Permitting & Compliance Management Strategy for the Lower Flint River Basin and Sub-Area 4

Agricultural Water Withdrawal and Metering Program

October 2024

1.0 Introduction

This document serves as a general informational guide to the Georgia Environmental Protection Division's (EPD) farm use water withdrawal permitting and compliance program. The purpose of this document is:

- To promote appropriate, consistent, and timely enforcement of Georgia's statutes, rules, and permits regarding farm use water withdrawal and metering.
- To provide transparency to permittees and stakeholders around EPD's compliance and enforcement activities related to farm use water withdrawal permits and metering.
- To protect existing users and the water resources we all depend on.

2.0 Georgia's Regulatory Framework for Agricultural Water Withdrawals

2.1 Water withdrawal permitting.

Two separate sets of statutes govern water withdrawal permitting for farm use: one for surface water withdrawals and one for groundwater withdrawals. Any person proposing to withdraw 100,000 gallons per day from surface water or groundwater for any purpose must first obtain a permit from EPD for that withdrawal (O.C.G.A. 12-5-31; O.C.G.A. 12-5-96). Georgia recognizes regulated riparian rights to surface waters for general or farm use (O.C.G.A. 12-5-31). The division considers the extent to which any withdrawals, diversions, or impoundments are reasonably necessary to meet the applicant's reasonable needs, provided that granting the permit does not have any unreasonable adverse effects on other water uses in the area (O.C.G.A. 12-5-31(g)). Similarly, Georgia recognizes regulated reasonable use of groundwater for general (O.C.G.A. 12-5-96) or farm use (O.C.G.A. 12-5-105). Groundwater withdrawal applications for farm use will be evaluated by the division, and a permit will be issued to ensure the applicant's right to a reasonable use of the groundwater (O.C.G.A. 12-5-105(a)).

2.2 Farm use water withdrawal permitting.

EPD staff located in Tifton provide customer assistance to people seeking a water withdrawal permit for farm use. This section outlines the general steps involved in the acceptance, review, and processing of a water withdrawal application for farm use.

2.2.1. Pre-application planning.

Prior to contacting EPD, applicants interested in a water withdrawal permit for farm use should check two things. First, the applicant must either be the owner of the land for which the water withdrawal application is being submitted or have legal authorization from the landowner to apply for a water withdrawal permit for farm use. Applicants should be ready to furnish proof of ownership or legal authorization, as well as the coordinates of the location for the proposed withdrawal. Second, the applicant must check whether the intended water use is a covered agricultural activity, such as crop irrigation, livestock watering, frost protection, or aquaculture. Applicants should be prepared to provide information about the type of agricultural activities for which the water will be used. Applicants should be familiar with statutes and regulations governing water use; they will be expected to comply with those statutes and rules.

2.2.2. Application process.

Contact EPD's Agricultural Water Withdrawal Program. This first step is optional; however, reaching out to EPD staff prior to submitting an application can ease the application process. This preliminary discussion can help applicants understand the specific requirements and procedures for obtaining a water withdrawal permit for farm use.

Application submission. The applicant must complete the necessary application forms provided by EPD. These forms are available online and at the Agricultural Water Withdrawal Program office in Tifton. The application form requires the applicant to provide specific information about the planned water withdrawal, including the proposed use and location of the water withdrawal and number of irrigated acres. Complete applications can be submitted to EPD electronically or mailed to the Agricultural Water Withdrawal Program.

Review and evaluation. EPD reviews the application, assessing factors such as the impact of the proposed withdrawal on existing permit holders, water resource availability, and environmental impacts. The review process may include site visits and consultations with the applicant.

Issuance of the Letter of Concurrence. After the application has been reviewed and if the proposed withdrawal can proceed, EPD will issue a Letter of Concurrence (LOC) to the applicant. The LOC serves as confirmation that the withdrawal can move forward as initially requested. It also outlines any conditions or constraints the applicant must follow, the next steps they need to take, and the necessary documentation to finalize the permitting process. Applicants are given one year from receiving the LOC to complete the water withdrawal installation.

Permit issuance. If the applicant meets all installation requirements, the EPD Director may issue the water withdrawal permit for farm use with specific conditions and limitations. Once the permit is issued, the permittee may commence withdrawing water for farm use.

Modification or renewal. If there are changes to the water use, the permittee may need to submit a modification application to EPD. Permits that renew are renewed automatically, without any action from the permittee.

Surface water withdrawal permits for farm use in the Flint River Basin have a term of 25 years and are automatically renewed at the original permit capacity unless an evaluation by EPD indicates that renewal at the original capacity would have unreasonable adverse effects upon other water uses (O.C.G.A. 12-5-31(b)(3)(B)).

Groundwater withdrawal permits applied for on or after April 20, 2006, for farm use within the Flint River basin have a term of 25 years and are automatically renewed at the original permitted capacity unless an evaluation by EPD indicates that renewal at the original capacity would have unreasonable adverse effects upon other water uses. EPD may renew the original permit at a lower capacity, but such capacity shall be based on the reasonable use of the permittee and evaluation of the resource (12-5-105(b)(1)).

