



August 21, 2009

Orlando Rivera, Program Administrator, Mandatory Phosphate  
Matt Wilson, Environmental Specialist II  
Bureau of Mining and Minerals Regulation  
2051 East Dirac Drive  
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Orlando.Rivera@dep.state.fl.us  
Matthew.S.Wilson@dep.state.fl.us

Re: Comments and Request for Additional Information - South Pasture Mine Extension (SPX)  
CF Industries, Inc. – Hardee Phosphate Complex Environmental Resource Permit (ERP)  
Application

Gentlemen,

Despite the voluminous application (2,281 pp) for CF Industries, Inc.'s (CFI's) proposed South Pasture Mine Extension, it appears to lack basic, but critical information necessary to evaluate the direct, indirect and cumulative impacts of the proposed mine expansion. In fact, the application does not even address the types of basic questions DEP has posed to other proposed mine projects under agency review.

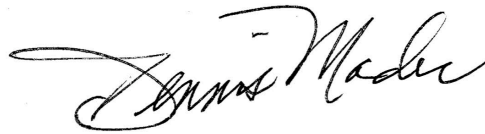
Please refer to the attached copies of letters from your agency requesting additional information for the following: 1) Titan King Road/Tarmac America Company Mine ERP Application (File No. 0244771-002, Levy County) and 2) Nature Coast Development/Nature Coast Mine Application of Joint ERP (File No. 0283664-001, Citrus County). Specifically, I wish to bring your attention to the questions and comments beginning on Page 13 of the Titan King Road Mine RAI and similar questions and comments on the Nature Coast Mine RAI page 1.

In reviewing these questions and comments note that the **combined surface footprint** of the Titan King Road Mine (9,379 acres) and the Nature Coast Mine (148.94) is significantly smaller than the CFI South Pasture Mines. The surface footprint of the original CFI South Pasture Mine is 17,585.6 acres and the surface footprint of the proposed extension or SPX mine is 7,512.8 acres. In addition to those impacts and the impacts addressed in the application, there will be cumulative impacts to the aquifer system, significant wetlands, tributaries, and natural communities, extending throughout the **subsurface footprint** of/by at least the following existing and pending phosphate mines in the region: ***South Pasture (4,060 acres); North Pasture (1,046 acres); Four Corners (3,770 acres); Ft. Meade (1,278 acres); S. Ft. Meade (1,943 acres); S. Ft. Meade Mine Ext (10,885 acres) and Ona Mine (20, 654 acres)***. More detailed comments are included in the attachment, preceding your agency's comment letters referenced above.

*At the very minimum*, it is reasonable to expect that Hardee County is entitled to an equal level of information to use in assessing the off-site, cumulative, long-term and irreversible impacts of the proposed CFI South Pasture Mine Extension (SPX) as your agency required for the proposed Titan King Road Mine and Nature Coast Mine in Levy and Citrus Counties, respectively. Attached is a list of our initial comments and questions pertaining specifically to the CFI South Pasture Mine Extension (SPX), based on the limited information available in the CFI application.

Thank you for the opportunity to comment on the SPX ERP application. I hope you will require the applicant to respond to our questions and comments.

Yours Truly,

A handwritten signature in black ink, appearing to read "Dennis Mader". The signature is fluid and cursive, with a large initial "D" and "M".

Dennis Mader, President  
ProtectPeaceRiver@gmail.com

Attachments

cc:

Florida Department of Community Affairs (DCA)  
Central Florida Regional Planning Council (CFRPC)  
South Florida Regional Planning Council (SFRPC)  
Tampa Bay Regional Planning Council (TBRPC)  
U.S. Army Corps of Engineers  
U.S. Environmental Protection Agency  
U.S. Fish and Wildlife Service  
Environmental Conservancy of Southwest Florida (ECOSWF)  
Florida Wildlife Federation  
Gulf Restoration Network  
National Wildlife Federation  
Protect Our Watersheds (POW)  
ManaSota-88  
Sierra  
The Conservancy of Southwest Florida  
Press

## Comments and Request for Additional Information

1. **Water withdrawals** - This application includes no information about the current permitted or proposed withdrawals of ground water or surface water for this proposed expansion by CFI or for any other existing or proposed mines in the region, including South Pasture, North Pasture, Four Corners, Ft. Meade, South Ft. Meade, South Ft. Meade Extension and Ona Mines. Proper assessment of the impacts of the proposed mine expansion requires that a copy of all water use and consumptive use permits, including original permits and all modifications, for at least all of these existing and proposed mines be included as part of this application. **On-line information suggests that current water use by CFI in Hardee County may be as high as 50 million gallons per day (MGD).**
2. **Regional impacts** – We believe that regional environment impacts already have occurred from existing mining in the Peace River watershed. Specifically, we believe that existing mining projects have severely altered natural hydroperiods that are critical for maintaining surrounding depressional and riparian wetlands and upland ecosystems and the wildlife those habitats support. We believe there is evidence that the regional impacts from mining in the Peace River watershed are not confined to this watershed, but also are affecting the Everglades watershed to the east and the Alafia River, Manatee River and Myakka River watersheds to the west. Because the proposed mining project would exacerbate the regional environment impacts that already have occurred to the environment, water availability and economy, **the South Florida Regional Planning Council (SFRPC) and the Tampa Bay Regional Planning Council (TBRPC), as well as the Central Florida Regional Planning Council (CFRPC), should be required to evaluate the proposed SPX mine as a Development of Regional Impact (DRI).**
3. **Previous USGS studies** – Previous United States Geological Survey (USGS) studies have provided invaluable information applicable to the types of large-scale impacts associated with mining in central Florida. For example, the study by Lewelling, Tihansky and Kindinger, published in 1998 (*Assessment of the Hydraulic Connection Between Ground Water and the Peace River, West-Central Florida, USGS Water-Resources Investigations Report 97-4211*) documented altered natural drainage patterns, flow reversals in the aquifer system and cessation of spring flow in the Peace River watershed due to the groundwater impacts associated with phosphate mining. Seismic-reflection profiles from this study also documented disruption of confinement – the separation of aquifer layers - associated with the Peace River. Another relevant USGS study was conducted by Swancar, Lee and O’Hare and published in 2000 (*Hydrogeologic setting, water budget, and preliminary analysis of ground-water exchange at Lake Starr, a seepage lake in Polk County, Florida, Water-Resources Investigations Report 00-4030, p. 65*). That study documented that large bodies of water resulted in large losses of water to evaporation, resulting in nonmechanical dewatering of the aquifer system. Considering the findings of that report, the impact of the aquifer system being converted into existing and proposed mine pits (erroneously called “lakes”) results in the irreversible depletion of the aquifer system. **The application fails to address these significant impacts and we believe that the magnitude of these impacts surpass the ability to be addressed by the applicant.**

