted that there was public resistance to using Jordan Lake during the 2010 update of the LRWSP.
- Some commenters noted that when we are in drought, many other communities may need to access their Jordan Lake allocation.

Quarry Reservoir

- Commenters indicated that they thought the Quarry Reservoir was supposed to meet all of OWASA's future water needs.
- One commenter did not realize that Quarry Reservoir expansion would be completed in early 2030s, but thought the expansion was further off in future.

Direct Potable Reuse

- Commenter noted that direct potable reuse was approximately same cost as Jordan Lake, but timing would be more in line in when we need water than Jordan Lake. A suggestion was made that local elected officials could lobby the North Carolina General Assembly to change legislation.

Water Conservation

- There were several questions during the community webinar about water conservation and whether conserving more water could meet OWASA's long-term needs.

Potential to Receive Water from Neighboring Utilities

- Several questions were received about OWASA's ability to purchase water from neighboring utilities. We added an FAQ regarding the potential. Other than developing an agreement with the Western Intake Partners, this is not a viable long-term option to meet daily needs.

Community Engagement

The Carrboro Town Council had several comments concerning community engagement about the LRWSP:

- There was a lot of community feedback regarding the use of Jordan Lake 10 years ago, and OWASA must be clear on how it plans to use Jordan Lake before it finalizes the LRWSP.
- There should be real opportunities for the community to engage with OWASA before a final alternative is selected. OWASA should be creative in its efforts.
- Several Council members commended OWASA for summarizing a complex issue in a concise, clear format.

Staff Recommendation and Next Steps:

Staff did not hear any comments or feedback that would result in us including a new alternative in the analysis or modifying the alternatives analyses completed to date. Staff notes that the Board of Directors has not yet selected a preferred alternative, but directed staff to engage the community for feedback and subsequently evaluate alternatives to access our Jordan Lake allocation. Staff further notes that there will be another opportunity to engage with the community when the Jordan Lake alternatives analysis is completed, and we have selected a draft preferred alternative (see Figure 1). Therefore staff recommends the following:

- We transition from this round of community engagement; community members can continue to provide feedback on the work completed to date and staff will continue to track those comments and include a summary of them when further evaluation of the Jordan Lake alternatives is complete.
- We move forward to develop guiding principles to evaluate the Jordan Lake alternatives against (proposed Board dates of May 13, 2021 and June 10, 2021).
- We evaluate the Jordan Lake alternatives in FY 22 assuming the Board approves funding to do so in the FY 22 budget.
- We bring the Jordan Lake alternatives analysis back to Board along with proposed details on how we plan to engage the community.
- The Board selects a draft preferred alternative.
- OWASA engages with the community on the Jordan Lake alternatives analysis and draft preferred alternative.
- Staff summarizes the feedback from the community and brings LRWSP to Board with preferred alternative for adoption.

No formal action is needed by the Board of Directors, but staff seeks feedback from the Board regarding the community engagement completed to date including on the following:

- Does the Board agree with staff that additional community engagement is not needed at this time?

- If so, does the Board agree with staff's proposed next steps?

Information:

Attachment 1: Summary of Questions and Comments from Community and Elected Boards

Attachment 2: Package of Information Provided to Orange County Board of County Commissioners

Attachment 3: Questions Received from Town of Chapel Hill Council Prior to Meeting and OWASA Staff Responses

Attachment 4: Step #7 Community Engagement Plan for Long-Range Water Supply Plan as reviewed by the Board of Directors

Attachment 5: Comments Received through Twitter

Attachment 1: Summary of Questions and Comments from Community and Elected Boards

This document summarizes the comments and questions received during the community webinar, the meetings with the local elected Boards, and other feedback we received via social media. Responses are provided to each comment.

Community Webinar: 11/17/2020

Participants did not provide feedback on any of the work to date, but did ask several questions during the webinar. The majority of the questions centered around demand management alternatives. Questions and responses follow:

- Are the increases in projected demands due to population increases alone? *They are based on population (number of projected new dwelling units) and employment (square footage of non-residential space) in our service area.*
- Do any of the new multi-family units not use sub-metering? *The majority of new multi-family developments sub-meter. There was only one smaller complex (6 units) that was built within the last two years that did not install sub-metering.*
- The demand strategies do not meet its demand individually or collectively? *They do not meet the demands collectively, particularly if you eliminate the alternative using reclaimed water to supply UNC's cogeneration facility which is one that would save more water.*
- The alternative to use reclaimed water at UNC's Cogeneration Facility wasn't cost-effective for OWASA or UNC? *It wouldn't be cost-effective for either entity.*
- Is there much opportunity to reduce demand via retrofits of older buildings? *Many utilities have found that many retrofits have already occurred and are doing away with programs such as toilet rebates.*
- One participant provided a reference to Net Blue Water Neutral Growth: https://www.allianceforwaterefficiency.org/resources/topic/net-blue-supporting-water-neutral-growth
- How far along are plans for a new Jordan withdrawal? *These are in early stages. The City of Durham funded a study to evaluate alternatives for the Western Intake Partners (City of Durham, Town of Pittsboro, Chatham County and OWASA) to access Jordan Lake in 2014 and a study to look at potential financing. The Partners recently hired a Program Manager and will be releasing Requests for Qualifications to begin looking a preliminary engineering and design and permitting of the facilities in early 2021. OWASA is not supporting these projects financially until we are further along in the LRWSP and selected our preferred alternative.*

Town of Carrboro Council Meeting: 1/12/2021

Jordan Lake

- A concern was raised that if OWASA starts using Jordan Lake water, there will be pressure to back off the watershed protection measures in the University Lake and Cane Creek watershed to address affordability. This could also undermine the argument for OWASA's significant land holdings in the Cane Creek Reservoir watershed. *OWASA plans to rely mainly on our local water supplies to meet our needs even if we secure guaranteed access to our Jordan Lake allocation.*

- Quarry Reservoir was supposed to be our long-term solution to water supply. Why do we need Jordan Lake? *We factored the Quarry Reservoir into our current supply projections. While it adds to our water storage, it does not solve potential problems with prolonged drought or back-to-back droughts, and with climate change we need to be prepared for that event. The Quarry Reservoir must be filled with water pumped from Cane Creek Reservoir, which does not diversify our water supply.*

- We don't need Jordan Lake yet, and would be investing a lot of money on something we do not yet need. (See Direct Potable Reuse comment). *We have noted this comment and will make sure the Board is informed of it.*

- OWASA should engage with the Jordan Lake One Water (JLOW) project and inform the community on how/whether it plans to implement recommendations out of that effort when the reports are available. *Staff have been involved with the JLOW project and await the reports. We plan to review them for recommendations that would apply to OWASA.*

- It is not clear whether the plan is still to use Jordan Lake for emergencies or more routinely. *This will depend on which option is selected as the preferred alternative in the final LRWSP. Even if a Jordan Lake alternative is selected, different options would result in different levels of use. For example, if the Board selects continuing with our mutual aid agreements, we would use Jordan Lake only in emergencies. If they selected being a full Partner, we would likely use some minimal amount of Jordan Lake on a daily basis. Under any scenario, we plan to mainly rely on our local water supplies.*

- The impacts of future droughts on consumption is not being accounted for in the model. *This comment is correct. The demand projections account for increasing conservation in the community, but do not account for the impacts of future drought on those demands. We have seen that after the droughts of 2001-02 and 2007-08, demands decreased. Other communities in the region experienced similar trends. However, utilities are also concerned that during the next drought, we will not see a similar reduction in water use even during the peak of the drought as our customers have already reduced their demands significantly and may not be able to reduce demands much more. OWASA plans to evaluate the reductions experienced during and after our next drought and use that information to update its planning efforts.*

- The decision to go to Jordan Lake seems premature. *Thanks in large part to the conservation ethic in our community, we have enough water under most circumstances for the next 30-40 years. However, we recognize that working with our regional partners is the most cost-effective method to access our Jordan Lake allocation. Partners are proceeding to evaluate options and there will likely be a new intake and plant on the western shore of Jordan Lake in the early 2030s. If OWASA chooses to pursue an option to access Jordan Lake, it may need to be soon to coordinate with these other Partners.*

- Rescinding/reducing of Jordan Lake allocation is not a compelling argument to guarantee access to it. *We recognize that there is risk of having our allocation of water reduced or rescinded under any option to access Jordan Lake depending on OWASA's and other utilities' needs in the region. However, one of the criteria that is included in the evaluation of allocations is the investments made to access the allocations.*

Community Engagement

- There was a lot of community feedback about using Jordan Lake 10 years ago when last LRWSP was completed. *We have noted this comment and will make sure the OWASA Board of Directors is informed.*

- OWASA needs to be sure community has real opportunities to engage before a preferred alternative is selected. OWASA may need to get creative on engagement. *This comment will be provided to the OWASA Board of Directors; there will be opportunities for additional engagement before a preferred alternative is selected and the Board adopts the Long-Range Water Supply Plan.*

- Make sure community is clear on use of Jordan Lake. *Staff will ensure that communications are clear.*

- Engagement plan moving forward is not clear. *Staff will ensure that the future opportunities the community has to engage on the LRWSP are clearly communicated.*

- We need to be more creative/aggressive in our community outreach efforts. *Comment noted. Any suggestions on how to improve our community engagement can be provided to Ruth Rouse (rrouse@owasa.org) or Blake Hodge (bhodge@owasa.org).*

Direct Potable Reuse

- Local elected officials should advocate for making this legal with the General Assembly. *Comment noted.*

- LRWSP documents provided to OWASA Board indicate this would not be in place until 2050. This is more in line when we need water than the JL alternative (2030) and delays the need for capital investment. *This is true. However, this alternative is not legal in North Carolina.*

Meeting with Carrboro Representatives on OWASA Board

- The Carrboro Town Council would like to discuss the LRWSP with Carrboro's OWASA appointees at their next meeting. *OWASA's Clerk to the OWASA Board will include this item on their next agenda; this meeting typically occurs in the spring.*

Other

- Demand forecasts have historically been overly conservative. *This is true as noted in our report on the demand projections. There is a lot of uncertainty when projecting demands fifty years. Thus, we included an uncertainty analysis in our projections, and we plan to update the projections every five to ten years.*

- The Council had questions about increasing block rate structures and whether our blocks had changed since the rates went into effect. *OWASA has had increasing block rates (higher rate charged for higher water use) since October 2007. The gallons of water used to define each block has been consistent since the rates went into effect in 2007 (the price per 1000 gallons has increased in each block over time). The table below summarizes our current block rates for individually-metered residential customers.*

Block	Gallons of Water Used	Rate ($/1000 gal)
1	0 - 2,000	$2.82
2	3,000 - 5,000	$6.84
3	6,000 - 11,000	$8.39
4	11,000 – 15,000	$11.72
5	16,000+	$21.20

More information on our rates is on our website:

Summary of Rates - https://www.owasa.org/wp-content/uploads/2019/12/19-10-01-summary-rates-schedule.pdf

Rates & Fees page - https://www.owasa.org/rates-fees/

- What is the difference in bill for someone who irrigates regularly versus someone who does not? *The Environmental Finance Center has a dashboard at https://efc.sog.unc.edu/resource/north-carolina-water-and-wastewater-rates-dashboard. You can use the drop down menu to select "OWASA". You can then use the slider bar on the tool to select monthly water use (OWASA's average residential water use is approximately 4,000 gallons per month). The "Bill Comparison" dial then provides OWASA's bill for that water useage in bold at the bottom of the dial. Using this tool, the following table summarizes a few different bills for selected values of water use (sewer portion of bill not included):*

Water Use	Water Portion of Bill
2,000 gal	$21.38
4,000 gal	$35.06
15,000 gal	$142.45

- The Council had questions about PFAS in Cane Creek Reservoir and how OWASA monitors for PFAS. *Cane Creek Reservoir does have PFAS. OWASA tests quarterly for PFAS in Cane Creek Reservoir and in the drinking water leaving our Jones Ferry Road Water Treatment Plant. The data show that our treatment processes remove PFAS compounds. More information on the monitoring including the data are found on our website here.*

Town of Chapel Hill Council Meeting 1/13/2021

- Under what circumstances have we accessed our Jordan Lake allocation? *To our knowledge, the only time we have accessed our Jordan Lake allocation is when we have tested our interconnections with the City of Durham and the Town of Cary to ensure we could obtain water from our allocation. We have used our interconnections with City of Durham and Town of Hillsborough, but each of these utilities currently treats and uses water in the Neuse River Basin; Jordan Lake is an important element in each of their future water supply portfolios.*

- When we are in drought, everyone may need to access our Jordan Lake allocation. Could we access through the Western Intake Partners? *That is a possibility when that plant is online in the early 2030s, and since our largest interconnection is with the City of Durham, this is the most likely scenario once that plant is available.*

- There are several regional water resources initiatives that have occurred since the droughts. It is important to work regionally on a number of issues. *OWASA agrees with this statement and believe the region is better prepared for the next drought due to these regional initiatives. OWASA has been participating in the Triangle Regional Water Supply Partnership, the Jordan Lake One Water initiative, the Triangle Regional Water Supply Monitoring Project, and the Upper Cape Fear River Basin Association among others.*

Board of County Commissioners Meeting 2/16/2021

<u>Jordan Lake</u>

- OWASA's annual Water Quality Report Card shows we are doing really well. How might that change if we used Jordan Lake water? *Jordan Lake serves as the drinking water supply for more than 200,000 North Carolinians. Water treatment processes are in place to ensure that all drinking water meets regulatory standards. The new treatment plant will also be designed to treat nutrients and contaminants of emerging concern.*

- How is Cary removing PFAS? What type of treatment do they have? How do we remove PFAS? *Cary's Water Quality Report Card also shows that they meet all drinking water criteria. Cary is also proactively monitoring for PFAS and provides information on emerging contaminants on their website. OWASA uses activated carbon in its treatment process, which has been effective at removing PFAS.*

- When we built Cane Creek Reservoir, Joe Herzenberg, who served on the Town of Chapel Hill's Town Council stated that we should never drink Jordan Lake water, and I agree with that. *We have noted this comment.*

- What options is OWASA looking at for Jordan Lake? *We are looking at three main options:*

    - *Continuing the use of our mutual aid agreements – this alternative does not require any capital investment, but does not guarantee that we can access our allocation when we need it. We could develop a new mutual aid agreement with the Western Intake Partners once that plant is online in the early 2030s.*
    - *Being an owner in the new western intake and water treatment plant – this alternative requires the highest capital investment, guarantees we can access our Jordan Lake allocation on any given day, and provides redundancy to our Jones Ferry Road Water Treatment Plant.*
    - *A new type of agreement to guarantee some access to Jordan Lake – under this alternative, we would take advantage of the large storage we have in Cane Creek Reservoir and take water only during non-peak times. We would pay some amount to guarantee an annual amount of water, but may not have access during peak demand periods. Removing water during non-peak periods would help prolong the use of our local supplies. This option has not yet had cost estimates developed, but would be less than being an owner in the new intake and treatment plant.*

<u>Quarry Reservoir</u>

- I thought Quarry Reservoir expansion was 30 years out. Is this a different Quarry Reservoir? *This is the same Quarry Reservoir that we have had since 1979 and its expansion was the preferred alternative in the 2010 Long-Range Water Supply Plan. The expanded Quarry Reservoir will be ready for use in the early to mid 2030s.*

- How and when does OWASA use the Quarry Reservoir? *OWASA can either release water to Phils Creek, a tributary to University Lake or pump it to the raw water transmission line from Cane Creek Reservoir where it can be treated at the Jones Ferry Road WTP. Most recently, in late 2017 and early 2018, we released water from the Quarry Reservoir to University Lake where the storage level was declining. We need to mix water from the Quarry Reservoir with water from University Lake and/or Cane Creek Reservoir as the Quarry Reservoir is too clean to adequately treat it.*

- What do you mean by QR is too clean? *Our treatment process requires a certain amount of sediments in it in order for the initial treatment process to work. This process is known as flocculation where sediments and chemicals bonded to them settle out. Our Quarry Reservoir water has very low sediment concentrations.*

- I did not realize that OWASA had to use Cane Creek Reservoir water to fill the Quarry Reservoir. *The Quarry Reservoir has a very small drainage area so the only way it can fill is from direct rainfall onto it or from groundwater seepage. Water from Cane Creek Reservoir is used to supplement rainfall and groundwater.*

Miscellaneous

- Who makes decision on LRWSP, OWASA Board of Directors or elected officials? *The OWASA Board of Directors will make the final decision on the LRWSP, but wants to consider feedback from the community, including local elected officials.*

- Have we looked at getting water from neighbors? Have we looked at getting more water from Hillsborough and Orange-Alamance? *OWASA has been working with other Triangle utilities since 2009 to collaboratively plan for the region's water supply to improve the reliability and resilience of the area's water resources. One of the results of this collaboration is the Triangle Regional Water Supply Plan. This Plan identified allocations for each utility from Jordan Lake and other supplies to meet their needs through 2060. Hillsborough and Orange-Alamance are too small to meet OWASA's long-term needs. Hillsborough and Orange County both participated in the regional water supply planning effort (note: Orange County does not operate a water system but is committed to meeting the needs of its economic development districts identified in its plans). Both Hillsborough and Orange County need allocations of water from Jordan Lake to meet their long-term needs per the Triangle Regional Water Supply Plan.*

Other Feedback from the Community

Comments from two users on Twitter came during the week Ruth Rouse presented updates to the Town Councils in Carrboro and Chapel Hill. Both expressed some concern about the use of Jordan Lake and recalled past efforts to discourage the use of Jordan Lake.

One commenter advocated on Twitter for OWASA to avoid using Jordan Lake. Instead, the commenter suggested the deep quarry option would be a better fit. They also asked for "detailed analysis of quarry vs. Jordan Lake? Does it include a thorough analysis of ALL existing pollutants in both supplies?" They added that they wanted "a detailed financial, environmental & chemical analysis of the Jordan Lake vs quarry options." *The analyses completed do not include a chemical analysis of pollutants in each system, but do evaluate the environmental, social, and financial impacts. Jordan Lake can be treated to meet all drinking water criteria, and it is safely used as the drinking water supply for more than 200,000 North Carolinians. The work that the Western Intake Partners are doing includes water quality sampling near potential intake locations and an evaluation of emerging contaminants which would impact treatment plant design.*

Attachment 2: Package of Information Provided to Orange County Board of County Commissioners

(similar package provided to Town of Carrboro and Town of Chapel Hill Town Councils)

Information on OWASA's Long-Range Water Supply Plan

January 29, 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 it 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 increasing climate variability.

Over the past six years, 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 considered the relative environmental, financial, and societal impacts in our evaluation of each alternative. Alternatives that are not currently legal, do not substantially close the gap between projected demands and supply, or are simply not cost-effective were removed from further evaluation. Conservation by residents and customers across the service area in recent years has greatly reduced our average daily water use. This means that our future water supply needs cannot be met through additional day-to-day conservation measures.

Based on our analysis, a suite of alternatives that improve our access to treated drinking water from Jordan Lake show the most promise in meeting our long-term needs. Some of these alternatives also provide an additional facility for water treatment (beyond our own Jones Ferry Road Water Treatment Plant), which further increases drinking water supply resiliency but would require significant capital investment. Some also have the potential to improve economies of scale of water treatment and transmission expenses by working with our regional partners. These alternatives for accessing water from Jordan Lake will be further reviewed by OWASA before a preferred alternative is selected in fiscal year (FY) 2022.

While Jordan Lake shows the most promise in meeting our long-term water needs, we will still mainly rely on our three local water sources here in Orange County to meet most of our water needs. However, we may use our allocation of water from Jordan Lake proactively to prolong the use of our existing local supplies if local climatologists and weather experts are predicting regional drought.

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

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

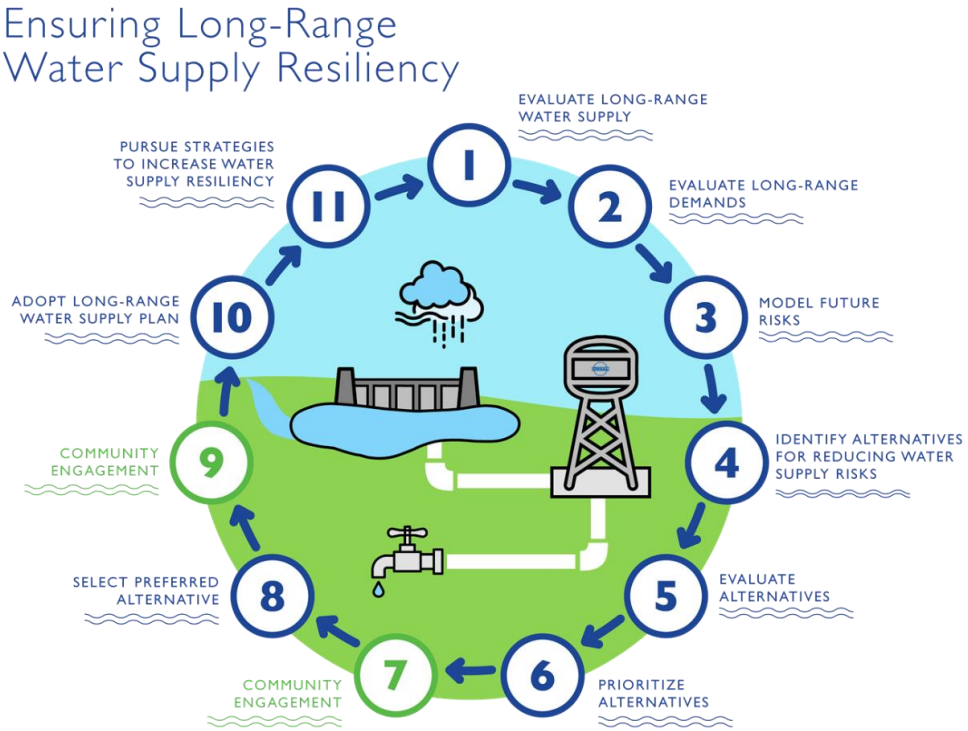
Why do we need to look out 50 years?

