

**PROPOSED AMENDMENTS TO THE RULES
OF THE DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION
RELATING TO FLINT RIVER DROUGHT PROECTION, CHAPTER 391-3-28**

The Rules of the Department of the Natural Resources, Chapter 391-3-28, Flint River Drought Protection are hereby amended and revised for specific Rules, or such subdivisions thereof as may be indicated.

[Note: Underlined text is proposed to be added. ~~Lined-through~~ text is proposed to be deleted.]

CHAPTER 391-3-28 FLINT RIVER DROUGHT PROTECTION

391-3-28-.01 Purpose.

The purpose of this rule is to establish the procedures required for the administration and implementation of the "Flint River Drought Protection Act", O.C.G.A. 12-5-540 et seq. The use of water resources of the state for agricultural purposes is of vital importance to Georgia and southwest Georgia in particular; and the protection of flows in the Flint River flow and its tributaries is necessary for a healthy riverine ecosystem and a healthy population of aquatic life. The wise use of water, protection of stream flow, and the overall economic well being of the state will be furthered by proper water management in periods of severe drought. ~~A program providing~~ Programs to augment stream flows or provide incentives to ensure that certain irrigated agricultural lands are temporarily not irrigated during times of declared severe drought will promote this wise use of water resources, the associated protection of stream flows for habitat critical for aquatic life, and the economic well being of the state.

This rule establishes the basis for a drought protection program for the Flint River basin and the coordination which will occur with the Georgia Environmental Facilities Authority to handle those funds. It states how the Director of the Environmental Protection Division of the Department of Natural Resources ~~shall~~ may each year predict ~~or declare~~ whether severe drought conditions are considered likely in the Flint River basin. It establishes the procedures for holding an irrigation reduction auction to decrease irrigation acreage in any declared severe drought year and how the auction may be operated. It delineates the process by which certain persons holding agricultural water withdrawal permits may offer to cease irrigating a number of acres in exchange for a certain sum of money and defines how such offers to sell are accepted. If a sufficient amount of acreage reduction is not acquired during the auction, it defines when and how an order may be issued requiring certain permit holders to cease or reduce irrigation and provides for their compensation to stop irrigating. It establishes the irrigation efficiency thresholds for all irrigation systems in the affected areas of the Flint River Basin operating or existing under the Division's water withdrawal permitting requirement, identifies requirements pertaining to the methods an applicant or permittee shall utilize to demonstrate the achievement of the irrigation efficiency thresholds, and establishes the schedule in which all permittees will achieve irrigation efficiency

thresholds. It provides for a process in which the director will notify specified permittees downstream of any state funded augmentation project that during specified periods of the project's operation for specified purposes within the affected areas, the permittee shall let the flow provided by the augmentation project pass his or her point of withdrawal. It outlines the procedures for any investigations and enforcement of these rules.

Authority: O.C.G.A. §12-5-540 et seq.

391-3-28-.02 Definitions.

All terms used in this Chapter shall be interpreted in accordance with the definitions set forth in the Flint River Drought Protection Act, ~~and as~~ except where otherwise ~~herein~~ specifically defined:

(a) 'Acceptable Flint River basin stream flows' means the quantity of stream flows at one or more specific locations on the Flint River or its tributaries which provides for aquatic life protection and other needs as established by the director based on municipal, agricultural, industrial, and environmental needs. Such tributaries shall not include field drainage systems, wet weather ditches, or any other water body:

(1) In which the channel is located above the ground-water table year round;

(2) For which runoff from precipitation is the primary source of water flow; and

(3) For which ground water is not a source of water flow.

(b) 'Affected areas' means ~~that portion~~ those specific portions of the state lying within the Flint River basin ~~and also certain areas adjacent to the Flint River basin where~~ groundwater use from the Floridan aquifer can affect the stream flow in the Flint River or its tributaries, as described in United States Geological Survey Open File Report 95-321 (1996) where ground-water use from the Floridan aquifer can affect stream flow or where drainage into Spring Creek, Ichawaynochaway Creek, Kinchafoonee Creek, and Muckalee Creek occurs.

