



Metropolitan North Georgia Water Planning District

International Tower | 229 Peachtree St., NE | Suite 100 | Atlanta, GA 30303

BOARD MEETING AGENDA

October 19, 2018 – 9:00 a.m. to 2:00 p.m.
Gwinnett Environmental and Heritage Center
2020 Clean Water Drive, Buford, GA 30519

- I. Public Comment Period****
- II. Approve Meeting Minutes (*Action Item*)**
- III. Goals for the Retreat**
- IV. Legislative Update**
- V. 2022 Plan Update Discussion**
 - *Revisit District's Legislative Mandate*
 - *Revisit Goals and Specific Principles for Planning from 2017 Plan*
 - *Metrics Report Update*
 - *Two Year Schedule Overview*
- VI. Cost / Benefit Discussion**
- VII. Highlight Stakeholder Feedback on Data and Research Needs**
- VIII. Deep Dive into Specific Work Program Items**
- IX. Other Items of Interest**
- X. Wrap-up Direction**

**A 10-minute period for public comments is designated as needed at each Governing Board meeting during a time deemed appropriate by the Chairman. Each speaker must sign-up at least two (2) days prior to the meeting start time by emailing Chairman@northgeorgiawater.com. The 10 minute period will be divided by the number of people wishing to address the Board. No single speaker shall have more than five (5) minutes to address the Board. Comments should also be provided in writing, with supporting material. The Chairman reserves the right to limit or extend the speaking time or total number of speakers at any meeting.



Metropolitan North Georgia Water Planning District
GOVERNING BOARD
Minutes
May 23, 2018

The Metropolitan North Georgia Water Planning District Governing Board met on Wednesday, May 23, 2018 at 10:00 a.m. in the Harry West Board Room at the Atlanta Regional Commission office in Atlanta, Georgia.

Members Present

Hon. Charlotte Nash, Chairman
Ms. Katie Kirkpatrick, Vice Chair
Mr. Birdel Jackson, Treasurer
Hon. Edward Johnson
Hon. Boyd Austin
Mr. Mark Berry
Ms. Pam Burnett
Mr. Brad Currey
Mr. Tim Thoms

City of Atlanta Designee: Ms. Kishia Powell
Cherokee County Designee: Mr. David Kubala
Clayton County Designee: Mr. Bernard Franks
Cobb County Designee: Ms. Kathy Nguyen
DeKalb County Designee: Mr. Ted Rhinehart
Douglas County Designee: Mr. Gil Shearouse
Forsyth County Designee: Mr. Jon Heard
Fulton County Designee: Mr. Nick Ammons
Henry County Designee: Mr. Tony Carnell

Members Not Present

Hon. Mathew Santini
Hon. Richard Higgins
Hon. Oz Nesbitt
Ms. Kit Dunlap

Mr. Tim Lee
Mr. Glenn Page
Mr. Gerald Pouncey

Chairman Charlotte Nash called the meeting to order.

Approve Meeting Minutes

Chairman Nash called for a motion to approve the minutes. A motion to approve the February 28, 2018 meeting minutes was made by Mr. Brad Currey, seconded by Mr. Gil Shearouse and passed without opposition.

CHAIRMAN'S REPORT

Reminder of Action Item Deadline

Chairman Nash reminded the Board that the 2017 Water Resource Management Plan Action Item for Water Loss Control and Reduction offers an option for the local water providers to establish a goal for water loss control that is outside of the metrics detailed in the action item.

The deadline to make the request is July 1, 2018 and must be submitted in writing to the Chairman with a detailed summary of the analysis with supporting data.

Multi-Family Toilet Rebate Website Launch

Ms. Lora Amedu provided an overview of the District's new Multi-Family Toilet Rebate Website. The website now includes both the single family and multi-family programs and provides a link to all participating utilities. The Multi-Family Toilet Rebate Program administered by the District was created to assist local utilities with their implementation of the 2017 Action Item WSWC-6: Toilet Replacement Program. The District's program is now accepting contracts with interested utilities. The District will review applications, verify eligibility, estimate the total available rebate and include additional education materials recommending other ways to save water during plumbing retrofits.

The District currently has seven participating utilities and already has two properties in Clayton County who have applied with 500 pending toilet replacements. The two properties in Clayton County have also decided to replace showerheads and faucet aerators at the same time. Over the last 10 years, the District has rebated over 130,000 toilets which is equivalent to the combined number of seats in SunTrust Park and Mercedes Benz Stadium.

The following questions were asked:

Question – Is there a range of rebate value being offered?

Answer – Yes, a \$50 rebate is offered for 1.28 gallons per flush and a \$75 rebate is offered for 1.1 gallons per flush and less.

Questions – What is the payback period for these properties?

Answer – The two properties in Clayton County anticipate a one or two year payback period.

Remaining Schedule for 2018

Chairman Nash reminded the Board that the District will be holding a Board retreat in South Georgia on October 18-19th. The retreat will provide for a learning and relationship building opportunity that will guide the board on a path for future collaboration and planning efforts with downstream neighbors. It will also provide an excellent opportunity to learn more about southwest Georgia and discuss strategy for planning efforts in 2019 and beyond. The remaining Board meetings dates for 2018 as follows:

- August 22, 2018
- October 19, 2018
- December 5, 2018

EXECUTIVE COMMITTEE REPORT

2018 Budget Revision and 2019 Budget and Work Program

Secretary/Treasurer Birdel Jackson provided an overview of the 2018 budget revision and 2018 budget and work program. For the 2019 Budget, the Finance Committee proposes increasing the per capita dues to 25 cents to build up the District fund balance in preparation for future planning efforts related to the 2022 District Plan Update. The Executive Committee requested that a new designation be made for funds reserved for the 2022 Plan Update.