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. Water supply planning is an ongoing process. The remainder of this document includes headers which are numbered according to the processes included in Figure 1.

Figure 1: Long-Range Water Supply Planning Process

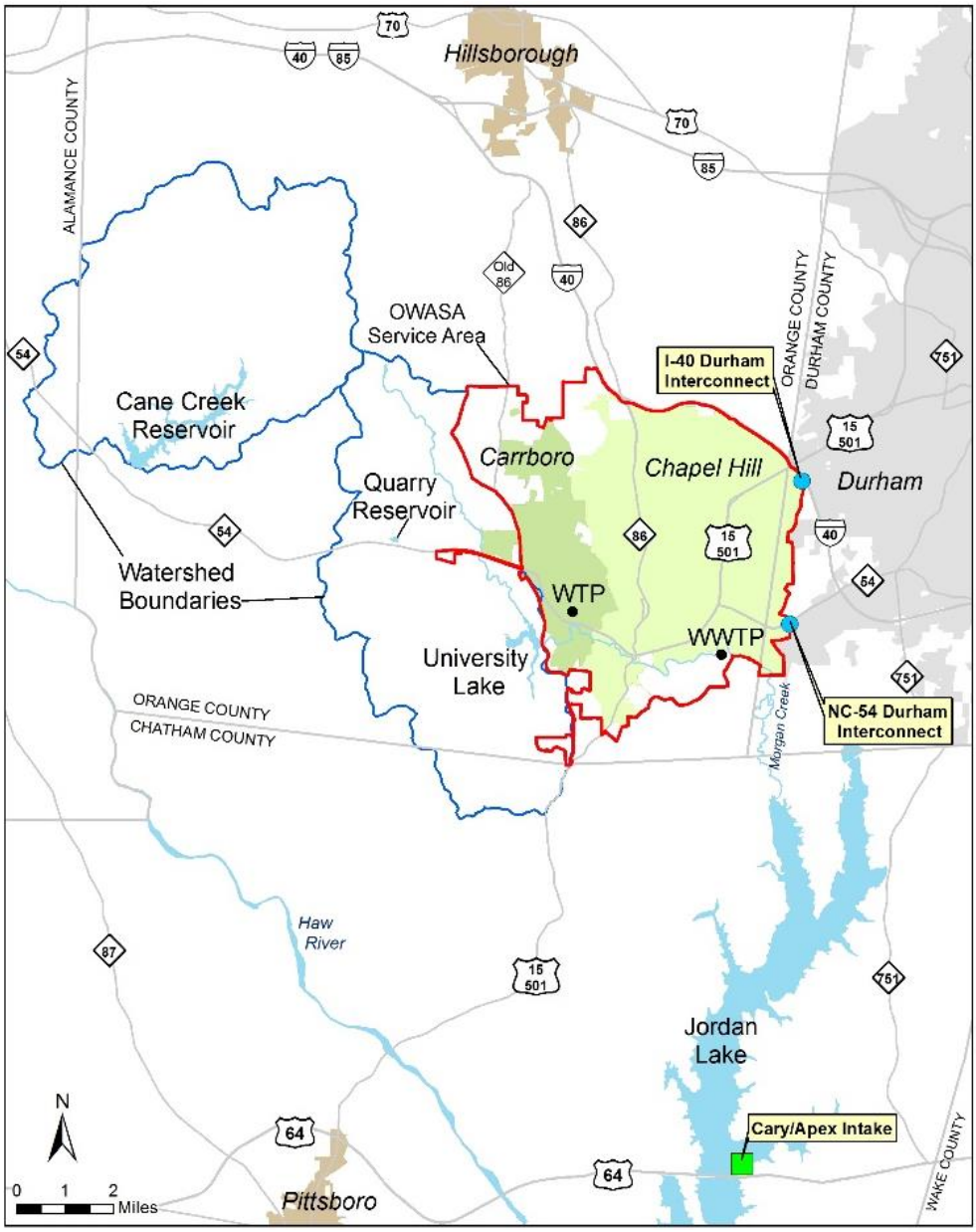


1. Evaluate Long-Range Water Supply

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 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. 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.

How have we historically used our Jordan Lake allocation?

We have not used our Jordan Lake allocation for water supply purposes. We have received water from neighboring utilities during water emergencies in February 2017 and November 2018 and prior to Cane Creek Reservoir coming online. However, the City of Durham and Town of Hillsborough provided the water we received. Their water comes from local water supplies in the Neuse River Basin; neither of these communities currently have permanent access to their Jordan Lake allocations.

We have tested our interconnections with the City of Durham and Town of Cary to make sure we can receive water from our Jordan Lake allocation if needed.

2. Evaluate Long-Range Water Demands

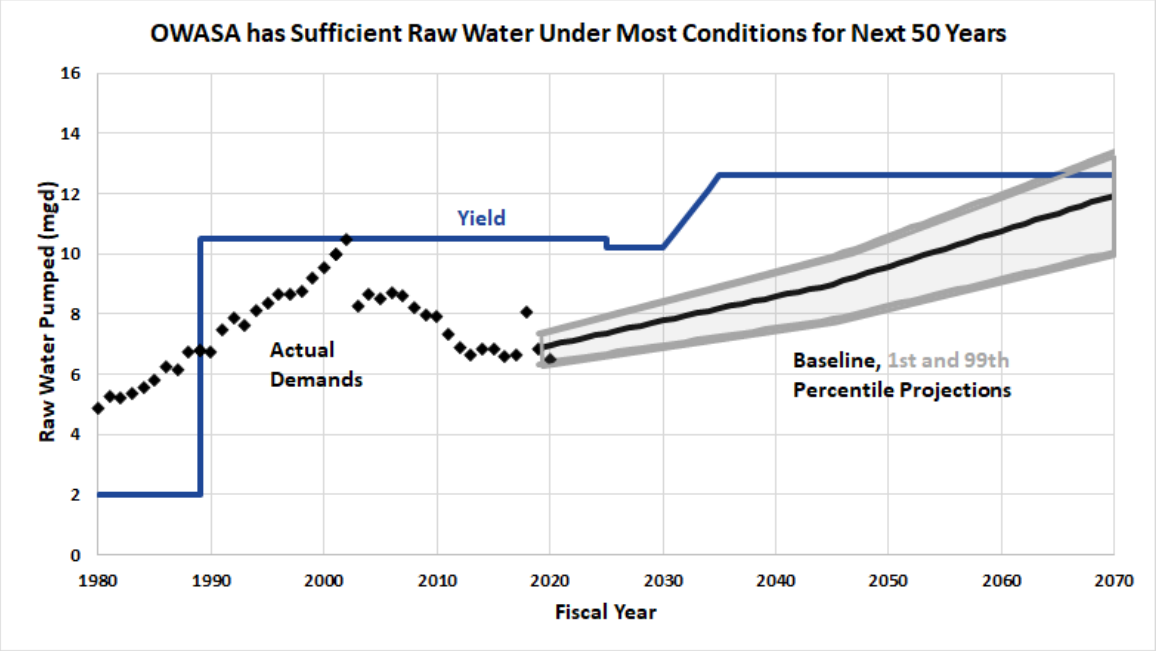
How much water do we currently use?

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 along with our 50-year estimated water demands.

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



3. Model Future Risks

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, in which the Towns of Carrboro and Chapel Hill and Orange County participated. 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:

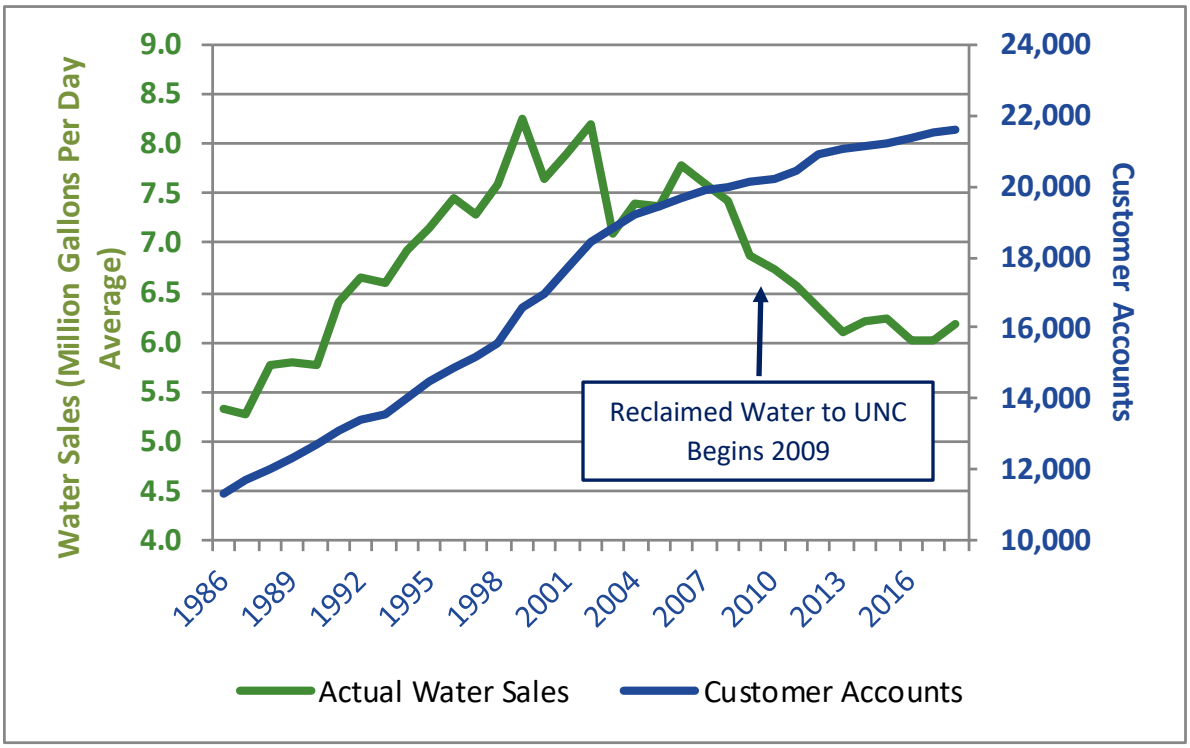
- Streamflow records – the stream flow records available to estimate the yield of our reservoirs have measurement errors and limited spatial and temporal extent. They may not be representative of long-term historical flows.
- Estimates in storage volume – potential errors in storage volume include (1) 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. More intense droughts and different types of droughts will impact our estimated yield.

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 estimate 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 using the same amount of water that we were using 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. 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 Water Treatment Plant (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 assume that conservation practices will continue to result in demands decreasing by 5 to 10 percent per account (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, it is imperative to the resiliency of our community that we 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. University Lake refills quickly, but it does not hold enough water to meet our daily needs. Thus, 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.

4. Identify Alternatives for Reducing Water Supply Risks

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-side management options are strategies which reduce raw water demands from existing and/or new development or lower the black line shown in Figure 3.

How did OWASA identify which supplies and demand management strategies to evaluate?

We 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. Through this process we selected demand management (increased water efficiency and conservation) and reuse strategies, as well as supply strategies to evaluate in further detail.

5. Evaluate Alternatives

What supplies and demand management strategies did OWASA consider?

OWASA evaluated nine supply alternatives which can be grouped into three major categories:

1. Jordan Lake alternatives (4 alternatives)
2. Quarry Reservoir (2 alternatives)
3. Indirect and direct potable reuse (3 alternatives)

Each of these alternatives are summarized below along with OWASA staff recommendation for next steps in its consideration.

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.
    - **Recommendation:** Continue to evaluate alternative
- **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.
    - **Recommendation**: Baseline condition; maintain for the time being
- **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.

    - **Recommendation:** Alternative not feasible at this time
- **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.
    - **Recommendation:** Continue to evaluate

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.
    - **Recommendation:** Baseline condition; included in our capital improvements program
- **Alternative 6 – Deep Quarry** – deeper quarry depths would be accessed with new pumping infrastructure when the expanded Quarry Reservoir is online.
    - **Recommendation:** Eliminate from further consideration due to high capital cost and does not address vulnerability of small Cane Creek Reservoir watershed

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.
    - **Recommendation:** Eliminate from further evaluation since very high capital and life cycle costs
- **Alternative 7b: Indirect Potable Reuse with Return to Quarry Reservoir** – This alternative is similar to Alternative 7a, but water from the Mason Farm WWTP would be pumped to the Quarry Reservoir rather than a new pretreatment mixing basin.
    - **Recommendation:** Eliminate from further evaluation since very high capital and life cycle costs
- **Alternative 8: Indirect Potable Reuse with Return to University Lake** – Reclaimed water from the Mason Farm WWTP is returned to University Lake.

    - **Recommendation:** Eliminate from further evaluation since it is not legal
- **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.
    - **Recommendation:** Eliminate from further evaluation since it is not legal

OWASA considered four main demand management alternatives based on research and stakeholder engagement with the Towns and UNC Chapel Hill. 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 Facility** – 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.
    - **Recommendation:** Eliminate from further evaluation due to very high capital cost per gallon of water saved and UNC concerns about quality requirements
- **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.
    - **Recommendation:** Eliminate from further evaluation due to high life cycle cost per gallon of water saved
- **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.
    - **Recommendation:** Eliminated from evaluation due to high capital and life cycle costs per gallon of water saved
- **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. The impact was assumed to be relatively minor because most new developments are installing submeters without a requirement.
        - **Recommendation:** Eliminate from including as long-range water supply option because of minor impact on water use; consider as part of Water Conservation Plan

- **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.
    - **Recommendation:** Eliminate from including as long-range water supply option because of minor impact on water use; consider as part of Water Conservation Plan
- **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.
    - **Recommendation:** Eliminate from further evaluation due to minor impact on water use and high cost per gallon of water saved
- **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 locations 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.
    - **Recommendation:** Eliminate from further evaluation due to high capital cost

6. Prioritize Alternatives

What option(s) are recommended for further evaluation?

We evaluated each of the alternatives against the three pillars of sustainability: social performance, environmental performance, and financial performance and more detailed information on the alternatives analysis is found here. The section immediately above also briefly identifies whether OWASA plans to continue evaluating an alternative, and if not, why it is recommended to eliminate from further consideration.

OWASA has not yet selected a preferred alternative and will consider feedback from the community before it makes its final selection in FY22. The Jordan Lake alternatives are the most cost-effective alternatives that will meet our long-term needs. OWASA plans to develop guiding principles to evaluate the Jordan Lake alternatives against one another and perform additional analyses. Community feedback will be incorporated into the guiding principles and into the selection of a preferred alternative.

OWASA plans to evaluate the cost-effective demand management strategies in a Water Conservation Plan that will be included as an appendix or companion document to the LRWSP.

How does OWASA plan to use its Jordan Lake allocation?

While Jordan Lake shows the most promise in meeting our long-term water needs, we will still mainly rely on Cane Creek Reservoir, University Lake, and the Quarry Reservoir to meet most of our water needs. How we use the allocation will depend on which alternative is selected as our preferred alternative. Under any of the Jordan Lake alternatives, we may use our allocation proactively to prolong the use of our existing local supplies if local climatologists and weather experts are predicting regional drought.

What are OWASA's next steps? (Steps 7 through 11)

OWASA's next steps are as follows:

- Engage the community to obtain feedback on work completed to date and proposed path forward (in process).
- Develop guiding principles to evaluate the Jordan Lake alternatives against based on feedback from the community. The public is invited to participate in this process through OWASA Board meetings.
- Develop a Water Conservation Plan to be included as an appendix to the LRWSP.
- Perform evaluation of Jordan Lake alternatives.
- Draft LRWSP and select the preferred alternative.
- Engage the community to obtain feedback on the preferred alternative and draft LRWSP
- Adopt the LRWSP including the Water Conservation Plan.
- Pursue selected alternative(s) and conservation strategies to increase our water supply resiliency.

Long-Range Water Supply Plan:
Information to Board of County Commissioners

Ruth Rouse, Planning and Development Manager

February 16, 2021

OWASA

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

1

Purpose

- Provide information on work completed to-date on OWASA's Long-Range Water Supply Plan
- Receive questions and feedback on that work
- Receive feedback on proposed path forward



University Lake

2

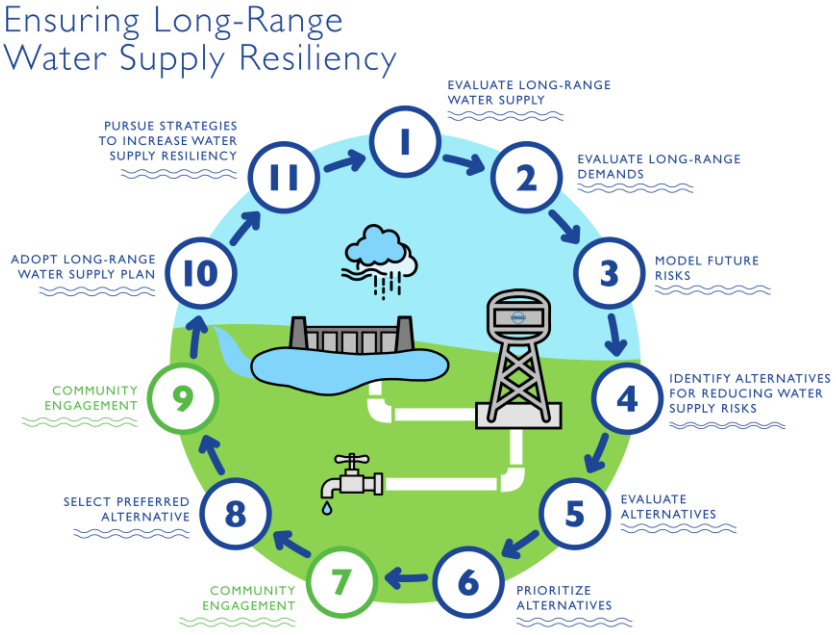
Key Messages

- We have a low risk of running out of water.
- Our largest vulnerability is in extended drought.
- Jordan Lake alternatives appear to be most cost-effective option for increasing resiliency.



Intake on Cane Creek Reservoir

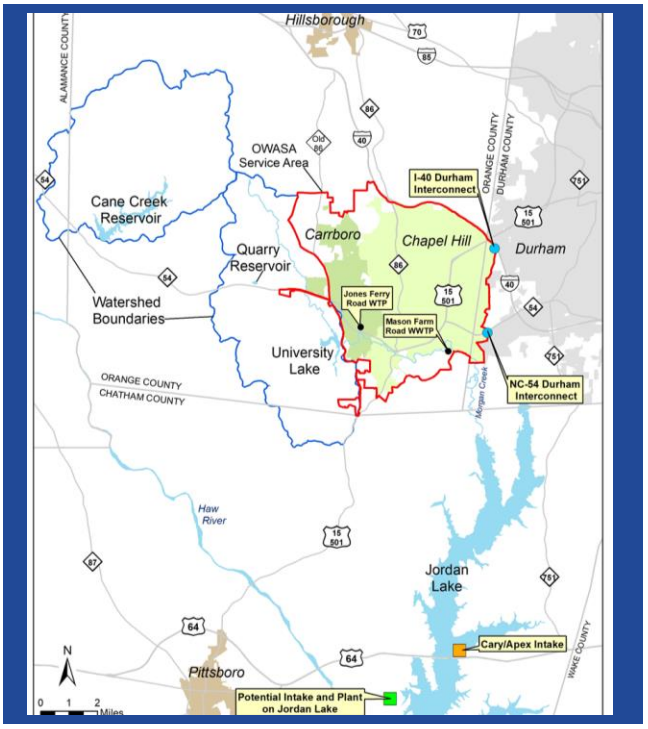
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4

OWASA's Water Supplies

- Local Water Supplies
  - Cane Creek Reservoir
  - University Lake
  - Quarry Reservoir
- Jordan Lake

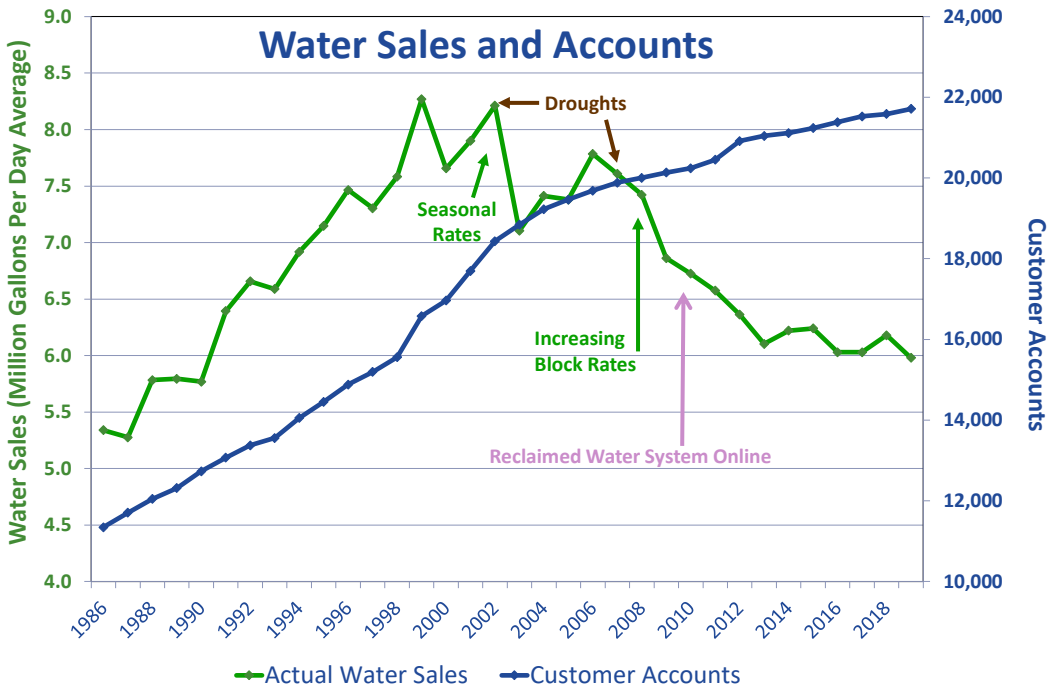


Jordan Lake

- Federal, multi-purpose reservoir
  - Flood control
  - Water supply
  - Downstream water quality
  - Recreation
- OWASA has had an allocation since 1988.
- Practice has been to only use Jordan Lake during water shortage
- We have no guaranteed access to Jordan Lake.

