FINAL
PROGRAMMATIC
ENVIRONMENTAL IMPACT STATEMENT

Rock Mining - Freshwater Lakebelt Plan
Miami-Dade County, Florida

1.0 EXECUTIVE SUMMARY

`This report contains a Recommended Plan as a framework under which limestone mining will be permitted in Miami-Dade County, Florida. This is a Final Programmatic Environmental Impact Statement, which discusses the plans' proposed project features, their beneficial effects and potential impacts on existing resources. The Recommended Plan would result in the mining of approximately 15,800 acres of wetlands over the next 50 years. It also contains the framework from which recommendations for structural and operational features will be developed to mitigate adverse hydrologic impacts resulting from the mining. The details of the mitigation will be completed during development of the Phase II Master plan for the Lakebelt area by the Lakebelt Implementation Committee. The principal feature of the Recommended Plan is the on going development of a comprehensive hydrologic and wetlands mitigation plan and a funding source to accomplish the plan. The hydrologic and wetland restoration mitigation features will vastly improve native plant communities and the habitat functions and values they supply within the Pennsuco wetlands.

1.1 Major Conclusions and Findings

The proposed plan would result in the direct loss of approximately 15,800 acres of wetlands over the next 50 years. There is an increasing trend in the seepage lost to the east from WCA-3B and the Pennsuco Wetlands as the extent of mining increases. The resulting groundwater movement to the east would significantly affect ponding depth and frequency in the Pennsuco wetlands during the latter years of mining. The portion of the study area south of Tamiami Trail would have similar hydrologic results on WCA-3B and Everglades National Park as was found in the northern portion of the study area.

1.2 Areas of Controversy and Issues to be Resolved

1.2.1 The Lakebelt Implementation Committee is in the process of developing a master plan for the study area. When completed the master plan for the lake belt area will serve as the framework under which the mitigation features will be implemented and the final accounting of the functions and values resulting from these features.

1.2.2 Detailed hydrologic modeling of the effects resulting from the recommended plan and an assessment of the environmental consequences resulting from the changes in hydrologic conditions is being performed. The more detailed modeling and analysis of the hydrologic impacts of both proposed Lakebelt mining and alternative design refinements of the Comprehensive Everglades Restoration Plan are now underway by the South Florida Water Management District. These analyses will begin to quantify anticipated hydrologic impacts of mining beyond that already permitted, for which hydrologic mitigation requirements remain to be established. They will also address how well both the Comprehensive Everglades Restoration Plan alternatives and the Lakebelt mining proposals meet a key study objective, of having no detrimental impacts to the Everglades. This effort will be incorporated in the development of the Phase II Master Plan.

1.2.3 Development of a wellfield protection plan will be undertaken during the development of the Phase II Master Plan. A consensus expressed by virtually all of the project's participants to date has recognized wellfield protection as one of the most important functions of the Lakebelt.

1.2.4 Public recreational use of post-mining lakes and other components of the Lakebelt has long been identified as one of the potential benefits of the plan. At a time when the western half of the County is rapidly developing, the Lakebelt represents an opportunity to develop one or more regional-serving, resource-based parks in the west to complement existing regional parks in the eastern half of the County. Concepts for recreational access and use will need to be coordinated with wellfield protection requirements, water management objectives, FPL requirements and protection of sensitive habitat areas. The development of a comprehensive recreation plan will be undertaken during the development of the Phase II Master Plan.

1.2.5 Development of biological mitigation needs and enhancement opportunities including littoral zone plans and specifications will be completed during the development of the Phase II Master Plan. The biological mitigation agreement for future mining impacts in the Lakebelt, recommended by the Lakebelt Implementation Committee and approved by the Florida Legislature, will include land acquisition and wetland restoration and enhancement, funded by the Mitigation Fees on mining collected beginning October 1, 1999. Implementation will be overseen by an inter-agency committee charged with fund management and the approval of specific projects.