One board member asked why we need to raise funds now. Mr. Jackson noted that this was a way of accruing and designating funds in a gradual manner instead of a single larger increase. Chairman Nash added that the increased funding may also need to be used in 2019 for work we may designate for preparing for the 2022 Plan Update.

Hon. Boyd Austin made a motion to approve the 2018 budget revision and 2019 budget and work program. Chairman Nash explained that a recommendation of the Finance Committee does not require a second. The 2018 budget revision and 2019 budget and work program passed with one member opposed.

2017 Comprehensive Annual Financial Report and Audit (CAFR)

Chairman Nash announced that a copy of the 2017 CAFR is available for members to review.

BAC Membership Drive and New Member Approval

Chairman Nash noted that every two years, District staff holds a BAC membership recruitment drive to increase the membership in BACs that lack the 20-member minimum and to maintain a balance of interests among members. The Executive Committee approved 16 applicants this morning with 10 of those being new stakeholders.

Mr. Tim Thoms noted that some BAC members have expressed concerns about how to make the BAC process more participatory. Mr. Steve Williams, the Chairman of the Ocmulgee River BAC, added that BAC membership may increase if the District offered food during the quarterly meetings. Mr. Williams also stated that most people are not concerned with water issues until there is a crisis and that the state should be giving the District more money to execute its programs.

Mr. Danny Johnson provided an overview of the cyclical nature of the BAC membership before and during the planning cycles noting that membership typically increases in the years leading up to the 5-year water management plan updates.

Ms. Pam Burnett suggested the Board assign a member to each of the BAC meetings to provide the BAC members direct access to the Board.

Litigation/Lake Level Update

Ms. Katherine Zitsch gave a brief overview of water supply conditions across the metro region noting that Lake Lanier is currently above full pool, at 1071.9.

Ms. Zitsch discussed ongoing litigation across the ACF and ACT basins. The Supreme Court ruling is expected sometime between Tuesday, May 29th and the end of June. Ms. Zitsch reminded the Board that three outcomes are considered possible – Georgia winning, Florida winning or the case being remanded to the Special Master for further analysis. She also reminded the Board that there are three other ongoing cases:

- (1) Alabama v. the Corps of Engineers in the ACT. This case has been fully briefed and is waiting on the judge to rule.
- (2) the Alabama and National Wildlife Federation v. the Corps of Engineers in the ACF. These cases were just transferred to the Northern District Court of Georgia and consolidated.
- (3) Cobb County-Marietta Water Authority v. the Corps of Engineers case about water storage accounting in Allatoona Lake. This case ongoing in the Northern District Court of Georgia.

In Congress, we are closely watching the House Water Resources Development Act (WRDA) and the Senate version called the America's Water Infrastructure Act (AWIA). To date, AWIA has passed out of Senate committee without language targeting Georgia's water use. The WRDA bill is being discussed in committee at the same time as the Board meeting. We are also closely watching Senate Appropriations regarding the Commerce, Justice, and Science Appropriations and the Energy and Water Appropriations Bills. Both of these should be at the full committee on Thursday, May 24th.

Commissioner Powell from the City of Atlanta spoke about the positive provision in AWIA regarding grants for workforce development in water utilities.

The following question was asked:

Question: Are there talking points that we can use if we call our elected officials?

Answer: Please let them know that water supply is important and that it is important for our elected officials to continue working hard to defend it.

Education and Outreach Update

Ms. Sarah Skinner provided an update on recent and upcoming education and outreach activities. This spring, the District sponsored two Children's Water festivals, one on the north and one on the south side of the region, which provided education to nearly 1,000 students who learned about the value of watershed protection.

Ms. Skinner announced the three winners of the High School Video Contest and played each video for the board. Over 150 students participated to create over 50 videos on the topic Make Every Drop Count.

The District and our education partners will be embarking on a new initiative to end illegal dumping, which has been identified as a significant issue by several members of the Technical Coordinating Committee.

The District announced the launch of the My Drop Counts Business Pledge on Earth Day, April 22. The business pledge encourages the regional business and education community to make a commitment to saving water in their building and campuses. A business can earn points for pledging to implement certain conservation measures and can pledge at the bronze, silver, gold, and platinum levels.

The following questions were asked:

Question: Are you tying the messaging for illegal dumping to non-point source pollution or to river clean ups?

Answer: Yes. We will create a common list of contaminants that can affect surface water from illegal dumping sites.

Question: Are we going to coordinate with the local Keep Beautifuls?

Answer: Yes, as well as the Chattahoochee River Keeper.

Question: Our public works team works on illegal dumping issues. Do we need to put them on the committee?

Answer: Yes.

The Board discussed the role of the Keep Beautiful campaigns and questioned the need to address illegal dumping in the District's work program.

Plumbing Code Recommendations

Mr. Andrew Morris provided a list of recommendations for the Board to consider making to the Department of Community Affairs (DCA) on the next update to the Georgia plumbing code. Mr. Morris discussed relevant research and the differences between existing showerhead, lavatory faucet (private), and kitchen faucet fixture efficiency rates and proposed rates. These changes would bring the state of Georgia up to standards that match widely available product selection at affordable prices. The proposed changes would include the following:

Showerheads – 2.5 gpm or less to 2.0 gpm or less plus a requirement for WaterSense

Lavatory Faucet – 1.5 gpm or less plus WaterSense to 1.2 gpm or less plus WaterSense

Kitchen Faucet – 2.0 gpm or less to 1.8 gpm or less

Based on conservative estimates, these efficiency changes would produce 1 billion gallons a year in savings or 2.7 million gallons per day. A typical household on a water and sewer account could realize annual savings of approximately \$40 to \$60 depending on the utility. In addition, annual customer savings from water heating energy would range from \$15 to \$34.