4. **Essential USGS regional study** – As indicated above, the degree to which the natural environment and water resources have been affected and will be affected on and surrounding the proposed mine site, alone and combined with other actions (e.g., pre-existing phosphate strip mines), cannot be determined by the level of information in the application or typically generated by the water management districts or DEP during the permit-application review process. Therefore, we request that DEP and the water management districts initiate a collaborative study with the USGS to identify hydrologic changes, including changes in the natural hydroperiod that have occurred in the Peace River watershed and surrounding areas where the proposed mining would be located. Dr. Louis C. Murray, a hydrologist with the USGS office in Orlando, indicated that a related study performed by USGS in 1988 (<http://pubs.er.usgs.gov/usgspubs/wri/wri884073>), like the Polk County study referenced above (<http://pubs.usgs.gov/sir/2006/5320/>), could provide regulatory agencies and municipalities with scientifically based information needed to make regulatory decisions. The more recent, Polk County study was completed as a 50% cost-share project with the USGS, with the remaining 50% provided by the water management districts and Polk County. **We believe that the results of an updated regional study by USGS, evaluating the degree of impact to the natural environment and water resources of mining in the Peace River, are essential before the proposed CFI mine expansion application can be considered complete.**
  
5. **Corps EIS required** – The applicant has provided no formal assessment of regional direct, indirect, and cumulative impacts of the proposed CFI South Pasture Mine Joint ERP application. We do not believe such an assessment should be attempted by the applicant. The established procedure is for this type of assessment to be conducted by the responsible federal agency as an Environmental Impact Statement (EIS). In this case, the agency is the U.S. Army Corps of Engineers (Corps), in conjunction with the U.S. Fish and Wildlife Service. Please note that the Corps readily initiated an EIS to evaluate the impacts of the proposed Titan/Tarmac mine in Levy County, referenced in the cover letter, despite the fact that the impacts from that proposed mine should be significantly less than the impacts from the proposed CFI mine expansion. **Because of the regional and cumulative impacts associated with the proposed CFI mine expansion other proposed mines and existing mines, it is essential that an EIS be conducted, in conjunction with the U.S. Fish and Wildlife Service(USFWS) and that the application for the proposed CFI mine expansion be deemed incomplete until the EIS process has addressed these comments and been completed.**
  
6. **Peace River Basin Resource Management Plan** - Taxpayers currently are paying approximately \$20 billion in an attempt to re-establish sheetflow in the Everglades. The exorbitant cost and lack of success of the attempted Everglades restoration effort, combined with the lessons learned from the Peace River experience, confirms that significant losses of wetlands and natural surface waters occur, with unaddressed cumulative impacts, because of *inadequate permitting reviews*. **DEP and the Corps should consider the Peace River Cumulative Impact Study as an initial guiding document during the Joint ERP process for the proposed SPX mine (see Peace River Basin Resource Management Plan, Florida Department of Environmental Protection, March 2007).**

7. **Direct environmental impacts** – The proposed CFI SPX would result in direct impacts to the wetlands associated with Lettis, Troublesome and Brushy Creeks and the headwaters of Horse Creek, the most significant remaining tributary of the Peace River. The proposed mine also may contribute directly to aquifer decline in the Myakka River basin because of the proximity of the proposed mine to the headwaters of the Myakka River and the Duette Headwaters Preserve. **We believe that the required EIS review will identify additional direct environmental impacts from the proposed mine expansion.**
8. **Outstanding Florida Waters** – The Myakka River and tributaries have been designated Outstanding Florida Waters (OFW), pursuant to Chapter 62-302.700(9)(i)34 (F.A.C.). This designation is defined as waters of the state with “exceptional recreational or ecological significance” (Chapter 62-302.700(3), F.A.C.). Significant interactions occur between ground and surface water at and surrounding the site location of the proposed SPX mine within the Peace River watershed and adjacent Myakka headwaters. Therefore, **a sound hydrologic approach must be used to evaluate how the proposed mining project will affect both local and regional sheet flow, recharge and discharge patterns within the Peace River watershed, as well as within the Myakka River watershed.**
9. **Cumulative environmental impacts** – As indicated above, the cumulative impacts that have occurred in a 5,100 square mile, eight-county area of the Peace River watershed have resulted in hydroperiod alterations, other environmental impacts and water resource impacts beyond the surface boundaries of the Peace River watershed. Examples of adjacent ecosystems that rely on the natural water quality and water quantity conditions include, but are not limited to, those with OFW designation described above, in addition to public properties such as: Duette Preserve; Duette Headwaters Preserve; Horse Creek, a major tributary of the Peace River; Moody Branch Wildlife Management Area. The Peace River is the primary source of fresh water for the Charlotte Harbor Estuary. Both are recognized by the National Estuary Program and the U.S. Environmental Protection Agency (USEPA) as an Aquatic Resource of National Importance (ARNI). **The EIS evaluation of the proposed CFI SPX mine by the Corps must include the combined (cumulative) regional impacts from the entire amalgamation of phosphate strip mines listed in the cover letter, on the public resources described above.**
10. **Water quality v. water quantity** - Additional data are needed in order to determine the extent and magnitude of water quantity and water quality impacts in this regional karst system from proposed: a) mining and removing + 400 million tons of phosphate rock per year; b) groundwater and surface water withdrawals and c) other cumulative impacts to the aquifer system and surface waters, (e.g., from existing mines referenced in the cover letter and above). Existing data may be available from multiple agencies, including the water management districts, as well as in published literature. After the available data are compiled, modeled predictions should be provided for the magnitude and extent of potential changes in the existing water quality and quantity conditions. **A comprehensive summary of water quality and quantity impacts documented from completed or active mining in Florida should be used for any analysis of potential impacts from the proposed CFI SPX mine.**

11. **Water quality parameters** – The minimum monitoring requirements for water quality parameters of both ground and surface waters critical to ecosystem maintenance include, but are not limited to:
  - chloride
  - pH
  - nitrogen (all forms)
  - phosphorus (all forms)
  - specific conductivity
  - sulfate
  - turbidity
  
12. **Water quantity considerations** – The net groundwater flow in the basin surrounding the proposed CFI SPX mine must be documented in order to determine any impacts/changes within the water budget of this region including when precipitation is negative over long periods of time (i.e., annual dry seasons and periods of below average rainfall). Since impoundment of water (a practice of the phosphate mining industry and most other mining projects) represents another means of altering natural hydroperiod, it is of great importance that the EIS quantifies the magnitude and extent of the alterations associated with this aspect of the proposed mining project. Significant changes in the hydroperiod in the surficial aquifer will occur throughout the entire period of this land use operation, the effect of these changes in the natural communities, especially on public land, should be identified and alternatives discussed. **The hydrologic model of mining impacts should estimate the magnitude and extent of the permanent alteration in the surficial aquifer hydroperiod from the volumetric removal of the aquifer structure (matrix), impoundment of water and other hydrologic alterations from the proposed mining activities, in addition to predicting and evaluating the impacts from: a) altered surface/sheetflow; b) increased evaporative loss; and c) aquifer dewatering.**
  