2.0 NEED FOR THE PROPOSED ACTION

The Florida Legislature passed legislation (Chapter 373.4149 (4), Florida Statutes) in 1992 creating the Northwest Miami-Dade County Freshwater Lake Plan Committee. The Committee was created as a public and private partnership to develop a plan for the design and implementation of a freshwater lake system in Northwest

Miami-Dade County (see Figure 1). The legislative direction to the Committee was to develop a plan which:

(a) Enhances the water supply for Miami-Dade County and the Everglades,

(b) Maximizes efficient recovery of limestone while promoting the social and economic welfare of the community and protecting the environment; and

(c) Educates various groups and the general public about the benefits of the plan.

The U.S. Army Engineer District, Jacksonville (USACOE) has determined that the scope of the Northwest Miami-Dade County Freshwater Lake Plan (Lakebelt Plan) and the cumulative impacts of limestone mining in Miami-Dade County, Florida, may significantly affect the quality of the human environment. USACOE has also determined that issuance of permits for mining in wetlands in accordance with Section 404(b) of the Federal Water Pollution Control Act of 1972 (P.L. 92-500) constitutes a major Federal action, and therefore a Programmatic Environmental Impact Statement (PEIS) pursuant to (1) Section 102(2)(c) of the National Environmental Policy Act of 1969 (42 USC 4321 et seq.), (2) the Council on Environmental Quality guidelines (40 CFR 1502.4 et seq.), Environmental quality: Policy and Procedures for Implementing the National Environmental Policy Act (USACOE Engineering Regulation 200-2-2); and (3) the Regulatory Program of the USACOE (33 CFR 320-329), was required to assess the impacts associated with permitting limestone mining in wetlands in Miami-Dade County, Florida.

2.1 Programmatic Environmental Impact Statement Objectives

This document is a Programmatic Environmental Impact Statement, which addresses at a general level, the alternatives and environmental effects of the overall project, to the affected environment. Due to the conceptual nature of the Lakebelt project and the associated uncertainties, many of the subsequent site specific environmental documents will be prepared under Section 404(b)(1) of the Clean Water Act by the U.S. Army Corps of Engineers' Regulatory Program. These documents will build upon this PEIS and addressing the individual permit requests in sufficient detail for final decision making and for full compliance with the National Environmental Policy Act requirements.

The objectives of this PEIS are to:

a. Describe the historic, present, and projected socioeconomic conditions associated with the excavation and use of limestone in south Florida.

b. Describe and assess alternatives to the continuation of limestone mining in south Florida wetlands.

c. Evaluate the existing cultural, biological, chemical, and physical conditions of south Florida wetlands and potential impacts to wetlands as a result of limestone mining.

d. Develop site criteria for use in assessing individual limestone mining permit applications.

In addressing the objectives of the PEIS a number of question were identified that would require answers before the PEIS could be completed. The following list of questions have been identified as priority issues by the Northwest Miami-Dade County Freshwater Lake Plan Committee members and the public in a series of meeting held during 1993:

1 Were there alternative sources of rock, either foreign or domestic that could reduce the need to mine in south Florida wetlands?
2 Where should mining occur and under what conditions would it be deemed compatible?
3 What is the functional value of the existing wetland and wildlife resources within the planning area?
4 What are the existing conditions and the impacts resulting from mining on the groundwater hydrology of the area?
5 What are the existing conditions and the impacts resulting from mining on water quality?
6 What is the impact of mining on the public drinking water supply?

A number of studies were undertaken and completed in answering the above questions and other issues identified during the preparation of this PEIS. The studies are discussed in the following sections and are also contained as appendices to this EIS.

2.2 Relationship of PEIS to other studies, Reports, and Projects

The following paragraphs provide a description of reports and ongoing studies being conducted by the Corps and other agencies that affect the Lakebelt study area.

2.2.1 Miami-Dade County Lakebelt Implementation Committee:

The Florida Legislature established a Committee in 1992 to develop the Miami-Dade County Lakebelt Plan to enhance the water supply for Miami-Dade County and the Everglades, maximize efficient recovery of limestone while promoting the social and economic welfare of the community and protecting the environment. The committee is composed of representatives from government agencies, the rockmining industry, environmental organizations, and non-rockmining landowners. To achieve the goals of the Implementation Committee the work was divided into two phases.