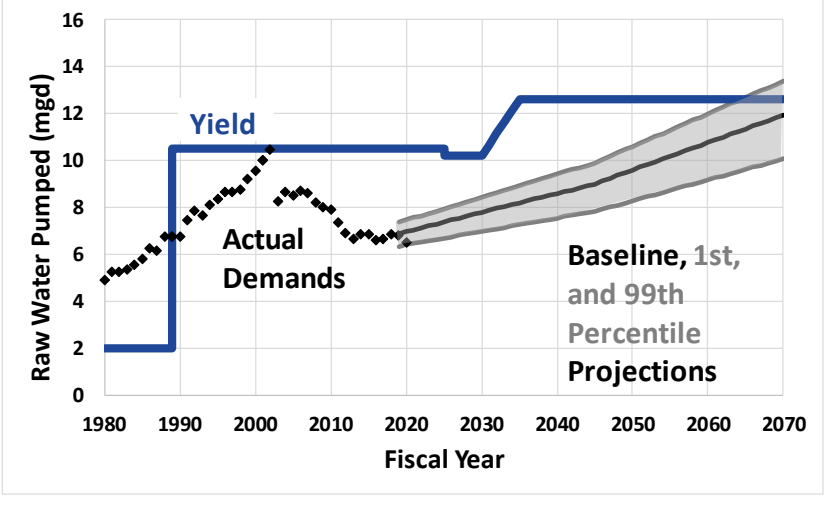


Jordan Lake



7

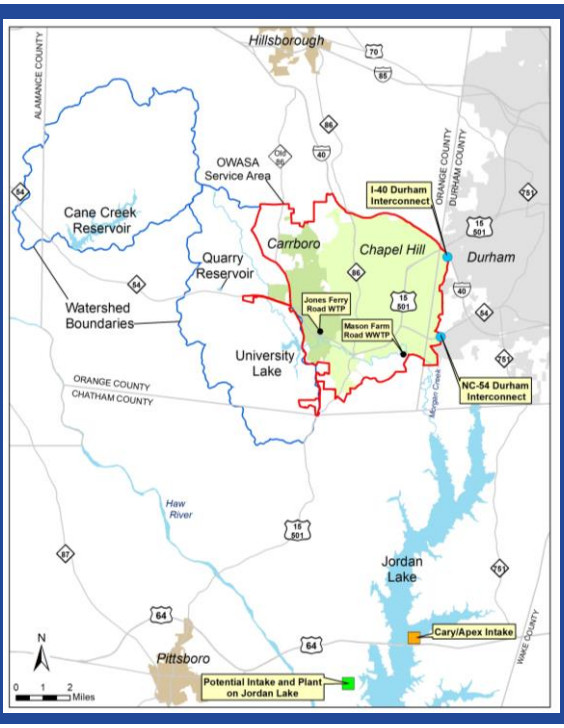
Our Water Supply Meets Demands Under Most Conditions



8

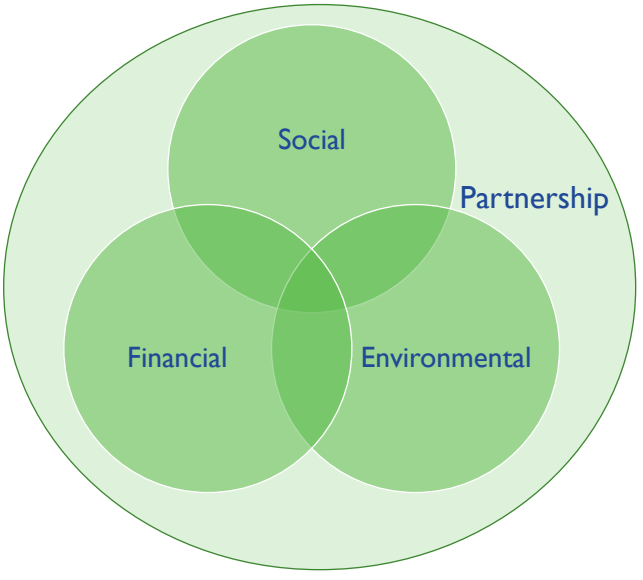
Our Water Supply Risk is Low

- Our predecessors set us up well
  - Supply
  - Conservation
- Cane Creek Reservoir has small watershed relative to its storage
- Long refill times following drought
- Our main vulnerability is extended drought
- Plan to proactively use Jordan Lake allocation
  - Reduce vulnerability
  - Reduce drought surcharges



9

Sustainability Principles



10

Identifying Alternatives to Evaluate



- Meetings
- Plans
- OWASA Board and others

- Potential water supply or savings
- Incremental costs
- Implementation

Apples to apples comparison across 3 pillars of sustainability

11

Preliminary Alternatives Analysis

Demand Management Alternatives

Reclaimed Water

Programmatic Strategies

Supply Alternatives

Quarry Reservoir

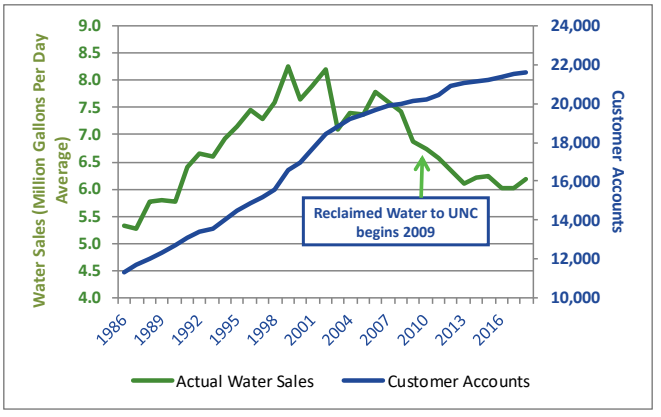
Potable Reuse

Jordan Lake

12

Demand Management Alternatives

- Do not meet long-term demands STOP
- Cost-effective strategies will be considered in Water Conservation Plan as Appendix to LRWSP



Supply Options

- Deep Quarry STOP
  - Does not diversity water supply
  - High capital cost
- Potable Reuse STOP
  - Options not legal or have uncertain permitting process
  - High capital cost
- Jordan Lake
  - Meets long-term needs and diversifies our water supply
  - Lower capital costs
  - Several potential ways to use Jordan Lake
  - Largely rely on our 3 local supplies

Where are we headed?

- Report to Board of Directors on community engagement - March
- Develop guiding principles to evaluate Jordan Lake alternatives – May/June
- Continue to evaluate Jordan Lake - FY22
  - Mutual aid agreements
  - Full partner in new intake and plant on western side of Jordan Lake
  - New agreement with Western Intake Partners to guarantee access to our Jordan Lake allocation
- Select draft preferred alternative - FY22
- Engage the community
- Develop final Long-Range Water Supply Plan with preferred alternative

15

Questions and Discussion

- Do the Commissioners or community members have any questions on our long-range water supply planning process?
- What feedback would you like shared with the OWASA Board of Directors regarding future evaluation of Jordan Lake water supply alternatives?
- Other?

Ruth Rouse/ rrouse@owasa.org



16

Attachment 3: Questions Received from Town of Chapel Hill Council Prior to Meeting and OWASA Staff Responses

OWASA provides the following responses to questions posed by Town of Chapel Hill Council Members. The responses are brief, and we are happy to provide additional details if needed. Please contact Ruth Rouse at rrouse@owasa.org or at 919-345-3742 for additional information.

1. Is there a water supply not currently in the ownership of OWASA that could contribute to OWASA's Long-Range Water Supply Plan? If so, what is/are the water supply/supplies?

   We assumed this question was asking if we could purchase water from another utility. OWASA has been working with other Triangle utilities since 2009 to collaboratively plan for the region's water supply to improve the reliability and resilience of the area's water resources. One of the results of this collaboration is the Triangle Regional Water Supply Plan. This Plan identified allocations for each utility from Jordan Lake and other supplies to meet their needs through 2060.

   OWASA also considered purchasing water from the City of Burlington. However, this alternative was not evaluated in detail as it would have required longer transmission lines than accessing our Jordan Lake allocation (i.e. less cost effective). In addition, it may not have been viable in the long-term given the growth occurring in the Triad.

2. What was the rationale for looking 50 years into the future and not for a longer period than that?

   Evaluating our needs out 50 years provides us the time to develop new supplies, but acknowledges the uncertainty in extrapolating our needs further into the future. There is a lot of uncertainty in our demand projections when we forecast 50 years into the future. There is also much uncertainty regarding climate change and the impact it may have on water supply and demand. OWASA will continue to evaluate its water supply needs every five to ten years to determine when we need to update our Long-Range Water Supply Plan.

3. Is there any chance that OWASA's allocation of 5 percent of Jordan Lake's water supply pool increases over the next few decades?

   As noted above, there is much we do not know, but we believe the chance of OWASA's allocation increasing in the future is low. Utilities within the Triangle Region worked together to develop their allocation requests for water during the 4th round of allocations from Jordan Lake. One of the results of this collaboration is the Triangle Regional Water Supply Plan. This Plan notes that Jordan Lake's water supply has been 91 percent allocated (based on demands through 2045), and based on 2060 demands

will be 99 percent allocated (assumes OWASA maintains its allocation of 5 percent of Jordan Lake's water supply pool).

4. How are decisions about percent allocations of Jordan Lake's water supply made?

   The federal government assigned the use of Jordan Lake's water supply storage to the State of North Carolina, and the Environmental Management Commission (EMC) authorizes allocations. The North Carolina Administrative Code at 15A NCAC 02G .0500 describes the procedures used to allocate the water. Applicants for water supply allocations must include similar information that is included in our LRWSP: projected water needs, yield of existing sources, alternative water supplies, and a description of conservation practices. Allocation requests are based on needs thirty years into the future. Four rounds of allocations have been completed to date; a fifth round would occur upon request of an allocation from a local government or utility in accordance with the regulations. When a fifth round of allocations is opened, OWASA would have to submit an application to maintain its allocation. If other utilities have greater needs, and OWASA has not used its allocation, the EMC could reduce or rescind the allocation.

5. Out of the approx. 10.5 million gallons per day that OWASA's three local reservoirs can provide, how much of that is actually used per day over the course of a year, assuming the drought-of-record?

   The estimated current yield of our reservoirs (10.5 mgd) assumes the 2001-02 drought of record. During an average day (pre-pandemic), OWASA withdrew about 7 mgd. That number is variable (higher during hotter, dry weather and lower during cooler, wetter weather).

6. Under what circumstances can OWASA access the allocation from Jordan Lake, under its mutual aid agreements with the Town of Cary and the City of Durham?

   Our mutual aid agreements do not define the circumstances in which we can access water from our Jordan Lake allocation. However, the agreements state that the utility providing water may choose not to transfer water or transfer less water than requested if the requested transfer amount will jeopardize their ability to meet their needs.

7. What potential is there for the system to recycle water within the Jones Ferry Road Water Treatment Plant, which saves about 7% of the drinking water, to save an even higher percentage over the next few decades?

   We have maximized the amount of process water recycled at the water treatment plant under the approval of the Public Water Supply Section of NC DEQ. The small amount of process water not recycled, about 0.6% of the water treated, is due to limits on allowable recycle and suspension of recycling during facility cleaning and maintenance.

8. Would any of the alternatives laid out under any of the management strategies require financial assistance? If so, is there a sense of the cost associated with each alternative?

   There are costs associated with each alternative. Some include capital and operating costs, and some include only operating costs. Costs associated any alternative would need to be recovered through OWASA's rates, fees and charges. The attached tables summarize the cost of each alternative.

9. What potential is there for new water supplies to develop over the next 50 years that OWASA could have access to?

   The potential for traditional new supplies is small since new reservoirs are difficult to site due to growth in the area and onerous permitting requirements. Groundwater is also not an option in the North Carolina piedmont for utilities due to the number of wells that would be required by the utility, which would impact neighboring private wells. Potable reuse is a potential alternative supply that we have evaluated. Potable reuse is the use of highly treated wastewater for drinking water purposes. Currently legal requirements in North Carolina limit its use. However, it is used in other states and around the world. If the North Carolina General Assembly modified the General Statutes, this is a potentially viable alternative.

Attachment 1: Cost Summary Tables of Alternatives

Table 1: Cost Summary of Supply Alternatives

Alt #	Name	Assumed Estimated Yield of Project (MGD)	Capital Cost in 2020 $		Net Present Cost	
			Project Design and Construction (Million $)	$ Per GPD of Additional Yield Provided	(Million $)	Per 1,000 Gallons of Yield
1	Jordan Lake - Full Partner in New Intake and WTP on West Side	5	$37.0	$7.41	$33.9	$0.65
2	Jordan Lake - Continue with Mutual Aid Agreements	*THIS ALTERNATIVE MAINTAINS OUR EXISTING LEVEL OF WATER SUPPLY. WATER PRICE OUTLINED IN MUTUAL AID AGREEMENTS. THEREFORE, A FINANCIAL ANALYSIS WAS NOT COMPLETED FOR THIS ALTERNATIVE.*				
3	Jordan Lake - Develop New Agreement with Town of Cary to Guarantee Access	*A FINANCIAL ANALYSIS WAS NOT COMPLETED FOR THIS ALTERNATIVE SINCE CARY STAFF HAS ADVISED THEY WOULD LIKE TO OPERATE WITHIN PROVISIONS OF EXISTING MUTUAL AID AGREEMENTS AT THIS TIME.*				
4	Jordan Lake - Develop Agreement with Western Intake Partners to Guarantee Access	*A FINANCIAL ANALYSIS WAS NOT COMPLETED FOR THIS ALTERNATIVE. THE POTENTIAL PARTNERS ON THE WESTERN INTAKE AND WATER PLANT ARE IN THE EARLY STAGES OF CONSIDERING THEIR RESPECTIVE PARTICIPATION LEVELS, RELATED COSTS, AND GOVERNING STRUCTURE.*				
5	Shallow Quarry Reservoir	2.1	$0.3	$0.14	$2.4	$0.07
6	Deep Quarry Reservoir	3.4	$77.3 (w/trans)	$22.74	$65.5	$1.39
		3.4	$35.8 (no trans)	$10.53	$31.0	$0.66
7A	Indirect Potable Reuse - New Pretreatment Mixing Basin	4	$105.9	$26.48	$36.9	$1.33
7B	Indirect Potable Reuse - Storage and Mixing in Quarry Reservoir	4	$100.9	$25.23	$36.1	$1.30
8	Indirect Potable Reuse with Return to University Lake	*A FINANCIAL ANALYSIS WAS NOT COMPLETED FOR THIS ALTERNATIVE, SINCE ALTERNATIVE 7A (AND POSSIBLY 7B) IS MORE VIABLE FROM A REGULATORY AND ECONOMIC PERSPECTIVE.*				
9 - C	Direct Potable Reuse - Carbon-Based Treatment	4	$46.0	$11.50	$18.0	$0.65
9 - RO	Direct Potable Reuse - MF/RO Treatment	4	$59.4	$14.85	$31.4	$1.13

Table 2: Cost Summary of Demand Management Alternatives

Alt #	Name	Estimated 2070 Water Savings of Project (MGD)	Capital Cost in 2020 $		Net Present Cost (Millions)	Net Present Levelized Costs Per 1,000 Gallons Projected to be Saved
			Project Design and Construction (Millions)	Per GPD of Savings Provided		
10	Reclaimed Water Use at UNC Cogeneration Facility	0.2	$13.2	$66	$17.9	$5.99
11	Reclaimed Water Use for Toilet Flushing in New UNC Buildings	0.055	$1.7	$31	$1.0	$1.11
12	On-Site Wastewater and NPW Treatment and Reuse	0.154	$4.5	$29	$8.8	$4.18
13A	Unit Sub-Metering and WaterSense Installation	0.17	*Operating Program*	*N/A*	$0.4	$0.27
13B	Water Efficiency Design Assistance	0.23	*Operating Program*	*N/A*	$2.0	$1.02
13C	On-Bill Financing Program for Investments in Water Efficiency	0.03	*Operating Program*	*N/A*	$0.3	$248
13D	Minimize System Flushing	0.047	$6.2	$132	$5.7	$6.78

Attachment 4: Step 7 Community Engagement Plan for Long-Range Water Supply Plan as Reviewed by the Board of Directors

Goal: Gauge community support for and concerns regarding proposed long-range water supply planning process and alternatives to be considered in the Board's establishment of guiding principles regarding

Context: Plans for community engagement need to be adjusted due to the ongoing COVID-19 pandemic

Proposed Timeline: October 2020 – February 2021

Strategy:

- **Website:** Update LRWSP Page with detailed background on the development of the LRWSP, including:
    - Summary information (see summary at end of this document)
    - A timeline with links to historical documents and Board decisions
    - Highlight upcoming opportunities to provide feedback
    - Information about how to submit feedback (via email to Ruth Rouse)
    - Link to sign-up form for Constant Contact (email) updates
    - Link to webinar and Wonderful Water interviews
    - Reponses to FAQs
- **Social Media:** Utilize throughout engagement to inform about events and opportunities to provide feedback
- **Wonderful Water (Late October):** Interview of Ruth Rouse by Aaron Keck, hitting the major points from the summary and inviting public to webinar and/or submit questions/support/concerns to Ruth Rouse; interview will be shared via social media
- **Elected Board Quarterly Report (Late October):** Provide update of Long-Range Water Supply Planning activities and community engagement opportunities in the regularly scheduled quarterly report to local elected officials.
- **Webinar (Mid-November):** OWASA will host a public webinar where more details on the LRWSP will be presented and the public will be invited to ask questions. The webinar will be recorded and posted on our website and shared on social media. The following groups will be explicitly invited to the webinar:
    - Long-Range Water Supply Plan Email Interest List
    - Chamber of Commerce
    - UNC-Chapel Hill
    - UNC Health
    - Affordability Outreach Partners
    - Environmental Commissions for the BOCC, TOCH Council, and TOC Council
    - Sierra Club

  The public (including those that have expressed interest in OWASA's water supply planning in the past) will be informed of the LRWSP update and invited to the webinar via OWASA's website and social media pages.

  Staff will respond to FAQs heard from the community thus far, and post this on the website.

- **Elected Board Presentations (January – February 2021):** We will request to provide brief presentations to the Town of Chapel Hill Town Council, Town of Carrboro Town Council, and the Orange County Board of County Commissioners.

OWASA staff will compile and share feedback received from the aforementioned strategies for the OWASA Board's consideration in their discussion on Guiding Principles regarding use of Jordan Lake (Spring 2021).

Resources: Ruth Rouse, Mary Tiger, Blake Hodge

Background Information:

Board-approved Community Engagement Plan for Long-Range Water Supply Plan

Key Messages

- We are updating our 50-year Long-Range Water Supply Plan to ensure that we can supply reliable and high-quality water to our growing community and economy for years to come.
- Our community has committed to water conservation, efficiency, and reclaimed water use. These efforts allow us to make the most efficient use of our current water supplies and investments in water treatment infrastructure.
- Our current water supply in the Cane Creek Reservoir and University Lake is at largest risk in an extended drought, particularly with increased demand.
- Steps to secure access to our Jordan Lake allocation will significantly reduce the near-term and long-term risk of drought restrictions and surcharges, and ultimately, the risk of running out of water.
- Accessing our Jordan Lake allocation through regional partnership has the potential to achieve economies of scale on water treatment and transmission expenses.
- We are inviting questions, concerns, and feedback on the decisions ahead of us. This feedback will be incorporated into the OWASA Board of Director's consideration of next steps on the Long-Range Water Supply Plan in the Spring of 2021.