The first permits with 25-year terms will come up for reissuance in 2032. EPD will develop an evaluation process for surface water and groundwater permits to ensure protection of the water resource and other users.

Permit conditions and compliance. Permit holders must adhere to the conditions outlined in the permit. These include, but aren't limited to, maximum number of acres irrigated, maximum pump capacities, source hole size and as-built requirements, presence of an operational flow measuring device (meter), withdrawal location, streamflow or groundwater protections, irrigation efficiency requirements, and conservation plan requirements. In addition to standard conditions associated with farm use permits statewide, there are additional restrictions and conditions that are applicable in parts of Georgia that may be challenged in aspects of water resources, such as coastal Georgia and the Flint River Basin.

2.3 Metering

Water use data collection is performed by EPD's Water Metering Program. This program measures patterns and amounts of agricultural water use, which is essential for management of water resources by the state and can be useful to farmers for improving the efficiency and effectiveness of their use of water.

SB451 signed by former Governor Nathan Deal in 2018 memorialized the 2016 transfer of metering responsibilities from the Georgia Soil and Water Conservation Commission to EPD. This bill also specified when permittees assume responsibility for meter installation and explains who bears responsibility for installation, maintenance, and repair of meters and all associated costs (O.C.G.A. 12-5-31; O.C.G.A. 12-5-105).

2.3.1 Meter installation

The cost of initial meter installation is broken into three categories for permittees:

- For all permits issued prior to July 1, 2003, EPD has a priority system for the installation of water measuring devices on each point of permitted withdrawal or pivot if the withdrawal cannot be metered. EPD contracts for the purchase and installation of those water measuring devices at no cost to the permittee (O.C.G.A. 12-5-31; O.C.G.A. 12-5-105).
- For all permits issued after July 1, 2003, the permittee will not start withdrawing water until receiving approval from EPD that an acceptable water measuring device is installed and approved by EPD at each point of permitted withdrawal. The landowner completes and submits the Flow Meter Approval Form, and EPD approves or disapproves the installation within 60 days of the date of the notification. The permittee is responsible for all costs (O.C.G.A. 12-5-31; O.C.G.A. 12-5-105).
- For all permits for which a modification, amendment, transfer, or assignment is effective on or after April 20, 2018, and for which no water measuring device is installed on a withdrawal, the permittee shall have one year from the updated effective date stated on the revised permit for farm use to have an acceptable water measuring device installed and in operation at each point of permitted withdrawal. The permittee must notify EPD in writing once the installation has occurred. The landowner completes and submits the Flow Meter Approval Form, and EPD approves or disapproves the installation within 60 days of the date of the notification. The permittee is responsible for all costs (O.C.G.A. 12-5-31; O.C.G.A. 12-5-105).

2.3.2 Meter maintenance, repair, and replacement

EPD must contract for any maintenance, repair, or replacement of water measuring devices to ensure that those water-measuring devices accurately reflect the amount of water used. The permittee is not charged for those costs (O.C.G.A. 12-5-31; O.C.G.A. 12-5-105).

2.3.3 Meter readings

Water use data is critical for demonstrating efficient use of the resource by Georgia's farmers and for informing water management decisions by the state. For all permits with an installed water-measuring device, regardless of when the permit was issued, EPD contracts for the annual reading of those meters. EPD requires each contractor conducting such annual readings to transmit complete and accurate data to EPD annually (O.C.G.A. 12-5-31; O.C.G.A. 12-5-105). Currently, EPD contracts with the Georgia Forestry Commission to obtain all annual reading data.

In addition to annual readings, EPD, on monthly intervals, reads an appropriate proportion of water-measuring devices installed for measuring farm use of surface water and groundwater and compiles the data. Most data from monthly meter readings are transmitted to EPD by telemetry units, with a select few being read by EPD field specialists every month. EPD plans to have all monthly meter reading sites switched to telemetry by the end of 2024.

3.0 Flint River Basin

Since agricultural water withdrawal permitting began in 1988, farmers in southwest Georgia, particularly in the lower Flint River Basin, have experienced a changing regulatory landscape. In 1998, the United States Fish and Wildlife Service (USFWS) listed four mussel species found in the Apalachicola-Chattahoochee-Flint (ACF) basin as endangered and another mussel was listed as threatened. These endangered species have been the basis of several comment letters from USFWS to EPD regarding EPD's agriculture water withdrawal permitting program. A Habitat Conservation Plan, as part of an Incidental Take Permit, is under development, with an anticipated completion of December 2024.

In December 1999, the first moratorium on agricultural water withdrawal permits in the lower Flint Basin was implemented. This moratorium lasted until March 2006, when EPD finalized the Flint River Basin Water Development and Conservation Plan (the "Flint River Basin Plan," see section 3.2).

