

SUWANNEE RIVER WATER MANAGEMENT DISTRICT

MEMORANDUM

TO: Governing Board

FROM: Leroy Marshall, Director, Resource Management/Projects Division

THRU: Tim Alexander, Assistant Executive Director, Business and Community Services

DATE: August 29, 2025

RE: Water Use Permit 2-047-219878, Nutrien - White Springs, Hamilton County

RECOMMENDATION

Approve a five-year renewal of Water Use Permit number 2-047-219878-7, with no change to the 64.1621 mgd groundwater allocation, eighteen standard conditions, and nine special limiting conditions to Nutrien - White Springs, in Hamilton County.

BACKGROUND

This Water Use Permit (WUP) is a renewal for the water requirements of a phosphate mining operation to excavate and transport earth materials, and to operate the mineral processing facilities. The project is an approximately 99,588-acre site located in Hamilton County, Florida, approximately eight miles north of White Springs. The project site is located to the west and north of the Suwannee River, along both the east and west sides of Interstate 75, and south of the Georgia border. The majority of the total water used in the mining project is recirculated and reused. Water use at the site is broken into three categories, material transport, mine dewatering, and material processing.

During material transport, mined earth material is mixed with a combination of collected stormwater, surface water, groundwater, and recirculated water to create slurry mix and transported to the processing facilities through a series of pipelines. Once materials are removed from the slurry, the water used for transport is recirculated back to the mined area. The recirculatory transport system is supplied by groundwater from up to 62 wells and ten surface water pumps with several pumping locations, and two surface water pumps from Eagle Lake, no natural waterbodies are used for surface water supply.

During mine dewatering, mining pits are excavated in wet conditions using draglines, however limited dewater is required to maintain operational mining conditions. Water removed from the pits and perimeter collection ditches is primarily pumped into the mine's recirculatory transport system. Dewatering discharges not used in the recirculatory transport system, are discharged offsite primarily at Swift Creek, with lesser amounts to Hunter Creek, Roaring Creek, and Camp Branch. These streams ultimately discharge to the Suwannee River. These discharges are authorized through NPDES permit number 0000655. Up to ten pumps are used to dewater mine pits.

During material processing, mined material is physically and chemically sorted using individual water streams at the processing facilities. Groundwater from two upper Floridan Aquifer wells is used in the mill as a source of clean water for physical separation of the mined materials and as make-up water, this water is recycled in the recirculatory transport system. Groundwater from two upper Floridan Aquifer wells is used in the chemical processing facilities for air scrubbing, condensers, and cooling tower supply. Much of the blowdown from these processes comes in contact with chemical processes and become wastewater. The process wastewater is then used