(c) 'Auction certificate' refers to a certificate issued to the holder of an agricultural water use permit when the permit holder has been certified as eligible to participate in the irrigated acreage reduction auction. A permit holder wishing to offer irrigation lands under multiple agricultural withdrawal permits must have a separate auction certificate for each permit. The auction certificate will include, but not be limited to, the identity of the land owner, the agricultural withdrawal permit covered, and the amount of acres actually irrigated.

(d) 'Auction offer' for a specific permit, refers to the price-per-acre offered by the farmer as the amount of money required for the farmer to not irrigate land covered by that specific permit during the remainder of the calendar year.

(e) 'Augmentation' means the addition of ground water from one or more aquifers underlying the affected areas into a surface water channel within the affected areas for the purpose of maintaining instream flows.

(~~ef~~) 'Authority' means the Georgia Environmental ~~Facilities~~ Finance Authority created by Chapter 23 of Title 50.

(~~fg~~) 'Board' means the Board of Natural Resources.

(~~gh~~) 'Candidate seller' refers to holders of an auction certificate or their representatives whose single auction offer has or multiple auction offers have been tentatively accepted ~~by~~ during preliminary rounds of the irrigated acreage reduction auction.

(~~hi~~) 'Director' means the Director of the Environmental Protection Division of the Department of Natural Resources.

(~~ij~~) 'Division' means the Environmental Protection Division of the Department of Natural Resources.

(~~jk~~) 'Drought protection funds' means the funds held by the Authority as provided in Code Section 12-5-545 for the accomplishment of the purposes of this article.

(~~kl~~) 'Final seller' refers to candidate sellers at the end of the final round of the irrigated acreage reduction auction.

(~~lm~~) 'Fixed irrigation system' means those non-portable irrigation systems that are permanently installed, anchored, or buried in place, such as center pivots (including towable center pivots), solid-set irrigation sprinklers, or drip irrigation.

(~~mn~~) 'Flint River basin' means the entire area of land which drains into the Flint River or its major tributaries.

(~~op~~) 'Floridan aquifer' means those rocks and sediments described in United States Geological Survey Open File Report 95 321 (1996) that are capable of yielding ground water to wells or discharging water into the Flint River or its tributaries.

(~~pq~~) 'Irrigated land' means farm land which is irrigated by ground water or surface water pursuant to a water withdrawal permit issued by the Director pursuant to Code Section 12-5-31 or 12-5-96.

(q) 'Irrigation efficiency' means the percentage of the total amount of water withdrawn from a source which is beneficially used to meet crop water requirements or for other agronomic practices in accordance with applicable best management practices.

(~~p~~r) 'Irrigation reduction auction' means the procedure established by subsection (b) of Code Section 12-5-546 pursuant to which permittees submit offers to cease irrigation of a specified number of acres in exchange for a certain sum of money.

(~~q~~s) 'Major tributaries' of the Flint River means those flowing rivers and streams which flow into the Flint River.

(~~r~~t) 'Perennial Stream' means a stream which normally flows throughout the whole year. One way, but not necessarily the only way, of identifying perennial streams is to determine if they are shown as an unbroken blue line on the United States Geological Survey quadrangle map.

(~~s~~u) 'Permit' means a valid irrigation certificate of farm use has been approved and issued by the Division, used for agricultural withdrawals from either surface water or groundwater.

(~~t~~v) 'Permittee' means a person holding a valid agricultural withdrawal permit issued before December 1, 2000, pursuant to Code Section 12-5-31 or 12-5-96.

(~~u~~w) 'Severe drought conditions' means any forecast condition which may result in a stream flow that is lower than the acceptable Flint River stream flow. The prediction or declaration of when severe drought conditions exist or are expected to exist during a given year shall be based on historical, mathematical, meteorological, or other scientific considerations which may be published by the director and which may be developed in consultation with the state climatologist, the state geologist, or other appropriate experts.

(~~v~~x) 'Stream flow' means the quantity of water passing a given location of ~~any stream~~ the Flint River or its tributaries over a given time period, ~~usually~~ expressed in cubic feet per second (cfs).

(~~w~~y) 'Watershed' means a smaller drainage basin associated with one of the tributaries of the Flint River, and assigned an 8-digit Hydrologic Unit Code by the United States Geological Survey.

Authority: O.C.G.A. § 12-5-540 et seq.