13. **Bioindicators** – The Scientific Peer Review Panel that provided recommendations regarding monitoring of the lower Peace River and Charlotte Harbor emphasized the importance of bioindicators. Numeric data and standards for water quality and water quantity monitoring are not substitutes for bioindicators, which are capable of providing far more meaningful information than numeric data. **The EIS should include an assessment of bioindicators relevant to the proposed mining project.**
  
14. **Reclamation v. restoration** – Inasmuch as mining authorities consider the primary objective in the mine reclamation program to be ‘restoration of function’, State of Florida policy dictates that “restoration shall be designed to reflect the biological structure and hydrology of the wetland community that was disturbed, but shall not require total replication of the previous wetland vegetation” (Chapter 62C-16.0051, F.S. Reclamation and Restoration Standards). **Historic water quality and quantity in the Peace River and Myakka watersheds and the Charlotte Harbor Estuary should be the central focus of the Joint ERP in determining the degree to which ecological function will be altered as a result of locating the proposed SPX mine in close proximity to significant natural resources within this ecologically sensitive region, with consideration also given to the Everglades watershed.**

15. **Reclamation** – Any mining activity and subsequent reclamation in the proposed SPX mine site would simply be a replacement of the natural community to artificially constructed reclamation areas (primarily clay settling ponds) and open-water mine pits. It would be unrealistic to expect a return of the SPX mined landscape to pre-mining conditions, given that current BMR policy does not require natural community replication, true restoration of mined lands has not been accomplished and the restoration process itself is very costly. In fact, State of Florida mining permit applications filed by some Florida mining companies (i.e. PCS mines in Hamilton County) explicitly have stated that the reclamation program is *not designated* to replicate “pre-mining conditions”. **For this reason, the ecological functioning of the unique natural community within the SPX mined area will be subjected to irreversible change. The direct, indirect and cumulative impacts of those changes should be addressed in the EIS.**
16. **Endangered and threatened species** – Given the predicted lack of post-mining restoration of the mined area to its original natural communities, an immediate question is what would be the magnitude and extent of impacts on areas down gradient from the mine? The Charlotte Harbor Aquatic Preserves, established by the state of Florida in 1975, are five contiguous aquatic preserves within the greater Charlotte Harbor estuary. That area includes salt marshes, mangroves, sea grass, oyster and tidal flats. It also provides critical habitat for many endangered and threatened species, including the Florida panther, American Alligator, West Indian Manatee, Bald Eagle, Wood Stork, Piping Plover, American crocodile, Green and Loggerhead Sea Turtles, Gulf sturgeon, Royal False Pawpaw (*Deeringothamnus pulchellus*), Florida Perforate Cladonia (*Cladonia perforata*) and the Small-toothed Sawfish. In 2003 the Small-Toothed Sawfish was officially listed as a Federally endangered species. On November 20, 2008, to provide better protection for this endangered species, the Charlotte Harbor Estuary was proposed as Critical Habitat for the Small-Toothed Sawfish. It has been determined that a “resident reproducing population of 7 small-tooth sawfish exists only in southwest Florida.” Estuarine habitats near sources of freshwater inflow appear to be an important feature in species distribution. This proposal for critical habitat designation emphasizes the need to recognize the extraordinary environmental value of the Estuary and to ensure that the proposed mine expansion does not jeopardize the estuary or aquatic preserves. **The magnitude and extent of mining impacts on local groundwater and surfacewater resources also need to address the likelihood that significant changes may take place in the sensitive and already-threatened ecosystem of the Charlotte Harbor Estuary.**
17. One of the four primary “stressors” discussed in the 2007 Peace River Cumulative Impact Study specifically evaluated and analyzed the impacts of phosphate mining on the local hydrology and natural resources of the Peace River Basin. The dewatering from mining/beneficiation areas within this basin has become a serious local problem related to altered hydrology and natural hydroperiods. Attempting to reverse these problems using aquifer recharge wells and ditches to regulate and theoretically maintain a desired hydrological condition within non-mined natural communities on and surrounding the proposed mine can result in more serious problems. **The EIS should address potential adverse hydrologic and environmental impacts of constructing aquifer recharge wells and ditches.**

18. **Additional comments** – After the information referenced above is provided in the draft EIS, additional questions and comments may arise regarding the direct, indirect and cumulative impacts of the proposed mining project on natural resources, the public interest and all public and private properties in this environmentally sensitive region.





# Florida Department of Environmental Protection

Marjory Stoneman Douglas Building  
3900 Commonwealth Boulevard  
Tallahassee, Florida 32399-3000

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

April 25, 2008

Mr. Edward P. Sarfert, Project Manager  
Pensacola Regulatory Office  
U.S. Army Corps of Engineers  
41 North Jefferson Street, Suite 111  
Pensacola, FL 32502-5794

RE: Department of the Army, Jacksonville District Corps of Engineers - Notice of Intent to Prepare a Draft Environmental Impact Statement on Rock Mining in Wetlands in Southern Levy County, Tarmac King Road Limestone Mine Project - Lebanon, Levy County, Florida.  
SAI # FL200803124108C

Dear Mr. Sarfert:

The Florida State Clearinghouse, pursuant to Presidential Executive Order 12372, Gubernatorial Executive Order 95-359, the Coastal Zone Management Act, 16, U.S.C. §§ 1451-1464, as amended, and the National Environmental Policy Act, 42 U.S.C. §§ 4231, 4331-4335, 4341-4347, as amended, has coordinated a review of the subject notice of intent.

The Florida Department of Environmental Protection (DEP) has reviewed the public notice and provided extensive comments on the proposal to evaluate the potential impacts of further rock mining within a 4,800-acre area north of Inglis, Florida. DEP Division of Recreation and Parks and Office of Coastal and Aquatic Managed Areas staffs have expressed concerns regarding the direct, secondary and cumulative impacts of mining on: surface and ground water quality and quantity in the Waccasassa watershed and associated Waccasassa River, Tenmile Creek, Spring Run, Turtle Creek, Waccasassa Bay, Withlacoochee Bay and area springs; the estuarine systems within adjacent public lands - Waccasassa Bay Preserve State Park and Big Bend Seagrasses Aquatic Preserve; federally and state-listed species; and outdoor recreation in the vicinity of the project.

