

## **Summary of the Water Quality Trading Framework Stakeholder Process**

GAEPD is in the process of developing a nutrient trading framework that incentivizes efficient ways of addressing nutrient impairments while still protecting and improving water quality. On September 20, 2019, GAEPD published a Water Quality Trading Fact Sheet and announced a series of three stakeholder workshops to discuss the development of a nutrient trading framework. Comments were accepted at the meeting and through written communication. Notice of the stakeholder workshops was posted on GAEPD's webpage and distributed among individuals and organizations who had indicated an interest in participating in the development of a nutrient trading framework.

GA EPD held three stakeholder workshops: one in Dry Branch on October 16, one in Atlanta on October 23, and one in Calhoun on October 28. Each workshop lasted approximately two hours. The first hour of the meeting included introductions, a preliminary survey to gauge participants' baseline knowledge and perspective, and a short presentation about water quality trading. During the second hour of the meeting, GAEPD staff set up a small group discussion to allow stakeholders to exchange ideas in setting more conducive to free and open communication. Following the activity, GAEPD led a large group discussion about each of the items discussed in the small group setting. At the end, GAEPD took final comments and questions from the participants. A summary of the preliminary survey, large group discussion, and other comments is presented in the following pages. The information is split by question and by meeting due to the distinct comments and perspectives at the three meetings.

### **Summary of the Preliminary Survey**

Following the introductions, GA EPD staff led a preliminary survey of workshop participants to gauge prior knowledge of and attitudes toward water quality trading. In the large group, participants were asked the three questions, and their responses noted on boards around the room. Summaries of these questions, organized by question and meeting, are provided below.

#### **1(a). What are your primary water quality concerns?**

Meeting	Concern
Dry Branch	<ul style="list-style-type: none"><li>- Treatment Costs</li><li>- Economic Development</li><li>- Aquatic Life</li><li>- Impaired waters</li><li>- Ecological lift</li></ul>
Atlanta	<ul style="list-style-type: none"><li>- Lake Lanier</li><li>- HABs</li><li>- Understanding TMDL methodology for point and nonpoint sources</li><li>- Opportunity for market-based solutions</li><li>- Credits for landowners adjacent to streams</li><li>- Incentivizing green infrastructure</li><li>- Protection tools, such as conservation easements</li></ul>

Calhoun	<ul style="list-style-type: none"> <li>- Little control of nonpoint sources, such as agriculture and leaking septic tanks</li> <li>- Manageability</li> <li>- Control of buffer zones and enforcement</li> </ul>
Common to all three meeting	None

**1(b). What are key pollutants are a priority to you and your organizations?**

Meeting	Priority pollutants
Dry Branch	<ul style="list-style-type: none"> <li>- Temperature</li> <li>- Oxygen Demand</li> </ul>
Atlanta	<ul style="list-style-type: none"> <li>- Ammonia</li> </ul>
Calhoun	<ul style="list-style-type: none"> <li>- Herbicides</li> <li>- Surfactants</li> </ul>
Common to all three meetings	<ul style="list-style-type: none"> <li>- Nutrients</li> <li>- Sediment</li> <li>- Fecal coliform/ <i>E. coli</i></li> </ul>

**1(c). Which water uses are you particularly interested in protecting?**

Meeting	Water uses
Dry Branch	<ul style="list-style-type: none"> <li>- Return flows</li> <li>- General water withdrawal</li> <li>- Ecosystem services generally</li> <li>- Connectivity</li> </ul>
Atlanta	<ul style="list-style-type: none"> <li>- Assimilative capacity for wastewater</li> </ul>
Calhoun	<ul style="list-style-type: none"> <li>- Drought protection</li> </ul>
Common to all three meeting	<ul style="list-style-type: none"> <li>- Drinking water</li> <li>- Recreation</li> <li>- Fishing</li> <li>- Habitat and species conservation</li> <li>- Agriculture</li> </ul>

**2. How would you explain water quality trading to an educated but informed person?**

**Dry Branch:** Participants had some concerns about the use of the word “trade” because it had a negative implication of trading water quality for increased discharges.