Mr. Thoms made a motion to authorize the District to submit these recommendations to DCA for consideration. The motion was seconded by Ms. Kathy Nguyen and passed without opposition.

Antidegradation Implementation Guidelines Updates

Mr. Morris reported that District staff have begun assessing the proposed updates to the Georgia EPD Antidegradation Implementation Guidelines. Mr. Morris specifically directed the board's attention to language regarding reuse and return flow considerations. Mr. Morris committed to continue tracking the proposed updates to ensure consistency with the actions and policies in the District's Water Resource Management Plan.

Gwinnett County Research Initiatives

Ms. Denise Funk with the Gwinnett County Department of Water Resources provided an overview of several research initiatives taking place in Gwinnett County. These projects aim to advance water science and support the county's vision. Ms. Funk provided details on the following projects:

1. Global City Teams Challenge – This project is a Smart Cities initiative looking at groundbreaking applications of the “internet of things.” Gwinnett County is partnered with AT&T, Qualcomm, and Jacobs to look at methods of assessing distribution pressures, water temperatures, and customer usage in real time in order to provide better system management, leak detection and customer service.
2. Lake Lanier Septic Study – This study seeks to protect Gwinnett County's drinking water source by determining the impact of septic systems on water quality and assessing the impact to water quality when septic tanks are taken offline and replaced with low pressure sewer.

3. Direct Potable Reuse Study – This study was recently completed and evaluated the ideal blends of direct potable reuse water and compared the results to the current practice of indirect potable reuse in Lake Lanier.
4. Water Innovation Center – Gwinnett County is developing plans for a Water Innovation Center that will be a one of a kind research, training, and education facility to support the water industry.

There being no further business, the meeting was adjourned.



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RESEARCH AND DATA TOPICS FOR DISCUSSION

The items below came from input provided by the Basin Advisory Councils, the Technical Coordinating Committee, Board members, and the District staff.

Education and Outreach

(Brad Currey will begin with an overview of a successful education program used in the recycling industry)

1. Update residential water use survey
2. Develop broader regional and statewide water education curriculum
3. Water education for elected officials

Water Supply and Water Conservation

1. Assess opportunities to curb summer peaking factors
2. Evaluate potential water sources in District for use in extreme drought
3. Partner with national water efficiency organizations on applied research

Wastewater

1. Research and report on impacts to sewer infrastructure from the effects of increased indoor water conservation
2. Assess the need for the District to perform assimilative capacity modeling across the region
3. Pilot implementation of agricultural non-point source reductions in Lake Lanier watershed

Watershed

1. Perform assessment of surface water quality trends over past three decades
2. Use surface water quality trends to identify projects that are most likely to lead to delisting of impaired water bodies
3. Research and report on opportunities to address non-point source pollution from fertilizers



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MEMORANDUM

Date: August 13, 2018
To: District Governing Board and Technical Coordinating Committee
From: District Staff
RE: Data and Research Needs Identified by the Basin Advisory Councils

The Metropolitan North Georgia Water Planning District (the District) seeks to identify the range of research and data needs that will help inform current and future planning processes, including the 2022 Water Resource Management Plan update. As a first step in the process, the District held a Joint Basin Advisory Council (BAC) Meeting at the offices of the Atlanta Regional Commission on July 23, 2018. During the meeting, the BACs were divided into five groups representing their individual basins with the Lanier BAC and the Oconee BAC merging together into one group. A facilitator was assigned to each group to ask the following question:

In advance of the next update to the Water Resource Management Plan (expected schedule 2019 to 2022), what questions and or data/research needs would help you better understand water resource conditions/opportunities to aid in your input for the next plan update?

The five facilitators represented five planning areas, Water Supply/Water Conservation, Wastewater, Watershed/Stormwater, Education and Outreach, and Technical Assistance. Each facilitator managed an open floor discussion along with a notetaker who documented comments from the BAC members. After a specified time with each group, the facilitators rotated around the room until five rounds of rotations were completed.

The following pages are divided into the five planning categories and reflect the comments received from BAC members in as close to their original form as possible.

Water Supply/Water Conservation

Basin Advisory Council Comments

Question: In advance of the next update to the Water Resource Management Plan (expected schedule 2019 to 2022), what questions and or data/research needs would help you better understand water resource conditions/opportunities to aid in your input for the next plan update?

Chattahoochee BAC

What can we do to curb the rate of boil water advisory in the area? Research who has had the most boil water advisories and why?

Encourage the corps to come to more meetings

Build on USGS studies for septic systems

Be more involved on the enforcement of district plan

Information in municipality compliance of implementation rates – feedback from utilities

Effectiveness of the water loss program

Measure losses of water from each reservoir during drought i.e. evaporation, hydropower, water supply, etc.

An assessment of the balance between water withdrawal and returns on a monthly basis

Coosa BAC

Cost benefit analysis for all action items-as part of the screening process

Having a floor for water conservation- to which water conservation begins to impede water quality- investigate the relationship between water conservation and the impacts it has on sewers.