In addition, the DEP Northeast District office in Jacksonville advises that, depending on the size and exact nature of the proposed mining operation, air permitting may be required. Please contact Ms. Rita Felton-Smith at (904) 807-3237 for additional permitting information and assistance. The mine will also require an individual industrial wastewater permit or a general permit for sand and limestone mines in accordance with Rule 62-660.804, *Florida Administrative Code (F.A.C.)*. DEP requests that the U.S. Army

Mr. Edward P. Sarfert  
April 25, 2008  
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Corps of Engineers consult with the DEP Bureau of Mine Reclamation's regulatory staff and the above DEP offices when meeting with the Department of the Army permit applicant and developing the Draft Environmental Impact Statement to provide additional project details, facilitate resolution of project issues, and develop strategies for avoidance, minimization and mitigation of resource impacts. Please refer to the enclosed DEP memoranda for further detailed comments and recommendations.

The Florida Department of State (DOS) notes that a review of the Florida Master Site File indicated that no significant cultural resources have been recorded in the project area. The lack of recorded resources is an indication, however, that the area has not been subjected to a professional archaeological or historical investigation. DOS requests that a cultural resource management consultant conduct a cultural resource assessment survey of the mine project area to locate and assess the significance of resources present on-site. The resultant survey report should conform to the specifications set forth in Chapter 1A-46, F.A.C., and be forwarded to the DOS Division of Historical Resources for further review. Please see the attached DOS letter for additional information.

The Southwest Florida Water Management District (SWFWMD) advises that a Water Use Permit for the applicant's water supply needs will be required from the SWFWMD. Digital topography for Levy County may be available to the applicant later this year to assist in determining regulatory delineations, elevations and hydroperiods for this site. The SWFWMD requests to be copied on future project submittals. Please refer to the enclosed SWFWMD letter.

The Withlacoochee Regional Planning Council (WRPC) notes that, given the magnitude of the proposal and potential water consumption rate for mining activities, the WRPC has requested that the Florida Department of Community Affairs review the mine project to determine whether it will qualify as a Development of Regional Impact (DRI). Though mitigation of impacts is possible in many cases, staff has expressed concerns regarding the potential project impacts to groundwater and surface water quality and quantity, regionally significant ecosystems and habitat, and adjacent conservation lands. Staff anticipates a DRI process will likely be needed to ascertain the project's effects on the applicable goals and policies of the WRPC's adopted *Strategic Regional Policy Plan for the Withlacoochee Region*. Please see the enclosed WRPC letter for further details.

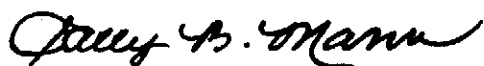
Based on the information contained in the notice of intent and the enclosed state agency comments, the state has determined that, at this stage, the proposed federal action is consistent with the Florida Coastal Management Program (FCMP). The concerns identified by our reviewing agencies must be addressed, however, prior to project implementation. All subsequent environmental documents must be reviewed to determine the project's continued consistency with the FCMP. The state's continued

Mr. Edward P. Sarfert  
April 25, 2008  
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concurrency with the project will be based, in part, on the adequate resolution of issues identified during this and subsequent reviews. The state's final concurrence of the project's consistency with the FCMP will be determined during the environmental permitting stage.

Thank you for the opportunity to review the proposed project. Should you have any questions regarding this letter, please contact Ms. Lauren P. Milligan at (850) 245-2170.

Yours sincerely,



Sally B. Mann, Director  
Office of Intergovernmental Programs

SBM/lm  
Enclosures

cc: David Adams, DEP, BOMR  
Mark Latch, DEP, DRP-BNCR  
Rick Owen, DEP, DRP-District 2  
Ellen McCarron, DEP, OCAMA  
Melissa Charbonneau, DEP, OCAMA-BBSAP  
Beth Weatherford, DEP, Northeast District  
Laura Kammerer, DOS  
Rand Frahm, SWFWMD  
Vivian Whittier, WRPC



# Florida

Department of Environmental Protection

"More Protection, Less Process"



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Project Information	
<b>Project:</b>	FL200803124108C
<b>Comments Due:</b>	04/14/2008
<b>Letter Due:</b>	04/25/2008
<b>Description:</b>	DEPARTMENT OF THE ARMY, JACKSONVILLE DISTRICT CORPS OF ENGINEERS - NOTICE OF INTENT TO PREPARE A DRAFT ENVIRONMENTAL IMPACT STATEMENT ON ROCK MINING IN WETLANDS IN SOUTHERN LEVY COUNTY, TARMAC KING ROAD LIMESTONE MINE PROJECT - LEBANON, LEVY COUNTY, FLORIDA.
<b>Keywords:</b>	ACOE - NOI, TARMAC KING ROAD LIMESTONE MINE PROJECT - LEBANON, LEVY CO.
<b>CFDA #:</b>	99.997
<b>Agency Comments:</b>	
<b>WITHLACOOCHEE RPC - WITHLACOOCHEE REGIONAL PLANNING COUNCIL</b>	
The WRPC notes that, given the magnitude of the proposal and potential water consumption rate for mining activities, the WRPC has requested that the Florida Department of Community Affairs review the mine project to determine whether it will qualify as a Development of Regional Impact (DRI). Though mitigation of impacts is possible in many cases, staff has expressed concerns regarding the potential project impacts to groundwater and surface water quality and quantity, regionally significant ecosystems and habitat, and adjacent conservation lands. Staff anticipates a DRI process will likely be needed to ascertain the project's effects on the applicable goals and policies of the WRPC's adopted "Strategic Regional Policy Plan for the Withlacoochee Region."	
<b>LEVY -</b>	
No Comments Received	
<b>AGRICULTURE - FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES</b>	
No comment	
<b>COMMUNITY AFFAIRS - FLORIDA DEPARTMENT OF COMMUNITY AFFAIRS</b>	
DCA has no comment.	
<b>FISH and WILDLIFE COMMISSION - FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION</b>	
FWC staff is currently in communication with the USACE regarding the on-going wildlife surveys to support the DEIS. No further comments at this time per Mary Ann Poole.	
<b>STATE - FLORIDA DEPARTMENT OF STATE</b>	
A review of the Florida Master Site File indicates that no significant cultural resources have been recorded in the project area. The lack of recorded resources is an indication, however, that the area has not been subjected to a professional archaeological or historical investigation. DOS requests that a cultural resource management consultant conduct a cultural resource assessment survey of the mine project area to locate and assess the significance of resources present on-site. The resultant survey report should conform to the specifications set forth in Chapter 1A-46, F.A.C., and be forwarded to the DOS Division of Historical Resources for further review.	
<b>TRANSPORTATION - FLORIDA DEPARTMENT OF TRANSPORTATION</b>	
Released Without Comment	

