

## **M E M O R A N D U M**

**TO:** Governing Board Members

**FROM:** Mark Elsner, P.E., Water Resources Division

**DATE:** April 10, 2025

**SUBJECT:** Declining Water Levels in the Mid-Hawthorn Aquifer in Northeastern Cape Coral

### **Agenda Item Background:**

The District issued an Emergency Order Declaring a Water Shortage, which imposed Modified Phase III restrictions in the northeast portion of Cape Coral on November 28, 2023, to reduce groundwater withdrawals from the Mid-Hawthorn Aquifer. Mid-Hawthorn Aquifer water levels in the area did not improve sufficiently during the wet season as anticipated and additional restrictions may be warranted in the near future to further curtail water use to prevent significant harm to the Mid-Hawthorn Aquifer until City of Cape Coral's municipal utility services are constructed and operational in the area.

The City of Cape Coral, Lee County, and the District have been collaborating on this specific situation for over three years. The collaborating government entities recently completed a Joint Action Plan to prevent the region's Mid-Hawthorn Aquifer from experiencing significant harm due to groundwater withdrawals from wells. The Action Plan indicates that when Mid-Hawthorn Aquifer water levels, as measured at USGS Monitoring Well L-4820, decline to less than 10 feet above the minimum flow and minimum water level (MFL) (-93.01 feet NAVD) for two consecutive weeks, Modified Phase IV Water Shortage restrictions should be ordered for all Mid-Hawthorn Aquifer users in the water shortage area. Mid-Hawthorn Aquifer water levels at USGS Monitoring Well L-4820 in the water shortage area were at -91.64 NAVD on March 31, 2025.

April is normally the last month of South Florida's dry season and water needs are most acute with increasing temperatures and minimal rainfall. To plan and be proactive for the potential of Mid-Hawthorn Aquifer water levels declining below -93.01 feet NAVD at USGS Monitoring Well L-4820, staff is recommending the Governing Board approve a resolution authorizing the Executive Director to issue a Water Shortage Order imposing Modified Phase IV Water Shortage restrictions if/when the Mid-Hawthorn Aquifer water levels at USGS Monitoring Well L-4820 decline to less than 10 feet above the MFL (-93.01 feet NAVD) for two consecutive weeks.

### **Additional Item Background:**

Municipal utility services are being installed by the City of Cape Coral in a phased approach in northeast Cape Coral serving most of the water shortage area by 2030. It is anticipated there will be improvement in water levels as the City of Cape Coral completes incremental Utility Extension Projects (UEP) phases within the water shortage area, due to reduced groundwater withdrawals from the Mid-Hawthorn Aquifer from private wells. The City's hydrogeologic study completed in 2023 indicates that the City's UEP to bring potable water, wastewater and irrigation water to the affected area will alleviate the resource issue by reducing the number of private wells, thereby decreasing withdrawals from the Mid-Hawthorn Aquifer.

**Staff Contact and/or Presenter:**

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**ATTACHMENTS:**

[Resolution No. 2025-0409](#)