Participants defined water quality trading as beneficial permitting that allows discharges that are offset by better water quality in other areas. If someone can put a practice in to improve water quality, beyond the minimum of what they’re required to do, they should be able to give

that credit to someone who needs it. Ultimately, this is a cost-effective alternative that helps the ecosystem.

**Atlanta:** Participants also mentioned that water quality trading, as a term, may be misunderstood. A trade can imply that someone or something is losing out, not that something good, such as a high quality water, could be enhanced.

Participants gave some examples of water quality trading, such as two facilities being allowed a total sum of phosphorus, where one facility is able to not just meet the limits but regularly discharge less than the limits and the other one “needs help.” Participants also characterized trading from a watershed perspective, focusing on finding where in the watershed is the most effective place to remove a pound of phosphorus through either nonpoint source Best Management Practices or point source limits.

**Calhoun:** Participants at this meeting focused on the point source perspective. Participants described trading for municipalities or POTWs as a need for some options other than making costly upgrades at the plant, which would still result in getting nutrients removed from the basin. In some instances, nonpoint source BMPs could be cheaper than dealing with higher levels of treatment at the plant.

Several of the participants representing the point sources were located in the Lake Allatoona basin. Lake Allatoona has a chlorophyll a TMDL, which indicates a substantial contribution from the nonpoint sources to nutrients in the lake. Participants noted that disparity in impact.

### **3. What’s your opinion of water quality or nutrient trading?**

**Dry Branch:** Participants who worked regularly with the agriculture community mentioned that water quality trading is unknown and misunderstood by the stakeholders that they work with. However, the general consensus among the participants was that water quality trading could be “a very positive thing.” Key benefits raised included cost-effectiveness, water quality improvements, and financial benefits for participants.

Participants were concerned with “doing it right” and raised key decision points, such as defining the trading boundary and identifying the nutrient sources.

**Atlanta:** Participants expressed some interest but identified several information gaps and concerns. Participants viewed trading as one tool in the tool box that could potentially incentivize actions that would not otherwise happen, such as nonpoint source BMP installation, but said that it needed to be well defined. Important information included spatial scale and identifying whether sufficient interest exists to sustain a market.

One substantial concern was that trading would result in trading a quantitative and known discharge from a point source for a more qualitative and difficult to measure reduction from a nonpoint source. As a result, a point source reduction (easily quantifiable) would be traded for a nonpoint source reduction, which is more difficult to ascertain, potentially resulting in less oversight or reduced water quality benefit.

**Calhoun:** Participants expressed that they were glad that GA EPD was working on water quality trading. This was particularly true of the representatives of municipalities in the Coosa Basin affected by the Lake Weiss TMDL, which required reductions of nutrients at the state line. Even participants representing agriculture stakeholders were interested in trading, identifying it as an opportunity for farms to diversify their revenue stream.

Participants emphasized the need to develop a good trading ratio to encourage trading and get the necessary reductions, but noted that water quality trading is just a tool in the tool box, which could make sense in some places, but not others.

## **Summary of the Group Discussion**

Following the preliminary survey of workshop participants, GA EPD staff went through a presentation about water quality trading, which provided an overview of water quality trading, history of trading in the United States, a history of trading in Georgia, and some proposed options for a water quality trading framework. After the presentation, participants were broken out into small group and asked the three questions. Following the small group discussion, the participants were pulled back into one large group, and answers to the questions were discussed and shared. Summaries of these discussion, broken apart by question and meeting, are provided below.

### **1. Would you be interested in buying/selling credits?**

**Dry Branch:** Participants generally expressed interest in buying or selling credits. Participants were cautious, though, and wanted a third party to oversee a formal banking procedure to ensure that promised reductions were being delivered. There was an emphasis on “keep[ing] everybody honest.”