**ENVIRONMENTAL PROTECTION - FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

DEP has reviewed the public notice and provided extensive comments on the proposal to evaluate the potential impacts of further rock mining within a 4,800-acre area north of Inglis, Florida. DEP Division of Recreation and Parks and Office of Coastal and Aquatic Managed Areas staffs have expressed concerns regarding the direct, secondary and cumulative impacts of mining on: surface and ground water quality and quantity in the Waccasassa watershed and associated Waccasassa River, Tenmile Creek, Spring Run, Turtle Creek, Waccasassa Bay, Withlacoochee Bay and area springs; the estuarine systems within adjacent public lands - Waccasassa Bay Preserve State Park and Big Bend Seagrasses Aquatic Preserve; federally and state-listed species; and outdoor recreation in the vicinity of the project. In addition, the DEP Northeast District office in Jacksonville advises that, depending on the size and exact nature of the proposed mining operation, air permitting may be required. Please contact Ms. Rita Felton-Smith at (904) 807-3237 for additional permitting information and assistance. The mine will also require an individual industrial wastewater permit or a general permit for sand and limestone mines in accordance with Rule 62-660.804, Florida Administrative Code. DEP requests that the U.S. Army Corps of Engineers consult with the DEP Bureau of Mine Reclamation's regulatory staff and the above DEP offices when meeting with the Department of the Army permit applicant and developing the Draft Environmental Impact Statement to provide additional project details, facilitate resolution of project issues, and develop strategies for avoidance, minimization and mitigation of resource impacts.

**SOUTHWEST FLORIDA WMD - SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT**

The SWFWMD advises that a Water Use Permit for the applicant's water supply needs will be required from the SWFWMD. Digital topography for Levy County may be available to the applicant later this year to assist in determining regulatory delineations, elevations and hydroperiods for this site. The SWFWMD requests to be copied on future project submittals.

For more information or to submit comments, please contact the Clearinghouse Office at:

3900 COMMONWEALTH BOULEVARD, M.S. 47  
TALLAHASSEE, FLORIDA 32399-3000  
TELEPHONE: (850) 245-2161  
FAX: (850) 245-2190

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**TO:** Florida State Clearinghouse

**FROM:** Mark Latch, Assistant Bureau Chief  
Bureau of Natural and Cultural Resources  
Division of Recreation and Parks

**DATE:** April 15, 2008

**SUBJECT:** Development of a Draft Environmental Impact Statement by the U.S. Army Corps of Engineers (USACOE) for the Proposed Tarmac King Road Limestone Mine in Levy County.  
SAI # FL08-4108C

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Staff of the Bureau of Parks District 2 have reviewed available information concerning the proposed 4,800-acre Tarmac King Road Limestone Mine in Levy County. The proposed mining activity would be located just east of Waccasassa Bay Preserve State Park, actually within one to one and a half miles of the preserve's east boundary. Listed below are major concerns we have regarding the potential for the proposed mine to cause significant impacts to natural resources and recreation within the state preserve. The draft Environmental Impact Statement (EIS) being developed by the USACOE needs to address those concerns.

#### Regional Hydrology

- We believe that scientists/hydrologists from both regional water management districts, Suwannee River (SRWMD) and Southwest Florida (SWFWMD), should be involved in the determination of potential impacts from limerock mining at the proposed Tarmac King Road Mine. Because of the manner in which water management district boundaries are drawn, hydrological matters related to this mining activity would normally come under the purview of SWFWMD. However, management of the groundwater basin (Northern West-Central Florida) and surface water watershed (Waccasassa) would seem to be the responsibility of both districts.
- Managing resources on a watershed scale certainly presents an inherently complex set of challenges for water managers. We believe it would be useful for the USACOE to reference other comparable mining/hydrology issues recently experienced in Florida. For example, the documented hydrological and ecological impacts caused by mining in the Peace River watershed (within the SWFWMD) could be used as a model for developing the Tarmac Limerock Mine draft EIS due to similarities in potential land use impacts (some of which have already occurred and are currently being mitigated). The ecological and public water supply impacts that occurred in a 5,100-square mile, eight-county area of the Peace River watershed resulted in aquifer level declines throughout the

groundwater basin. A lesson learned from the Peace River experience is that, if significant losses of wetlands and streams and additional cumulative impacts occur because of questionable permitting, then legislative action that is costly to the State of Florida (SWFWMD) may follow (i.e., Implementation of Southern Water Use Caution Area and associated policies). We recommend that the USACOE carefully consider the Peace River Cumulative Impact Study (see Peace River Basin Resource Management Plan, Florida Department of Environmental Protection, March 2007) during the draft EIS process for the Tarmac mine.

- In November 2006, the SRWMD set a Minimum Flow and Level (MFL) (Section 373.042(1), Florida Statutes (F.S.)) for the Waccasassa River, Estuary and Levy Blue Spring, the latter being a significant source for the river. Due to the significant connection between groundwater and surface water and the proximity of the proposed Tarmac mine to the Waccasassa watershed, we believe that the draft EIS should research how alterations in watershed discharge patterns may have cumulative impacts on the MFL for the Waccasassa system.
- Inasmuch as mining authorities consider the primary objective in the mine reclamation program to be 'restoration of function,' State of Florida policy dictates that "restoration shall be designed to reflect the biological structure and hydrology of the wetland community that was disturbed, but shall not require total replication of the previous wetland vegetation" (Section 62C-16.0051, F.S./ Reclamation and Restoration Standards). Water quality and quantity in the Waccasassa drainage basin and its associated estuary should be the central focus of the draft EIS in determining whether ecological function will be altered significantly as a result of locating the Tarmac mine in close proximity to significant natural resources within Florida state parks.

#### Local Hydrology

- According to Levy County soils data for the proposed mine area, the dominant natural community that would be permanently altered at the mine site is hydric hammock. It should be obvious to all concerned that any mining activity and subsequent reclamation in the Tarmac mine area would simply be a natural community replacement from hydric hammock to artificially constructed uplands and open water lakes. It would be unrealistic to expect a return of the Tarmac mine landscape to pre-mining conditions, given that current DEP Bureau of Mine Reclamation policy does not require natural community replication, the science of restoration ecology is in its infancy, and the restoration process itself is very costly. In fact, State of Florida mining permit applications filed by some Florida mining companies (i.e., PCS mines in Hamilton County) have explicitly stated that the reclamation program is not designated to replicate "pre-mining conditions." The ecological functioning of this unique natural community within the Tarmac mined area will inevitably change, and the USACOE should consider that probability during development of the draft EIS for the Tarmac mine.