OWASA Seeks Community Feedback on Plan for Increasing Long-Range Water Supply Resiliency

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.

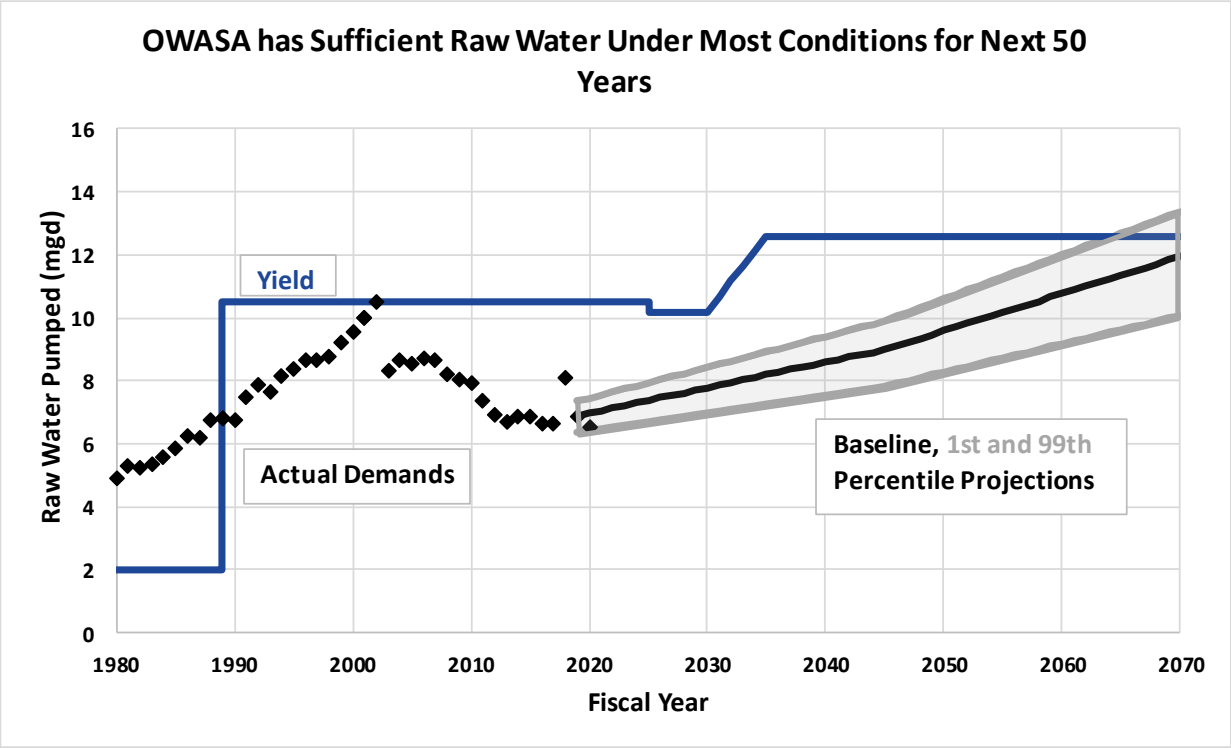
Our current water supply is at greatest risk from an extended drought. The watershed that fills the Cane Creek Reservoir is relatively small and slow to refill after a drought. University Lake has a relatively large watershed for its size, but offers significantly less water storage than Cane Creek Reservoir due to its shallow depth.

In updating our Long-Range Water Supply Plan, we used our 50-year forecasts to evaluate the need, costs, and benefits of various alternatives to increase the resiliency of our water supply. Based on this evaluation, OWASA determined that Jordan Lake offers the most resilient, cost-effective, and viable opportunity to meet future water demands. From here, further evaluation is needed to identify how best to incorporate water from Jordan Lake into our supply portfolio.

Background

Important decisions and investments in the Cane Creek Reservoir and the creation of OWASA itself were made in our community generations ago to ensure that we currently have an adequate water supply to deliver high-quality water to the community. Over the past 12 years, our community has also made great strides in increasing water-use efficiency and reducing water demands. We are grateful for our reclaimed water partnership with UNC-Chapel Hill and for each individual water-wise customer who helped to achieve these results. Together, we are ensuring that we are making the most efficient use of our current water supplies and investments in water treatment infrastructure.

Our community uses about 6-7 million gallons of water every day. Currently, University Lake and Cane Creek Reservoir are critical to meeting everyday water demands. When supplemented with the storage capacity in the Quarry Reservoir (anticipated to be expanded and online between 2025 and 2035), we will have enough water to meet community water demands in most circumstances through 2060. The graph below compares the projected water supply of University Lake, Cane Creek Reservoir, and our Quarry Reservoir in drought conditions to a range of projected water demands of the community we serve.



In addition to the yield presented in the graph above, OWASA is currently permitted to use about 5 million gallons of water per day from Jordan Lake. Jordan Lake provides an additional source of water and increases the diversity of our water supply portfolio. However, OWASA does not have its own infrastructure to access this water. We rely on mutual aid agreements with the Town of Cary and City of Durham. Our Jordan Lake allocation was not included in our long-range water supply forecast because these agreements are not binding (i.e. access to the water from Jordan Lake is not guaranteed).

Increasing the Near-Term Water Supply Resiliency

OWASA's current, self-imposed policy restricts the use of water from Jordan Lake to only during drought conditions. This constraint prevents the proactive use of water from Jordan Lake to preserve the water in University Lake and Cane Creek Reservoir when a drought is anticipated. The policy also limits the effectiveness, both in supply and cost, of any strategy that would provide more assured access to water from Jordan Lake. In the near-term, the OWASA Board will be considering amending our Drought Response Operating Protocol (DROP) to allow for more flexibility in accessing water from Jordan Lake.

Meeting Future Water Needs

OWASA can significantly reduce the risk of community restrictions, drought surcharges, and ultimately, of running out of water in a drought by pursuing an alternative water supply. In our planning efforts, OWASA evaluated a wide range of options to help ensure that we meet our projected water needs. We considered the environmental, financial, and societal impacts of various options in our evaluation.

Our analysis included demand management (increased water efficiency and conservation) and reuse strategies, as well as supply strategies. Alternatives that are not currently legal, do not substantially

close the gap between projected demands and supply, or are too costly were removed from further evaluation.

This analysis identified a suite of alternatives that has potential to improve our access to water from Jordan Lake. Some of these alternatives also provide an additional method for water treatment (beyond our own Jones Ferry Water Treatment Plant), which further increases drinking water supply resiliency. Some also have the potential to improve economies of scale of water treatment and transmission expenses by working with our regional partners. These alternatives for accessing water from Jordan Lake are currently under review and consideration by OWASA.

Community Feedback Invited

The process for evaluating the community's water needs and the available resources to meet those needs are on-going and iterative. However, OWASA stands now at a decision-point to invest in the further analysis of options to improve access to water from Jordan Lake, and we want to hear your feedback.

OWASA invites community questions and feedback on our plan to meet the water needs of our community today, in 2070, and every day in between.

More information on our Long-Range Water Supply Planning efforts can be found on: https://www.owasa.org/plans/owasa-long-range-water-supply-plan/



Aerial Shot of Receding Water Line in Cane Creek Reservoir in Drought of 2007-08.

Attachment 5 Comments Received Through Twitter:



Account: @OWASA1 **Content type:** Twitter - Mentions
Record ID: 20210114citizenwillMentions66947_1349807175082893318

citizenwill @citizenwill
Folks @OWASA1 once again talking about tapping the miserably polluted PFAs plagued Jordan Lake for water instead of expanded use of existing stone quarry Stone quarry will provide 3 1/2 times Cane Creek's supply starting 2035 We will fight tooth-n-nail to stop #CHTC approval
at 19:54:43 on 1/14/2021 UTC

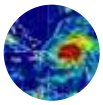
Account: @OWASA1 **Content type:** Twitter - Mentions
Record ID: 20210114citizenwillMentions66947_1349807977000284161

citizenwill @citizenwill
.@OWASA1 very disappointed that Jordan Lake option pushed over other more environmentally & far more safer options - like greater protection watersheds, etc. Haven't been keeping a close eye on Long Range Plan so very very surprised & disappointed chapelhill.legistar.com/View.ashx?M=F&…
at 19:57:54 on 1/14/2021 UTC

Account: @OWASA1 **Content type:** Twitter - Mentions
Record ID: 20210114citizenwillMentions66947_1349808780691853312

citizenwill @citizenwill
.@OWASA1 the deep quarry option is a good fit and means our ratepayers won't be subsidizing Pittsboro/Chatham's growth by becoming entangled in an $$$$$$ expensive Jordan Lake water treatment plant/intake boondoggle we don't need. Disappointing. chapelhill.legistar.com/View.ashx?M=F&…
at 20:01:06 on 1/14/2021 UTC

Account: @OWASA1 **Content type:** Twitter - Mentions
Record ID: 20210114citizenwillMentions66947_1349810041466073088



citizenwill @citizenwill

.@OWASA1 's main knock against quarry "vulnerability..Cane Creek..watershed" controlled by 1 govt - Orange Cty ZERO reference to Jordan Lake's watershed, controlled by 43 different govts - incl Burlington which spills sewage freq into Haw River Thumb on the scale much? Shameful

at 20:06:06 on 1/14/2021 UTC

Account: @OWASA1 **Content type:** Twitter - Tweets

Record ID: 20210114Orange-Water-SewerTweets66947_1349814102114394112

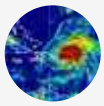
Orange Water & Sewer @OWASA1

Replying to @citizenwill

@citizenwill Thank you for your comments. We are currently in the community engagement portion of the process for updating the Long-Range Water Supply Plan, and your comments will be forwarded to our Board of Directors for their consideration.

at 20:22:14 on 1/14/2021 UTC

In reply to ⇩



citizenwill @citizenwill

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at 20:01:06 on 1/14/2021 UTC

Account: @OWASA1 **Content type:** Twitter - Tweets

Record ID: 20210114Orange-Water-SewerTweets66947_1349814360051490818

Orange Water & Sewer @OWASA1

Replying to @OWASA1

@citizenwill You can also sign up to receive future updates on the Long-Range Water Supply Plan here - owasa.org/plans/owasa-lo…

at 20:23:16 on 1/14/2021 UTC

In reply to ⇩

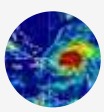
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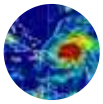
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at 20:01:06 on 1/14/2021 UTC

Account: @OWASA1 **Content type:** Twitter - Mentions

Record ID: 20210114citizenwillMentions66947_1349815081517899776



citizenwill @citizenwill

.@OWASA1 Please let the current Board know that at least on previous Board member finds the push for Jordan Lake 100% unacceptable. Can you link to the detailed analysis of quarry vs. Jordan Lake? Does it include a thorough analysis of ALL existing pollutants in both supplies?

> **Orange Water & Sewer** @OWASA1
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> at 20:22:14 on 1/14/2021 UTC

at 20:26:08 on 1/14/2021 UTC

Account: @OWASA1 **Content type:** Twitter - Tweets

Record ID: 20210114Orange-Water-SewerTweets66947_1349816901862629379

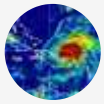
Orange Water & Sewer @OWASA1

Replying to @citizenwill

@citizenwill A variety of supply and demand-side options were presented to the Board at a meeting in August. Item 5 in this agenda walks through the various options - owasa.org/wp-content/upl…

at 20:33:22 on 1/14/2021 UTC

In reply to ⇩



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at 20:26:08 on 1/14/2021 UTC

Account: @OWASA1 **Content type:** Twitter - Tweets

Record ID: 20210114Orange-Water-SewerTweets66947_1349817123577729024

Orange Water & Sewer @OWASA1

Replying to @OWASA1

@citizenwill You can also watch back through the video of that meeting here (LRWSP starts about 25 minutes in) - chapelhill.granicus.com/player/clip/42…

at 20:34:15 on 1/14/2021 UTC

In reply to ⇩

Orange Water & Sewer @OWASA1

Replying to @citizenwill

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at 20:33:22 on 1/14/2021 UTC

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at 20:26:08 on 1/14/2021 UTC

Account: @OWASA1 **Content type:** Twitter - Mentions

Record ID: 20210114citizenwillMentions66947_1349817228213035008

citizenwill @citizenwill

Correct, as both customer & Board member I did push @OWASA1 to continue joint partnership with @UNC on testing our water supply for chemicals beyond the statutory minimum & was rebuffed multiple times. Were suspicions @OWASA1 bio-solids contributed pharma + others

at 20:34:40 on 1/14/2021 UTC

Account: @OWASA1 **Content type:** Twitter - Mentions

Record ID: 20210114citizenwillMentions66947_1349817746419310592

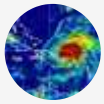
citizenwill @citizenwill

Replying to @citizenwill and 1 others

At the time, I think Carrboro and Orange @OWASA1 reps generally on-board with idea of testing beyond statutory limits but Chapel Hill reps attitude was basically "don't go looking for trouble" Chapel Hill dominates @OWASA1 Board.

at 20:36:43 on 1/14/2021 UTC

In reply to ⇩



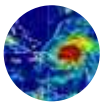
citizenwill @citizenwill

Correct, as both customer & Board member I did push @OWASA1 to continue joint partnership with @UNC on testing our water supply for chemicals beyond the statutory minimum & was rebuffed multiple times. Were suspicions @OWASA1 bio-solids contributed pharma + others

at 20:34:40 on 1/14/2021 UTC

Account: @OWASA1 **Content type:** Twitter - Mentions

Record ID: 20210114citizenwillMentions66947_1349818565738827784



citizenwill @citizenwill

Replying to @OWASA1

@OWASA1 Thank you for links but I'm asking if there has been a detailed financial, environmental & chemical analysis of the Jordan Lake vs quarry options. The Long-Range Water Supply Plan basically doesn't provide those underpinning details. Looking forward to eval factual analysis.

at 20:39:59 on 1/14/2021 UTC

In reply to ⇩

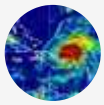
Orange Water & Sewer @OWASA1

Replying to @citizenwill

@citizenwill A variety of supply and demand-side options were presented to the Board at a meeting in August. Item 5 in this agenda walks through the various options - owasa.org/wp-content/upl…

at 20:33:22 on 1/14/2021 UTC

In reply to ⇩



citizenwill @citizenwill

.@OWASA1 Please let the current Board know that at least on previous Board member finds the push for Jordan Lake 100% unacceptable. Can you link to the detailed analysis of quarry vs. Jordan Lake? Does it include a thorough analysis of ALL existing pollutants in both supplies?

> **Orange Water & Sewer** @OWASA1
>
> Replying to @citizenwill
>
> @citizenwill Thank you for your comments. We are currently in the community engagement portion of the process for updating the Long-Range Water Supply Plan, and your comments will be forwarded to our Board of Directors for their consideration.
>
> at 20:22:14 on 1/14/2021 UTC

at 20:26:08 on 1/14/2021 UTC

Account: @OWASA1 **Content type:** Twitter - Tweets

Record ID: 20210129Orange-Water-SewerTweets66947_1355244573845573634

Orange Water & Sewer @OWASA1

2021 has a lot in store as OWASA continues investing in our community infrastructure and updates the Long-Range Water Supply Plan. Executive Director Todd Taylor previewed what's to come with @WCHLChapelboro. chapelboro.com/sponsored/wond…

at 20:01:00 on 1/29/2021 UTC

Account: @OWASA1 **Content type:** Twitter - Mentions

Record ID: 20210129citizenwillMentions66947_1355254304945397761

citizenwill @citizenwill

Replying to @OWASA1 and 2 others

@OWASA1 @WCHLChapelboro Looking forward to a detailed case in Long-Range Plan for slurping up Jordan Lake's foul brew + getting in bed with costly (to @OWASA1 ratepayers) Chatham/Pittsboro water intake over self-contained, easier to protect quarry option.

at 20:39:40 on 1/29/2021 UTC

In reply to ⇩

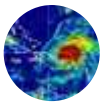
Orange Water & Sewer @OWASA1

2021 has a lot in store as OWASA continues investing in our community infrastructure and updates the Long-Range Water Supply Plan. Executive Director Todd Taylor previewed what's to come with @WCHLChapelboro. chapelboro.com/sponsored/wond…

at 20:01:00 on 1/29/2021 UTC

Account: @OWASA1 **Content type:** Twitter - Mentions

Record ID: 20210129citizenwillMentions66947_1355256706415128585



citizenwill @citizenwill

NOW is the time to fund a solid scientific assessment of current & future PFAS "forever chemicals" + pharma + contaminant levels Jordan vs quarry/OC @OWASA1 reservoirs, expected growth in contamination over time, predicted customer exposures after cleaning + cost of cleaning.

> **citizenwill** @citizenwill
>
> Replying to @OWASA1 and 2 others
>
> @OWASA1 @WCHLChapelboro Looking forward to a detailed case in Long-Range Plan for slurping up Jordan Lake's foul brew + getting in bed with costly (to @OWASA1 ratepayers) Chatham/Pittsboro water intake over self-contained, easier to protect quarry option.
>
> at 20:39:40 on 1/29/2021 UTC

at 20:49:12 on 1/29/2021 UTC

Agenda Item 4:

Draft Fiscal Year 2022 Operating and Capital Equipment Budgets

Purpose:

The purpose of this discussion is to provide a draft of the Fiscal Year (FY) 2022 operating and capital equipment budgets. Budget information in this agenda includes drafts of the following:

- Operating budget
- Capital equipment budget

Staff will provide the Board with a draft capital improvements program budget and a preliminary rate adjustment recommendation for consideration at the March 25, 2021 meeting.

The Board of Directors will continue to discuss these topics throughout March and April, as necessary, in order to be prepared to hold public hearings, tentatively scheduled for May 27, 2021, and make final budget and rates decisions at the June 10, 2021 Board meeting.

Budget preparation efforts to date:

Our draft operating budget is based on the needs of the organization and our continued commitment to provide high value to our customers. However, the pandemic has led to a reduction in water demand and a corresponding decrease in revenue and staff has reduced the operating and capital equipment budgets where possible.

We began the process of developing the FY 2022 budget in December 2020. We completed budget request worksheets for each department, compiled the information, performed various analyses, and held budget request review meetings.

At the February 11, 2021 work session, the Board heard presentations from each of the operating department managers: Mary Darr, General Manager of Operations (filling in for the vacant Water Supply and Treatment Manager position); Jesse DuClau, Distribution and Collection Systems Manager; and Monica Dodson, Wastewater Treatment and Biosolids Recycling Manager. Each presenter discussed the opportunities and challenges they are addressing in their FY 2022 operating budget requests.

Summary of the draft operating and capital equipment budgets:

Expenditures in the draft FY 2022 operating budget total approximately $23.9 million. This is about 3.2% greater than the FY 2021 operating budget and about 1.2% higher than we projected for FY 2022. The draft capital equipment budget is about $1 million and about 5% less than projected.

Approach to developing the draft FY 2022 budgets:

We have drafted the FY 2022 operating and capital equipment budgets based on "normal operating conditions" without contingencies. This increases our risk of exceeding the budget if we incur unanticipated cost increases from, for example, chemical price increases, more instances of equipment failures, etc. However, OWASA's financial condition, including reserve funds, allows us to manage the finances of the organization with a leaner budget.

Assumptions and highlights:

The following outlines some of the more significant projects and expenses included in this draft of the operating budget.

General

- The budget is being developed so that current service levels are maintained, and all of our Financial Management Policy objectives may be met.
- 3% vacancy allowance – the personnel compensation budget has been reduced by about $275,000, to account for position vacancies.
- Based on preliminary indications from our health insurance consultant, we have included no increase or decrease in health insurance costs. This will be adjusted as necessary as we receive more information from our health insurance provider.
- A placeholder for a 3% merit and cost of labor (combined) increase is included. The Board is scheduled to discuss employee wage increases on May 13, 2021.
- 142 Board authorized positions with 135 funded for FY 2022.
- Price increases for certain chemicals based on information provided by vendors.
- No additional funds have been budgeted to meet the more stringent "Jordan Lake Rules" regarding nutrient levels in wastewater discharged into the Jordan Lake watershed. We currently meet the requirements of the rules and we are confident we can continue to meet them under current conditions using our current processes. However, if flow to the wastewater plant increases or other conditions change, additional expenses may have to be incorporated into the process and we estimate the additional cost to be as much as $750,000 per year.
- Each operating department, Water Supply and Treatment, Distribution and Collection, and Wastewater Treatment and Biosolids Recycling, plan to continue participating in the Partnership for Safe Water and Partnership for Clean Water programs.

Operating budget comparative information:

While we continue to focus on optimizing processes and reducing costs, operating expenses have increased by an average of 1.9% per year over the past ten years.