391-3-28-.03 Drought Fund Establishment and Operation.

The expenditure of these funds is to be considered an incentive to agricultural permittees not to irrigate lands after a severe drought declaration and is therefore deemed by the legislature a valid use of state moneys to promote valid land and water use practices which result in the protection of the riverine environment by ensuring that such lands not be irrigated for specified periods of time. No expenditure of funds under this article shall be considered full or partial compensation for any losses, financial or otherwise, experienced due to nonirrigation, a lease or repurchase of any irrigation

permit issued by the Director, nor shall it be considered an acknowledgment by the State of Georgia of a property right in any permit issued by the Director.

Authority: O.C.G.A. § 12-5-540 et seq.

391-3-28-.04 Severe Drought Declaration.

Within the affected areas, the Division ~~shall~~may predict or declare when severe drought conditions exist or are expected to exist during a given year, based on historical, mathematical, meteorological indicators, or other scientific considerations including, but not limited to, stream flows, ground-water levels, precipitation forecasts, or the Palmer Drought Severity Index administered by the National Oceanographic and Atmospheric Administration. The severe drought predictions or declarations shall be developed in consultation with the state climatologist, the state geologist, or other appropriate experts.

(a) On or before March 1 of each year, the Division ~~shall~~may issue a prediction as to whether severe drought conditions are expected during that calendar year.

(1) If the historical, mathematical, meteorological indicators or other scientific considerations do not predict a severe drought for that specific year, there shall be no implementation of the rules related to the Flint River Drought Protection Act's auction provisions. ~~The Director shall publicly issue the no-drought prediction. Irrigation by all agricultural permit holders may then proceed through that calendar year without additional limits or new permit qualifications put in place, beyond the existing permit conditions.~~

~~(2) If the historical, mathematical, meteorological indicators or other scientific considerations do not predict a severe drought for that specific year, and the Director publicly issued the no-drought prediction, then no further consideration of the implementation of provisions of these rules shall occur for that year, even if severe drought conditions begin after March 1 of the year.~~

~~(3) If the historical, mathematical, meteorological indicators or other scientific considerations predict a severe drought for that specific year, and an announcement is made the Division predicts or otherwise declares a severe drought on or before March 1 stating that severe drought conditions are in effect, then these rules related to the Flint River Drought Protection Act's auction provisions shall~~may be implemented.

(b) The Director shall establish acceptable Flint River stream flow measures (in cubic feet per second), at one or more defined locations.

391-3-28-.05 Eligibility.

To be eligible for consideration to receive money from the drought protection fund, the agricultural permit holder must possess an auction certificate from the Division. To acquire this auction certificate, the agricultural permit holder shall submit to the Division, before any further consideration, documentary evidence including, but not necessarily limited to, the following information:

(a) Location within the affected areas. The geographic area for eligible permits is defined as follows:

(1) Surface-water permits.

(i) Watersheds within the Flint River Basin as designated by the Director at the time of drought declaration.

(2) Ground-water permits.

(i) Areas designated by the Director at the time of drought declaration. Such areas shall be in or within 3 miles adjacent to the Flint River or its tributaries where geologic studies indicate that Floridan aquifer ground-water withdrawals in such areas may directly decrease stream flow in the Flint River or its tributaries.

(b) The Agricultural Permit or the Permit Number;

A copy of the agricultural ground water or surface water permit or its associated permit number must be provided to the Division. The agricultural Permittee must have previously applied to the Division for a surface water or groundwater withdrawal permit prior to December 1, 1999, and must have already received a surface water or groundwater withdrawal permit from the Division prior to December 1, 2000.

(1) If the Director fails to act on a permit application by December 1, 2000, which was received by the Division prior to December 1, 1999, the time for receipt of a permit shall be extended until such time as the Director makes a decision on that application.

(2) If the Director's decision is to deny the permit and that decision is reversed on appeal, the date of receipt of a permit shall be deemed to be the date of the Director's decision.