- One of the four primary “stressors” discussed in the 2007 Peace River Cumulative Impact Study specifically evaluated and analyzed the impacts of phosphate mining on the local hydrology and natural resources of the Peace River Basin. The dewatering of phosphate mining/beneficiation areas within this basin became a very serious local hydrological problem related to decreased groundwater levels. One current solution, which has evolved from this dewatering issue, is to use groundwater modeling to design and construct surficial aquifer recharge wells and ditches to regulate and theoretically maintain a desired hydrological condition within non-mined adjacent natural communities. Major hurdles that the proposed Tarmac mines in the Waccasassa basin would have to resolve are consequences of dewatering within this region of the Floridan aquifer, and subsequent changes that may affect the recently set Waccasassa River MFL.
- Since the risk of surface water storage (a practice used by the phosphate mining industry) can alter drought season hydroperiods, it should be of great importance during the EIS to understand specific quantities of ground water use needed during the Tarmac mining activities. If there is any anticipated change to the regional Floridan aquifer level throughout the entire period of this land use operation, we would suggest the project not be allowed to proceed.
- Given the predicted lack of restoration of the mine to its original natural community, an immediate question that arises is what would be the impact on properties down gradient from the mine? The Gulf Coast region from the St. Marks River south to the Homosassa River contains the state’s largest remaining stretch of hydric hammock, with Waccasassa Bay Preserve itself protecting 7,000 acres. Will there be a gradual transformation of the high quality hydric hammock that persists within Waccasassa Bay Preserve to other community types because limerock mining adjacent to the preserve has altered local hydrological regimes, whether groundwater, surface water or both? A long-term lowering (or rise) of groundwater levels of only a couple inches could dramatically alter the preserve’s hydric hammock. The draft EIS should carefully examine the possible effects of mining on local ground and surface water resources, focusing on the likelihood that significant changes may take place in high quality hydric hammock within the adjacent Waccasassa Bay Preserve.
- Numerous spring-fed streams, including Spring Run, Thousand Mile Creek, and Turtle Creek, originate either within the proposed Tarmac mine site or just outside it. These streams flow directly through Waccasassa Bay Preserve State Park and into the southern reach (Low’s Bay) of the Big Bend Seagrasses Aquatic Preserve. This estuarine system, constituting the largest aquatic preserve in Florida, is one of the most pristine natural areas in the state. Estuaries are highly dynamic ecosystems lying between freshwater and saline water systems. Numerous organisms within this highly productive brackish community depend directly on freshwater pulses emanating from the adjacent coastal wetland communities. The tidal creeks and embayments serve as essential filters during



the breakdown of detrital material. The Waccasassa Bay region supports an important commercial shellfish industry and a thriving sport fishing business. The draft EIS should carefully consider any water quality or quantity changes that the Tarmac mining activities might cause to occur in these streams. Possible hydraulic connections between the proposed mine site and Spring Run should be identified and evaluated, and proposed mine activities that may adversely affect this stream should not be permitted.

- The draft EIS should also consider the possibility that a decrease in water supply to spring-fed streams or to natural sheet flow in the area, or a change in the timing of that supply, may cause an exacerbation of the already observed negative effects of steadily rising sea levels in the Waccasassa Bay area. Conversely, if limerock mining happens to cause a speedier passage of freshwater to Waccasassa Bay by short-circuiting the gradual sheet flow process that normally would occur in the hydric hammock, the result could be too quick a release of a greater volume of freshwater into an estuarine system that is adapted to a slower, more gradual inflow of freshwater. Hydrological studies integral to the draft EIS should be designed to determine whether limerock mining in the Tarmac King Road site would significantly alter the natural hydrologic regime that has functioned so well for many years in the Waccasassa Bay area.
- The Waccasassa Bay area is considered a low energy coastline, but because of the flat terrain, storm surges from hurricanes and other major storms often extend far inland, and would likely reach the Tarmac mine property. The draft EIS should consider the possible effects of storm surges on the waste containment operation of the mine and describe viable mitigation measures for such eventualities.

#### Listed Species

- The proposed Tarmac mine could negatively affect a number of threatened or endangered animal and plant species found in the southern Gulf Coast region. It is imperative that the draft EIS consider potential impacts of the mine on state or federally listed species. In the Big Bend estuarine system, three state or federally listed marine turtle species (green, Atlantic Ridley, and loggerhead) and the Florida manatee use the highly productive neritic resources of the region. Green turtles are herbivores at all stages of their life history, but those individuals that forage on a diet of seagrasses in the Waccasassa Bay estuary are a critically important "teen-age" cohort. Both loggerheads and Atlantic Ridley marine turtles forage on many of the shellfish within those same waters.
- Within the ephemerally flooded high salt marsh, the federally endangered Florida salt marsh vole is known from only two sites in the Waccasassa Bay region of Levy County (one on public land, the other on private). Currently no populations are known from Waccasassa Bay Preserve State Park. Biologists in the U.S. Fish and Wildlife Service (USFWS), however, suggest that this park holds the best chance of harboring additional

populations. The USACOE has strict standards associated with any dredge and fill activities in salt marsh habitats pursuant to the Clean Water Act.

- The eastern indigo snake is another federally listed species found in Waccasassa Bay Preserve State Park, specifically within upland communities such as pine flatwoods and the drier portions of hydric hammock. Research in Florida suggests that this species requires a large home range (~ 4.8 ha), and therefore it is not surprising to find this animal in multiple natural community types. Indigo snakes also commonly occur on cutover private timberlands just to the east of Waccasassa Bay Preserve, so the proposed Tarmac mine site could very well contain a population of this species. Listed species surveys conducted for the draft EIS should cover multiple habitat types and should be scheduled to include all seasons.
- Thriving populations of certain state-listed plant species, including corkwood and Florida pinkroot, occur in Waccasassa Bay Preserve. Many of the listed species continue to persist in the preserve despite occupying narrow ecological niches, however even a slight, long-term increase or decrease in groundwater levels could cause their eventual disappearance.

#### Recreation

- Recreation is a primary driving force in the economics of this region of Gulf Coastal Florida. The recreational experience in the Waccasassa Bay area is unique, with highly scenic vistas and remote, peaceful spots for fishing or nature-enjoyment seemingly around every bend and up every tidal creek. We are very concerned that noise carried west from the Tarmac King Road mine site could dramatically diminish the outdoor experience so avidly sought by canoeists, fishermen, and other low-impact recreationists. We would like the draft EIS to contain a thorough risk analysis and cost/benefit analysis relative to allowing this type of land use change in close proximity to a state-owned wilderness area.

#### Mitigation Area

- The draft EIS should determine exactly what land management activities would be allowed on the "Conservation Easement" proposed as mitigation for the mine.
- The EIS should also describe in detail the measures that would be employed to restore the natural hydrology and ecology of the proposed mitigation property.

Given the vulnerable nature and pristine quality of Waccasassa Bay Preserve State Park and Big Bend Seagrasses Aquatic Preserve, the USACOE should exercise due diligence when developing the draft EIS for the proposed Tarmac King Road limerock mine and carefully review all

Memorandum  
April 15, 2008  
Page 6 of 6

possible factors that might negatively affect the lands and operations within the two preserves. Staff at Waccasassa Bay Preserve and biologists at the District 2 Office of the Department's Division of Recreation and Parks would be delighted to assist the USACOE in any way possible during the development of the draft EIS.