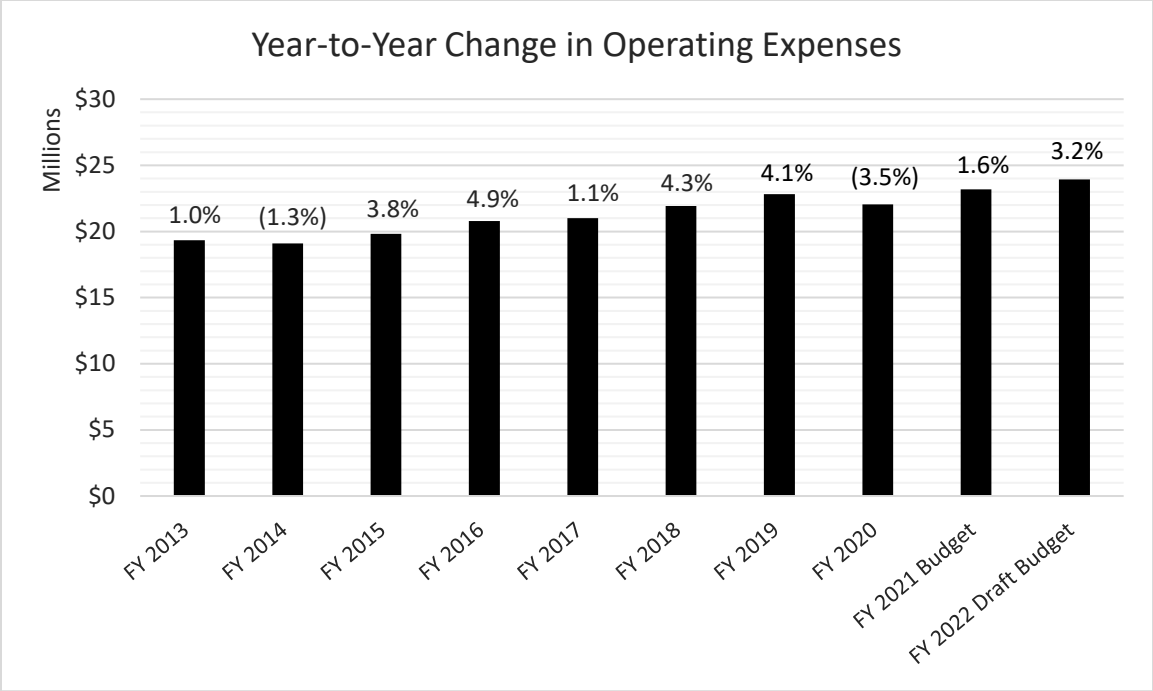


Chart 1

The draft FY 2022 operating budget is about $735,000 or 3.2% greater than the FY 2021 operating budget. The primary differences between the FY 2021 budget and the draft FY 2022 budget include:

Expenses	$ Increase	% Change	Explanation
Total salaries and wages	$107,000	1.2%	• No funding for vacant Communications and Community Engagement Officer • Several retiring employees replaced with employees having fewer years' experience • 3% merit/COLA increase
Contributions to Local Government Employee Retirement System	$87,000	9.7%	• The mandated contribution increased from 10.15% to 11.25% of wages
Maintenance	$298,000	8.8%	• Increase in various computer software and hardware maintenance agreements • Some maintenance items deferred in FY 2021 now scheduled for FY 2022 • Increase in meter maintenance to replace out-of-warranty equipment and to repair up to 15 large meters
Rents and leases	$90,000	91.7%	• Lease of solar equipment (offset by energy costs savings) • Equipment rental for maintenance projects
Professional services	$121,000	8.0%	• Legal, insurance (adding cyber insurance), Diversity and Inclusion organizational assessment
Total of these items	$703,000		

Chart 2

Observations about OWASA's expense categories:

The following charts provide perspective regarding OWASA's operating expenses.

Expense	FY 2022 Draft Operating Budget	Percent of Total
Total wages	9,146,778	38.2%
Payroll taxes, benefits, uniforms	3,920,377	16.4%
Electricity, phones, waste disposal	1,649,056	6.9%
Chemicals	2,538,464	10.6%
Other materials and supplies	811,350	3.4%
Maintenance	3,628,860	15.2%
Professional services	1,626,894	6.8%
Postage, advertising, customer info	202,446	0.8%
Printing	29,400	0.1%
Employee training and development	184,970	0.8%
Dues and memberships	145,024	0.6%
Forest management	36,055	0.2%
Rents and leases	159,500	0.7%
Other	116,025	0.5%
Construction credits	(270,000)	
Total	23,925,200	

These expenses make up 91% of the total

Chart 3

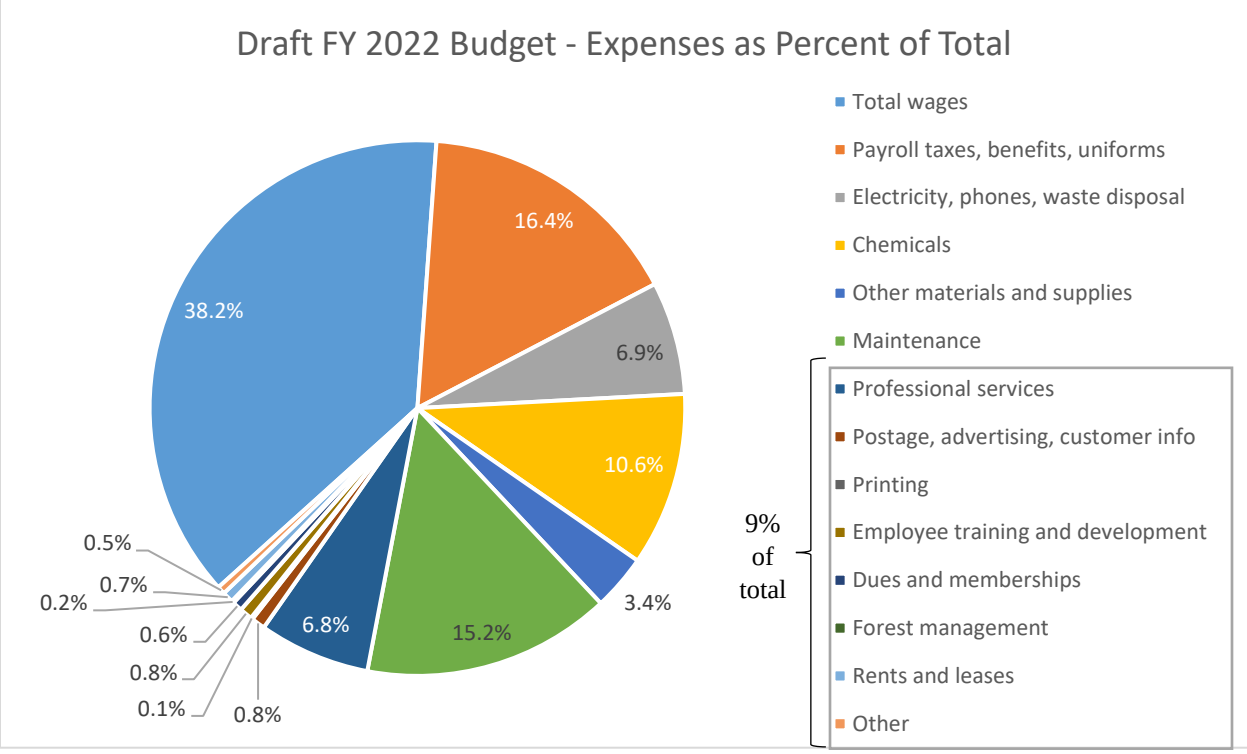


Chart 4

1. Employee compensation, taxes and benefits account for about 55% of our annual operating expenses.
    a. Over the last six years, the annual increase in salaries and wages has been between 2% and 4%. Based on the Board's stated intentions, future merit increases will be at least 2.9%. Cost of labor will be determined based on market data.
    b. Mandatory employer contributions to the Local Government Employees Retirement System for FY 2022 will be 11.25% of total employee wages. (While not an OWASA expense, employees are required to contribute 6% of wages.)
    c. Employer-paid federal payroll taxes are 7.65% of total wages.
    d. Health-related employee insurance makes up about 6.4% of FY 2022 expenses. Rates are a function of benefits offered and claims experience.
2. Electricity, waste disposal, and telephone costs are about 6.9% of total expenses.
3. Chemicals expense averages 10% to 12% of total expenses each year. The unit price of chemicals is somewhat volatile, and the quantity used by our drinking water and wastewater treatment plants is impacted by the volume and condition of the water entering the plants.
4. Total maintenance expenses make up about 15.2% of total expenses.

Important items included and excluded in the draft FY 2022 budgets:

The following are a few important items that are included in the draft operating and capital equipment budgets that could be deferred to further reduce expenses without significantly impacting level of service:

Expense item	Amount
Provision for a 3% increase in employee wages	$275,000
Evaluation of Jordan Lake access alternatives	75,000
Diversity and Inclusion organizational assessment	75,000
Purchase of two road tractors net of $240,000 reimbursement to be received as a result of the Volkswagen "clean diesel" settlement	60,000
Diversity and Inclusion training for the Board	20,000
Forest management (we expect this expense to be offset by revenue from timber sales)	36,055
Strategic plan assistance	15,000
Total	$556,055

Chart 5

The following are a few important items that are being deferred and therefore are not included in the draft operating and capital equipment budgets (these deferrals are not anticipated to impact level of service):

Expense item	Amount
Implementation of new computerized maintenance management system (capital equipment)	$950,000
Review and update of OWASA's construction specifications	100,000
Apprentice program	92,500
Migration to latest version of geographic information system	50,000
Water Treatment Plant mapping of underground assets	25,000
Installation of pump station control and analysis equipment at University Lake	23,000
Part-time assistance in system development	20,000
In-person events such as OWASA open house, water wagon promotions, etc. and advertising	19,000
Part-time lake recreation staffing for calendar year 2021	18,300

Expense item	Amount
Replace folding partition wall in conference room at the Wastewater Treatment Plan	16,000
Equipment to improve ability to locate asbestos cement water lines (This was eliminated from the budget (not deferred). A test of the equipment showed it does not meet our needs.) (capital equipment)	12,000
Interns	9,000
Quick connect coupler for excavator to save time and improve safety (capital equipment)	7,500
In-person Board meeting expenses	6,500
Office furniture	6,000
Painting at OWASA facilities	4,500
Total	$1,359,300

Chart 6

Historical budget information:

History of rate increases

The following shows the amount of the average bill for single-family individually metered residences based on our system-wide average monthly water use of 4,000 gallons. When we have rate increases, they typically go into effect on October 1st.

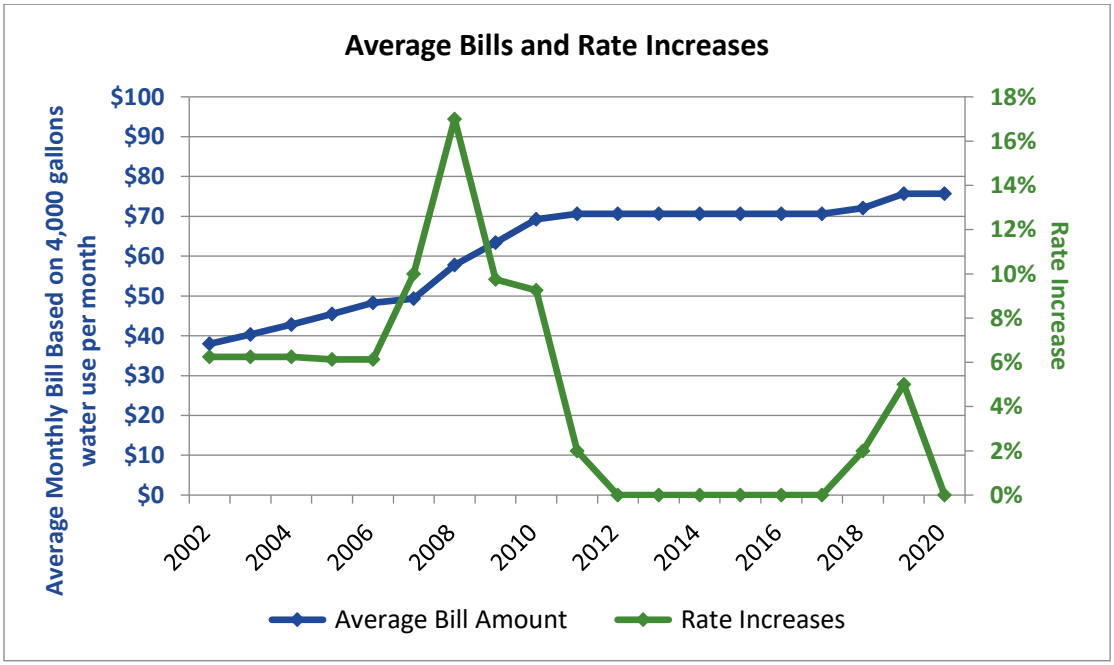


Chart 7

History of employee wage increases

For Fiscal Years 2018, 2019 and 2020, the Board approved raises consisting of two components: a cost of labor adjustment based on market analysis and a performance-based merit adjustment. The merit adjustment for these years for employees earning a performance rating of Meets Expectations has been approximately 3%. This approach is based on the Board's decision to target merit increases to be at least

2.9 percentage points greater than any cost of labor adjustment to help ensure that employees receiving a Meets Expectations performance rating will reach the midpoint of their salary range in nine years. Employees earning ratings of Exceeds Expectations and Exceptional have received a higher percentage increase. Prior to FY 2018, a variety of approaches were used to determine compensation increases.

The following chart shows compensation increases for the last 10 years for employees receiving a rating of Meets Expectations.

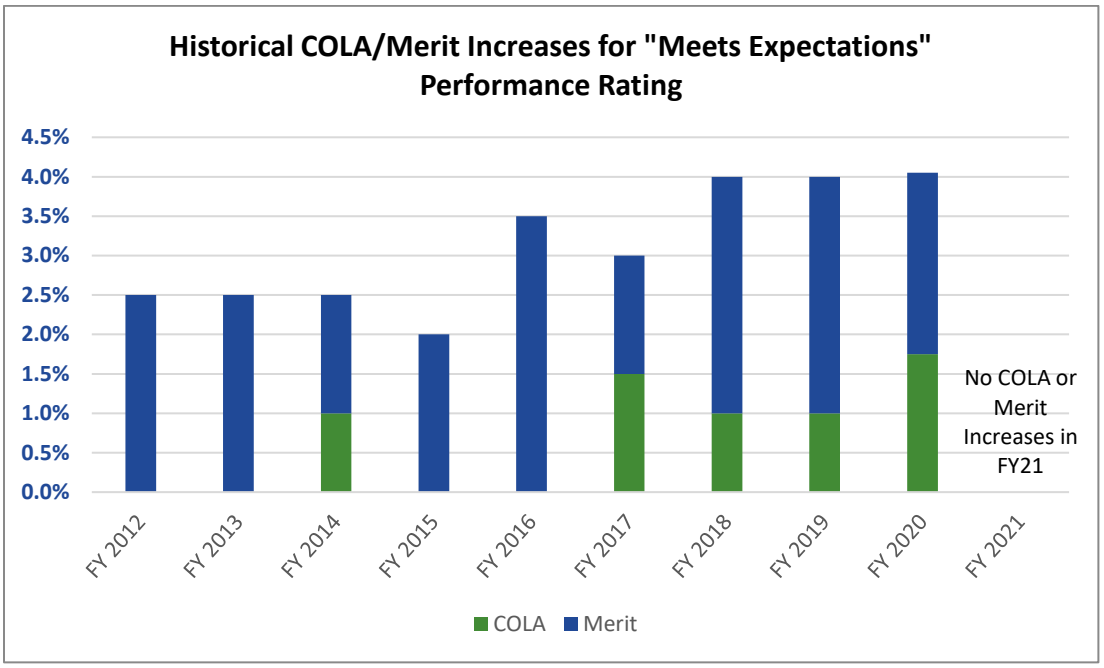


Chart 8

Draft FY 2022 capital equipment budget:

The draft FY 2022 capital equipment budget is shown in Appendix B. The proposed purchases total $1,045,250. Capital equipment deferrals total $969,500 and are listed in Chart 6 above.

Budget and rate setting next steps:

Public hearings on the budget and rates are tentatively scheduled for May 27, 2021. A final budget and proposed rate schedule are tentatively scheduled to be presented for approval at the Board work session on June 10, 2021.

1. Staff will present revised draft operating and capital equipment budgets, a draft of the capital improvements program budget, and a rate adjustment recommendation at the Board's March 25, 2021 meeting.
2. Staff will incorporate feedback from the March 11 and March 25 Board meetings into the budget and financial plan.
3. Staff anticipates presenting an updated draft of the FY 2022 budget and rate adjustment recommendation to the Board of Directors on April 8. At the meeting on April 22, 2021, staff will ask for the Board's authorization to publicize budget and rate information in advance of the public hearings.
4. Staff will prepare a revised (if necessary) draft of the FY 2022 budget and rate adjustment recommendation for presentation at the public hearings.

5. At the public hearings, the Board will receive and consider comments from customers and other stakeholders.
6. After considering public input, the Board of Directors will discuss and provide guidance to staff on the final draft of the FY 2022 budget and rate adjustment recommendation.
7. Staff will finalize the FY 2022 budget and rate adjustment recommendation and is scheduled to present it for adoption by the Board of Directors at its work session on June 10, 2021.

Board action requested:

Review the FY 2022 draft operating and capital equipment budgets, provide feedback, and identify additional information needed for future budget discussions.

Attachments Appendix A – Draft FY 2022 operating budget information

Appendix B – Draft FY 2022 capital equipment budget information

Appendix C – Draft FY 2022 professional services detail

	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2022 Request	FY22 Amounts in last year's planning	FY22 Budget Compared to FY21 Forecast	FY22 Budget Compared to FY21 Budget	FY22 Budget compared to amount in last year's planning
Operating Expenses	22,234,798	22,801,943	23,190,344	21,988,061	23,925,200	23,636,944	8.8%	3.2%	1.2%
Capital Equipment	1,001,135	473,960	704,500	517,441	1,045,250	1,097,113	102.0%	48.4%	-4.7%
CIP	17,299,150	25,571,000	20,319,000	19,900,000	TBD	20,258,000			
Total	40,535,083	48,846,903	44,213,844	42,405,501	24,970,450	44,992,057			

Acct #	Expenditure Classification	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2022 Request	Dollar variance FY22 v FY21 Budgets	Percent variance FY22 v FY21 Budgets	Dollar variance FY22 Budget v FY21 Forecast	Percent variance FY22 Budget v FY21 Forecast
	Salaries									
5010	Salaries And Wages, Regular	7,954,141	7,919,737	8,545,101	8,241,083	8,652,720	107,619	1.3%	411,637	5.0%
5020	Salaries And Wages, Overtime	394,170	363,884	331,710	280,692	358,304	26,594	8.0%	77,612	27.7%
5050	Standby Pay	70,031	558,465	65,550	345,445	78,250	12,700	19.4%	(267,195)	-77.3%
5060	Part-Time	116,225	54,133	82,520	32,983	42,505	(40,015)	-48.5%	9,522	28.9%
5070	Per Diem	13,750	12,350	15,000	15,000	15,000	-	0.0%	-	0.0%
	Total	8,548,317	8,908,569	9,039,881	8,915,202	9,146,778	106,898	1.2%	231,576	2.6%
	Payroll Taxes And Employee Benefits									
5110	Social Security and Medicare	636,512	672,024	674,377	670,956	682,405	8,028	1.2%	11,449	1.7%
5120	Retirement Contribution	655,451	790,230	895,108	898,589	982,244	87,136	9.7%	83,655	9.3%
5121	Deferred Compensation	173,023	267,826	285,836	283,902	284,067	(1,769)	-0.6%	165	0.1%
5130	Workers Compensation	156,918	158,818	145,000	143,656	135,000	(10,000)	-6.9%	(8,656)	-6.0%
5140	Health Insurance	1,674,722	1,387,818	1,331,788	1,294,033	1,367,733	35,945	2.7%	73,700	5.7%
5141	Dental Insurance	54,085	61,774	65,501	65,686	71,093	5,592	8.5%	5,407	8.2%
5142	Vision Insurance	25,605	22,865	32,000	33,276	32,000	-	0.0%	(1,276)	-3.8%
5143	Wellness Profra Reimbursement	2,481	3,609	6,300	5,715	6,000	(300)	-4.8%	285	5.0%
5144	Retirees & Cobra Insurance	218,933	228,907	250,945	236,809	206,410	(44,535)	-17.7%	(30,399)	-12.8%
5146	Retirement Health Savings Contributions	-	-	-	4,760	6,400	6,400		1,640	34.5%
5150	Disability Insurance	29,706	29,695	34,904	33,245	34,566	(338)	-1.0%	1,321	4.0%
5160	Automobile Allowance	6,500	6,250	6,000	6,375	6,000	-	0.0%	(375)	-5.9%
5161	Unemployment Tax	1,569	2,562	2,000	1,167	2,000	-	0.0%	833	71.4%
5170	Uniforms	64,445	62,106	63,200	59,961	68,000	4,800	7.6%	8,039	13.4%
5180	Group Life & A.D. & D.	36,602	38,018	36,603	37,338	36,459	(144)	-0.4%	(878)	-2.4%
5190	Vacation Accrued	27,688	102,021	-	-	-	-		-	
	Total	3,764,240	3,834,523	3,829,562	3,775,468	3,920,377	90,815	2.4%	144,910	3.8%
	Utilities									
5210	Electricity	1,141,713	1,087,615	1,173,324	967,329	1,122,914	(50,410)	-4.3%	155,585	16.1%
5231	Telephone - Local	109,447	119,889	122,800	104,935	122,900	100	0.1%	17,965	17.1%
5233	Cell Phones	57,078	73,325	63,000	67,885	64,320	1,320	2.1%	(3,565)	-5.3%
5240	Fuel	50,455	46,689	54,606	46,620	51,800	(2,806)	-5.1%	5,180	11.1%
5250	Waste Disposal	394,086	332,875	290,092	356,057	287,122	(2,970)	-1.0%	(68,935)	-19.4%
	Total	1,752,779	1,660,393	1,703,821	1,542,826	1,649,056	(54,766)	-3.2%	106,230	6.9%
	Materials And Supplies									
5310	Chemicals	2,586,487	2,318,121	2,572,564	2,385,708	2,538,464	(34,100)	-1.3%	152,756	6.4%
5315	Land Application	56,912	12,171	36,500	27,361	36,500	-	0.0%	9,139	33.4%
5320	Small Tools	33,169	21,287	53,830	41,708	72,280	18,450	34.3%	30,572	73.3%
5330	Subscriptions	1,336	1,047	1,655	1,355	2,423	768	46.4%	1,068	78.8%
5340	Lake Supplies	22,758	28,895	26,320	13,092	24,060	(2,260)	-8.6%	10,968	83.8%
5350	Fuel - Vehicles	145,006	147,047	169,017	124,526	154,163	(14,854)	-8.8%	29,637	23.8%
5360	Office Supplies	56,293	29,714	55,800	43,774	47,150	(8,650)	-15.5%	3,376	7.7%