On July 30, 2012, a second suspension of agricultural water withdrawal permitting from surface waters and the Floridan aquifer in the lower Flint Basin was implemented (see section 3.4). In September 2013, the first motions were filed in the Florida v. Georgia Supreme Court case where Florida alleged that Georgia was consuming more than an equitable apportionment of water and that Georgia's overconsumption of water was causing harm to Florida's Apalachicola Bay oyster fishery. The Supreme Court case was ruled in Georgia's favor in April 2021. Both Special Master Kelly's report and recommendation and Justice Barrett's opinion reference the need for Georgia to ensure reasonable use of the water, particularly in times of drought. During the SCOTUS case, the 2012 suspension remained in effect without modification.

3.1 Flint River Drought Protection Act

In 2000, the Georgia Legislature passed the Flint River Drought Protection Act ("FRDPA"). The original purpose of the FRDPA was to provide EPD with a mechanism for reducing acreage under irrigation in the Flint River Basin during periods of severe drought. To activate the statutory provisions of the Act, by the first of March, the Director of EPD could declare a "severe drought" for the

upcoming summer. If the Director declared a drought, the Director could also determine the acreage that must be taken out of irrigation. The Director would then oversee an "auction-like" process wherein farmers may voluntarily agree not to irrigate for the balance of that year for a given amount of money (per acre). Pursuant to the Act, the Director of EPD declared a drought in 2001 and 2002. The Act resulted in removing a total of 33,101 acres of irrigated land from production in 2001 and 40,894 acres in 2002. The State invested $10 million in the 2001 and 2002 auctions.

In 2014, the Georgia Legislature passed a bill amending the FRDPA. The amendment to the FRDPA changed the Director of EPD's issuance of a prediction of a "severe drought" for the upcoming summer as well as the initiation of the "auction-like" process from mandatory to discretionary. These changes were intended to provide flexibility to allow the Division to be responsive to real world conditions and acknowledge the technical limitations of predicting summer droughts months in advance. This legislation also established irrigation system efficiency requirements for all farm use permits in the 2012 suspension area (see section 3.4 for more information about the 2012 suspension). EPD promulgated rules consistent with this legislation (Rule 391-3-28-.15). Center pivot, lateral (linear) move, drip, and micro irrigation systems were required to meet at least 80% efficiency. Traveler, solid-set, and big gun systems were required to meet at least 60% efficiency. All irrigation systems were required to develop leak correction and operational maintenance procedures and an operational pump shutdown (or equivalent) to interrupt the flow of water if the irrigation system failed.

3.2 Flint River Basin Water Development and Conservation Plan

In 2006, after years of comprehensive study and development, Georgia finalized the Flint River Basin Plan, which implemented the following measures designed to advance water conservation in the Flint Basin:

- This plan identifies red (Capacity Use), yellow (Restricted Use), and green zones (Conservation Use) and critical streams and defines specific permitting requirements for each. Under the Flint River Basin Plan, the permitting moratorium remained in effect for the red zone. Permitting resumed in the yellow and green zone, with additional water conservation considerations and requirements.
- Permits would no longer be issued for proposed Floridan Aquifer irrigation wells that were within 0.25 miles of another user's well, unless a hydrogeologic evaluation indicated that the proposed well would not cause excessive drawdown in the other's well.
- All proposed Floridan Aquifer wells would be evaluated for their effect on nearby streams and springs. Proposed irrigation wells that would draw from the Floridan Aquifer within 0.5 miles of an in-channel spring or stream exhibiting a demonstrable connection with the Floridan Aquifer would not be permitted.
- All new or modified permits issued after January 1, 2006, in the red or yellow zone must have the following conservation protections: (1) end-gun shut off switches to prevent irrigation of non-cropped areas; (2) maintenance to prevent and repair leaks; (3) pump-safety shutdown switches that stop water delivery in the event of a malfunction; and (4) rain-gage shut-off switches. Please note that EPD was only processing backlog applications for withdrawals in the red zone. Permits in the green zone were required to have end-gun shut off switches and maintenance to prevent and repair leaks.
- All newly issued surface water withdrawal permits in Spring Creek and Ichawaynochaway sub-basins must have low-flow protection plans. There was some precedent for this action: a number of permits issued after 1993, particularly those using significant surface water

sources, had low-flow requirements. Those low-flow protection plans require a complete cessation of irrigation when discharge at the withdrawal location falls below a specific threshold. Permittees subject to this requirement are notified by EPD when irrigation from the newly permitted source must stop; however, permittees are required to abide by all permit conditions regardless of whether or not they have been contacted by EPD.

3.3 Lower Flint-Ochlockonee Regional Water Plans

Georgia developed a Comprehensive Statewide Water Management Plan (State Water Plan), and the State Water Plan was adopted by the General Assembly in January 2008. The State Water Plan set the framework for ten water planning regions across Georgia. Each region has a council, which comprises thirty local water stakeholders appointed by the Governor, Lieutenant Governor, and Speaker of the Georgia House of Representatives. The State Water Plan indicates that regional water plans are to be developed and revised on a five-year schedule. The councils developed the first regional water plans in 2011. These plans were reviewed and revised in 2017 and 2023.

The Lower Flint-Ochlockonee Regional Water Plan identifies the Council's vision as managing "water resources in a sustainable manner to support the region's economy, to protect public health and natural systems, and to enhance the quality of life for the region's citizens."