Talk more in term of net use – important when moving towards the reuse not the gross withdrawal

Clearly defining consumptive use and return credits

Septic systems- how much of an impact does it have on returns

More analysis on irrigation systems

Impacts of conservation on the ability to attract business

Punitive damages for rates of high water

Flint BAC

How strong is the signal for conservation rates – extrapolate that to other action items

More data on conservation in the commercial sector by industry. Ex. Medical vs hospitality
Incentive program at the residential level and for meeting a state goal
Continued analysis on demand trends- keeping it updated
Impacts of fed and state regulations on utilities . ex endangered species act
Education on better irrigation practices in the summer- irrigation timers to detect rain and increase conservation as well as reduce costs
Being able to implement the audit programs across the board
Further expand on the climate resilience study

Lanier/Oconee BAC

Look at the Tennessee river as an option for future supply
ARC taking a stronger voice for water storage – develop a narrative to quantify the economic benefits
Streamlining the permitting process for new reservoirs- taking a more active role – EPD and US GOV'T
District providing technical assistance in the permitting process
Link planner with water development
[From Technical Assistance breakout] Realistic number of use per person as a goal for next period – what's the goal we want to set and how do we arrive at that?

Ocmulgee BAC

Research on consumptive use – basin by basin – withdrawal returns
How to encourage the funding of conversion from septic to sewer – David Radcliff did research on this
Inform the public on commercial “rebate program?”
Data lacking on the action item side
Analyze EPD audits for the District and communicate trends and results.
How much has each designated use per capita changed
Who has irrigation meter and rates?
How many audits do those utilities do?

Wastewater

Basin Advisory Council Comments

Question: In advance of the next update to the Water Resource Management Plan (expected schedule 2019 to 2022), what questions and or data/research needs would help you better understand water resource conditions/opportunities to aid in your input for the next plan update?

Chattahoochee BAC

Where will water supply come from long term? Highlight areas where wastewater returns or reuse are part of that equation.

Treatment Limits – What is the expected limit to how far our treatment limits will need to go in order to meet future forecasted withdrawals and discharges?

How has historical decline of industry flows affected total loading in the region?

What is the impact of increasing the number of septic tanks from new development? (tracking in the rate of new septic permits)

Reuse – What is the potential for all different forms of reuse to help with future needs of region?

What is long term effect of multi-family housing increase on sewer flows?

What is the long-term policy for LAS and Direct Discharge? Where does the official policy need to live? District/EPD?

What are the regional landfill capacities?

Coosa BAC

Cost benefit should be performed

The District should understand the minimum floor for conservation efforts and the need to consider sewer flows capable of transporting solid waste in lines.

Need better information on net-water use. (I mentioned that this was something we were hoping to summarize next year)

What is the year to year tracking of industrial flows? Are we getting more or less flow into the municipal systems?

Can the District study the return flow components of irrigation and septic?

How is the state implementing Anti-Degradation policy from the federal government? Does it still prioritize land application?

How is the District enforcing its facilities plans from Appendix B? What progress is taking place to decommission some of those plants that were initially planned to be demolished for regional treatment?

What are the potential health impacts to micro-constituents in wastewater?

Can we show the record of improvement to the water quality in our streams since the District was formed? (requestor believes we have been a big part of improvement.)

Flint BAC

Can the District summarize the latest technologies available for homes where septic tanks are tough to permit?

Fats Oils and Grease – Are there any problems with FOG disposal options? Similar to septic issues we see in the region?

Provide data on the use of reclaimed water across the District.

Develop info for utilities to share with customers on the opportunities to use reuse water to offset potable needs for cooling tower condensate water.

Lanier/Oconee BAC

What can the District do to influence EPD to improve the time it takes to permit a new wastewater treatment facility?

Can the District begin raising the conversation on inter-basin transfer by identifying the major cost/benefit/policy issues needed to overcome to redirect those to their basin of origin?

How can we better engage new development to install centralized sewer?

What is the update on statewide nutrient standards? There was a taskforce from a few years ago that worked with EPD but it hasn't met in a few years.

Ocmulgee BAC

Can the District begin raising the conversation on inter-basin transfer by identifying the major cost/benefit/policy issues needed to overcome to redirect those to their basin of origin? Specifically, is there anything on the horizon that would shift the flows out of Yellow River WRF or shift flows away from Lake Jackson?

Can the District provide more information on consumptive uses in relation to septic return flows?

Can the District look at methods for reducing sewer rates when green infrastructure is used in CSO areas?

Can the District look at mapping septic homes and the year they were built against the maps showing where septic drain fields have been replaced?

What happens to water quality during major storm events in relation to septic systems installed in low lying areas? (potentially overlay FEMA maps with septic map and see if there are any critical areas)

How can laws be put in place that would require a homeowner on septic to notify someone (District/EPD/Public Health) that their home has transitioned to sewer?

Provide more data on CSO overflows and septic systems age and quantity

Provide more on septic systems age and quantity

Watershed/Stormwater

Basin Advisory Council Comments

Question: In advance of the next update to the Water Resource Management Plan (expected schedule 2019 to 2022), what questions and or data/research needs would help you better understand water resource conditions/opportunities to aid in your input for the next plan update?

Chattahoochee BAC

Re-evaluate the effectiveness of BMPs in plan

Are utility fees having an impact? Which fees, and on what?

Pass laws to regulate and enforce the use of these fees for their intended purposes

Which BMPs are being used? Where?

Gather more information on public vs. private ownership of water.

How is this water being used?