Acct #	Expenditure Classification	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2022 Request	Dollar variance FY22 v FY21 Budgets	Percent variance FY22 v FY21 Budgets	Dollar variance FY22 Budget v FY21 Forecast	Percent variance FY22 Budget v FY21 Forecast
5365	Computer Equipment & Parts	92,816	59,132	91,128	81,248	122,590	31,462	34.5%	41,342	50.9%
5370	Laboratory Expenses	258,053	207,718	238,597	238,108	244,580	5,983	2.5%	6,472	2.7%
5380	Safety Supplies	48,874	83,883	73,901	59,098	81,729	7,828	10.6%	22,631	38.3%
5390	Other	30,751	24,104	25,275	20,453	25,875	600	2.4%	5,422	26.5%
	Total	3,332,455	2,933,119	3,344,587	3,036,431	3,349,814	5,227	0.2%	313,383	10.3%
	Maintenance									
5410	Maintenance - Equipment	1,040,473	1,294,778	1,270,230	1,128,242	1,393,108	122,879	9.7%	264,866	23.5%
5413	Maintenance - Pumping Equipment	430,885	250,668	346,775	325,620	328,200	(18,575)	-7.4%	2,580	0.7%
5415	Maintenance - Reservoir & Tank	191,766	192,023	182,000	148,644	165,000	(17,000)	-8.9%	16,356	9.0%
5420	Facilities	71,821	99,556	108,200	108,733	139,900	31,700	31.8%	31,167	28.8%
5421	Buildings	293,501	213,681	248,645	247,643	258,645	10,000	4.7%	11,002	4.4%
5422	Maintenance - Mains	348,174	734,873	422,467	415,611	441,636	19,169	2.6%	26,025	6.2%
5422-90	Maintenance - Mains RCW	-	-	10,000	-	10,000	-		10,000	
5423	Maintenance - Meters	260,532	315,318	352,100	318,769	438,600	86,500	27.4%	119,831	34.0%
5423-90	Maintenance - Meters RCW	-	-	-	-	40,000	40,000		40,000	
5424	Maintenance - Hydrants	17,442	16,999	24,000	-	24,000	-	0.0%	24,000	100.0%
5425	Maintenance - Service Lines	48,655	51,353	75,169	35,767	106,959	31,790	61.9%	71,192	94.7%
5430	Grounds	90,244	77,511	89,000	80,428	89,000	-	0.0%	8,572	9.6%
5440	Motor Vehicles	201,309	159,484	201,894	168,860	193,812	(8,082)	-5.1%	24,953	12.4%
	Total	2,994,802	3,406,244	3,330,480	2,978,316	3,628,860	298,381	8.8%	650,544	19.5%
	Professional Services									
5500	Legal	280,950	309,075	275,000	305,000	310,000	35,000	11.3%	5,000	1.8%
5510	Accounting	32,894	32,650	33,000	33,000	33,000	-	0.0%	-	0.0%
5520	Engineering	-	-	7,500	1,702	12,000	4,500		10,298	137.3%
5530	Insurance	233,664	240,853	237,352	250,479	284,769	47,417	19.7%	34,290	14.4%
5560	Collection Services	27,148	29,007	40,000	36,287	40,000	-	0.0%	3,713	9.3%
5570	Consultants	605,203	627,727	642,355	444,260	682,250	39,895	6.4%	237,990	37.0%
5580	Financial Services	172,683	189,727	165,600	228,218	150,000	(15,600)	-8.2%	(78,218)	-47.2%
5581	Trustee Services	10,375	9,625	10,400	10,400	12,375	1,975	20.5%	1,975	19.0%
5590	Other	66,468	74,631	94,500	93,906	102,500	8,000	10.7%	8,594	9.1%
	Total	1,429,385	1,513,295	1,505,707	1,403,252	1,626,894	121,187	8.0%	223,642	14.9%
	Communications									
5610	Postage And Freight	121,453	78,169	105,150	94,246	105,990	840	1.1%	11,744	11.2%
5620	Customer Information	20,676	38,426	6,396	1,165	396	(6,000)	-15.6%	(769)	-12.0%
5630	Advertising	125,618	84,416	76,750	94,293	90,500	13,750	16.3%	(3,793)	-4.9%
5690	Other	20,400	29,618	8,950	3,200	5,560	(3,390)	-11.4%	2,360	26.4%
	Total	288,147	230,629	197,246	192,905	202,446	5,200	2.3%	9,541	4.8%
	Printing And Reproduction									
5700	Printing And Reproduction	3,129	4,817	35,200	25,064	29,400	(5,800)	-120.4%	4,336	12.3%

Acct #	Expenditure Classification	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2022 Request		Dollar variance FY22 v FY21 Budgets	Percent variance FY22 v FY21 Budgets		Dollar variance FY22 Budget v FY21 Forecast	Percent variance FY22 Budget v FY21 Forecast
	Total	3,129	4,817	35,200	25,064	29,400		(5,800)	-120.4%		4,336	12.3%
	Education And Development											
5810	Education And Development	136,709	96,716	177,085	84,358	184,970		7,885	8.2%		100,612	56.8%
5840	Board Travel	-	-	-	-	-		-			-	
	Total	136,709	96,716	177,085	84,358	184,970		7,885	8.2%		100,612	56.8%
	Miscellaneous											
5910	Dues And Memberships	137,821	128,864	144,239	142,705	145,024		785	0.6%		2,319	1.6%
5920	Conservation	4,697	-	-	-	1,000		1,000			1,000	
5925	Easements	-	-	7,500	18,500	7,500		-			(11,000)	-146.7%
5930	Overages And Shortages	1,103	835	-	757	-		-	0.0%		(757)	
5940	Uncollectable Accounts	25,117	17,773	30,000	21,328	30,000		-	0.0%		8,672	28.9%
5950	Rent And Leases	131,873	98,551	69,140	89,497	159,500		90,360	91.7%		70,003	101.2%
5960	Forest Management	7,768	21,214	28,000	15,825	36,055		8,055	38.0%		20,230	72.3%
5970	Board Expenses	3,696	3,375	7,000	3,000	500		(6,500)	-192.6%		(2,500)	-35.7%
5980	Recruitment	1,878	7,214	4,000	3,989	4,000		-	0.0%		11	0.3%
5990	Other	81,369	49,630	71,325	66,586	73,025		1,700	3.4%		6,438	9.0%
	Total	395,322	327,456	361,204	362,188	456,604		95,400	29.1%		94,416	26.1%
	Total Personnel Services	12,312,557	12,743,092	12,869,443	12,690,670	13,067,156		197,712	1.6%		376,486	2.9%
	Total Operating Services	10,332,728	10,172,669	10,655,330	9,625,339	11,128,044		472,714	4.6%		1,502,705	14.1%
	Total Operating And Maintenance	22,645,285	22,915,761	23,524,773	22,316,009	24,195,200		670,427	2.9%		1,879,190	8.0%
6000	Construction Credit	(410,487)	(113,818)	(334,429)	(327,948)	(270,000)		64,429	-56.6%		57,948	-17.3%
	Net	22,234,798	22,801,943	23,190,344	21,988,061	23,925,200		734,856	3.2%		1,937,139	8.8%

Acct #	Expenditure Classification	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2022 Request
	Salaries					
5010	Salaries and Wages, Regular	658,519	673,901	652,048	621,593	626,479
5020	Salaries and Wages, Overtime		876		281	6,000
5060	Part-Time	27,738	34,556	9,000	14,175	30,000
5070	Per Diem	13,750	12,350	15,000	15,000	15,000
	Total Salaries	700,007	721,683	676,048	651,049	677,479
	Fringe Benefits					
5110	Fica	49,152	50,975	51,883	47,394	49,408
5120	Retirement Contribution	51,317	59,550	65,931	62,146	72,602
5121	Deferred Compensation	17,685	28,968	19,474	18,157	19,026
5130	Workers Compensation	18,778	16,074	15,000	15,246	15,000
5140	Health Insurance	84,945	64,654	52,937	48,895	58,818
5141	Dental Insurance	2,822	2,772	2,554	2,424	2,918
5146	Retirement Health Savings Contributions				385	400
5150	Disability Insurance	1,653	1,567	1,755	1,556	1,800
5160	Automobile Allowance	6,500	6,250	6,000	6,375	6,000
5180	Group Life & A.D. & D.	2,212	2,141	1,950	1,727	1,706
5190	Vacation Accrued	1,451	34,895		-	-
	Total Fringe Benefits	236,515	267,846	217,485	204,305	227,677
	Utilities					
5210	Electricity	34,707	30,470	40,000	31,585	32,000
5233	Cell Phones	4,997	5,575	4,500	3,085	2,880
5240	Fuel	447	491	300	301	300
	Total Utilities	40,151	36,536	44,800	34,971	35,180
	Materials and Supplies					
5330	Subscriptions	867	985	580	580	798
5350	Fuel - Vehicles		20	-	-	-
5360	Office Supplies	4,217	3,500	1,550	1,550	2,150
5380	Safety Supplies	117	191	550	550	400
5390	Other	532	226	-	-	-
	Total Materials and Supplies	5,733	4,922	2,680	2,680	3,348
	Professional Services					
5500	Legal	280,950	309,075	275,000	305,000	310,000
5530	Insurance	60,817	81,431	81,031	102,959	129,692
5570	Consultants	21,488	113,686	105,200	45,440	49,200
5590	Other			-	-	-
	Total Professional Services	363,255	504,192	461,231	453,399	488,892
	Communications					
5610	Postage and Freight	15,219	8,539	18,300	9,357	19,500
5620	Customer Information	20,676	38,426	6,396	1,165	396
5630	Advertising	1,831	1,075	10,750	6,760	10,500
5690	Other - Televising Board Meetings	20,400	29,618	8,950	3,200	5,560

Acct #	Expenditure Classification	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2022 Request
	Total Communications	58,126	77,658	44,396	20,482	35,956
	Printing and Reproduction					
5700	Printing and Reproduction	340	160	21,650	14,831	21,600
	Total Printing and Reproduction	340	160	21,650	14,831	21,600
	Education and Development					
5810	Education and Development	25,090	8,632	16,300	11,800	21,500
5840	Board Travel				-	-
	Total Travel	25,090	8,632	16,300	11,800	21,500
	Miscellaneous					
5910	Dues and Memberships	19,485	23,018	23,040	23,040	23,020
5920	Conservation	4,697		-	-	1,000
5950	Rents and leases			-		53,000
5970	Board Expenses	3,696	3,375	7,000	3,000	500
5990	Other	4,770	9,121	3,850	2,112	2,750
	Total Miscellaneous	32,648	35,514	33,890	28,152	80,270
	Total Operating Expenses	1,461,865	1,657,143	1,518,480	1,421,669	1,591,902
	Total Personnel	936,522	989,529	893,533	855,354	905,156
	Total Other	525,343	667,614	624,947	566,315	686,746
6000	Construction Credit	(176,944)	(46,587)	(147,179)	(136,350)	(100,000)
	Net Operating Expenses	1,284,921	1,610,556	1,371,301	1,285,319	1,491,902

Acct#	Expenditure Classification	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2022 Request
	Salaries					
5010	Salaries and Wages, Regular	476,718	478,610	467,498	473,609	481,523
5020	Salaries and Wages, Overtime	508	720	-	-	-
5060	Part Time	8,060	1,315	5,000	-	-
	Total Salaries	485,286	480,645	472,498	473,609	481,523
	Fringe Benefits					
5110	Fica	37,203	37,289	36,870	37,273	37,976
5120	Retirement Contribution	36,487	42,456	49,111	49,425	54,700
5121	Deferred Compensation	14,600	18,040	18,565	18,684	18,565
5130	Workers Compensation	1,444		-	-	-
5140	Health Insurance	111,363	91,135	82,022	82,133	82,289
5141	Dental Insurance	3,811	4,166	4,167	4,333	4,567
5150	Disability Insurance	2,041	2,118	2,146	2,146	2,146
5170	Uniforms			-		-
5180	Group Life and AD&D	2,630	2,696	2,411	2,539	2,411
5190	Vacation Accrued	(135)	7,755			
	Total Fringe Benefits	209,444	205,655	195,291	196,535	202,654
	Utilities					
5233	Cell Phones	1,750	2,950	900	4,635	4,320
	Total Utilities	1,750	2,950	900	4,635	4,320
	Materials and Supplies					
5320	Small Tools			-	-	-
5350	Fuel - Vehicles			-	-	-
5360	Office Supplies	2,478	1,107	2,000	1,271	2,000
5380	Safety Supplies		80	-	-	-
5390	Other - Materials			-	-	-
	Total Materials and Supplies	2,478	1,187	2,000	1,271	2,000
	Maintenance					
5410	Maintenance - Equipment	1,367	1,435	-	-	-
5440	Motor Vehicles			-	-	-
	Total Maintenance	1,367	1,435	-	-	-
	Professional Services					
5530	Insurance			-	-	-
5550	Clerical Services			-	-	-
5560	Collection Services	27,148	29,007	40,000	36,287	40,000
5570	Consultants			-	-	-
5590	Other			-	-	-
	Total Professional Services	27,148	29,007	40,000	36,287	40,000

Acct#	Expenditure Classification	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2022 Request
	Communications					
5610	Postage and Freight	84,989	54,531	70,000	71,042	70,000
	Total Communications	84,989	54,531	70,000	71,042	70,000
	Printing and Reproduction					
5700	Printing and Reproduction		-	-	-	-
	Total Printing and Reproduction	-	-	-	-	-
	Education and Development					
5810	Education and Development	18,715	5,888	5,000	1,000	5,000
	Total Education and Development	18,715	5,888	5,000	1,000	5,000
	Miscellaneous					
5910	Dues and Memberships			-	-	-
5930	Overages and Shortages	1,103	835	-	757	-
5940	Uncollectable Accounts	25,117	17,773	30,000	21,328	30,000
5990	Other		127	-	(35)	-
	Total Miscellaneous	26,220	18,735	30,000	22,050	30,000
	Total Operating Expenses	857,397	800,033	815,689	806,430	835,497
	Total Personnel	694,730	686,300	667,789	670,144	684,177
	Total Other	162,667	113,733	147,900	136,286	151,320
6000	Construction credit					
	Net Operating Expenses	857,397	800,033	815,689	806,430	835,497

	Expenditure Classification	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2022 Request
	Salaries					
5010	Salaries and Wages, Regular	1,190,098	1,400,243	1,418,772	1,409,676	1,480,268
5020	Salaries and Wages - Overtime	13,179	12,730	15,500	15,500	15,500
5060	Part Time	15,590	14,289	40,000	6,808	
	Total Salaries	1,218,867	1,427,262	1,474,272	1,431,984	1,495,768
	Fringe Benefits					
5110	Fica	90,716	107,098	111,893	110,313	116,743
5120	Retirement Contribution	93,643	126,014	149,044	148,029	160,096
5121	Deferred Compensation	20,160	38,773	44,859	44,372	45,427
5130	Workers' Compensation					
5140	Health Insurance	195,270	178,867	173,525	162,099	160,346
5141	Dental Insurance	6,129	7,989	8,657	8,171	7,961
5146	Retirement Health Savings Contributions			-	385	500
5150	Disability Insurance	3,909	4,318	4,950	4,717	4,967
5170	Uniforms	(6)		-	-	-
5180	Group Life and AD&D	4,283	4,800	4,550	4,642	4,550
5190	Vacation Accrued			-	-	-
	Total Fringe Benefits	414,104	467,859	497,478	482,728	500,590
	Utilities					
5233	Cell Phones	9,100	11,600	11,700	8,125	7,680
	Total Utilities	9,100	11,600	11,700	8,125	7,680
	Materials and Supplies					
5320	Small Tools	2,008	924	2,830	2,830	1,980
5330	Subscriptions	469	49	625	625	625
5350	Fuel - Vehicles and Equip.	2,651	2,739	5,500	2,003	4,000
5360	Office Supplies	3,837	3,486	8,750	8,750	3,000
5380	Safety Supplies	1,092	514	3,625	1,691	3,685
5390	Other	951	1,652	1,675	1,675	2,275
	Total Materials and Supplies	11,008	9,364	23,005	17,574	15,565
	Maintenance					
5440	Motor Vehicles	1,296	2,421	2,000	2,000	2,000
	Total Maintenance	1,296	2,421	2,000	2,000	2,000
	Professional Services					
5520	Engineering			7,500	1,702	12,000
5570	Consultants	124,446	201,495	145,000	40,448	93,000
	Total Professional Services	124,446	201,495	152,500	42,150	105,000
	Communications					
5610	Postage and Freight	279	216	850	377	750

	Expenditure Classification	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2022 Request
	Total Communications	279	216	850	377	750
	Printing and Reproduction					
5700	Printing and Reproduction	1,713	1,609	2,050	1,000	1,300
	Total Printing and Reproduction	1,713	1,609	2,050	1,000	1,300
	Education and Development					
5810	Education and Development	12,000	13,352	34,140	25,476	27,015
	Total Education and Development	12,000	13,352	34,140	25,476	27,015
	Miscellaneous					
5910	Dues and Memberships	1,864	2,660	3,805	3,754	3,150
5920	Conservation			-	-	-
5925	Easements			7,500	18,500	7,500
5960	Forest Management	7,768	21,214	-	825	-
5990	Other	476	61	750	750	750
	Total Miscellaneous	10,108	23,935	12,055	23,829	11,400
	Total Operating Expenses	1,802,921	2,159,113	2,210,050	2,035,243	2,167,068
	Total Personnel	1,632,971	1,895,121	1,971,750	1,914,711	1,996,358
	Total Other	169,950	263,992	238,300	120,531	170,710
6000	Construction Credit	(32,667)	(4,306)			
	Net Operating Expenses	1,770,254	2,154,807	2,210,050	2,035,243	2,167,068

Acct #	Expenditure Classification	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2022 Request
	Salaries					
5010	Salaries and Wages, Regular	219,692	291,943	298,142	305,572	307,087
5020	Salaries and Wages, Overtime	858	110	500	500	-
5060	Part-Time	11,605		-	-	-
	Total Salaries	232,155	292,053	298,642	306,072	307,087
	Fringe Benefits					
5110	Fica	17,450	21,883	23,513	23,596	24,219
5120	Retirement Contribution	17,048	26,038	31,320	31,904	35,791
5121	Deferred Compensation	3,740	7,827	9,321	9,451	9,321
5140	Health Insurance	34,024	39,130	40,318	41,569	43,319
5141	Dental Insurance	1,412	2,208	2,432	2,578	2,783
5142	Vision Insurance	25,605	22,865	32,000	33,276	32,000
5143	Wellness Profra Reimbursement	2,481	3,609	6,300	5,715	6,000
5144	Retirees and Cobra Insurance	218,933	228,907	250,945	236,809	206,410
5146	Retirement Health Savings Contributions			-	385	500
5150	Disability Insurance	585	862	1,220	1,140	1,136
5161	Unemployment Tax	1,569	2,562	2,000	1,167	2,000
5170	Uniforms	52		200	117	-
5180	Group Life & AD&D	843	1,123	1,138	1,194	1,130
5190	Post Employment Benefits			-	-	-
	Total Fringe Benefits	323,742	357,014	400,708	388,901	364,608
	Utilities					
5233	Cell Phones	1,975	2,500	1,800	2,060	1,920
	Total Utilities	1,975	2,500	1,800	2,060	1,920
	Materials and Supplies					
5330	Subscriptions			300	-	500
5350	Fuel			1,000	400	1,000
5360	Office Supplies	1,335	780	4,000	2,796	4,500
5380	Safety Supplies	126	4,238	3,500	3,228	3,500
5390	Other	72	1,057	500	500	500
	Total Materials and Supplies	1,533	6,075	9,300	6,924	10,000
	Maintenance					
5440	Motor Vehicles		121	400	394	400
	Total Materials and Supplies	-	121	400	394	400
	Professional Services					
5570	Consultants	247,376	134,171	143,255	121,343	244,500
5590	Other	13,550	16,989	50,000	50,000	50,000
	Total Professional Services	260,926	151,160	193,255	171,343	294,500