# Florida Department of Environmental Protection

Marjory Stoneman Douglas Building  
3900 Commonwealth Boulevard  
Tallahassee, Florida 32399-3000

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

April 10, 2008

Lauren P. Milligan  
Environmental Manager  
Florida State Clearinghouse  
Florida Department of Environmental Protection  
3900 Commonwealth Blvd, M.S. 47  
Tallahassee, FL 32399-3000

**File #:** SAI# FL8-4108C Federal Consistency Review  
**Location:** Levy County  
**Aquatic Preserve:** Big Bend Seagrasses Aquatic Preserve, OFW  
**Activity:** Tarmac King Road Limestone Mine

**RECEIVED**  
APR 23 2008  
**OIP / OLGA**

Dear Ms. Milligan,

Big Bend Seagrasses Aquatic Preserve has reviewed the information provided for SAI # FL8-4108C, Tarmac King Road Limestone Mine.

The proposed project is located immediately adjacent to Big Bend Seagrasses Aquatic Preserve and has the potential to impact the coastal habitats and aquatic resources within the Aquatic Preserve. The proposed project will directly impact +/- 1140.2 acres of coastal wetlands and is located in a Coastal High Hazard Zone. As proposed, the project has the potential to have the following indirect impacts to the Aquatic Preserve: 1) alteration of the amount of fresh water entering the Withlacoochee Bay estuary through changes in direct runoff and ground water inputs; 2) change sedimentation rates; 3) increase land subsidence; 4) change in structural and functional characteristics of the coastal natural communities.

The proposed project is located adjacent to Class II Shellfish Water and has the potential to impact fisheries in Withlacoochee Bay. The resources within the Withlacoochee estuary are economically important to local commercial fishermen, and the Withlacoochee estuary is also a recreational fishing destination, which provides economic stimulus to the local economy.



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Florida's Aquatic Preserves are protected under Chapter 258 and 18-20, of the Florida Administrative Code.

**Chapter 258.36 Legislative intent** states, "It is the intent of the Legislature that the state-owned submerged lands in areas which have exceptional biological, aesthetic, and scientific value, as hereinafter described, be set aside forever as aquatic preserves or sanctuaries for the benefit of future generations." Section 258.37 defines an Aquatic Preserve as "...an exceptional area of submerged lands and its associated waters set aside for being maintained essentially in its natural or existing condition." Big Bend Seagrasses Aquatic Preserve is characterized as being of (1) Biological (2) Aesthetic (3) Scientific.

**18-20.001(1) F.A.C.** states, "All sovereignty lands within a preserve shall be managed primarily for the maintenance of essentially natural conditions, the propagation of fish and wildlife, and public recreation..."

**18-20.001(3)(h)** states "To maintain those beneficial hydrologic and biologic functions, the benefits of which accrue to the public at large."

**18-20.004(2)(a-c), F.A.C.,** states, "In evaluating requests for sale, lease or transfer of interest, a balancing test will be utilized to determine whether the social, economic and/or environmental benefits clearly exceed the costs."

In evaluating the benefits and cost of each request, specific consideration and weight shall be given to the quality and nature of the specific aquatic preserve. Projects in the less developed, more pristine aquatic preserves shall be subject to a higher standard than the more developed preserves.

Big Bend Seagrasses Aquatic Preserve consists of a large, remote and undeveloped expanse of submerged seagrasses and near shore emergent marshlands. The pristine resources of the Big Bend Seagrasses Aquatic Preserve warrant the maximum protection allowable under the rules and guidelines of the Aquatic Preserve Program

## **18-20.006 Cumulative Impacts**

In evaluating applications for activities within the preserves or which may impact the preserves, the Board recognizes that, while a particular alteration of the preserve may constitute a minor change, the cumulative effect of numerous such changes often results in major impairments to the resources of the preserve. Therefore, the particular site for



# Florida Department of Environmental Protection

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which the activity is proposed shall be evaluated with the recognition that the activity may, in conjunction with other activities, adversely affect the preserve which is part of a complete and interrelated system. The impact of a proposed activity shall be considered in light of its cumulative impact on the preserve's natural system.

Big Bend Seagrasses Aquatic Preserve realizes that environmental planning for the proposed project is incomplete. We look forward to engaging with the applicant in future environmental planning efforts. This staff assessment is preliminary and is designed to assist in permit review prior to final agency action. The comments provided herein are not the final position of the Department and may be subject to revision pursuant to additional information and further review.

Thank you for the opportunity to review the proposed project. If you have any questions or need additional information, please contact me at (352)563-0450 or [Melissa.Charbonneau@dep.state.fl.us](mailto:Melissa.Charbonneau@dep.state.fl.us)

Sincerely,

Melissa J. Charbonneau  
Aquatic Preserve Manager, Big Bend Seagrasses Aquatic Preserve



FLORIDA DEPARTMENT OF STATE  
**Kurt S. Browning**  
Secretary of State  
DIVISION OF HISTORICAL RESOURCES

Ms. Lauren Milligan  
Agency Contact and Coordinator (SCH)  
3900 Commonwealth Blvd, MS-47  
Tallahassee, FL 32399-3000

April 21, 2008

Re: DHR No. 2008-2262 / Received: March 14, 2008  
Applicant: USACOE  
Project: Tarmac King Road Limestone Mine Project  
Levy County

**RECEIVED**  
APR 23 2008  
**OIP / OLGA**

Dear Ms. Milligan:

Our office received and reviewed the above referenced project application in accordance with Section 106 of the National Historic Preservation Act of 1966 (Public Law 89-665), as amended in 1992; 36 C.F.R., Part 800: Protection of Historic Properties; and Chapter 267, *Florida Statutes*, for assessment of possible adverse impact to cultural resources (any prehistoric or historic district, site, building, structure, or object) listed, or eligible for listing, in the National Register of Historic Places.

A review of the Florida Master Site File indicates that no significant cultural resources are recorded in the project area. The lack of recorded resources is an indication that the area has not been subjected to a professional archaeological or historical investigation. It is our opinion that a cultural resource management consultant should conduct a cultural resource assessment survey of the mine project area.

The purpose of the survey will be to locate and assess the significance of cultural resources present. The resultant survey report should conform to the specifications set forth in Chapter 1A-46, *Florida Administrative Code*, and will need to be forwarded to this agency for review. When the survey report is received and reviewed, we can provide additional comments regarding potential impacts of the proposed project on historic properties.