Design a better alternative to building stormwater retention systems to compensate for clearcutting for development, and/or restrict clearcutting altogether

What is the true cost of service for stormwater utilities? How does this compare to the funding utilities actually receive, and how is this money being spent?

Monitor NPDES sites under the normal one-acre cutoff

Monitor creeks and streams instead of only monitoring larger bodies of water

Compare healthy streams with impaired streams

Coosa BAC

Increase the reduction of stormwater basin permit requirements in order to reduce permitting and promote business growth

Provide a summary of buffer regulations and where they apply

Outline stream bank restoration requirements, do cost-benefit analysis

Start tracking macroinvertebrate metrics

Enhance E. coli tracking (not so much an idea as state level requirement)

Determine and track the percent of pervious to impervious land

Provide a map of water sampling points

Have we actually improved water quality? What has been effective?

Is green infrastructure working? Is it worth the money?

Provide data showing a connection between green infrastructure and quality improvements and/or effect on stormwater management

Provide public education about the causes and effects of stormwater

Include risk analysis as part of action plan

Use an asset management approach to stormwater infrastructure. What is the current inventory of stormwater management features?

[From Wastewater breakout] Can we show the record of improvement to the water quality in our streams since the District was formed?

Flint BAC

Test headwater quality for fertilizers, nitrogen, and other nutrients

Lobby for better automobile and road standards to reduce pollutant runoff from roads

Create heat map models of nitrogen and phosphorous

Conduct education and public outreach about urban and domestic water pollution, primarily to communities

Conduct septic tank studies

Model green stormwater practices after Atlanta's system

Expand data collection and retention

Expand the adopt-a-stream program, and bring in more volunteers

Increase public accessibility and outreach by creating an information portal

Track quality of metrics over time in order to gauge our effectiveness at analysis

Lanier/Oconee BAC

Atlanta stormwater is a good model. Should it be expanded?

What effects are local rain guards having?

Shift focus to localized green infrastructure

Create a "blue book for dummies" on green infrastructure, to give to communities and developers

How do you make a raingarden in your back yard?

How do you transfer ownership of green infrastructure on your property should you move?

Encourage developers to raise the bar on stormwater management.

Educate homeowners, developers, architects, etc. on green infrastructure. It is often overlooked not due to cost or complexity but simply ignorance

Who is going to maintain green infrastructure in communities with limited resources, or without stormwater utilities?

Metrics are needed on the performance of green infrastructure projects

Incentives to encourage green development

Smart Cities

Ocmulgee BAC

Analyze existing water quality data to get a starting point of where to go next

Secure the funding necessary to provide up to date regional analysis of water quality

Do we have enough monitoring equipment?

What data is available now? Can we compile it into one easy to access source?

We need a literature review of nutrient source analysis and remediation, so that we have knowledge available if and when we have an impaired water source in the future

Correlate water quality data with green infrastructure projects, so we can learn which types of green infrastructure (if any) most impact water quality

Compile BMP info into one source

Data from EPD on water quality in streams

How many utilities track water quality in streams, percentage of streams and what organizations help them

Do utilities actively go after polluters?

How many violations have been reported?

Data on point source and non-point source pollution

Do utilities have a green infrastructure program and outline?

More data on Stormwater fees

Education and Outreach

Basin Advisory Council Comments

Question: In advance of the next update to the Water Resource Management Plan (expected schedule 2019 to 2022), what questions and or data/research needs would help you better understand water resource conditions/opportunities to aid in your input for the next plan update?

Chattahoochee BAC

There is a general lack of awareness about water usage and water quality.

FOG. We need more campaigns on awareness on FOG.

From time to time hear about direct reuse – very concerned about the safety of direct reuse in homes. The water is not well-tested and isn't as reliable as water treated in a system. Produce some information on in-home reuse systems.

Regarding the plumbing code presentation on water use, faucets, etc. - can we take that information back to Home Depot and Lowes? Can we get that info in to help the public make their decisions?

What are we doing about drugs and flushing drugs? Need materials on drugs in the fish and in the rivers.

Data on the effectiveness of the outreach we've already been doing – need data on this!!

Coosa BAC

Produce a map of all stream locations of where the testing is going on. To be able to tell the general public, "We test these locations twice a year for water quality." Let people know we look after our streams. (Dots on a map)

Map of the median income (and benefits package) for utility personnel – utility personnel need raises and wage increases to be competitive.

Can we show historical improvement on water quality since 2003 to 2018 since we've had the plan in place?

Need partnerships and coordination with civic organizations.

Show the public what they are getting for the rates. (ROI)

Continued effort on educating kids. Work on getting into the state curriculum. Water, water quality, STEM.

Need to work on educating elected officials.

Make sure we are keeping general outreach simple and easily understandable.

Flint BAC

State legislature and law makers aren't listening. Send a survey to stakeholders asking them how they want the state legislature to view water and what issues they feel need to be raised to the legislature.

Need education and outreach materials on the intersection of farming and water quality.

Mass media – What is the response rate from public from the messaging we produce and put into the world? How many people hear our message and how can we get at that data?

Are there community service projects focusing on getting kids on the river? Advertise river clean up events for the community and focus on how we can get kids (high school) on the rivers.

Establish a baseline of where people are when it comes to water related-issues (with a survey). The general public still doesn't have a good baseline of understanding.

Lanier/Oconee BAC

Need more education and outreach materials on septic.

Educating the public on benefits and costs (what their rates are paying for).

Sediment into the lake is a big deal. Erosion control issues and enforcement.

How can we promote more BAC membership? Campaign to do some promoting of the program. To build for the next plan.