(c) The latitude-longitude location of the permitted surface water or groundwater point of withdrawal;

The existence of the withdrawal location must be validated by a representative of the Division using Global Positioning System (GPS) or equivalent technology capable of determining latitude/longitude to within 5 meter accuracy. Such validation shall occur when the Division representative;

- (1) visits the physical location of the point of water withdrawal,
 - (2) verifies that the specific water withdrawal actually exists,
 - (3) takes GPS or equivalent readings of the geographic location of the point of withdrawal, and
 - (4) establishes the connection between that specific validated withdrawal location and a particular agricultural permit number.
- (d) The irrigated acreage associated with that specific point of agricultural water withdrawal; and

Division representatives, in conjunction with the permit holder, shall determine the amount of irrigated acreage irrigated by a fixed irrigation system and associated with that particular permitted groundwater or surface water point of water withdrawal. Sufficient documentation for the calculation of irrigated field acreage may include, but is not limited to, aerial photos, digital delineation or any other additional process. If a single well or surface-water pump supplies multiple irrigation systems, the acreage irrigated by individual fixed irrigation systems may be removed from irrigation in accordance with 391-3-28-.07.

(e) Previous Irrigation Usage.

The agricultural Permittee shall have installed an approved flow meter consistent with the provisions of the Water Quality Act O.C.G.A. 12-5-20 et seq. and the Groundwater Use Act O.C.G.A. 12-5-90 et seq. and demonstrate previous usage within the previous three years of the irrigation system delineated above, on the same acres of land that the Permittee agrees not to irrigate in that given year. Evidence of previous irrigation may include, but not be limited to, the following:

- (1) Farm receipts dating the installation of the irrigation system,
- (2) Existence of center pivot signature on past aerial photos,
- (3) Flow-meter data, or
- (4) Other methods acceptable to the Division.

Holders of permitted surface-water and ground-water withdrawals within the geographic area for eligible permits, and who can provide the documentary evidence listed above for those withdrawals, shall be issued an auction certificate.

Authority: O.C.G.A. § 12-5-540 et seq.

391-3-28-.06 Irrigated Acreage Determination.

(1) If severe drought conditions are declared on or before March 1 of the year, in accordance with 391-3-28-.0504, the Division ~~will~~ may determine:

(a) the total number of acres of irrigated agricultural land serviced by irrigation systems located within the affected area,

(b) the maximum amount of agricultural acreage which may be safely irrigated that year within the affected area, and

(c) the corresponding amount of ground-water-irrigated acreage and surface-water-irrigated acreage which should not be irrigated that year in order to maintain an acceptable Flint River stream flow. These acceptable stream flow levels shall be determined by the Director.

(2) This acreage determination may be done by the following process:

(a) Calculated level of unreasonable impact.

The Division shall conduct computer modeling or other methods of evaluating the surface water-groundwater interactions using cumulative irrigation acreage, which is the total amount of acreage actually irrigated or proposed to be irrigated (TA). The Division shall also determine the amount of proposed irrigation acreage where the models or other methods first indicate that unreasonable flow reductions below acceptable stream flow levels on the Flint River or its tributaries may occur. This defines the maximum amount of acreage which may be irrigated (MA) during that year.

(b) If the total amount of actual irrigation acreage (TA) is found to be less than the calculated level of unreasonable impact acreage (MA), then no reduction of agricultural irrigation usage by limiting irrigation acreage is required during that declared severe drought year.

(c) If the total amount of actual irrigation acreage (TA) is found to be greater than the calculated level of unreasonable impact acreage (MA), then a situation exists where reductions in irrigation acreage should be implemented to avoid unreasonable impacts on river flows. The total amount of acreage reduction (RA) shall be found by subtracting the calculated amount of unreasonable impact acreage from total irrigation acreage amount. The resulting acreage amount shall be the total number of acres of irrigated land which should be taken out of irrigation during that declared severe drought year.

Authority: O.C.G.A. § 12-5-540 et seq.

391-3-28-.07 Irrigated Acreage Reduction Auction.

(a) Upon determination of 391-3-28-.07(e) .06 above, the Division shall ~~shall~~ may conduct an irrigation reduction auction whereby a withdrawal permit holder with an irrigation system located within the affected areas is given an opportunity to enter into an irrigation agreement with the Division. The nature of the agreement is that in exchange for a certain sum of money per acre of irrigated land serviced by the irrigation system, the Permittee will not irrigate those particular acres for the remainder of that calendar year. The Authority shall pay the sum so agreed upon when so directed by the Director from the unexpended balance of the drought protection funds.