Acct #	Expenditure Classification	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2022 Request
	Communications					
5610	Postage and Freight	1,779	1,379	4,000	4,000	4,000
5630	Advertising	123,787	83,341	66,000	87,533	80,000
	Total Communications	125,566	84,720	70,000	91,533	84,000
	Printing and Reproduction					
5700	Printing and Reproduction	66	-	1,000	300	1,000
	Total Printing and Reproduction	66	-	1,000	300	1,000
	Education and Development					
5810	Education and Development	6,005	4,172	13,000	2,702	13,600
	Total Education and Development	6,005	4,172	13,000	2,702	13,600
	Miscellaneous					
5910	Dues and Memberships	8,082	4,867	4,255	3,765	5,555
5980	Recruitment	1,878	7,214	4,000	3,989	4,000
5990	Other	33,097	14,465	38,500	38,500	39,300
	Total Miscellaneous	43,057	26,546	46,755	46,254	48,855
	Total Operating Expenses	995,025	924,361	1,034,860	1,016,483	1,125,970
	Total Personnel	555,897	649,067	699,350	694,972	671,695
	Total Other	439,128	275,294	335,510	321,510	454,275
6000	Construction Credits					
	Net Operating Expenses	995,025	924,361	1,034,860	1,016,483	1,125,970

Acct #	Expenditure Classification	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2022 Request
	Salaries					
5010	Salaries and Wages, Regular	390,771	436,675	414,778	420,202	427,222
5020	Salaries and Wages, Overtime	56		-	-	-
5060	Part Time	35,792	2,713	-	-	-
	Total Salaries	426,619	439,388	414,778	420,202	427,222
	Fringe Benefits					
5110	Fica	28,093	32,080	32,712	31,806	33,693
5120	Retirement Contribution	30,558	38,865	43,573	43,852	48,532
5121	Deferred Compensation	4,640	12,361	13,790	13,878	13,790
5140	Health Insurance	59,207	48,350	45,015	45,017	45,019
5141	Dental Insurance	1,615	1,807	1,870	1,909	1,964
5150	Disability Insurance	1,278	1,208	1,400	1,399	1,400
5180	Group Life and AD&D	1,447	1,523	1,363	1,437	1,363
5190	Vacation Accrued			-	-	-
	Total Fringe Benefits	126,838	136,194	139,723	139,298	145,761
	Utilities					
5233	Cell Phones	3,500	2,975	1,800	2,575	2,400
5250	Waste Disposal	1,996	998	2,500	2,498	2,500
	Total Utilities	5,496	3,973	4,300	5,073	4,900
	Materials and Supplies					
5360	Office Supplies	3,140	2,852	2,500	2,079	2,000
5390	Other	3,782	3,929	4,000	3,945	4,000
	Total Materials and Supplies	6,922	6,781	6,500	6,024	6,000
	Professional Services					
5510	Accounting	32,894	32,650	33,000	33,000	33,000
5530	Insurance					10,000
5570	Consultants	35,830	57,638	40,900	41,050	51,000
5580	Financial Services	172,683	189,727	165,600	228,218	150,000
5581	Trustee Services	10,375	9,625	10,400	10,400	12,375
5590	Other	40,796	40,259	32,000	31,784	40,000
	Total Professional Services	292,578	329,899	281,900	344,452	296,375
	Communications					
5610	Postage and Freight	1,833	1,659	2,500	2,419	2,500
5630	Advertising			-	-	-
	Total Communications	1,833	1,659	2,500	2,419	2,500
	Printing and Reproduction					
5700	Printing and Reproduction	974	2,774	2,000	1,433	2,000

Acct #	Expenditure Classification	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2022 Request
	Total Printing and Reproduction	974	2,774	2,000	1,433	2,000
	Education and Development					
5810	Education and Development	6,278	9,940	4,620	4,471	4,770
	Total Education and Development	6,278	9,940	4,620	4,471	4,770
	Miscellaneous					
5910	Dues and Memberships	2,105	1,260	2,705	2,640	2,770
5950	Rent and Leases	2,655	5,309	3,540	3,485	3,500
5990	Other	(16)	522	-	23	-
	Total Miscellaneous	4,744	7,091	6,245	6,148	6,270
	Total Operating Expenses	872,282	937,699	862,566	929,519	895,797
	Total Personnel	553,457	575,582	554,501	559,500	572,982
	Total Other	318,825	362,117	308,065	370,019	322,815
6000	Construction Credits					
	Net Operating Expenses	872,282	937,699	862,566	929,519	895,797

Acct #	Expenditure Classification	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2022 Request
	Salaries					
5010	Salaries and Wages, Regular	434,299	448,084	437,315	439,691	450,434
5020	Salaries and Wages, Overtime	3,040	6,605	4,000	5,244	5,000
5060	Part Time			-	-	-
	Total Salaries	437,339	454,689	441,315	444,935	455,434
	Fringe Benefits					
5110	Fica	32,403	34,169	34,489	34,385	35,524
5120	Retirement Contribution	34,081	40,576	45,941	46,470	55,566
5121	Deferred Compensation	5,200	12,329	13,525	13,681	13,525
5140	Health Insurance	68,983	56,280	50,652	50,654	52,530
5141	Dental Insurance	2,404	2,870	2,870	2,864	2,682
5150	Disability Insurance	1,490	1,516	1,525	1,525	1,526
5180	Group Life and AD&D	1,582	1,582	1,402	1,477	1,402
5190	Vacation Accrued			-	-	-
	Total Fringe Benefits	146,143	149,322	150,404	151,057	162,754
	Utilities					
5231	Telephone - Local	109,447	119,889	122,800	104,935	122,900
5233	Cell Phone Stipends	7,500	5,750	4,500	2,575	1,920
	Total Utilities	116,947	125,639	127,300	107,510	124,820
	Materials and Supplies					
5330	Subscriptions			-	-	-
5360	Office Supplies	6,342	6,388	8,000	7,674	8,000
5365	Computer Equipment and Parts	92,816	59,132	91,128	81,248	122,590
5380	Safety Supplies		292	1,000	1,000	1,000
5390	Other			-	-	-
	Total Materials and Supplies	99,158	65,812	100,128	89,922	131,590
	Maintenance					
5410	Maintenance - Equipment	390,380	479,271	466,453	446,879	534,355
	Total Maintenance	390,380	479,271	466,453	446,879	534,355
	Professional Services					
5570	Consultants	135,057	102,793	188,000	183,747	208,000
5590	Other		61	-	-	-
	Total Professional Services	135,057	102,854	188,000	183,747	208,000
	Education and Development					
5810	Education and Development	21,510	14,618	21,950	12,316	24,950
	Total Education and Development	21,510	14,618	21,950	12,316	24,950

Acct #	Expenditure Classification	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2022 Request
	Miscellaneous					
5910	Dues and Memberships		323	-	-	-
5950	Rents and Leases	50,944	52,099	46,600	47,405	63,000
5990	Other	190		-	2	-
	Total Miscellaneous	51,134	52,422	46,600	47,407	63,000
	Total Operating Expenses	1,397,668	1,444,627	1,542,149	1,483,772	1,704,903
	Total Personnel	583,482	604,011	591,719	595,991	618,188
	Total Other	814,186	840,616	950,431	887,780	1,086,715
6000	Construction Credits					
	Net Operating Expenses	1,397,668	1,444,627	1,542,149	1,483,772	1,704,903

Acct #	Expenditure Classification	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2022 Request
	Salaries					
5010	Salaries and Wages, Regular	1,210,018	1,226,973	1,354,127	1,277,036	1,345,407
5020	Salaries and Wages, Overtime	85,624	78,750	74,594	73,896	80,564
5050	Standby Pay	11,658	100,155	14,500	76,394	24,500
5060	Part-Time	17,057	1,000	28,520	12,000	12,505
	Total Salaries	1,324,357	1,406,878	1,471,741	1,439,326	1,462,975
	Fringe Benefits					
5110	Fica	99,976	107,306	106,795	107,127	106,107
5120	Retirement Contribution	101,620	125,524	142,253	143,086	153,683
5121	Deferred Compensation	24,418	39,682	44,483	44,230	45,913
5130	Workers Compensation	39,154	38,192	36,000	35,105	30,000
5140	Health Insurance	275,193	243,605	236,922	235,385	246,663
5141	Dental Insurance	9,076	10,523	11,153	11,587	12,731
5146	Retirement Health Savings Contributions			-	385	1,000
5150	Disability Insurance	5,102	5,148	5,991	5,705	5,910
5170	Uniforms	16,935	16,234	16,000	15,152	16,000
5180	Group Life and AD&D	6,090	6,494	6,223	6,415	6,219
5190	Vacation Accrued	14,562	9,143	-	-	-
	Total Fringe Benefits	592,126	601,851	605,820	604,178	624,226
	Utilities					
5210	Electricity	231,449	230,728	248,506	179,870	235,244
5233	Cell Phones	8,250	11,475	9,900	11,610	10,560
5240	Fuel	18,328	11,235	12,000	4,997	12,600
5250	Waste Disposal	93,787	169,720	101,800	162,822	105,830
	Total Utilities	351,814	423,158	372,206	359,299	364,234
	Materials and Supplies					
5310	Chemicals	1,374,327	1,288,512	1,413,495	1,325,083	1,397,856
5320	Small Tools	7,192	3,132	6,000	4,358	6,000
5330	Subscriptions			-	-	-
5340	Lake Supplies	22,758	28,895	26,320	13,092	24,060
5350	Fuel - Vehicles and Equip.	18,529	16,282	16,739	9,426	16,739
5360	Office Supplies	6,234	2,090	4,000	1,788	4,000
5370	Laboratory Expenses	133,338	110,170	118,733	118,516	123,146
5380	Safety Supplies	13,338	17,151	10,100	8,666	12,446
5390	Other	1,611	1,903	5,100	3,015	5,100
	Total Materials and Supplies	1,577,327	1,468,135	1,600,487	1,483,943	1,589,346
	Maintenance					
5410	Maintenance - Equipment	277,815	246,934	235,833	111,200	253,833
5413	Maintenance - Pumping Equipment	126,685	83,396	89,775	68,158	96,200
5415	Maintenance - Reservoir and Tank	191,766	192,023	182,000	148,644	165,000
5420	Facilities	29,419	50,915	68,200	68,339	99,900
5421	Buildings	268,696	177,762	195,645	194,630	221,645

Acct #	Expenditure Classification	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2022 Request
5423	Maintenance - Meters	30,895	101,022	103,500	88,934	114,000
5430	Grounds	79,909	75,016	74,000	68,123	74,000
5440	Motor Vehicles	20,684	16,104	15,000	5,302	15,000
	Total Maintenance	1,025,869	943,172	963,953	753,330	1,039,578
	Professional Services					
5530	Insurance	70,796	63,880	64,800	60,136	60,139
5570	Consultants	39,256		-	-	20,000
5590	Other	12,122	12,322	12,500	12,122	12,500
	Total Professional Services	122,174	76,202	77,300	72,258	92,639
	Communications					
5610	Postage and Freight	2,963	1,279	3,000	1,780	3,000
5630	Advertising					
	Total Communications	2,963	1,279	3,000	1,780	3,000
	Printing and Reproduction					
5700	Printing and Reproduction			-	-	-
	Total Printing and Reproduction	-	-	-	-	-
	Education and Development					
5810	Education and Development	4,338	4,480	9,600	5,259	11,960
	Total Education and Development	4,338	4,480	9,600	5,259	11,960
	Miscellaneous					
5910	Dues and Memberships	74,483	64,052	73,809	73,765	73,904
5950	Rents and Leases		10,692	4,000	13,536	4,000
5960	Forest Management			28,000	15,000	36,055
5990	Other	2,237	2,531	3,000	1,267	3,000
	Total Miscellaneous	76,720	77,275	108,809	103,569	116,959
	Total Operating Expenses	5,077,688	5,002,430	5,212,916	4,822,941	5,304,918
	Total Personnel	1,916,483	2,008,729	2,077,561	2,043,504	2,087,201
	Total Other	3,161,205	2,993,701	3,135,355	2,779,437	3,217,717
6000	Construction Credits					
	Net Operating Expenses	5,077,688	5,002,430	5,212,916	4,822,941	5,304,918

Acct #	EXPENDITURE CLASSIFICATION	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2022 Request
	Salaries					
5010	Salaries and Wages, Regular	1,585,025	1,307,018	1,609,199	1,467,937	1,636,092
5020	Salaries and Wages, Overtime	97,193	83,400	80,616	36,368	83,035
5050	Standby Pay	37,924	258,550	32,000	115,637	32,000
5060	Part-Time	383	260	-	-	-
	Total Salaries	1,720,525	1,649,228	1,721,815	1,619,942	1,751,126
	Fringe Benefits					
5110	Fica	129,931	125,919	126,911	123,119	129,032
5120	Retirement Contribution	134,749	148,501	169,049	165,354	185,267
5121	Deferred Compensation	40,040	51,280	55,646	54,812	56,482
5130	Workers Compensation	40,300	42,807	39,000	38,504	35,000
5140	Health Insurance	442,615	339,853	309,556	302,129	345,321
5141	Dental Insurance	14,254	15,302	15,298	15,417	17,763
5146	Retirement Health Savings Contributions			-	1,680	2,000
5150	Disability Insurance	6,808	5,928	7,296	6,842	7,173
5170	Uniforms	23,754	22,780	23,000	22,111	28,000
5180	Group Life and AD&D	8,643	8,607	8,435	8,434	8,343
5190	Vacation Accrued	(2,717)	27,199	-	-	-
	Total Fringe Benefits	838,377	788,176	754,190	738,401	814,381
	Utilities					
5210	Electricity	189,344	189,924	191,206	145,718	191,206
5233	Cell Phones	10,306	14,750	12,600	16,135	14,400
5240	Fuel	4,926	4,666	5,000	4,589	5,000
5250	Waste Disposal		918	1,500	1,053	1,500
	Total Utilities	204,576	210,258	210,306	167,494	212,106
	Materials and Supplies					
5320	Small Tools	18,899	7,414	30,000	21,370	35,000
5330	Subscriptions		13	150	150	500
5350	Fuel - Vehicles and Equip.	40,508	50,333	41,178	28,956	46,644
5360	Office Supplies	21,625	2,110	3,500	2,075	3,500
5380	Safety Supplies	7,478	20,831	22,815	18,102	24,097
5390	Other	19,021	14,457	7,500	6,926	7,500
	Total Materials and Supplies	107,531	95,158	105,143	77,580	117,241
	Maintenance					
5422	Maintenance - Mains	302,976	524,051	307,467	315,046	305,000
5422-90	Maintenance - Mains RCW			10,000	-	10,000
5423	Maintenance - Meters	43,378	39,839	61,600	61,551	131,600
5423-90	Maintenance - Meters RCW			-		40,000
5424	Maintenance - Hydrants	17,442	16,999	24,000	-	24,000
5425	Maintenance - Service Lines	44,593	51,237	60,169	20,849	51,959
5440	Motor Vehicles	80,089	54,439	76,200	73,894	66,884
	Total Maintenance	488,478	686,565	539,436	471,340	629,443

Acct #	EXPENDITURE CLASSIFICATION	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2022 Request
	Professional Services					
5530	Insurance	8,052	8,541	6,900	8,025	6,404
	Total Professional Services	8,052	8,541	6,900	8,025	6,404
	Communications					
5610	Postage and Freight	4,316	3,170	5,000	3,943	5,000
	Total Communications	4,316	3,170	5,000	3,943	5,000
	Printing and Reproduction					
5700	Printing and Reproduction	36	274	1,500	500	1,500
	Total Printing and Reproduction	36	274	1,500	500	1,500
	Education and Development					
5810	Education and Development	16,614	4,693	23,100	8,833	18,300
	Total Education and Development	16,614	4,693	23,100	8,833	18,300
	Miscellaneous					
5910	Dues and Memberships	1,225	2,553	1,500	1,500	1,500
5950	Rents and Leases	67,200		-	955	1,000
5990	Other	1,382	7,167	-	-	-
	Total Miscellaneous	69,807	9,720	1,500	2,455	2,500
	Total Operating Expenses	3,458,312	3,455,783	3,368,891	3,098,513	3,558,002
	Total Personnel	2,558,902	2,437,404	2,476,005	2,358,343	2,565,508
	Total Other	899,410	1,018,379	892,885	740,169	992,494
6000	Construction Credits	(106,548)	(56,040)	(187,250)	(186,953)	(150,000)
	Net Operating Expenses	3,351,764	3,399,743	3,181,641	2,911,560	3,408,002

Acct #	Expenditure Classification	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2022 Request
	Salaries					
5010	Salaries and Wages, Regular	1,325,000	1,259,162	1,384,724	1,360,694	1,368,078
5020	Salaries and Wages, Overtime	174,453	158,661	136,500	132,749	146,900
5050	Standby Pay	8,247	98,579	4,050	100,941	6,750
	Total Salaries	1,507,700	1,516,402	1,525,274	1,594,384	1,521,728
	Fringe Benefits					
5110	Fica	113,123	115,339	109,208	115,957	107,895
5120	Retirement Contribution	117,269	135,953	145,467	154,709	153,949
5121	Deferred Compensation	29,740	40,683	46,141	46,691	43,196
5130	Workers' Compensation	43,427	45,671	40,000	39,502	40,000
5140	Health Insurance	283,108	219,966	234,631	222,945	219,160
5141	Dental Insurance	8,841	9,613	11,439	11,348	11,618
5146	Retirement Health Savings Contributions			-	770	1,000
5150	Disability Insurance	4,930	5,118	6,160	5,931	5,945
5170	Uniforms	13,607	13,139	12,000	11,491	12,000
5180	Group Life and AD&D	6,266	6,294	6,385	6,683	6,417
5190	Vacation Accrued	11,652	14,949	-	-	-
	Total Fringe Benefits	631,963	606,725	611,431	616,027	601,180
	Utilities					
5210	Electricity	570,505	524,762	566,738	515,001	533,823
5233	Cell Phones	7,900	11,275	11,700	11,730	11,520
5240	Fuel	21,828	25,621	32,306	32,025	28,900
5250	Waste Disposal	298,303	160,410	182,792	188,185	175,792
	Total Utilities	898,536	722,068	793,535	746,941	750,034
	Materials and Supplies					
5310	Chemicals	1,012,434	894,688	929,069	830,625	910,608
5315	Land Application	56,912	12,171	36,500	27,361	36,500
5320	Small Tools	3,820	7,892	5,000	4,939	10,000
5350	Fuel - Vehicles and Equip.	56,907	58,219	79,730	70,441	62,430
5360	Office Supplies	6,404	6,486	20,000	14,673	15,500
5370	Laboratory Expenses	124,715	97,548	119,864	119,593	121,434
5380	Safety Supplies	24,789	37,559	20,500	20,438	21,100
5390	Other	4,171		4,000	2,000	4,000
	Total Materials and Supplies	1,290,152	1,114,563	1,214,663	1,090,069	1,181,572
	Maintenance					
5410	Maintenance - Equipment	370,911	567,138	567,944	570,163	604,920
5413	Maintenance - Pumping Equipment	304,200	167,272	257,000	257,462	232,000
5420	Facilities	42,402	48,641	40,000	40,394	40,000
5421	Buildings	24,805	35,919	53,000	53,013	37,000
5423	Maintenance - Meters	186,259	174,457	187,000	168,284	193,000
5430	Grounds	10,335	2,495	15,000	12,305	15,000
5440	Motor Vehicles	59,323	51,144	48,000	44,394	52,000

Acct #	Expenditure Classification	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2022 Request
	Total Maintenance	998,235	1,047,066	1,167,944	1,146,015	1,173,920
	Professional Services					
5530	Insurance	86,641	78,888	77,721	72,956	72,131
5570	Consultants	1,750	17,944	20,000	12,231	16,550
5590	Other		5,000	-	-	-
	Total Professional Services	88,391	101,832	97,721	85,187	88,681
	Communications					
5610	Postage and Freight	9,944	7,054	1,000	1,009	740
	Total Communications	9,944	7,054	1,000	1,009	740
	PRINTING AND REPRODUCTION					
5700	Printing and Reproduction			5,000	5,000	-
	Total Printing and Reproduction	-	-	5,000	5,000	-
	Education And Development					
5810	Education and Development	19,817	27,759	38,625	5,962	47,075
	Total Ed and Development	19,817	27,759	38,625	5,962	47,075
	Miscellaneous					
5910	Dues and Memberships	28,467	27,711	32,625	32,741	32,625
5950	Rents and Leases	11,074	30,451	15,000	24,116	35,000
5990	Other	39,213	15,274	21,725	22,447	23,725
	Total Miscellaneous	78,754	73,436	69,350	79,304	91,350
	Total Operating Expenses	5,523,492	5,216,905	5,524,542	5,369,898	5,456,281
	Total Personnel	2,139,663	2,123,127	2,136,705	2,210,411	2,122,909
	Total Other	3,383,829	3,093,778	3,387,838	3,159,487	3,333,372
6000	Construction Credits					
	Net Operating Expenses	5,523,492	5,216,905	5,524,542	5,369,898	5,456,281