**Atlanta:** Participants generally expressed interest in buying or selling credits; however, participants had many questions about how trading would actually function. Participants asked questions such as whether inaction in a natural land, such as a forest, could count as a credit, and whether a sufficiently large pool of buyers and sellers exists to drive market. Participants were concerned that there may be more need for a market with more regulated entities and wondered whether additional regulation on nonpoint sources could lead to that market.

**Calhoun:** Generally, participants were interested in buying or selling credits, but expressed some concerns, including wondering about how to get farms into water quality trading and citing the lack of regulation as a possible barrier.

### **2. What risks do you see for you/your stakeholder group? What actions could reduce the risks?**

**Dry Branch:** Participants spoke freely about the perceived risks in engaging in water quality trading. Participants were concerned about having an impartial third party overseeing trading to ensure it was done correctly and fairly. Participants also focused on ways to demonstrate water quality improvements due to trading. Some participants wanted to see actual monitoring

being done around both point source and nonpoint source reductions, instead of relying on models.

Participants, particularly from the agriculture perspective, expressed concern about mismatches in timelines for the point sources (driven by five-year permits) and nonpoint sources (longer-term land management or necessary BMP lifespans to see a good return on investment). The consensus was that the permit term is too short, and a 20 or 40 year commitment might be better, especially when discussing land uses. For example, participants stated that putting land into conservation is a long-term process, so what if the producer does this and then the wastewater treatment plant does not need the easement?

Participants brainstormed solutions, including identifying potential partners, such as the NRCS, to work with WWTP or industries directly to help minimize risk. Other participants noted that contract length was not the only issue – a short contract is palatable if the fee is very large and makes it worth everyone’s while. Overall, participants agreed that the contracts would do a lot of work in terms of minimizing risk for the buyers and sellers of credits.

**Atlanta:** Multiple stakeholders representing various watershed groups raised concerns regarding potential unintended environmental costs, as well as issues resulting from a poorly designed program. One stakeholder mentioned that trading could potentially disincentive upgrades, especially if contracts for credits are long-term. Other commenters raised concerns with using modeling, not direct measurement, when assessing the efficacy of a particular Best Management Practice. Some stakeholders emphasized that if trading were to occur, it must be done carefully and with real data to prove water quality improvement. A main concern was the risk that the program would be implemented and several years down the line, evidence would emerge that trading did not work and that the waterbody had more serious impairment issues than before. The recommendation was to develop sound policy now with that concern in mind.

Other stakeholders, primarily from industry and agriculture, indicated that there were too many unknowns in the process. One industry representative cautioned against making the process too complicated and the trading ratios too high. Using high trading ratios to, for example, mitigate some of the uncertainty in BMP performance, would disincentivize trading. In their perspective, trading needed to be approachable and simple to implement. One stakeholder mentioned the risks associated with not looking for new tools to improve water quality, raising the concern that some waterbodies that do not have wasteload allocations for new sources may limit future development and industry.

One participant raised concerns about the mismatch you may see in some counties and regions in pollutant issues across a rural/urban divide. This participant discussed how rural areas, which are the sources of nonpoint source pollution, would get income through selling credits, and urban areas, which are the sources of point source pollution, would bear the costs of buying credits. This could result in a mismatch, where the ratepayers are inequitably bearing the cost of a pollution problem they did not create.

Participants identified data, either direct monitoring of best management practices or the use of data from watershed assessment and watershed protection plan or both to think about the development of a nutrient trading framework and ground truth it. Participants also articulated that it may be beneficial to assess the need for a trading program, relative to the cost of nutrient removal, the extent of the nutrient pollution problems, and the TMDLs implemented in Georgia.

Participants also raised alerts about ensuring that a nutrient trading framework be mindful of metro-area participants, who will have a district plan that they must follow an implement. This conversation resulted in point sources sharing that they, too, find the five year permit term too short for planning and would need longer commitments from nonpoint sources when purchasing credits.