Education in schools – targeting middle and high. Getting them thinking about water and the water industry as a career.

Focus on getting in the state curriculum.

Want to do some surveys. Want to find out what type of information resonates with the public. How does the public best receive information? Are different messages received in different ways?

We have to link these things to the standards in the state. But educators don't have any extra time in their days/years. If we come up with something it needs to fit in with what they are already doing.

Consider getting more creative with outreach – example provided of Hall County high school student who held a water conference for the county to talk about water-related issues.

Think of wet weather campaigns (our dry weather campaigns are good). How can we increase participation in our wet weather campaigns?

A discussion among students of water extremes. Perhaps the middle school essay contest?

We need to education on the need for more storage.

Ocmulgee BAC

Need to be working with newly elected public officials and judges! Provide some general environmental education and also plan requirements.

Multicultural general education! Bilingual education! Build partnerships and focus on how the public will receive certain types of messages so that when the message goes out, it will go out in a way that the public will expect it. How do we get the educational message out there in a way people learn it?

Need to get some media time to promote the videos from high school video contest.

Has there ever been general PSAs? Channel 2 Daily 2. Trying to partner with some of these organization.

Need some materials on the nexus between water and energy. People will focus more on energy.

Focus on making the messaging simple and subtle. Don't bombard with the real heavy messaging.

Focus on growing the message that water all water has a value (stormwater, wastewater, etc.)

Document what each utility has done for education and what areas

How much does each utility spend on education? Amount and percentage of budget

How many people each utility employs for education and position titles?

What level education are the students engaged for each utility?

Technical Assistance

Basin Advisory Council Comments

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Chattahoochee BAC

How to monitor stormwater better, addressing impairment of streams and updating that data to better prioritize what needs to be done to improve those streams.

Universities should be more involved in meetings or planning processes

Consumptive use monitoring and maintaining water meter systems or updating them so that our information is solid and reliable

Trail planning and runoff/impacts associated with the trails, surfaces used, etc.

Providing consistent messaging to communities about drought status/categories because most people aren't aware of drought status

Municipalities can list needed projects in the communities for project leaders such as boy scouts of America, high school senior projects, AmeriCorp., etc.

Homes w/ expanded bedrooms and bathrooms on septic don't know/realize the tank can't handle the new load

Staff trainings either by district or others so that utilities/residents are informed and aware; list of resources for trainings for all municipalities' staff members (benefit of having all jurisdictional staff has the same training and uses same set of vocabulary/rhetoric when identifying and addressing issues; uniform trainings can establish uniform communication)

Rainwater harvesting isn't implemented because it's technical, people don't know how to design and install; other BMPs and getting information about how they work and how cost effective they are; survey of design/construction community about rainwater harvesting and all BMPs to better communicate and take the fear out of new practices; trainings

Coosa BAC

When will septic data be available? (response: prelim stuff in December, full report in spring, report will tell us about incentives for pump outs, other actions that can be done since mandating isn't a possibility)

Issues with grease hauler permitting process; action item puts county governments after getting it from EPD and DPH; county health departments can't permit them bc they can't make them pay a fee after DPH already charges them a fee; only 5 grease hauling permitting programs in the district, none permitted in Cherokee county

Educating public for need of stormwater utilities and funding stormwater infrastructure; asset management regarding stormwater – what do you have, what state is it in, how do you maintain, etc?

Bridging BAC members with information from TCC and their municipal representatives to hold responsible/accountable

Nonrevenue water use, monitoring, etc.; TA help with condensing water audit/performance indicator information and achieving those goals; customer meters are 17% accurate but they won't do a change out

TA should pair with E+O for residential outreach – better empower taxpayers to be knowledgeable of and hold their utilities accountable for infrastructure, etc.; is there a technical advisory committee that steers areas of focused implementation?

Flint BAC

How to manage toilet rebate program? (response)

Case studies are helpful, especially when localized to specific communities; look back at data and categorize, awareness of TA should branch beyond utilities, such as residents who have time and wherewithal to consider what the district can do for them and collaborate with utilities; pull in the commissioners so they're aware of what's going on

How do we prioritize each community's needs – what have utilities and providers been asking for the most?

All new homes have to have watersense

Promotional material for distribution at school systems, community outreach programs, amphitheater, volunteer connections to community about what residents can do w/ readily available materials so that no reinventing the wheel & putting burden on volunteers to create education content/materials; (all topics in one document & easy speaking points); doorhangers

Lanier/Oconee BAC

Realistic number of use per person as a goal for next period – what's the goal we want to set and how do we arrive at that? [for Neela]

Identify gaps in smaller utilities and see how we can fill them; North is better situated with staff and resources than other parts of the district.

Lack of tracking of implementation and making sure small utilities are aware of the plan, digesting it and implementing the recommendations/action items; communications of the plan, understandable for smaller communities; (response: EPD audits is how we're ensuring it's implemented)

Septic tank transition to sewer system; explaining economic impact and educate general population on the changes; getting technical assistance to developers and builders for transitioning

Expand 15-county area to the north to better encompass problem areas

Original plan didn't represent the environmental flows and academics want input, need to figure out process of involvement; expand discussion (Australian successful) to include academic professionals, such as those at UGA who want to participate; nutrient standards for different water bodies

Ocmulgee BAC

Local governments with phase I permittees, local businesses, part III stormwater manual is written for big businesses and doesn't address small businesses; how small business can attain goals; helps local governments helps their businesses; scaling issue needs to be addressed to better encompass

Standardized FROG education materials and consistency

Partnering with companies that do water work (plumbing, etc.) to change their messaging and outreach as well to address lack of education around water pollution, even yard treatments; public education is needed to address current practices that further create negative/polluted waters

Addressing runoff of vacant/unused properties & heat island effect

How many builders are aware of the commercial/multifamily toilet rebate program? TOTO is aware –how we get them & other local manufacturers on board?