(1) Participation in the irrigated acreage reduction auction shall be open to all eligible agricultural permit holders or their representatives, defined in 391-3-28-.05 above.

(2) The Director shall determine the amount of acreage which should be removed from irrigation that particular announced severe drought and auction year.

(3) The money offered from the drought protection fund shall be for a permit holder's suspension of irrigation, from the particular irrigation system and associated particular agricultural withdrawal permit, for the duration of the announced severe drought and auction year. Acceptance by the Division of an offer to sell shall only relate to that acreage in that severe drought and auction calendar year and shall not impact the ability of the permit holder to continue to farm this acreage without irrigation during that year.

(4) The Director, at the outset of the auction process, may determine a maximum offer to sell price per acre level acceptable to the Division for payment from the drought protection fund. Even if insufficient acreage is offered up once that maximum offer to sell price level is reached, no further increases in offers to sell can be accepted. To assure an efficient auction, this maximum dollar figure does not need to be announced prior to the auction itself.

(b) Since the ultimate purpose of the auction is to protect flows in the Flint River, strong consideration shall be given by the Division to the different and recognizable impacts caused by the type of withdrawal and the water source for the various Permittees.

(c) Auction Process;

The Director shall determine the auction process by which irrigation offers to sell and the associated irrigation acreage amounts are tendered to the Division and then selected by the Division. This may be a process by which:

(1) An interactive, computerized offer to sell, bid-improvement process shall be established with an actual auction to be held.

(2) Other auction methodologies acceptable to the Director.

(d) If the auction selection is defined Rule 391-3-28-.07(c)(1) above, then the eligible permittees, holders of an auction certificate, shall be able to submit offers to sell through telecommunications equipment set up by the Division or its agents in multiple locations throughout the Flint River basin. This system shall allow the eligible permittee or their designated representative to make any number of modifications to their offers to sell throughout the select day of the auction. A "bid-improvement" auction format shall be established wherein:

(1) Auction offers to sell must apply for all acreage served by a permit-specific auction certificate. For example, consider a farmer with two certificates related to two specific water use permits. Suppose each certificate provides for the irrigation of the following certified number of acres: certificate A for 1,000 acres; certificate B for 1,100 acres. If the farmer wishes to offer to remove from irrigation lands permitted under one or both of these certificates, the farmer must submit offer prices for each individual auction certificate A and B. If offers are submitted for both certificates, the offer price for one certificate can be the same or different from the offer price rendered for a different certificate. However, the farmer cannot offer to retire 500 acres from certificate A and 250 acres from certificate B unless the smaller acreages are irrigated by the same fixed irrigation system that irrigates the remaining acres. Offer prices apply to all acreage intended for irrigation suspension and served by the certificate for which the offer is made. Once the auction process has begun, the number of acres offered by the permittee for irrigation suspension cannot change.

(2) Irrigation reduction prices offered by permittees for their auction offers shall be on a price per acre basis; in other words, a price offered by a permittee is the price per acre required for removing from irrigation all acreage for a specific certificate, or a portion of certificate acreage irrigated by a fixed irrigation system, during the balance of the calendar year. If the permittee's offer is accepted by the Division, the permittee will receive this offered price-per-acre times the certified number of acres the permittee has agreed to not irrigate.

(3) An "auction day" will be announced by the Director. On the auction day interested auction certificate holders or their representatives may go to the designated facilities for the auction. The auction process may last several hours.

(4) At the same designated time in all the auction facilities an initial auction "round" is opened. Previously determined auction certificate holders, permittees or their representatives will have some set amount of time to submit their price per acre offers on forms provided by the Division. These offers will be entered into a telecommunications system, which will allow all offers to be gathered from the separate auction facilities, and then ordered by bid offer price from low to high. These offers will be made available to the Director. The Director will use these offers to identify potential "candidate sellers". Candidate sellers are auction certificate holders whose offer prices

have been provisionally accepted.

(5) The Auction Certificate numbers for all candidate sellers will be announced at all auction facilities, and a second "round" of the auction may then be opened. Any auction certificate holder or their representative who wishes to revise their initial offer price for any certificate has some time announced by the Division from the opening of this second auction round to do so. If a certificate holder or their representative does not wish to revise their first-round offer, no additional action is required on their part. The first-round offer is maintained for the second and all subsequent rounds, until the offer is revoked or modified by the certificate holder or their representative.