**Calhoun:** The participants at this stakeholder workshop expressed a number of concerns about the risks of trading falling entirely on the regulated entity. They felt that there were inequities in who bore the costs for improving water quality (ratepayers bear the cost but agriculture creates the impairment) and who face enforcement (the regulated entities, even if the credit producers were the ones to not fulfil their contract). One participant said that they felt there was a risk that trading would pit ratepayers and non-ratepayers against each other because they felt that one was subsidizing the other.

Participants also discussed that in the Coosa Basin, the actions of the regulated point sources had only a small effect on the pollutant loads in Lake Allatoona. The nonpoint sources have such a large contribution that the only way to significantly improve water quality is to involve nonpoint sources. The participants noted that water quality had improved over time.

Following on the concern that the costs would be borne entirely by the ratepayers, several participants brainstormed ways to involve agriculture in the water quality improvement process. Ideas included making tax breaks contingent on BMP implementation, working with partners such as RC&Ds to encourage producers to “do the right thing,” and connect loan rates with BMPs. Some participants mentioned that phosphorus is a limited resource, and that water quality trading discussions assume that phosphorus is a nuisance. These participants asked whether we were thinking about nutrients the right way and whether those nutrients could be used in a market, such as with poultry litter.

Participants emphasized the need for consistency so that all parties involved know what to expect.

### **3. What benefits do you see for you/your stakeholder group? What actions could increase the benefits?**

**Dry Branch:** Participants identified the production of credits as a possible long-term revenue stream. They indicated that there was more value in the land than what was currently captured using traditional production (timber, cattle, etc.), and that credit production could capture more of that value.

Participants also spoke from the perspective of running a water utility and stated that they would be able to provide greater nutrient removal and cleaner waterbodies with a minimal effect on the customer base, which is particularly important when serving impoverished communities. Participants also mentioned that, for utilities, trading could smooth out energy costs and other plant operation and maintenance costs. The trading could serve as a buffer from a price increase later.

**Atlanta:** Participants indicated that the real benefits may be a little way off, when more stringent permit limits are enacted. Participants stated that limits for phosphorus below 1 mg/L requires additional treatment, and that as a facility gets to removing that final percent of phosphorus, it can be very expensive. At that point, participants said they would expect to see real differences in the cost effectiveness of various removal strategies and that is where trading or offsets could be a real benefit.

Participants also acknowledged that a lot of existing agriculture projects and best management practices are delivering good results and measurable water quality benefit, which suggests a workable path forward in the future. Some concerns were raised that BMPs themselves may be costly, and that perhaps there needed to be a way to incentivize a better financial model for producers that were already doing something, such as connections to other grants and fund sources. Participants acknowledged that information about where nutrient problems were located was important and would potentially allow for targeted BMP placement.

Participants also discussed the benefit for economic development. One put trading as a possible method for “creating your own assimilative capacity.” Participants also mentioned that there may be some financial opportunity for existing and new industries, and that for industries that participate, participation shows that the industry is committed to water resources.

**Calhoun:** Participants identified the possibility of new partnerships and cooperative effort as a benefit, as well as those partnerships potentially leading to education. If trading was done well, participants said that there could be water quality benefits and potential costs savings for ratepayers under certain trading conditions. Participants also mentioned that jobs could be created or potentially even a new industry around trading.

## **Conclusion**

The stakeholder workshops were set up to solicit specific feedback on some items in the proposed framework, as well as survey more broadly the attitudes toward water quality trading from multiple perspectives. The stakeholders provided important insight into emerging issues and implementation challenges. Both credit producers and credit buyers expressed concerns and cautious optimism on the concept of trading. All stakeholders were committed to improving water quality, and all expressed that water quality trading could potentially be a useful tool. Key areas of concern included:

- Preventing hot spots,
- Verifying BMP benefits (monitoring versus modeling),
- Ensuring equity in who bears the costs,

- Engaging stakeholders throughout the framework development process, and
- Building a workable system, one that is simple for entities to use while still protecting water quality.

Following this feedback, next steps include internal review of the more complete framework document, analysis of potential trading locations, and additional stakeholder engagement on these next steps.