Real estate program

Water Supply/Water Conservation

Technical Coordinating Committee Comments

Question: In advance of the next update to the Water Resource Management Plan (expected schedule 2019 to 2022), what questions and or data/research needs would help you better understand water resource conditions/opportunities to aid in your input for the next plan update?

EPD – Jack Krolikowski

-Number and location of incidents in last X years resulting from flood events

Cherokee County

We think the following items are necessary issues to be included in the content/preparation/research for the 2022 plans:

1. Cost/benefit analysis for each existing and each proposed action item must be incorporated into the 2022 plans. This must be meaningful in-depth analysis to demonstrate that action items provide benefit (in excess of costs) to the utilities in the Metro Water District, as well as counting the full cost (direct costs and unintended tangential costs, cumulative costs) of implementation;
2. A conservation foundation (per capita residential use) should be established, below which usage level the action items of the plans will not seek to venture because of unintended negative effects on gravity sewer operation, maintenance, and infrastructure life.

Gwinnett County

Kevin Farrell

- In the District...what factor best correlates with residential per capita use rate reductions?
- Also on that topic.....considering that everyone seems to independently calculate their own per capita use rates differently (residential, commercial.....) perhaps this should be standardized (via some District guidance) such that we're all comparing apples to apples in the future when this subject comes up?
- What AI's can, in retrospect, now be seen as not worthwhile and possibly eliminated? (the District could get some kudos for this?)

- Similarly, perhaps pick a couple of AI's to do some sort of benefit / cost analysis on (build more credibility)

- Might there be some “District Goals” for some things (per capita...% loss...consumptive loss...spill rate...price / rates...?) , whereby a jurisdiction might be able to??.....exempt some AI’s for the next audit.....or reduced District dues rate?.....etc...etc...??

Wastewater

Technical Coordinating Committee Comments

Question: In advance of the next update to the Water Resource Management Plan (expected schedule 2019 to 2022), what questions and or data/research needs would help you better understand water resource conditions/opportunities to aid in your input for the next plan update?

EPD – Jack Krolikowski

-Number and location of incidents in last X years resulting from flood events

Gwinnett County - Kevin Farrell

- Perhaps gather data and explore effects of conservation on increasing influent concentrations.... increasing cost of treatment.....and a point of diminishing returns.??

Cherokee County

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Watershed/Stormwater

Technical Coordinating Committee Comments

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EPD – Jack Krolikowski

- Inventory of local communities' future-conditions flood studies and associated maps (shapefile)
- Delineation of all basins larger than 100 acres (shapefile). Compare with inventory above to measure progress of future-conditions flood mapping District-wide
- Inventory of building footprints (shapefile)
- Using building footprints, identify non-conforming (anything other than a bridge, culvert, roadway, or utility) floodway encroachments for mitigation prioritization (shapefile)
- Inventory of repetitive loss properties (shapefile)
- Inventory of critical facilities (including ingress/egress) within areas adjacent to the future-conditions floodplain (see definition in ordinance) or 0.2% annual chance floodplain, whichever wider, for mitigation prioritization (shapefile)
- Production of a District-wide stream buffer map (shapefile)
- Inventory of overtopped roads for identification of capital improvement projects and/or watershed improvement plans (shapefile)
 - Intersect TIGER roads and FEMA Flood Insurance Rate Map data
- Study viability of the stormwater fees as a funding mechanism to pay local percentage of floodprone property acquisition
- Establish quantitative measures for erosion-producing velocities and flows resulting in excessive sedimentation:
 - “No development shall be allowed within the future-conditions floodplain that could result in any of the following: ...creating hazardous or erosion-producing velocities, or resulting in excessive sedimentation”.
- Inventory of manufactured home parks (shapefile) for intersection with FEMA Flood Insurance Rate Map data

-Inventory of septic system drain fields (shapefile) for intersection with FEMA Flood Insurance Rate Map data

City of Atlanta – Glen Behrand

Based on a lot of questions, already raised in the memo, I would recommend that a literature review/synthesis be done on the current stat of research on stormwater BMPs and green infrastructure. My understanding is that the literature continues to show good performance. I would add some discussion of effectiveness over time to the extent that is available as well.

Gwinnett County - Kevin Farrell

- Perhaps the District could research what's been done around the country regarding laws on fertilizer purchase / use.....tied to soil analysis.... showing a need etc....??

Cherokee County

We think the following items are necessary issues to be included in the content/preparation/research for the 2022 plans:

1. Cost/benefit analysis for each existing and each proposed action item must be incorporated into the 2022 plans. This must be meaningful in-depth analysis to demonstrate that action items provide benefit (in excess of costs) to the utilities in the Metro Water District, as well as counting the full cost (direct costs and unintended tangential costs, cumulative costs) of implementation;

Education and Outreach

Technical Coordinating Committee Comments

Question: In advance of the next update to the Water Resource Management Plan (expected schedule 2019 to 2022), what questions and or data/research needs would help you better understand water resource conditions/opportunities to aid in your input for the next plan update?