The Lower Flint-Ochlockonee Regional Water Plan further identifies the following goals in support if its vision:

"1. Ensure access to water resources for existing and future water users in the Lower Flint-Ochlockonee Water Planning Region.

2. Sustain the region's aquifers, the Floridan, the Claiborne, the Clayton, and the Cretaceous, in a healthy condition that will continue to support the natural systems and economic activities of the Lower Flint-Ochlockonee Water Planning Region.

3. Maintain the production-agriculture-based economy of the Lower Flint Ochlockonee Water Planning Region.

4. Support sustainable economic growth in the Lower Flint- Ochlockonee Water Planning Region."

The Lower Flint-Ochlockonee Regional Water Plan builds on the 2006 Flint River Basin Plan and articulates support for the development of a Habitat Conservation Plan. The most recent Lower-Flint Ochlockonee Regional Water Plan also states that, "If the moratorium is lifted or partially lifted, new and expanded permits should continue to be subject to the conservation provisions in existing law and regulation based on the 2006 Flint River Basin Water Development and Conservation Plan and the 2014 amendments to the Flint River Drought Protection Act."

3.4 2012 Suspension

In 2012, then EPD Director Judson Turner issued a memo suspending the consideration of agricultural water withdrawal permits in portions of the Lower Flint and Chattahoochee River Basins from surface waters and the Floridan aquifer. Specifically, the suspension affected both agricultural groundwater and surface water withdrawals in the lower Flint and Chattahoochee River basins in Subarea 4, which includes all or part of the following 17 counties: Baker, Calhoun, Colquitt, Crisp, Decatur, Dooly, Dougherty, Early, Grady, Lee, Miller, Mitchell, Seminole, Sumter, Terrell, Turner, and Worth. In addition, agricultural surface water withdrawal applications were suspended for parts of Calhoun, Chattahoochee, Clay, Early, Marion, Randolph, Schley, Stewart, Sumter, Terrell, and

Webster counties. The suspension also applies to applications to modify existing permits to increase the number of withdrawals, increase the pump capacity, or increase the number of irrigated acres. The suspension allowed EPD time to improve the understanding of the condition of those resources and identify the management activities necessary for long-term sustainability. In that memo, EPD staff were directed to evaluate the suspension annually.

3.5 2012 Suspension modifications

While EPD evaluated the 2012 suspension annually, EPD did not recommend or implement any modifications to the 2012 suspension until 2023. Those modifications are described in this section, which outline EPD's current permitting practices. Please note: EPD continues to maintain the suspension on surface water withdrawals, except for the surface water update in 3.5.2.

3.5.1 Frost protection

Citrus, blueberries, and other berry crops cannot be successfully cultivated without frost protection, which requires the application of large amounts of water directly onto plants to protect them during freezing temperatures. EPD evaluated the effect of frost protection permits on the Lower Flint River Basin and its tributaries. While frost protection requires a large amount of water, frost conditions only occur a few days each year and exclusively during the recharge season (October 15 – April 15). As a result, frost protection permits have limited water needs compared to traditional crop irrigation permits. Furthermore, because the use would be limited to the traditional recharge season and limited in quantity, frost protection permits are anticipated to have a negligible effect on flows in the lower Flint River Basin. Due to the limited use and the coincidence of frost protection with the recharge season, frost protection permit holders can withdraw water for frost protection purposes regardless of whether drought conditions have been identified in the region.

Based on that evaluation, EPD developed a draft frost protection permitting framework. EPD hosted a public meeting on June 21 in Albany, Georgia, to discuss this framework and accepted comments from stakeholders and the regulated community. EPD reviewed the comments, amended the framework in responses, and developed a final frost protection permitting framework. On September 1, 2023, EPD modified the 2012 suspension to allow for Floridan aquifer water withdrawals for frost protection permits in the green zones only and began accepting applications for frost protection permits. On May 1, 2024, EPD modified the 2012 suspension again to allow for Floridan aquifer water withdrawals for frost protection permits in the yellow and reds zones as well as the green zone.

New or modified surface water withdrawals for frost protection were not included in the suspension modification, though well-to-pond frost protection systems could be considered on a case-by-case basis. EPD prescribed telemetry equipment to monitor air temperature and the timing and volume of water withdrawn is required for all frost protection permits. Currently, a new permittee would pay for the meter; however, the State is responsible for the cost of the telemetry unit.

3.5.2 Surface water update

In January 2024, EPD modified the 2012 suspension to allow new and modified surface water withdrawal permits in the Suwannee and Ochlockonee portions of the suspension area. This modification was supported by assessments that additional surface water withdrawal from those waters would have no impact on stream flows in the Flint River Basin. This modification only applies

to surface water withdrawals. Agricultural water withdrawal permitting from the Floridan aquifer remains suspended in the Suwannee and Ochlockonee portions of the suspension area.

