mine expands further from the processing facility, the make-up water demand will increase. Staff recommends the allocation for a back-up be evaluated after the demands for the expansion area can be demonstrated over the recommended five-year permit duration. The applicant provided that the mine transport and processing facilities operate continuously, 24 hours per day/ seven days per week. In addition to the mining process, the recommended allocation includes the water demands of 20 gallons per day for 600 employees.

PERMIT APPLICATION REVIEW:
Staff have determined this application meets the conditions for issuance set forth in section 373.223, Florida Statutes and rule 40B-2.301, Florida Administrative Code. A summary of the staff review is provided below:

The mining activity is within the unconsolidated sediment of the Holocene sands and Miocene Hawthorne Formation. The make-up water wells are withdrawn from the semi-confined underlying upper Floridan aquifer, potential impacts were evaluated as groundwater withdrawals. As the project withdrawals are spread across 155 square miles, the project withdrawals were modeled and showed a simulated Upper Floridan aquifer drawdown of less than 0.5 feet at the project boundary; therefore, groundwater withdrawals at this project are not expected to interfere with any presently existing legal uses of water. Staff evaluated the NRCS soil inventories in the area, wetland inventories, and aerial imagery compared with the simulated groundwater drawdown. Staff does not expect this proposed use of groundwater to cause harm to crops and other types of vegetation, including wetlands and other surface waters, or cause damage to the habitat of endangered or threatened species at the site or adjacent properties for the duration of the permit.

Water use for material transport and processing is economic, efficient, and uses all available lowest quality sources. The permittee implements water conservation by recycling the wash water back to the transportation system, and recycling process wastewater back in to the process system.

Land alterations associated with the mining operation, including wetland impacts/mitigations and land reclamation upon mining cell completions, are authorized by the Florida Department of Environmental Protection. District staff inspected the environmental conditions at the mine operation, including the offsite discharge locations at Mill Creek, Camp Branch, Swift Creek, Roaring Creek, and Rocky Creek; and at the land reclamation site along Lang Lake. The creeks were free of turbid water discharge, did not appear to have accumulated sediment, and the vegetation and environmental conditions appeared healthy. Staff also inspected reclaimed wetlands that were previously mined for phosphate, and how they have progressed over the past several decades. The landcover surrounding Lang Lake site wetland appeared to be healthy and functioning well without any exotics/invasive species present. Staff noted, there was a lack of diversity in the canopy, being mostly a monoculture of 40-year-old cypress, though natural migration of vegetation was slowly introducing itself to the environment. Future wetland reclamation will include more diverse plantings.

The proposed withdrawals are in accordance with MFLs and MFL recovery strategies pursuant to Chapters 62-42 and 40B-8, F.A.C.; and Emergency Rule 40BER17-01. Additionally, cumulative reductions in flow from the allocation were evaluated at the Outstanding Florida Springs (OFS) and no measurable reductions were recorded. No OFS listed in 40BER17-01 has an estimated cumulative flow decline of 9.9%.