Acct #	Expenditure Classification	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2022 Request
	Salaries					
5010	Salaries and Wages, Regular	464,001	397,128	508,498	465,074	530,131
5020	Salaries and Wages, Overtime	19,259	22,032	20,000	16,154	21,305
5050	Standby Pay	12,202	101,181	15,000	52,472	15,000
	Total Salaries	495,462	520,341	543,498	533,700	566,436
	Fringe Benefits					
5110	Fica	38,465	39,966	40,103	39,985	41,809
5120	Retirement Contribution	38,679	46,753	53,418	53,613	62,058
5121	Deferred Compensation	12,800	17,883	20,032	19,947	18,822
5130	Workers' Compensation	13,815	16,074	15,000	15,298	15,000
5140	Health Insurance	120,014	105,978	106,209	103,208	114,269
5141	Dental Insurance	3,721	4,524	5,061	5,054	6,106
5146	Retirement Health Savings Contributions			-	770	1,000
5150	Disability Insurance	1,910	1,912	2,460	2,283	2,563
5170	Uniforms	10,103	9,953	12,000	11,090	12,000
5180	Group Life and AD&D	2,606	2,758	2,748	2,791	2,919
5190	Vacation Accrued	2,875	8,080	-	-	-
	Total Fringe Benefits	244,988	253,881	257,033	254,038	276,546
	Utilities					
5210	Electricity	115,708	111,731	126,874	95,156	130,641
5233	Cell Phones	1,800	4,475	3,600	5,355	6,720
5240	Fuel	4,926	4,676	5,000	4,708	5,000
5250	Waste Disposal		829	1,500	1,500	1,500
	Total Utilities	122,434	121,711	136,974	106,719	143,861
	Materials and Supplies					
5310	Chemicals	199,726	134,921	230,000	230,000	230,000
5320	Small Tools	1,250	1,925	10,000	8,211	19,300
5350	Fuel - Vehicles and Equip.	26,411	19,454	24,870	13,300	23,350
5360	Office Supplies	681	915	1,500	1,118	2,500
5380	Safety Supplies	1,934	3,027	11,811	5,424	15,501
5390	Other	611	880	2,500	2,392	2,500
	Total Materials and Supplies	230,613	161,122	280,681	260,445	293,151
	Maintenance					
5422	Maintenance - Mains	45,198	210,822	115,000	100,564	136,636
5425	Maintenance - Service Lines	4,062	116	15,000	14,918	55,000
5440	Motor Vehicles	39,917	35,255	60,294	42,875	57,529
	Total Maintenance	89,177	246,193	190,294	158,358	249,164
	Professional Services					
5530	Insurance	7,358	8,113	6,900	6,404	6,404

Acct #	Expenditure Classification	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2022 Request
	Total Professional Services	7,358	8,113	6,900	6,404	6,404
	Communications					
5610	Postage and Freight	131	342	500	320	500
	Total Communications	131	342	500	320	500
	Printing and Reproduction					
5700	Printing and Reproduction			2,000	2,000	2,000
	Total Printing and Reproduction	-		2,000	2,000	2,000
	Education and Development					
5810	Education and Development	6,342	3,182	10,750	6,539	10,800
	Total Ed and Development	6,342	3,182	10,750	6,539	10,800
	Miscellaneous					
5910	Dues and Memberships	2,110	2,420	2,500	1,500	2,500
5990	Other	20	362	3,500	1,520	3,500
	Total Miscellaneous	2,130	2,782	6,000	3,020	6,000
	Total Operating Expenses	1,198,635	1,317,667	1,434,630	1,331,543	1,554,862
	Total Personnel	740,450	774,222	800,531	787,739	842,982
	Total Other	458,185	543,445	634,099	543,804	711,880
6000	Construction Credits	(94,328)	(6,885)		(4,646)	(20,000)
	Net Operating Expenses	1,104,307	1,310,782	1,434,630	1,326,897	1,534,862

Priority Number	Item Requested	Reason Item Needed	Estimated Cost
IT			
1	Network Switches	Most of our campus network switches are going end of service life in June 2022.	143,950
2	Camera equipment at WWTP at bridge and septage drop-off area	Safety and spill monitoring	5,600
3	Camera equipment at various locations	Upgrade analog equipment to digital, improve security at entrances	43,500
4	Camera equipment at various locations	Additional coverage for safety and security	11,600
4	Badge reader access points at gates at both lakes	Homeland Security recommendation for improved security	16,000
	Subtotal		220,650
WTP			
1	2021 T880 Kenworth Road Tractor	Replace 11-29, necessary repairs exceed value of the truck (will receive $120,000 from the Volkswagen diesel settlement so net cost will be $30,000)	150,000
2	Temporary containment berm	Purchase of the temporary berm was identified in the After Action Review for the leaking hydrofluorosilicic acid tank	6,000
3	2021 F-250 Extended Cab 4X4 with service body	This is a replacement based on Condition Assessment and replacement schedule. This is replacement of vehicle # 11_15 which is a 2000 Chevrolet 2500 pickup with 112,300 miles. (was deferred in FY 2021)	45,600
4	John Deere Gator	Replace John Deere Gator at Cane Creek, which has over 4,000 hours (was deferred in FY 2021)	7,700
	Subtotal		209,300
Distribution			
1	305E-2 Mini Excavator	Small excavator for Valve Maintenance crew and service installations and to replace backhoe attachement on skid steer. (was deferred in FY 2021)	70,000
2	Leak Detector/Correlator	Leak Detector Correlator for Service/Repair Crew (was deferred in FY 2021)	16,800
3	Mars VF4 - Large Meter Test Unit	Upgrade/supplement existing large meter testing device (300psi/800gpm)	15,000
4	Plate Compactor Attachment	Backhoe/excavator mounted Plate Compactor attachment for backfill and minimizing employee exposure. (was deferred in FY 2021)	12,500
5	Bomag BMT8500 Vibratory Trench Compactor	Replace old trench compactor with articulating Trench Compactor	30,000
	Subtotal		144,300

Priority Number	Item Requested	Reason Item Needed	Estimated Cost
WWTP			
1	2021 T880 Kenworth Road Tractor	Replace 21-38, necessary repairs exceed value of the truck (will receive $120,000 from the Volkswagen diesel settlement so net cost will be $30,000)	150,000
2	Generator	North Lakeshore pump station	35,000
3	Larger Biosolids Spreader	Trading in our current spreader for a larger will amount to notable effeciency gains in our land application program	85,000
4	Online Monitoring	Process optimization (to reduce energy and part of partnership program qualifications)	25,000
5	4X4 Tool Truck	4x4 Truck for New Maintenance Mechanic	50,000
6	Utility Vehicle	Replace aging 94' Ford truck. Utility vehicle will be more effiecent and because of its size it, can be utilized in more areas at the WWTP	26,000
7	Mid-sized SUV	Replace aging 96' Taurus with 4x4 SUV	30,000
8	Sweeper	Sweeper for Skidsteer for road cleanup and snow removal	8,000
	Subtotal		409,000
Collection			
1	Managers Vehicle	4 Door Pickup to replace 12-26 (2000 Ford Explorer)	45,000
2	Tire Mounting and Balance Machine (Vehicle Maintenance)	Replace/Repair tires for rolling fleet in-house to save money and expedite repairs.	17,000
	Subtotal		62,000
	Total		1,045,250

Item No.	Description	Dept	FY21 Budget	FY22 Draft Budget
1	Legal	Executive Director	275,000	310,000
2	Insurance-Public Officials	Executive Director	26,733	26,733
3	American Water Infrastructure Act of 2018 Compliance	Executive Director	75,000	
4	Interpreter service for hearing impaired	Executive Director	1,000	3,000
5	Miscellaneous	Executive Director	2,000	2,500
6	Energy Dashboard	Executive Director	3,200	3,200
7	Video production	Executive Director		10,000
8	Professional design services	Executive Director	4,000	5,500
9	Strategic plan assistance	Executive Director		15,000
10	Website enhancements	Executive Director	20,000	10,000
11	Insurance-Property & Casualty	Executive Director, WTP, WWTP, Distribution, Collection	210,619	248,036
12	Credit checks, collection fees	Customer Service	40,000	40,000
13	Miscellaneous survey work - easement surveys, boundary surveys, manholes, etc.	Engineering and Planning	7,500	12,000
14	Update standards and specifications	Engineering and Planning	100,000	
15	Recurring annual membership payment to the Triangle Water Supply Partnership	Engineering and Planning	20,000	18,000
16	Long-Range Water Supply Plan (LRWSP) - update	Engineering and Planning	25,000	
17	Long-Range Water Supply Plan (LRWSP) - evaluate Jordan Lake access alternatives			75,000
18	Hill, Chesson and Woody (Gallagher)	Human Resources	60,000	63,000
19	Employee Assistance Program	Human Resources	4,500	5,000
20	Envirosafe (safety consulting (audits of facilities, programs) and safety training services)	Human Resources	18,000	15,000
21	HR department - administrative support	Human Resources		10,000
22	South Orange Technical Rescue (confined space response)	Human Resources	6,500	6,500
23	Diversity and inclusion organizational assessment	Human Resources		75,000
24	Diversity/employee development training programs	Human Resources	20,000	
25	Compliance Training	Human Resources	10,000	20,000
26	Core Training (per Diversity and Inclusion Program plan)	Human Resources	20,000	20,000
27	Diversity and inclusion training for Board	Human Resources		20,000
28	Other consulting support	Human Resources		10,000
29	Occupational medicine and other requirements (hearing tests, background checks, drug screenings, etc.)	Human Resources	50,000	50,000
30	Safety Councils and other HR associations	Human Resources	1,455	
31	CAI training	Human Resources	2,800	
32	Annual financial audit	Finance	33,000	33,000
33	Annual rate revenue sufficiency study	Finance	35,000	35,000
34	Trustee services, rating agency fees, variable rate bond arrangements, credit card processing, bank fees, payroll processing	Finance	208,000	212,375

Item No.	Description	Dept	FY21 Budget	FY22 Draft Budget
35	Other post-employment benefit plan actuarial services	Finance	5,900	6,000
36	Cyber insurance	Finance		10,000
37	Cabling	IT	15,000	15,000
38	Finance and billing system support	IT	10,000	10,000
39	SCADA security assessment and remediation	IT	50,000	
40	Call center implementation	IT		20,000
41	Managed Security as a Service	IT		68,000
42	PCI Security Assessment and Remediation	IT	45,000	45,000
43	Managed Network Services and Support	IT	48,000	50,000
44	Phone system selection	IT	20,000	
45				
46	Dam inspections (University Lake and Cane Creek Reservoir)	Water Treatment and Supply		20,000
47	Oak Grove Fire Department	Water Treatment and Supply	12,500	12,500
48	Land Application Technical Assistance	Wastewater Treatment	5,000	5,000
49	Engineering Evaluations	Wastewater Treatment	15,000	11,550
	Total		1,505,707	1,626,894

Agenda Item 5:

Review Board Work Schedule

Purpose:

a) Request(s) by Board Committees, Board Members, Counsel and Staff
b) March 25, 2021 Virtual Board Meeting
c) April 8, 2021 Virtual Board Work Session
d) Review 12 Month Board Meeting Schedule
e) Review Pending Key Staff Action Items
f) Action Items Reoccurring Every 3 to 5+ Years

Information:

- Draft agenda for the virtual March 25, 2021 meeting
- Draft agenda for the virtual April 8, 2021 meeting
- 12 Month Board Meeting Schedule
- Pending Key Staff Action Items from Board Meetings
- Action Items Reoccurring Every 3 to 5+ Years

Agenda
Virtual Meeting of the OWASA Board of Directors
Thursday, March 25, 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.
   B. Update on the March 18, 2021 Orange County Climate Council
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 – Tom Wedsworth
2. Board
3. Staff

Consent Agenda

Information and Reports

1. 12 Month Board Meeting Schedule (Todd Taylor)

Action

DRAFT

2. Resolution Setting the Date of May 27, 2021 for a Public Hearing on OWASA's Fiscal Year 2022 Budget (Stephen Winters)
3. Resolution Setting the Date of May 27, 2021 for a Public Hearing on Proposed Revisions to OWASA's Schedule of Rates, Fees and Charges (Stephen Winters)
4. Minutes of the February 25, 2021 Minutes of the Board of Directors Meeting (Andrea Orbich)

Regular Agenda

Discussion and Action

5. Review Comments on Sewer Use Ordinance and Sewer Policy Updates to Align with House Bill 873 (Jessica Godreau)

Information and Reports

6. Update on OWASA's COVID-19 Information and Discussion by the Board (Todd Taylor/ Mary Tiger)

Discussion

7. Fiscal Year 2022 Budgets and Rate Adjustment (Stephen Winters)
8. Discuss OWASA Board Member Recruitment Efforts (Bruce Boehm)

Summary of Board Meeting Action Items

9. 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

DRAFT

Agenda
Work Session of the OWASA Board of Directors
Thursday, April 8, 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 Board and Committee Meetings (Andrea Orbich)

Action

2. Minutes of the March 11, 2021 Work Session of the Board of Directors (Andrea Orbich)

Regular Agenda

Discussion

3. Review Employee Health and Dental Insurance Renewals (Stephanie Glasgow/Ellen Tucker, Gallagher)

DRAFT

4. Draft Fiscal Year 2022 Budget and Proposed Rates (Stephen Winters)
5. Board Members Eligible for Nominations for Election as Board Officers (Ray DuBose)
6. Decision on Whether to Complete a Board of Directors Self-Assessment (Ray DuBose)
7. Review Board Work Schedule
    a. Request(s) by Board Committees, Board Members and Staff (Ray DuBose)
    b. April 22, 2021 Board Meeting (Todd Taylor)
    c. May 13, 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

7. 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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OWASA Board of Directors – 12 Month Board Meeting Schedule (March 5, 2021)

Month	Board Meetings		Committee Meetings & Other Board Items
	Work Session	Business Meeting	
March 2021	FY 22 Draft Operating and Capital Equipment Budgets (C) LRWSP – Summary of Community Engagement Discuss Staff & GC Feedback Received on Board Self-Assessment Survey 3/11/2021	Petition from Tom Wedsworth Update on COVID-19 Set date for Public Hearings – FY 22 Budget & Rates (C) FY 22 Budgets and Rate Adjustment (C) Sewer Use Ordinance and Sewer Policy Updates to Align with House Bill 873 Discuss OWASA Board Member Recruitment Efforts 3/25/2021	*Ad hoc Committee meeting regarding Care to Share (3-1-2021)*
April 2021	Review Employee Health and Dental Insurance Renewals (C) FY 22 Draft Budget and Rates 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) 4/8/2021	Q3 Financial Report (C) FY 22 Draft Budget and Rates Adjustment Information and Authorize Staff to Publish Proposed Rates (C) Discuss Draft Process for Developing Strategic Plan CS – ED Interim Review (C) 4/22/2021	*Carrboro Appointees Update to CTC (4-20-2021)* *Meeting between the BOCC Members & Orange County Appointees to the BOD (4-21-2021)*
May 2021	(Tentative) LRWSP – Guiding Principles for Jordan Lake Alternatives Approve Employee Health and Dental Insurance Renewals (C) Employee Merit Pay for FY22 (C) Finalize Process for Developing Strategic Plan Award of West Cameron Avenue Water Main Replacement Phase 2 Construction Contract 5/13/2021	Public Hearings – FY 22 Budget and Rates (C) Approve Employee Health and Dental Insurance Renewals (if needed) (C) 5/27/2021	*(Tentative) BOD Self-Assessment in Special Meeting*
June 2021	(Tentative) LRWSP – Guiding Principles for Jordan Lake Alternatives Approve FY 22 Budget and Rates (including Employee Merit Pay decision) (C) Election of Officers (C) 6/10/2021	TBD 6/24/2021	*(Tentative) BOD Self-Assessment in Special Meeting*
July 2021	D&I Update (C) 7/8/2021	TBD 7/22/2021	*Possible welcome of new Board member(s)*
August 2021	CS – Prepare for GC Annual Review (C) 8/12/2021	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) Forest Management Program Update (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) Q1 Financial Report (C) CS – ED Annual Performance Review (C) 10/28/2021	
November 2021	TBD 11/11/2021	*Holiday – no meeting*	

OWASA Board of Directors – 12 Month Board Meeting Schedule (March 5, 2021)

Month	Board Meetings		Committee Meetings & Other Board Items
	Work Session	Business Meeting	
December 2021	TBD 12/9/2021	*Holiday – no meeting*	
January 2022	Appoint Audit Firm () Employee Health and Dental Insurance Update for FY 23 () D&I Update () 1/13/2022	2021 Annual Lakes Recreation Report () CIP Semiannual Report () Q2 Financial Report () Discuss FY 23 Budget Calendar and Planning Assumptions () 1/27/2022	
February 2022	Department Managers FY 23 Budget Presentations () Affordability Program Update () CS – Prepare for GC Interim Review () 2/10/2022	CS – GC Interim Review () 2/24/2022	

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.

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

Abbreviations Used in Draft Schedule:

()	Recurring agenda item (generally these are "required" items)	BOD	Board of Directors
AV/AMI	Agua Vista/Advanced Metering Infrastructure	CE	Community Engagement
BOCC	Orange County Board of County Commissioners	CEP	Community Engagement Plan
		CHTC	Chapel Hill Town Council

CIP	Capital Improvements Program
CTC	Carrboro Town Council
COLA	Cost of Labor Adjustment
CS	Closed Session of the Board
CTC	Carrboro Town Council
CY	Calendar Year
D&I	Diversity and Inclusion
ED	Executive Director
EEO	Equal Employment Opportunity
EPA	Environmental Protection Agency
FY	Fiscal Year
GC	General Counsel
HR	Human Resources
JLP	Jordan Lake Partnership
KPI	Key Performance Indicator
LRWSP	Long-Range Water Supply Plan
MOA	Memorandum of Agreement
MWBE	Minority/Women-owned Business Enterprises
MST	Mountains-to-Sea Trail
MFMM	Multi-Family Master Meter
NCDOT	North Carolina Department of Transportation
NRTS	Natural Resources and Technical Services
OC	Orange County
Q	Quarter
RFP	Request for Proposals
SRF	State Revolving Fund
SOW	Scope of Work
TBD	To Be Determined
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant

Pending Key Staff Action Items from Board Meetings

No.	Date	Action Item	Target Board Meeting Date	Person(s) Responsible	Status
1.	2-25-2021	Schedule a discussion for a future meeting regarding Board Member recruitment.	3-25-2021	Boehm Taylor	Complete
2.	12-10-2020	Review water Main Replacement Model effectiveness metric.	NA	Gangadharan Spinelli	Staff is conducting additional analysis on historical break data before bringing a recommendation back to Board.

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)	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 2021 (tentative)	TBD	3-5 years	Executive Director and Strategic Initiatives Manager
2.	Local Water Supply Plan and Water Shortage Response Plan	NC General Statues 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	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 (to align with Local Water Supply Plan for calendar year 2022)	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	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 (will be sooner if water demands post COVID continue to be lower than anticipated)	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	1) Ensure OWASA's rates, fees and charges continue to meet the goals of the organization (e.g. sustainability, conservation, affordability, etc.) 2) Update cost allocations and adjust rates as necessary. NC General Statues requires review of System Development Fees every 5 years.	1) Provide guidance to staff on draft Rate Study 2) Invite and consider customer and stakeholder feedback on draft Rate Study 3) Approve Rate Study and annual update of rates, fees and charges as needed	2022	2023	5 years	Director of Finance and Customer Service
5.	Auditor	NC General Statues 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.	1) Assign 1 or 2 Board Members to participate on staff's panel to select a best-qualified audit firm 2) Award annual contract to audit firm	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.	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 2) Approve financial institution	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.	1) Provide guidance to staff about goals and objectives for employee total compensation 2) Approve Employee Classification, Pay and Compensation Study & Pay Administration Guidelines	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.	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.	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	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	Strategic Initiatives Manager
11.	Human Resources Policy	As needs change, staff is responsible to act and inform the Board	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

Agenda Item 6:

Discuss Staff and General Counsel Feedback Received on Board Self-Assessment

Purpose:

The OWASA Board is undergoing a Self-Assessment and part of that assessment involves gathering feedback from the OWASA senior Staff and General Counsel. The goal is to strengthen the Board and make it more effective.

Action Needed:

Review and discuss feedback that highlights new insights or blind spots not identified in the October 2020 Board Self-Assessment.