3.5.3 Groundwater withdrawal permits with drought restrictions

While EPD recommends maintaining the suspension on surface water withdrawal, EPD believes there are opportunities for new Floridan wells in the suspension area. EPD is proposing to include specific conditions in the permits to ensure protection of flows in the Flint River and its tributaries, particularly during times of drought. These restrictions would be based on a drought trigger, developed using all fifteen USGS monitoring wells located within the suspension area. For each USGS monitoring well, EPD staff developed a 10-percentile water level for each month in the year. When five or more USGS monitoring wells drop below the 10-percentile for that month, a drought restriction would be put in effect and water withdrawal from the Floridan aquifer would no longer be allowed under the drought-restricted permit.

EPD would be responsible for publishing a daily determination of drought conditions and communicating through text, email, and/or its website when a drought restriction is put in place. Permittees would be responsible for checking daily whether a drought restriction is in place. If a drought restriction is in place, the permittee may not withdraw water from the Floridan aquifer. Permittees must complete any irrigation application initiated prior to drought restrictions being put in place within 24 hours of a drought restriction notice being posted.

In addition to drought restrictions, the permits would include additional protective conditions, including irrigation efficiency requirements consistent with the Flint River Drought Protection Act (O.C.G.A. 12-5-546.1) and water conservation measures consistent with the 2006 Flint River Basin Plan. Drought-restricted permits would also include the standard requirements for metering agricultural water use, as well as requiring an EPD prescribed telemetry unit capable of transmitting withdrawal information on an hourly basis. This telemetry unit would assist with assessing compliance of the drought restrictions included in this permit. A new permittee would pay for the meter; however, the State would be responsible for the cost of the telemetry unit. Finally, the permit would include a restriction on aesthetic and recreational uses, which are uses that are otherwise allowable under a farm use water withdrawal permit. This restriction would ensure that the water withdrawal directly supports agricultural activities.

This new permitting approach differs from the 2006 Flint River Basin Plan in two important ways. First, this updated approach will limit new and expanded water withdrawals to permits with drought restrictions. The 2006 Flint River Basin Plan addressed water efficiency and drought by requiring sufficient spacing between wells, critical stream buffer protections, water conservation measures, and low flow protections in specific watersheds. All of these requirements will be maintained. However, the 2006 Flint River Basin Plan allowed permittees to continue withdrawing when drought conditions were present in the basin, and this new permitting approach for new and expanded withdrawals will not.

Second, the 2006 Flint River Basin Plan maintained the moratorium on Floridan aquifer and surface water withdrawals in the red zone. This proposal eases that moratorium and allows for groundwater withdrawal permits with drought restrictions across the suspension area, including in the red zone. The zones developed in the 2006 Flint River Basin Plan were for small watersheds based on decreases in baseflow during drought years. With these permits with drought restrictions,

withdrawals would cease when drought conditions were identified. As a result, the additional impact on the water resource during times of drought would be limited.

4.0 Applicant and permittee assistance

EPD provides applicant and permittee assistance through phone calls, emails, in-office visits, and site inspections. EPD also works with partners to share information and solicit feedback from stakeholders and permittees. When communicating with applicants and permittees, EPD often provides guidance on permit requirements, water source planning, and permit updates. EPD continually uploads new information to the EPD website to assist applicants and permittees in understanding permitting requirements and the water withdrawal program.

EPD also engages in regular education and outreach activities to inform agricultural water users about compliance requirements and best management practices. EPD works with many different stakeholder groups and organizations to share information and solicit feedback, such as the University of Georgia Cooperative Extension Service, Georgia Department of Agriculture, Georgia Agribusiness Council, and Georgia Farm Bureau. Presentations at meetings and conferences organized by these groups are an important avenue for conducting education and outreach.

Furthermore, through Regional Water Plan implementation and seed grants, EPD supports research and innovation in agricultural water use. Partnerships with academic institutions, research organizations, and industry stakeholders result in the development and implementation of water-efficient technologies, practices, and management strategies.

5.0 Compliance Monitoring

EPD uses several tools to monitor farm use water withdrawal permit compliance. These tools are described in this section.

5.1 Compliance inspections. EPD conducts routine site inspections to ensure that agricultural water users are in compliance with their water withdrawal permits and regulatory requirements. Site inspections may include verification of the presence of equipment necessary for monitoring low flow conditions; the quantity of acres being irrigated; the rate of water being withdrawn by wells or surface water pumps; total number of sources being utilized for irrigation; and proper installation of flow meters. A site visit form is completed by the inspector for each compliance inspection. These site inspection forms are used in the development of future correspondence with the landowner.

5.2 GIS and imagery data reviews. EPD uses current and historical aerial imagery to evaluate compliance of irrigation systems. EPD uses a GIS tool to map all known sources, irrigated acres, and the relationship between the sources and irrigated acreage. The maps of the sources and acres can be layered on aerial images to identify changes. Significant changes identified during aerial image reviews can result in site visits for confirmation.

If EPD believes that a violation has been identified, EPD will conduct additional data and records review before contacting the landowner to confirm the violation. This review can include a review of the mapped acres in GIS to verify that the drawn shapes are accurate and a review of the paper file (original application, current and previous permits, modification requests, and other documentation). EPD's database may be updated based on the findings of this review.