(6) At the close of round 2, the Director again identifies "candidate sellers" in the manner described above. The new set of potential "candidate sellers" is announced. Because of potential bid modifications, the candidate sellers at the end of the first round may or may not be included in the set of candidate sellers chosen at the end of the second round on the basis of lowest revised offer prices. A new round, may then be announced and auction certificate holders or their representatives may again have the opportunity to revise offer prices for any certificate during the following time period.

(7) This iterative auction process continues until:

(i) no certificate holder or their representative revises an offer price, in which case the auction closes and the latest set of candidate sellers become the final sellers, and will receive their offer price per acre for accepted auction certificates; or

(ii) the Director chooses to end the auction, in which case the latest set of candidate sellers automatically become final sellers, and will receive their offer price per acre for accepted auction certificates.

(e) Based on considerations related to the available drought protection funds and desired levels of acreage reduction, the Director will determine the number of certificates whose offer price will be accepted, beginning with the lowest ordered offer price and continuing then to each higher offer price. The Division shall tabulate the offers received by price per acre and the cumulative suspension of irrigation acreage amounts tendered to the Division. When this cumulative acreage equals the targeted amount of acreage reduction (RA) established by the Division, the auction process is complete. If money is available from the drought protection fund, all offers below this determined offer to sell amount shall be accepted, and all offers above this offer to sell amount shall be rejected. If there is more than one offer at that particular select offer to sell price, the offers to sell at that price shall be prioritized for acceptance based on the acreage amount from greatest to smallest. To maximize the acreage suspended from irrigation, acceptable selections shall start at the greatest amount of acreage offered at that offer to sell price and proceed to lesser amounts until the required actual acreage amount is reached. In case of ties at any determining offer to sell price and acreage amount, acceptable selections shall be chosen at random until the cumulative amount

of suspended acreage is reached or no further offers are available.

(f) If insufficient acreage amounts are offered during the auction to meet the required acreage reduction total set in above, the Director may then implement the measures for Non-voluntary Irrigation Acreage Reductions below.

(g) Regardless of the auction process used, the Division shall complete the entire auction process for voluntarily determining the acreage required to suspend irrigation prior to March 22 of any announced severe drought and auction year.

Authority: O.C.G.A. § 12-5-540 et seq.

391-3-28-15 Repealed Irrigation Efficiency Requirements

(1) Definitions. Notwithstanding the definitions provided in 391-3-28-.02, the following terms as used in this rule shall be interpreted in accordance with definitions as set forth in the relevant sections of the Flint River Drought Protection Act and as defined herein:

(a) 'Permittee' means any person holding a valid farm use permit within the affected areas issued pursuant to Code Section 12-5-31 or 12-5-96, which respectively provide for the withdrawal of groundwater and surface water.

(b) 'Irrigation system' means any center pivot, lateral (linear) move, traveling gun, solid set, permanent set, mobile, micro, drip, cable-tow traveler or hose-pull traveler, or other water delivery system used for irrigation purposes operating under the Division's farm water withdrawal permitting requirement.

(c) 'Mobile irrigation system' means any traveling gun, cable-tow traveler or hose-pull traveler operating under the Division's water withdrawal permitting requirement.

(2) Irrigation System Efficiencies

(a) All irrigation systems applying water withdrawn pursuant to active surface water and groundwater withdrawal permits for farm use in the affected areas are required to achieve irrigation efficiencies of 80 percent or greater. These irrigation efficiencies shall be achieved:

1. By January 1, 2016 for all irrigation systems applying water withdrawn pursuant to active permits issued on or after January 1, 2006;

2. By January 1, 2018 for all irrigation systems applying water withdrawn pursuant to active permits issued from 1991 through 2005; and

3. By January 1, 2020 for all irrigation systems applying water withdrawn pursuant to active permits issued before 1991.

(b) Notwithstanding (a) above, all mobile irrigation systems and solid-set irrigation sprinklers operating under active surface water and groundwater withdrawal permits for farm use in the affected areas are required to achieve irrigation efficiencies of 60 percent or greater. These irrigation efficiencies shall be achieved:

