



# WATER USE PERMIT

## Mining/Dewatering Use Supplemental Form D



Northwest Florida Water Management District  
152 Water Management Drive, Havana, FL 32333-4712  
(850) 539-5999 Fax (850) 539-2693  
[www.nfwwater.com](http://www.nfwwater.com)

**SECTION D1 – SITE INFORMATION**

**1. SITE INFORMATION**

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

**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; and
  - d. Geophysical analyses.
- B. Provide information on:
  - a. Overburden thickness and disposition;
  - b. Top and bottom elevations of the material to be mined/dewatered; and
  - 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; and
- 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. Attach additional sheets, if necessary.

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## 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 who 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

Is there an National Pollutant Discharge Elimination System (NPDES) permit associated with the operation?     Yes, NPDES permit number: \_\_\_\_\_     No

If off-site discharge is proposed as part of this operation and there is no NPDES permit for such discharge, 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 will not cause harmful water quality impacts to the receiving water body and that the discharge to protected wetlands will contain turbidity levels 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 such that there will be no harmful water quality impacts.

<b>SECTION D3 – WATER BALANCE</b>
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## 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.).

## 2. 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 (gpd)	Peak Month (gpd)
<b>SOURCES TOTAL:</b>		

### WATER USES

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

List Uses:	Annual Average (gpd)	Peak Month (gpd)
<b>USES TOTAL:</b>		

### WATER LOSSES

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

List Losses:	Annual Average (gpd)	Peak Month (gpd)
<b>LOSSES TOTAL:</b>		

### 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 (gpd)	Peak Month (gpd)
<b>RECYCLED TOTAL:</b>		

**SECTION D4 – REQUESTED WATER USE**

1. Complete the requested water use table below. Provide projected withdrawal amounts 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 Annual Average Amounts (gallons per day)				Requested Maximum Monthly Amounts (gallons)			
	Source 1 Name <sup>1</sup>	Source 2 Name	Source 3 Name	Total	Source 1 Name <sup>1</sup>	Source 2 Name	Source 3 Name	Total
Dewatering								
Discharge from site								
Make-Up Water								
Process Water								
Water entrained in product								
Other _____								
Augmentation for mitigation								
Reclamation								
<b>Total</b>								

<sup>1</sup> Provide the name of the water source. Example sources include the Floridan aquifer, the surficial aquifer, Sand and Gravel aquifer, mining pit and surface water.

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	Requested Annual Average Amounts (gallons per day) By Source				Requested Maximum Monthly Amounts (gallons) By Source			
	Source 1 Name <sup>1</sup> _____	Source 2 Name _____	Source 3 Name _____	Total	Source 1 Name <sup>1</sup> _____	Source 2 Name _____	Source 3 Name _____	Total
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								

<sup>1</sup> Provide the name of the water source. Example sources include the Upper Floridan aquifer, the surficial aquifer, Sand-and-Gravel aquifer, mining pit, and surface water.

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

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**SECTION D5 – WATER CONSERVATION**

Applicants for Mining/Dewatering Use with a requested annual average daily withdrawal greater than 100,000 gpd must describe ongoing or planned water conservation and efficiency measures. Attach additional sheets, if necessary.

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