5.3 Monitoring and reporting reviews. Currently, EPD does not use meter data for compliance purposes. However, frost protection permits and future potential permits, such as drought-restricted permits, will require EPD to review metering data to assess compliance with permit conditions. Telemetry will be a critically important tool to ensure that EPD is accurately measuring the volume of water being withdrawn over the appropriate timeframe (for example, water use by season for frost protection permits or water use during drought for drought-restricted permits).

6.0 Enforcement process

Noncompliance is an important concern. The risk of noncompliance with issued permits or withdrawing water without a permit is significant not only for the person engaged in noncompliance, but for the entire agricultural community. Noncompliance with existing permits and regulations could result in use of the water resources above and beyond what could be supported by the water resource.

EPD uses enforcement actions and penalties to respond to violations and ensure compliance with water use regulations. EPD collaborates with permit holders to develop and implement corrective actions to address violations. These corrective actions are described in section 6.2.

6.1 Enforcement actions

The enforcement process begins when EPD identifies a potential violation of the conditions outlined in a farm use water withdrawal permit. Compliance issues are discovered during reviews of wetted acreage data, as a result of observations during a site visit, and because of reports from third parties. Compliance issues include irrigated acres that exceed the permitted amount or that are not permitted, sources that are not permitted, flow meters that are missing, flow meters that are installed incorrectly or that have been tampered with, or other permit conditions that are not being adhered to, such as equipment to monitor low flow conditions is missing, non-functional, or not being used.

EPD works through the following steps with the landowner to achieve compliance. Depending on the nature and severity of the violation, EPD may initiate enforcement action at any stage in this process. EPD also may request additional information from the landowner. New information may be provided at any step in the enforcement process. This new information could result in EPD re-evaluating or modifying the original compliance determination. In some instances, this additional information could fully resolve the compliance case.

Step 1: Phone Call

Phone calls are typically placed by an Environmental Compliance Specialist. The phone call is intended to notify the person of the alleged violation and start the conversation toward resolution.

Step 2: Request for Information Letter

EPD may need additional information about a landowner's water use or water delivery infrastructure to confirm an alleged violation of a farm use water withdrawal permit. In this case, EPD may issue a Request for Information (RFI) letter. These letters are signed by the Environmental Compliance Specialist.

Step 3: Notice of Violation Letter

If violations are identified during an inspection, through data reviews, or confirmed with the RFI, EPD may issue a Notice of Violation (NOV) to the agricultural water user. The NOV typically outlines specific violations and requires the water user to provide EPD with a plan to attain compliance. NOVs are mailed to the landowner and permittee and signed by the appropriate program manager (Water Well Standards, Metering, or Permitting).

Step 4: Consent Order
If violations are identified during an inspection, through data reviews, or confirmed with the RFI, EPD may issue a Consent Order (CO) to the agricultural water user. EPD may work with the person to develop and implement corrective actions to address the violations. This could include changes in water use practices, cessation of irrigation, modification to the permit, installation of additional monitoring equipment, or other actions necessary to achieve compliance. The CO outlines each violation, details the action necessary to correct the problem and may or may not include a penalty. COs with compliance schedules exceeding one year are subject to public notice and comment (Rule 391-1-3-.01(2)(a)2). Consent Orders are signed by the EPD Director.

Step 5: Administrative Orders
In cases where violations persist, or compliance is otherwise unattainable, EPD may issue administrative orders (AO) mandating specific corrective actions and outlining the consequences for noncompliance.

6.2 Compliance Toolbox
EPD has developed several options for returning to compliance. The options depend on the violations and the specific circumstances of each case. General options are described in this section, grouped by violation type.

6.2.1 Irrigated acres exceeding permitted amount or unpermitted
Irrigated acres exceeding the permitted amount or unpermitted is one significant category of noncompliance. EPD has the following tools to address these compliance cases.

Internal adjustments. EPD occasionally revokes permits if a permit is a duplicate of another permit. In some situations, the duplicate permits do not list the same number of irrigated acres. If a revoked duplicate permit exists, and it was issued with a larger number of permitted acres than the permit that was not revoked, EPD will correct the current permit to reflect the number of permitted acres on the revoked duplicate permit. Internal adjustments are only available for situations where two permits were issued for the same irrigated acreage.

Irrigated acre corrections. In some cases, EPD has been made aware that the original permit application incorrectly estimated the number of irrigated acres. In those cases, if the landowner can show that there has been no change to the number of irrigated acres since the permit was issued, such as through the use of aerial imagery, EPD could resolve the compliance through a permit correction.

- **1999 acreage review.** If evidence is available to demonstrate that the acres irrigated in 1999 are the same acres being irrigated today, the permit can be corrected to reflect the amount of acres being irrigated in 1999.
- **2006 application acreage review.** For applications submitted prior to the release of the 2006 FRB Plan, EPD would review the aerial imagery of irrigated acres. The review would

compare aerial imagery from no later than 2009 (to account for EPD's time to review and Letter of Concurrence timelines) to current aerial imagery. If evidence is available to demonstrate that the acres irrigated when the permit was issued are the same acres being irrigated today, the permit can be corrected to reflect the amount of acres being irrigated under the 2006 or older permit application. This option only exists for withdrawals that would have been permittable consistent with the 2006 FRB Plan.