1. By January 1, 2016 for irrigation systems applying water withdrawn pursuant to active permits issued on or after January 1, 2006;

2. By January 1, 2018 for irrigation systems applying water withdrawn pursuant to active permits issued from 1991 through 2005; and

3. By January 1, 2020 for irrigation systems applying water withdrawn pursuant to active permits issued before 1991.

(c) All irrigation systems applying water withdrawn pursuant to new farm use permits issued after the effective date of this rule must, upon permit issuance, meet an irrigation efficiency of 80 percent. Notwithstanding the 80 percent irrigation efficiency requirement, all mobile irrigation systems and solid-set irrigation sprinklers applying water withdrawn pursuant to new farm use permits issued after the effective date of this rule must, upon permit issuance, meet an irrigation efficiency of 60 percent.

(d) Animal Feeding Operations and Concentrated Animal Feeding Operations. For all agricultural irrigation system operations that require a farm use surface water permit from the Division to withdraw from a waste water lagoon for land application to a spray field, appropriate best management practices will be employed to land apply the effluent uniformly at an appropriate nutrient agronomic rate. An appropriate nutrient agronomic rate may be specified in an approved nutrient management plan for animal feeding and concentrated animal feeding operations that operate under an NPDES or LAS permit.

(e) All new or modified permits issued by the Director shall follow applicable rules and guidance, including any applicable regional water development and conservation plans developed pursuant to O.C.G.A. § 12-5-31 and O.C.G.A. § 12-5-96.

(3) Certification of Irrigation System Efficiencies.

(a) Certification of irrigation system efficiencies will be conducted in accordance with certification forms specified by the Division. Such certification forms shall consider current technologies, best management practices, and the effects of soil type and topography, among other factors deemed necessary.

1. All permittees shall complete a certification of irrigation system efficiency using certification forms specified by the Division by the deadlines listed under sections (2)(a) and (2)(b).

2. The certification of irrigation system efficiency will be kept by the permittee, and provided to the Division upon the request of the Division. Any permittee may provide a

certification of irrigation system efficiency to the Division prior to the deadlines listed under sections (2)(a) and (2)(b).

3. All applications for new farm use permits submitted on or after the effective date of this rule must provide a certification of irrigation system efficiency to the Division.

(b) To be certified, all irrigation systems must incorporate a leak correction and operational maintenance procedure. In addition, all center pivot and lateral (linear) move irrigation systems must incorporate an operational pump safety shutdown or any other device that halts water flow in the event of irrigation system failure.

(c) Certifications of irrigation system efficiencies may be submitted by the applicant, or on behalf of the applicant by an irrigation system manufacturer, agent of the Division, or any agent of the Georgia Department of Agriculture, Georgia Soil and Water Conservation Commission, or University of Georgia County Extension Service.

(4) The Division shall coordinate with any federal or state agencies, or other entities deemed appropriate by the Division, that offer incentive programs aimed at improving the efficiency of irrigation systems. Such coordination will identify opportunities to refine and target relevant incentive programs as practicable to assist permittees with achieving irrigation efficiency requirements.

Authority: O.C.G.A. § 12-5-540 *et seq.*

391-3-28-.16 Management of Augmented Flows

(1) Definitions. Notwithstanding the definitions provided in 391-3-28-.02, the following terms as used in this rule shall be interpreted in accordance with definitions as set forth in the relevant sections of the Flint River Drought Protection Act and as defined herein:

(a) "Permittee" means any person holding a valid surface water withdrawal permit within the affected areas issued pursuant to Code Section 12-5-31 which provides for the withdrawal of surface water.

(b) "Vulnerable aquatic life" means any species found in the affected areas that is dependent, for any portion of its lifecycle, on the aquatic ecosystem and that has been listed as threatened, endangered, or is proposed in the Federal Register for listing under the federal Endangered Species Act (16 U.S.C. 1531 *et seq.*).

(2) Director Notification. Once a state funded augmentation project has been permitted to operate for the sole purpose of maintaining the minimum stream flows sufficient to protect habitat critical for vulnerable aquatic life within the affected areas, the Director shall inform specified downstream permittees about the project. In addition, notifications to specified downstream permittees to let the flow provided by the augmentation project pass his or her point of withdrawal shall be conducted in accordance with section (4).

