

ENVIRONMENTAL RESOURCE PERMIT APPLICATION

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT 2379 BROAD STREET, BROOKSVILLE, FL 34604-6899 (352) 796-7211 OR FLORIDA WATS 1 (800) 423-1476

SECTION I

INFORMATION FOR STANDARD GENERAL OR INDIVIDUAL ENVIRONMENTAL RESOURCE PERMITS FOR MINING MATERIALS OTHER THAN PHOSPHATE (BORROW PITS)

The information requested below is for a mine requiring an Environmental Resource Permit. The information listed represents the level of information that is usually required to evaluate an application. Information required for a specific project will vary depending on the nature and location of the site and the activity proposed.

A. Site Information

- 1. Provide a recent aerial photograph, with a scale of 1" equal to 400' or more detailed, depicting the mine area with mine boundaries delineated. Photocopies are not acceptable.
- 2. Provide a topographic map of the site and hydrologically related areas. Include the location and description of benchmarks. Provide a minimum of one benchmark per major water control structure or, if the project has no water control structures, a minimum of one benchmark.
- **3.** Provide a hydrologic features map identifying contributing watershed boundaries, down gradient lands (if the proposed surface water system will alter off-site discharge), existing runoff patterns and land use for off-site contributing areas.
- 4. Provide elevations of the seasonal high water table and wetland water levels in areas potentially affected by the proposed mining or related activities. Information should include existing water levels, design water levels during mining, and expected water levels after mining is completed.
- **5.** Identify the 100-year floodplain of any stream or other watercourse. Identify the 100-year floodplain of any lake or wetland not entirely on the property owned or leased by the mining operation. Include 100-year floodplain limits and elevations and identify the placement of overburden or product within the 100-year floodplain. Provide details of the statistical and mathematical models used to determine flood elevations.
- 6. Describe vegetative cover in all areas where mining or related activities are proposed. In upland areas this description need only be of sufficient detail to determine runoff characteristics.
- 7. Identify all wetland areas potentially affected by proposed mining or related activities. Each wetland should be characterized by size, predominant vegetation and use by threatened or endangered species.
- 8. Provide percolation tests, if percolation or exfiltration systems are proposed. Percolation tests shall be representative of design conditions. Permeability tests will be required where necessary to accurately model design conditions for retention systems.

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B. Plans

- 1. Provide location of waterbodies used for water quality, water quantity and environmental functions. Include details of size, side slopes, elevations and depths, including plan details for floodplain encroachment compensation. Include details on any tailings or other impoundments, including the operating ranges. Identify proposed wetland impact areas, areas proposed as compensation for wetland impacts and any remaining wetlands that will remain undisturbed.
- 2. Provide locations and details of all major water control structures, or points of discharge, including dams on impoundments. Control elevations must be included along with any seasonal water level regulation schedules.
- **3.** Provide the locations of roads along with their proposed elevations.
- 4. Identify drainage basin boundaries on aerial maps and plans for both the period of mining activities and the post-mining condition. Indicate whether mining activities or post-mining topography will alter the drainage area contributing to hydrologically related waterbodies or will otherwise affect drainage to these bodies.
- 5. Provide rights-of-way and easement locations for the drainage system including all areas to be reserved for water management purposes. (This item is generally only needed for portions of the system that rely on off-site lands for the surface water management system.)
- 6. Provide the location and description of any nearby existing off-site features, such as structures, buildings, wetlands, other surface waters, stormwater ponds, which might be affected by the proposed mining activities. The names and addresses of the owners of such facilities should also be submitted.
- 7. Provide construction drawings signed and sealed by the design engineer showing the paving, grading, and drainage details of the project. Perimeter site grading should be included.
- 8. Provide a complete description of measures to be implemented during the period of mining activities for the purpose of mitigating adverse water quality and quantity impacts off-site. The description shall include construction best management practices (BMPs) that will be used to control erosion and sediment transport during and after the period of mining activities. BMPs that prevent the transport of sediments from uplands to wetlands, lakes and streams include earthen berms, hay bales and temporary swales. BMPs that prevent sediment transport in channels or other watercourses or waterbodies include siltation fences and floating siltation booms.

C. Drainage Information

- 1. Provide details of design storms used, including depth, duration and distribution. Refer to the Basis of Review for design storm criteria.
- 2. Provide stage-storage computations for the project and stage-discharge computations for each outfall structure.
- **3.** Provide information and calculations concerning the effect of off-site inflows on the water management system.
- 4. Provide the acreage and percentage of the total project, of the following:
 - a. impervious and semi-impervious surfaces (excluding waterbodies);
 - **b.** pervious surfaces (green areas);
 - c. lakes, canals, retention areas, etc.;
 - d. wetlands;
 - e. impoundments.
- 5. Provide runoff calculations signed and sealed by the design engineer showing pre and post-development discharges, elevations, and volumes retained and/or detained during applicable storm events. Include the hydrologic parameters and modeling input and output data. Mathematical computations may be required to demonstrate that the proposed development will not significantly alter net storage from the project area for events up to the required design storm nor cause adverse effects due to the floodplain encroachment up to the 100-year event.

D. Operation and Maintenance and Legal Documentation

- 1. Provide a copy of the boundary survey and/or a legal description and acreage of the total land area of contiguous property owned/ controlled by the applicant, including the project site. Also provide a legal description and acreage of the project area required to construct, operate and maintain the proposed system, if different from the total land area. Provide a boundary survey or legal description of all areas planned for future mining.
- 2. Indicate how water and wastewater service will be supplied. Letters of intended commitment from off-site suppliers must be included.
- **3.** Provide documentation of legal and physical availability of the receiving water system to receive project discharge, if such is not evident.
- **4.** Identify the entity to be responsible for operation and maintenance of the Surface Water Management System upon completion of construction.
- 5. Provide a letter or other evidence of potential acceptance by the operation and maintenance entity, if the entity is to be a public body such as a city or drainage district. If the entity is a homeowners or other association, documents verifying either the present or imminent existence of such an organization and its ability to accept operation and maintenance responsibility are required before construction.

E. Water Use

- 1. Indicate how any existing wells located within the project site will be utilized or abandoned.
- 2. If there are existing Water Use Permits within the mine area, provide the permit number(s).
- 3. If Water Use Permits have not been issued for the project, indicate if a permit will be required and when the application will be submitted.