Permit corrections and modifications. In some cases, the same landowner has multiple permits and wishes to make changes to their agricultural water withdrawal permits to reflect on-the-ground operations. In those cases, EPD has the following options to assist with a return to compliance:

- **Permit consolidation.** Where permits owned by the same person exist on properties that are located on contiguous or adjacent properties, the permits can be consolidated. This means that all of the permitted sources and permitted acres are listed on one permit. In some cases, an adjacent permit has permitted acres that are not being irrigated. In these cases, the new total can resolve or help resolve the issue of unpermitted acres. This resolution requires a permitting process to resolve the compliance case. There is no net increase in permitted irrigated acres in this approach.
- **Acreage transfer without permit consolidation – contiguous property.** Acres can be removed from one or more permits and added to one or more permits. This is an option where the conditions for consolidation of permits can be met, along with two additional conditions: the permitted sources are Floridan aquifer wells, and the acres to be reassigned are moving from zones of the same impact on surface water or from zones of higher impact to zones of lower impact. This resolution allows EPD to use a permit correction to resolve the compliance case. There is no net increase in permitted irrigated acres in this approach.
- **Acreage transfer without permit consolidation – noncontiguous property.** Where a person has more than one permit and is willing to transfer acres from one or more permits to another permit, acre exchanges can be evaluated. In order for the exchange to be allowed, the exchange will have to demonstrate a flow benefit equal to or greater than discontinuing irrigation of the unpermitted acres.

  Pumping in the Floridan Aquifer can reduce discharge to the Flint River and its tributaries. In other words, pumping may affect flow in streams. The same amount of pumping in areas of different hydraulic sensitivity may result in different levels of flow reduction. If the permittee has permitted acres under other permits in other hydraulically sensitive areas, then it is possible for the permittee to "exchange" acres between two permits, given that the exchange would result in net flow benefits.

  In an acreage exchange mechanism, a permittee's giving up X acres under one permit in exchange for bringing under compliance (in another permit) Y acres currently out of compliance is a possible path, as long as the flow reduction associated with the X acres is greater than or equal to the flow reduction associated with the Y acres. EPD can determine the level of flow reductions for Floridan acreage within the suspension area.

Please note that for these permit corrections and modifications, EPD defines "person" consistent with the Georgia Water Quality Control Act (O.C.G.A. 12-5-22(7)) and the Groundwater Use Act of 1972 (12-5-92(8)). When multiple entities are involved in a permit correction or modification, EPD considers the entities the same if both entities have the same Beneficial Owner.

Novel permits. In some cases, a landowner has an existing permit and is overirrigating (irrigating beyond the permitted acres) their permitted acres. If a permittee is overirrigating their permitted acres, new acres can only be added to their permit through two mechanisms to ensure that there is no additional load on the water resources in times of drought.

- **Drought restrictions.** If a permittee wishes to continue irrigating over their permitted amount, the permittee may agree to a permit with drought restrictions covering the full amount of permitted acres. EPD will not consider a situation where one permit will cover both acres without drought restrictions and acres with drought restrictions.
- **Volumetric limits.** In certain cases, a permittee has irrigated acreage in excess of the permit limitation. A volumetric limit can be developed using the permitted acreage and the basin average application depth during the most critical drought year (2011). The basin-wide average application depth for the 2011 growing season was 15.94 inches. The permittee will accept the imposition of an annual volumetric limitation in the permit in exchange for the removal of acreage limitation and thus resolving the compliance case. For each year (and associated growing season), the permittee has a fixed volume of water under the permit and can decide when to apply it, subject to the annual volume limitation. The permittee will accept metering and telemetry arrangements deemed necessary to monitor the volume of water applied by EPD. Volumetric limits are available for both surface water and groundwater withdrawal permits.

Removal of acres from irrigation. Excess acres could also be taken out of irrigation to achieve permit compliance.

6.2.2. Unpermitted sources

Unpermitted sources is another significant category of noncompliance. EPD has the following tools to address these compliance cases.

Field investigation. EPD has identified some irrigated acres with unknown sources. For groundwater withdrawals, the well can be inspected to verify the aquifer that is being used. The owner would need to remove the pump to allow the inspection. EPD can also measure the withdrawal rate to determine whether a permit is required. If a person withdraws less than 100,000 gallons per day, then they do not need a water withdrawal permit.

If EPD determines that the aquifer used is permittable and that the amount of water used requires a permit, EPD would work with the landowner to permit the withdrawal. If the source cannot be permitted, the landowner could consider reconfiguring the well to withdraw from another aquifer or can develop a plan to cease withdrawing 100,000 gallons per day or more.

For surface water withdrawals, the pump can be inspected to verify that the pump would not have the capacity to utilize more than 100,000 GPD on a monthly average. EPD can also measure the withdrawal rate to determine whether a permit is required. If EPD determines that the withdrawal exceeds the 100,000 GPD on a monthly average amount of water that requires a permit, EPD would have the landowner remove the surface water withdrawal pump, since new surface water withdrawals cannot be permitted.