Phase I was completed in 1997 and identified areas for mining, mitigation, and additional analysis; recommended a strategy for streamlining the permitting process for rockmining; and proposed a fee on all rockmining to pay for mitigation. During the 1999 Florida Legislative session the Lakebelt Mitigation Plan was approved by the Legislature and signed into law by Governor Jeb Bush.

As directed by the Legislature, the Lakebelt Committee is currently developing the Phase II Detailed Master Plan to address land use planning conflicts, analyze additional wellfield protection requirements, and consider the need to establish a land authority to further implement the Lakebelt Plan. The Phase II Detailed Master Plan will be completed by December 31, 2000.

2.2.2 Lakebelt Working Group Issue Advisory Team:

The Issue Advisory Team, formed under the interagency South Florida Ecosystem Restoration Working Group (Working Group), was commissioned to address the specific interests in the Lakebelt study area in support of a Programmatic Environmental Impact Statement (PEIS) in response to a proposal for a Department of the Army Section 404 Permit for rock mining in the region. The region is of significant importance to rock mining interests, environmental agencies and groups, landowners, and water resource agencies. This region is a primary area for rock mining in the state of Florida, i.e. a critical component to infrastructure and growth in the state. Well fields that supply drinking water to the nearby urban coast (e.g., Miami) are an important resource feature of the Lakebelt region. To the west of the Lakebelt region is the Everglades, a critical environmental resource of national and international significance.

The purpose of the Issue Advisory Team was to develop alternatives that would balance these important issues and that would guide the subsequent planning and regulatory actions. The formal purpose which guided the Team was: To analyze a set of alternatives and recommend a preferred alternative that balances public need for construction aggregate, cement, and road base materials with: (1) environmental restoration goals for the Everglades, (2) regional water management goals and, (3) achieving a "no net loss" of wetland functions from mining activities.

The Issue Advisory Team provided a final report to the Working Group dated, June 5, 1997. The Working Group accepted the report and dissolved the Advisory Team recognizing additional work is necessary and recognized the duplicative nature of the work being accomplished by the State's Lakebelt Implementation committee.

The report served as the basis for a portion of the alternatives analysis section of this PEIS. The report identifies future mining and mitigation areas; integrates the mining with Everglades restoration activities, such as the C&SF Comprehensive Everglades Restoration Plan; and protects and enhances municipal and industrial water supplies for the region. Recommendations will reduce future uncertainty regarding land use and

resource management decisions in the region. The information included in the report provides a framework for future restoration and mining initiatives. Without this analysis the decisions regarding permitting and restoration activities would continue in a case-by –case manner. This "piece-meal" approach is viewed by most involved as inefficient and time-consuming (both economically and environmentally). In addition, this approach may lead to missed opportunities to provide the best balance of mining, environmental restoration, and regional water management and supply in the area.

2.2.3 Central & Southern Florida Project Comprehensive Review Study (Restudy):

The purpose of the Restudy is to reexamine the C&SF Project to determine the feasibility of structural or operational modifications to the project essential to the restoration of the Everglades and the south Florida ecosystem, while providing for other water-related needs such as urban and agricultural water supply and flood protection in those areas served by the project. The intent of the study is to evaluate conditions within the study area and make recommendations to modify the project to restore important functions and values of the Everglades and south Florida ecosystem and plan for the water resources needs of the people of south Florida for the next 50 years.

The planning process involves both a future "without" C&SF modifications condition and a "with project" scenario that includes recommended C&SF modifications. The "without project condition" assumes that the conditions caused by the currently permitted mining exist and that the affects of any future mining are fully mitigated by the mining industry. The "with project condition" took advantage of areas where mining will occur. In these areas in-ground reservoirs are proposed. The initial design of these reservoirs includes subterranean seepage barriers around their perimeter to allow water level fluctuation during dry periods without impacting surrounding ground water. Pilot projects are included in the plan to determine construction technologies, storage efficiencies, impacts on local hydrology, and water quality effects within the Lakebelt area. Water quality assessments will include a determination as to whether the in-ground reservoirs and seepage barriers will allow for storage of untreated waters without concerns of groundwater contamination.

Figure 1 Study Area Map