John Butler – Gwinnett County

After reading through the comments, especially the Education and Outreach section, I mostly echo the thoughts already presented. One of my main things right now is showing the effectiveness of the education and outreach campaigns. This needs to be measured in terms of water quality – not how many brochures were distributed or how many people attended a workshop. I am piloting an effort to pursue water quality improvements in small watersheds using only education and outreach. It involves taking samples using AAS methods and implementing various education and outreach tactics throughout a five year period. I have not even gained the first years' worth of data, but a highly targeted effort in a small watershed (4-5 neighborhoods, a few roads, and maybe a few businesses) should be able to reveal something worth talking about! That could be a good idea to add to the management plans for municipalities to consider. It gives some legitimacy to what educators do at the Utilities and could foster support for more education and outreach. Personally, I think that is the key to changing water quality because you engage the residents and businesses, rather than regulating them. It's like catching more flies with honey than with vinegar.

Another big thing I noticed is the repeated need to educate elected officials. I have merely heard that many environmental offenders, if they ever even get cited, get off super easy in court. This is presumably because the Judges themselves do not understand the far reaching implications of environmental degradation. I think that elected officials want to see growth and development, and environmental regulations are so often seen as a barrier to that goal. I think that the right amount of education, focused on pointing out the negative impacts on communities from environmental degradation, could help balance the desire for growth with the long-term negative impacts of irresponsible growth management that are often charged to the residents after the offender is long gone.

I saw a couple of comments about making education and outreach simple. I agree with this, but if we do not have more advanced education in the programs, we miss the opportunity to push people to the next level. Simple often translates into playful and the "kids and crayons" perception of environmental educators needs to be replaced with a more appropriate label, such as "environmental enablers." This can be accomplished by ensuring that municipalities have highly trained education staff and are prepared to present to a higher level audience. What if an advanced Environmental Studies class at the

local college needs a guest speaker? Will it be more impactful to present a simple presentation, or to give the students some real-life examples that present a challenge to understand? The HOA needs a simple presentation, but the local Sierra Club Group can handle a more intense curriculum. This comes with ensuring that you have trained educators as well as trained scientists in the education and outreach staff.

Lastly, I noticed a call for bilingual education. I agree with this also, but here in Gwinnett that isn't enough. We need something like septalingual education (in reality, there are approximately 150 nationalities and languages represented in Gwinnett) - English, Spanish, Korean, Chinese, Vietnamese, Arabic, Hindi. The proportions of the population representing these groups is small, so printing hundreds of copies of a brochure in Hindi doesn't make sense, but having a printable version that could be folded up and inserted into the English brochure isn't a bad idea. The District could have a page on their website for municipalities that includes all of the materials with translations so we can print them up as needed. Also, many of the populations who speak these languages do not trust the government or do not seek advice or education from the government. I have had this described to me by multicultural groups who try to bridge that gap. This is often because the governments from their home countries either do not provide the same types of services, or because their home governments were the reason they left. For this reason, it is less important to focus on multilingual publications than it is to establish relationships with cultural groups in your communities. I wonder if there is an opportunity for the Metro District to establish some presence with larger, regional multicultural groups who are trusted by smaller, local, community-based groups?

Let me know if you would like for me to elaborate further on any of these comments. Good luck!

EPD – Jack Krolikowski

-Inventory of 2009 flood high water marks for 10 year anniversary outreach

Cherokee County

We think the following items/subjects have merit as topics for educational presentations for the members of the BACs, the members of the TCCs, and the members of Board of Directors/Designees:

- a. The respective roles of MNGWPD and EPD in the development and enforcement of the District Plans, include an explanation of EPD activities through the Water Loss Audit, MNGWPD Plan Compliance Audit, monthly self-monitoring reports of water and wastewater treatment facilities, spill reports, boil water reports, watershed assessment and protection implementation plans, long-term ambient trend monitoring, storm-water and E&S requirements, etc, that assess the status of the individual utilities;
- b. An explanation of the individuality of the MNGWPD and the ARC, with a description of their complementarities;
- c. An explanation of how the MNGWPD is currently staffed and the staffing contract with the ARC;

- d. EPD rules governing boil water notices;
- e. EPD rules governing wastewater spills;
- f. Examples of active programs of infrastructure operations and maintenance, such as leak detection, CCTV of sewer lines, SCADA for lift stations, water/sewer ROW mowing and maintenance, etc.;
- g. Discussion of where utility responsibility ends and property owner responsibility begins on water/sewer service lines;
- h. General education about the action items, their implementation and how the utilities are responding;
- i. Description of the intended flexibility of the infrastructure plans in Appendix B and what role MNGWPD has;
- j. Water Quality – state of water resources, how changing criteria from EPA/EPD can make it appear water quality has diminished when it really has not, examples of current efforts by utilities, effectiveness of storm-water and E&S programs, long-term ambient trend monitoring, source tracking, DNA analysis of FC bacteria to source animals, etc.;
- k. BMP's and stream-bank restoration, site specific customized to the location and no one-size-fits-all;
- l. What resources do BAC members have access to and how to use them;
- m. How to engage productively with your utility.

In many instances these educational opportunities can be met by partnering with utilities to show what is being done in each BAC area.

Technical Assistance

Technical Coordinating Committee Comments

Question: In advance of the next update to the Water Resource Management Plan (expected schedule 2019 to 2022), what questions and or data/research needs would help you better understand water resource conditions/opportunities to aid in your input for the next plan update?

EPD – Jack Krolikowski

-Training for real estate agents with regards to MNGWPD Model Flood Damage Prevention Ordinance (regulates beyond FEMA's Flood Insurance Rate Map)