(3) Permittees Subject to Notification.

(a) The specifics of such notifications, including those permittees subject to the notification, are defined by site-specific characteristics. Therefore, once any such augmentation project is sited but before it begins operation, the Director shall, based on the project purpose, location, design and planned operations, specify all of the permittees downstream of each project that may be subject to such notifications.

(b) When specifying such permittees and preparing such notifications, the Director may consider the following:

1. The best available modeling and monitoring data for the relevant project location, watershed, stream reaches, and tributaries;

2. The best available information on occurrence and habitat for vulnerable aquatic species;

3. The date the project is expected to commence operation;

4. The distance downstream for which protection of augmented flows is appropriate;

5. The degree to which protection of augmented flows will assist in mitigating the effects of droughts, provide ecological or other environmental benefits, and ensure sustainable, long-term access to water resources for existing and future water users;

6. Available climatic data and information;

7. The hydrology of the relevant stream reaches including, but not limited to, any surface water and groundwater interactions arising from the Flint River Basin's karst geology;

8. The location of tributaries downstream of the project and the amount of flow such tributaries contribute to the relevant stream reach;

9. The potential for water loss from the relevant stream reaches that may occur due to evaporation and/or other factors;

10. The potential for water gain that may occur due to precipitation, inflows from other tributaries and/or other factors;

11. The number and type of permitted withdrawals that may impact flows in the relevant stream reaches;

12. Meteorological conditions or other circumstances that may result in surface water flows greater than the flow provided by the project which would continue to be subject to withdrawal in accordance with the permittee's water withdrawal permit; and

13. Any other data or information the Director deems relevant.

(c) When specifying the permittees subject to the notification required by (b) above, the Director shall also establish those permittees that shall not be subject to such notification.

(4) Notification of Onset, and Conclusion, of Augmentation and Notification Contents. Those permittees who are required to let the flow provided by the augmentation project pass his or her point of withdrawal shall be notified by the Director of the onset, and conclusion, of each period of augmentation.

(a) The notification to each permittee of the onset of each period of augmentation shall contain at a minimum:

1. The location of the upstream augmentation project;

2. The amount of augmented flow the project is expected to provide, and the proportion of that flow a permit holder must let pass their point of withdrawal;

3. The distance downstream of the flow augmentation project to which the notification applies; and

4. The procedure for the permittee to quantify the amount of flow in the relevant stream reach and determine if that flow is greater than the flow that the permit holder must let pass their point of withdrawal and is therefore subject to withdrawal in accordance with the permittee's withdrawal permit. Procedures may include but are not limited to accessing online information from appropriate water monitoring gages.

(b) As provided in subsection (d) of Code Section 12-5-546.2, the Director's notification shall also contain notice of opportunity for a hearing and shall be served by certified mail, return receipt requested, to the most recent address provided by the permittee. Any permittee to whom such notification is directed shall comply therewith immediately, but shall be afforded a hearing within five business days of the Director's receipt of a petition filed by such permittee. Such hearing shall be before an administrative law judge of the Office of State Administrative Hearings and shall be conducted in accordance with subsection (c) of Code Section 12-2-2. Based upon findings adduced at such hearing, the notification shall be modified, reversed, or continued by the Director.

(5) The permit holder responsible for operation of any state funded augmentation project operated for the sole purpose of maintaining the minimum stream flows sufficient to protect habitat critical for vulnerable aquatic life within the affected areas shall, as part of the process of permitting water withdrawal under this rule and under the Rules for Groundwater Use, 391-3-2, specify the vulnerable aquatic life of concern, design flows under specific conditions, and other parameters relevant to the specific site. The permit holder responsible for operation of such project shall inform the Director when such project becomes operational as well as at the onset, and conclusion, of each period of augmentation conducted to maintain minimum stream flows sufficient to protect habitat critical for vulnerable aquatic life within the affected areas. Information to be submitted at the onset of each period of augmentation includes the following:

(a) Amount of augmented flow the project is expected to provide; and

(b) Any other information or data the Director determines is needed to allow specification of affected downstream permittees and preparation of notifications during specified periods of the project's operations.

Authority: O.C.G.A. § 12-5-540 et seq.