



STAFF REPORT

CITY OF GREEN COVE SPRINGS, FLORIDA

TO: City Council Regular Session **MEETING DATE:** August 5, 2025
FROM: Scott Schultz, Asst. Water Utilities Director
SUBJECT: City Council update on the Requests for Inclusion (RFI) to the Florida Department of Environmental Protection (FDEP) Clean Water State Revolving Fund (SRF) for the following projects.

- \$4,537,000 for the Harbor Road WWTF Phase III (Pine Avenue Force Main – mothball of the South WWTF).
- \$24,245,000 for construction of the Magnolia Point Reclaimed Water System

Scott Schultz

BACKGROUND

Harbor Road Advanced Wastewater Treatment Facility, Phase III:

In 2015 the city developed a master plan for wastewater treatment infrastructure, which included building an advance wastewater treatment plant at the Harbor Road location. Included in that plan was consolidating all wastewater treatment at the Harbor Road site. This would mean pumping the waste from the City's South Wastewater Treatment Facility, located in Reynolds Industrial Park, to Harbor Road. In addition, the city wanted to increase its use of reclaimed water and the growth in the city was taking place in the northern areas. Little did we know how important this was since the Florida Legislature has now passed senate Bill 64, the Surface Water Discharge Elimination Act.

Staff broke these projects into three phases to maximize grant funding. The phases are outlined below.

Phase I - Complete:

- Install reclaimed water facilities at the Harbor Road WWTF.
- Upgrade the electrical (including backup generator) to the point that it would support full buildout of the city's wastewater infrastructure (three 1.25 MGD plants).
- Rehabilitate the city's master lift stations #2 and #4. Lift station #2 will support Phase III (outlined below)

Phase II - Complete:

- Construct a new 1.25 Million Gallon Per Day (MGD) advanced nutrient removal wastewater treatment facility.

Phase III - Subject of the RFI:

- Construct a force main from Lift Station #2 (South dead end of Palmetto Avenue) to the Harbor Road site.
- Reverse the piping to pump all South Plant waste into Lift Station #2.

- “Mothball” the South Plant (keep permit active for potential future use)

RFI UPDATE -- As an alternative to the project below, staff may add a 1.25 MGD Reclaimed Water Storage Tank, in the amount of approximately \$2 million, to this project.

Magnolia Point Reclaimed Water:

In 2022, the Florida Legislature enacted Senate Bill 64, the *Surface Water Discharge Elimination Act*, which requires utilities to eliminate wastewater effluent (final treated water) discharges to surface waters (St. Johns River and its tributaries) by 2032. Why was this bill enacted?

- Discharges from wastewater treatment plants, while very clean, contain nutrients, primarily nitrogen and phosphorus, which promote algae growth in the surface water, which reduces available oxygen (among other effects) for other organisms.
- Fresh water discharges can affect water quality in salt or brackish (partially salt) water environments.
- How do you eliminate discharges to surface water? There are four primary methods.
 - Rapid Infiltration Basins – structures, usually built in high sandy soils, that rapidly infiltrate water into the ground.
 - Spray Fields – using large areas of land to spray the water over land which filters the water into the soil
 - Deep Well Injection – drilling very deep wells and pumping the water far below the aquifer.
 - Reclaimed Water – supplementing treated effluent instead of potable water for irrigation.
- Why did the city choose Reclaimed Water?
 - Reclaimed water is the only financially viable option for eliminating surface water discharges. Magnolia Point Reclaimed Water conversion is the only high-use option, except for “sharing” reclaimed water with other utilities or users.
 - Reclaimed water is the only method that directly reduces the amount of potable (drinking water) used for irrigation. Every gallon used is one less gallon withdrawn from the aquifer.
 - The nutrients contained in Reclaimed Water provide nutrients to the landscapes.

Converting the irrigation in Magnolia Point from potable water to Reclaimed Water will reduce withdrawals from the Floridan Aquifer by approximately 75,000,000 gallons per year.

RFI UPDATE -- Funding / Phasing / Grants:

After discussions with SRF staff, there is not sufficient grant funding for our customers to finance the installation of the reclaimed water system. Staff will be removing the RFI for this project from the August Hearing.

FISCAL IMPACT

\$4,537,000 from the Wastewater Capital Improvement Program Budget

Approximately \$6,537,000 from the Wastewater Capital Improvement Program Budget if a Reclaimed Water Storage Tank is added to the RFI

RECOMMENDATION

Approve staff to withdraw the Request for Inclusion (RFI) to the Florida Department of Environmental Protection (FDEP) Clean Water State Revolving Fund (SRF) for funding the construction of the Magnolia Point Reclaimed Water System.