Permit modification. In some cases, a permittee may have additional gallons per minute on their existing permit that could cover an unpermitted source. EPD would review the total permitted

gallons per minute from a specific aquifer. If there is a permitted source that is withdrawing less than the permitted amount, and the unpermitted source is part of the permitted system, a permit modification may be an option. This could only occur if the unpermitted source and the permitted source are using the same water resource and collectively withdrawing the same or fewer gallons per minute than the permitted gallons per minute. There would be no new gallons per minute permitted and no net increase in the amount of water withdrawn from the permitted amount.

Drought-restricted permit. If the unpermitted source is the Floridan aquifer in the 2012 suspension area, the landowner could apply for a drought-restricted permit for that withdrawal. The landowner would have to cease irrigating during drought, as specified in section 3.5.3.

6.2.3 Historic Acres

EPD is aware that some acres have been in irrigation without permit coverage since before the 2012 suspension. In these cases, the acres have been included in EPD's various modeling exercises, including the modeling work supporting the development of the Habitat Conservation Plan.

For unpermitted acres and sources located within the red zone, EPD will provide a permit without drought restrictions consistent with the 2006 Flint River Basin Plan and current statutory requirements, including irrigation efficiency and 25-year permit terms. Only acres and sources put into irrigation before December 1999 will be considered. Verification using documentation and aerial imagery will be required for this pathway. Any acres or sources put into irrigation after December 1999 will need to come into compliance using a different compliance pathway in 6.2.1 and 6.2.2.

For unpermitted acres and sources located with the yellow or green zones, EPD will provide a permit without drought restrictions consistent with the 2006 Flint River Basin Plan and current statutory requirements, including irrigation efficiency and 25-year permit terms. Only acres and sources put into irrigation before July 30, 2012 will be considered. Verification using documentation and aerial imagery will be required for this pathway. Any acres or sources put into irrigation after July 30, 2012, will need to come into compliance using a different compliance pathway in 6.2.1 and 6.2.2.

6.2.4 Meter Violations

Meter tampering. If EPD determines that the permittee or the permittee's employees, tenants, licensees, or agents have willfully dismantled, sold, relocated, or removed any water measuring device, the permittee may be subject to enforcement action by the division, including but not limited to imposition of civil penalties (O.C.G.A. 12-5-31; O.C.G.A. 12-5-105). If new sources or new pivots have been added to a system, relocating a meter may be more cost effective than changing the piping, however the permittee must seek approval from EPD prior to removing the water measuring device and relocating.

Failed meter installations. In situations in which a permittee or applicant is required to install a meter and seek approval from EPD on the installation of the meter and does not meet the manufacturer specifications, EPD will work with the permittee to help guide them on the changes necessary to meet the manufacturer's specifications and have an operating water measuring device. These actions include adding straightening vanes, moving a meter further upstream or downstream on a pipe, or replacing a battery.

Incomplete meter approval forms. In situations in which a permittee or applicant has installed a water measuring device but has not submitted the Meter Approval Form and sought approval of the installation prior to use, EPD will initiate a compliance case and follow the steps outlined in 6.0 to obtain a Flow Meter Approval Form from the permittee or applicant. EPD also sends field specialists and contractors to the field to obtain a Flow Meter Approval Form on behalf of the applicant or permittee.

Missing meter installations. For all permits for which such modification, amendment, transfer, or assignment is effective on or after April 20, 2018, and for which no water-measuring device is installed on a withdrawal, the permittee shall have one year from the updated effective date stated on the revised permit for farm use to have an acceptable type of water-measuring device installed. In situations in which it has been one year and the permittee has still failed to install a water measuring device, EPD will initiate a compliance case and follow the steps outlined in 6.0 to work with the permittee to meet their permit conditions.

Modifications and transfers of older permits present challenges for permittees in which the system is not already metered. Where older, existing plumbing would require cost prohibitive plumbing changes to meter each source, a meter placed at the pivot may provide the same information for a more reasonable expense. Some well to pond systems do not require the well to be metered if the total water use is able to clearly be calculated. EPD works with the permittee on their individual metering needs.

6.1.3 Penalties

Monetary penalties are typically calculated based on the severity and duration of the violation. EPD may consider factors, such as the environmental impact of the violation and the permit holder's history of compliance. For unpermitted acres and unpermitted sources, EPD may also consider whether the unpermitted acres were first irrigated during a moratorium or suspension and when the unpermitted source was installed.

6.1.4 Penalty Rationales

The Agricultural Permitting Penalty rationale was developed to standardize any penalties that may be recommended when the property owner fails to resolve a compliance issue. O.C.G.A. § 12-5-52(a) (for surface water withdrawal and use) and O.C.G.A. § 12-5-106(a) (groundwater withdrawal and use) allows penalties to be assessed per day of violation. EPD developed methods to determine the number of days of use by using the withdrawal rate and acres irrigated and either meter readings or the average inches of water used for irrigation in the same basin. As a current practice, EPD will assess penalties for the most recent year of violations, but no more than the previous three years of violations.