



WATER USE PERMIT

Mining / Dewatering Use

Supplemental Form D



Suwannee River Water Management District
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SECTION D1 – SITE INFORMATION

1.

Site Name	Acres Owned/ Leased	Project Acres	County Parcel Identification Number or Section, Township, Range
TOTAL			

2. SITE MAP

Submit a map showing:

- A. The legal boundaries of the property owned or controlled by the permittee/applicant;
- B. The area on the property that is being or will be mined;
- C. All existing and proposed withdrawal and connection point locations. Label all wells, pumps and connection points so they match the IDs provided in the Application form (Section IV - Sources of Water);
- D. A north arrow and map scale; and
- E. Labeled landmarks such as roads and political boundaries.

3. PROSPECT MAP AND REPORT (if applicable)

Submit a geologic and hydrologic report and plan-view map, with reference to the datum used for elevations. Include the following information in the report.

- A. Show locations of:
 - a. Soil borings
 - b. Test cores
 - c. Drill cuttings
 - d. Geophysical analyses
- B. Provide information on:
 - a. Overburden thickness and disposition
 - b. Top and bottom elevations of the material to be mined/dewatered
 - c. Water table elevations

4. MINING/DEWATERING OPERATIONS PLANS

Submit a plan-view map of the existing and proposed mining/dewatering plans for the duration of this permit. Include the following information:

- A. Include the proposed timeline and duration for progression of the mining and dewatering activities either on the map or in narrative format.
- B. Show all components of the mining/dewatering operation including any pre-mitigation measures, such as hydraulic recharge/intercept ditches, setback distances, on-site storage areas, off-site discharge points, wetlands, existing legal users, contamination sites, and/or saline water.
- C. Provide length, width, and cross sections with elevation and datum information for all proposed mines, excavations, storage areas, and pre-mitigation constructions.
- D. Provide locations of any groundwater augmentation points.

5. HYDRAULIC RECHARGE/INTERCEPT DITCHES

Submit detailed information describing the construction details of each hydraulic recharge/intercept ditch to prevent adverse impacts associated with dewatering. Include the following information:

- A. Length, width, and elevation of the recharge/intercept ditch;
- B. Geology of the matrix on each side and below the ditch;
- C. Source of water used to fill hydraulic recharge/intercept ditch;
- D. How the water level in each hydraulic recharge/intercept ditch will be maintained and monitored; and
- E. Monitoring and maintenance information to ensure the effectiveness of the hydraulic barrier.

SECTION D2 – WATER USE INFORMATION

1. MINING

Provide a generalized description of the mining operation including site preparation/overburden removal; mining method(s); water routing information; and how water is used in the mining operation and processing.

2. DEWATERING

Is dewatering associated with this operation? ☐ Yes ☐ No

If dewatering is associated with this operation, please provide the following information:

- A. Indicate method(s) of dewatering;
- B. Explain how water from dewatering activities or from ground or surface water withdrawal points is to be used, transferred, discharged or stored on site for each phase of the project;
- C. List methods that will be utilized to mitigate turbidity and hydrologic impacts;
- D. Identify all wetlands on or adjacent to the project which may be impacted;
- E. Identify all existing legal users on or adjacent to the project which may be impacted;
- F. Locate and describe all sources of groundwater contamination or pollution;
- G. Locate and describe the location of the nearest saline water; and
- H. Provide a contingency plan which describes how stormwater will be managed during dewatering operations.

3. DISCHARGE

Is off-site discharge proposed as part of this operation? ☐ Yes ☐ No

If off-site discharge is proposed as part of this operation, please demonstrate that it is not technically feasible to retain water on site and provide the following information:

- A. Documentation of authorization that allows the applicant to discharge directly into the receiving water body and/or adjacent lands, and a demonstration that the receiving water body or adjacent lands are capable of accepting the dewatering discharge;
- B. The operations plan should include a demonstration that the discharge to the receiving water body will meet all applicable State Water Quality standards prior to discharge; and that the discharge to protected wetlands will not contain turbidity levels in violation of State Water Quality standards (must be less than 29 NTU above background levels) prior to discharge;
- C. A monitoring plan which includes, at a minimum, proposed sampling locations and daily turbidity measurements of the discharge and background conditions in the receiving body and/or wetland; and
- D. A contingency plan which includes procedures for ceasing dewatering operations and correcting the situation until monitoring demonstrates water quality standards are met.

SECTION D3 – WATER BALANCE

1. WATER BALANCE

Provide a water balance that shows the following information. The tables below may be used to assist in developing the water balance. The water balance must show the annual average and peak month quantities (in gallons per day) for sources, uses, losses and recycled water in a schematic diagram that portrays all steps in the process. The total of all sources must equal the total of all uses, and the losses plus recycled water must equal the total of all sources. The water balance must include:

- A. All water sources (groundwater from wells, groundwater from water table dewatering, surface water, rainfall, recycled water, etc.);
- B. The amount of water entering and leaving each step in the process; and
- C. All water losses (e.g., evaporation, product water content, steam losses, waste-material entrainment, etc.).

WATER BALANCE WORKSHEET TABLES

WATER SOURCES

Sources include wells, water table dewatering or drainage, surface water, recycled water, public supply utilities, reclaimed water from public supply utilities, captured excess storm water (rainfall), etc. Sources total must equal Uses total.

List Sources:	Annual Average (mgd)	Peak Month (mgd)
SOURCES TOTAL:		

WATER USES

Uses are water quantities entering and leaving each step in the process. Uses total must equal sources total.

List Uses:	Annual Average (mgd)	Peak Month (mgd)
USES TOTAL:		

WATER LOSSES

Losses represent water lost through evaporation, product entrainment, product content, off-site disposal, etc.

List Losses:	Annual Average (mgd)	Peak Month (mgd)
LOSSES TOTAL:		

RECYCLED WATER SOURCES

Recycled sources include recycled water sources (see "Water Sources" above) and all reused water such as settling ponds or recharge ditches.

List Recycled Sources:	Annual Average (mgd)	Peak Month (mgd)
RECYCLED TOTAL:		

SECTION D4 – REQUESTED WATER USE

1. Complete the requested water use table below. Provide projected water amount for each applicable use type and the water source(s) associated with the use type. Typical mining/dewatering water demands are listed below.

Mining / Dewatering Use Type	Requested Amounts and Sources of Water (mgd)		
	Source 1 Name ¹ _____	Source 2 Name _____	Source 3 Name _____
Dewatering			
Discharge from site			
Make-Up Water			
Process Water			
Water entrained in the product			
Other _____			
Augmentation for mitigation			
Reclamation			
Total			

¹ Provide the name of the water source. Examples include the Upper Floridan aquifer, mining pit, etc.

2. Complete the requested water use table below for minor water uses. The uses listed below are presumed to represent minor amounts of the total mining/dewatering use. Provide projected water amount for each applicable use type and the associated water source(s).

Minor Water Uses	Source of Water (mgd)		
	Source 1 Name ¹ _____	Source 2 Name _____	Source 3 Name _____
Cleaning & Maintenance			
Construction (dust control, compaction)			
Construction associated with mining or dewatering			
Fire Protection			
Potable and Sanitary use			
Landscape irrigation			
Other Minor Use (Describe) _____			
Total			

¹ Provide the name of the water source. Examples include Upper Floridan aquifer, mining pit, etc.

3. Please provide a description of the methodology used to calculate the requested amounts for each use type and each component of minor water uses. Attach additional sheets, if necessary.

SECTION D5 – WATER CONSERVATION

Please refer to District specific water conservation requirements, per current rules.