

Memorandum

To: Jeffrey Cown, Director

Thru: John Eunice, Deputy Director *JAE*

Anna Truszczynski, Chief Watershed Protection Branch *AMT*

From: Wei Zeng, Manager Water Supply Program *WZ*

Cliff Lewis, Manager Agricultural Permitting Program *CL*

Date: May 30, 2024

Re: Recommendation on permitting Frost Protection water use in the Restricted Use Areas (Yellow Zone) and Capacity Use Areas (Red Zone)

We write this memorandum to recommend to you that water use permits sourced in the Floridan Aquifer for the purpose of Frost Protection be issued in the Restricted Use Areas (Yellow Zone) and Capacity Use Areas (Red Zone) as defined by the 2006 Flint River Basin Water Development and Conservation Plan (Flint Plan).

In recent years, citrus, blueberries, and other berry crops have emerged as attractive commodities for some Georgia farmers. These 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. Permits are required for large water withdrawals (greater than 100,000 gallons per day), and permits would be necessary for frost protection water usage. 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).

On September 1, 2023, EPD announced its accepting applications for Frost Protection water use in the Conservation Use Areas (Green Zone) of the permit suspension area. After September 2023, the Water Supply Program continued to assess the impact of water use associated with Frost Protection in the Yellow and Red Zones. Data collected from stakeholders on protecting citrus and blueberry indicate the lack of an impact on the Floridan Aquifer, which serves as the basis of this recommendation.

Concentrated water use during the cold weather coincides with the general recharge season of the lower Flint Basin and Sub-area 4. Freezing temperatures take place only in a limited number of days,

as indicated by historical record. The overall amount of water needed for Frost Protection is a small fraction of the amount of inflow into the basin. On the other hand, stakeholders' data point to very limited water use outside the Frost Protection season.

After careful consideration of the impact, we recommend to you that Frost Protection water use be permitted in the Yellow and Red Zones.