500 S. Bronough Street • Tallahassee, FL 32399-0250 • <http://www.flheritage.com>

Director's Office  
(850) 245-6300 • FAX: 245-6436

Archaeological Research  
(850) 245-6444 • FAX: 245-6452

Historic Preservation  
(850) 245-6333 • FAX: 245-6437

Historical Museums  
(850) 245-6400 • FAX: 245-6433

South Regional Office  
(561) 416-2115 • FAX: 416-2149

North Regional Office  
(850) 245-6445 • FAX: 245-6435

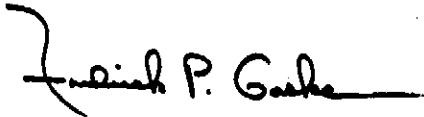
Central Regional Office  
(813) 272-3843 • FAX: 272-2340

Ms. Milligan  
April 21, 2008  
Page 2

Because this letter and its contents are a matter of public record, consultants who have knowledge of our requests may contact the Army Corps of Engineers. This should in no way be interpreted as an endorsement by this agency. The Division of Historical Resources does not maintain a list of professional archaeologists who are qualified to work in the State of Florida and/or who meet the Secretary of the Interior's Standards for federally involved archaeological projects as specified in 36 CFR 61, Appendix A. However, the Register of Professional Archaeologists (RPA) maintains a membership directory that may be useful in locating professional archaeological consultants (<<http://www.rpanet.org/search.cfm>>) in your area. Many qualified archaeologists are not members of RPA and omission from the list does not imply that an archaeologist does not meet the Secretary's Standards or that work would not be acceptable, and inclusion on the list is no guarantee that an archaeologist's work will automatically be acceptable. As with any contractor you should request and check references and recent work history.

If there are any questions concerning our comments or recommendations, please contact Robert Conn, Historic Sites Specialist, by phone at (850) 245-6333, or by electronic mail at [rconn@dos.state.fl.us](mailto:rconn@dos.state.fl.us). We appreciate your continued interest in protecting Florida's historic properties.

Sincerely,



Frederick P. Gaske, Director, and  
State Historic Preservation Officer

Xc: Edward Sarfert – USACOE  
Lynn Griffin – FCMP-FDEP





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# Southwest Florida Water Management District

**Bartow Service Office**  
170 Century Boulevard  
Bartow, Florida 33830-7700  
(863) 534-1448 or  
1-800-492-7862 (FL only)  
SUNCOM 572-6200

**Lecanto Service Office**  
Suite 226  
3600 West Sovereign Path  
Lecanto, Florida 34461-8070  
(352) 527-8131

2379 Broad Street, Brooksville, Florida 34604-6899  
(352) 796-7211 or 1-800-423-1476 (FL only)  
SUNCOM 628-4150 TDD only 1-800-231-6103 (FL only)  
On the Internet at: WaterMatters.org

**Sarasota Service Office**  
6750 Fruitville Road  
Sarasota, Florida 34240-9711  
(941) 377-3722 or  
1-800-320-3503 (FL only)  
SUNCOM 531-6900

**Tampa Service Office**  
7601 Highway 301 North  
Tampa, Florida 33637-6759  
(813) 985-7481 or  
1-800-836-0797 (FL only)  
SUNCOM 578-2070

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**Sallie Parks**  
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**Maritza Rovira-Forino**  
Hillsborough

**Patsy C. Symons**  
DeSoto

**David L. Moore**  
Executive Director

**William S. Bilensky**  
General Counsel

March 25, 2008

Lauren Milligan  
Florida State Clearinghouse  
Florida Department of Environmental Protection  
3900 Commonwealth Boulevard, MS 47  
Tallahassee, FL 32399-3000

Subject: Department of the Army, Jacksonville District Corps of Engineers; Notice of Draft Environmental Impact Statement; Tarmac King Road Limestone Mine Project; Inglis, Levy County, Florida

SAI#: FL200803124108C

Dear Ms. Milligan:

The staff of the Southwest Florida Water Management District has conducted a consistency evaluation for the project referenced above. Consistency findings are divided into four categories and are based solely on the information provided in the subject application.

FINDING	CATEGORY
	Consistent/No Comment
X	Consistent/Comments Attached
	Inconsistent/Comments Attached
	Consistency Cannot be Determined Without an Environmental Assessment Report/Comments Attached

This review does not constitute permit approval under Chapter 373, Florida Statutes, or any rules promulgated thereunder, nor does it stand in lieu of normal permitting procedures in accordance with Florida Statutes and District rules.

If you have any questions or if I can be of further assistance, please contact me in the District's Planning Department at extension 4421.

Sincerely,

Douglas K. Sanders,  
Staff Planner

RECEIVED

MAR 27 2008

OIP / OLGA

**SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT  
COMMENTS ON SAI# FL200803124108C**

The application narrative provides advance notification for a proposed mine to provide construction-grade aggregate for concrete for bridges, homes, roads and public buildings in west-central Florida. The site is five (5) miles north of Inglis and includes 2,700 acres for mining, 800 acres for green space and wetlands protection, 1,300 acres for a buffer zone, and 4,800 acres to become part of the adjoining Waccassassa Bay State Preserve.

This project requires District approval for:

- A Water Use Permit (WUP) for the applicant's water supply estimates at approximately 21 million gallons per day (mgd) of surface water and approximately 1 mgd of groundwater. The District may require approval of the Environmental Resource Permit from the Florida Department of Environmental Protection (FDEP) prior to the issuance of the WUP.
- Digital topography from the District's Light Detection and Ranging data for Levy County may be available to the applicant later this year in reference to regulatory delineations, elevations, and hydroperiods for the site.

Additionally, the district is interested in the following:

- The National Pollutant Discharge Elimination System permit issued by the FDEP.
- On-site wastewater management permitted by the Levy county Health Department.
- A mining plan.
- A mine reclamation plan.
- The 17-acre site for the \$55 million dragline operation.

It is requested that notices of required agency review be copied to the District for future project comments.

cc:

Jimmy Brooks, CLA-LEC  
Len Bartos, REG-BRO  
Paul Williams, REG-BRO  
Larry Walker, PRJ  
Veronica Craw, PRJ

MICHAEL R. MOEHLMAN  
EXECUTIVE DIRECTOR

1241 S.W. 10th Street  
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April 10, 2008



OFFICERS

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CHAIR

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VICE - CHAIR

Ms. Lauren Milligan, Environmental Manager  
Florida Department of Environmental Protection/OIP  
Florida State Clearinghouse  
3900 Commonwealth Blvd., Mail Station 47  
Tallahassee, FL 32399-3000

SUBJECT: **SAI #: FL200803124108C**  
U. S. Army Corps of Engineers, NOI for Draft EIS  
Tarmac King Road Limestone Mine Project  
Lebanon, Levy County, FL  
WRPC ICR #: 14-L3-08-USCOE/EIS

RECEIVED  
APR 11 2008  
OIP / OLGA

Dear Ms. Milligan:

Pursuant to the provisions of Presidential Executive Order 12372, Governor's Executive Order 95-359, and WRPC Rules Chapter 29E-6, *Florida Administrative Code*, the staff of the Withlacoochee Regional Planning Council reviewed the above-referenced project and find the following goals and policies of the WRPC's adopted *Strategic Regional Policy Plan for the Withlacoochee Region* may be applicable to this project.

**Policy 2.11.5:** Require economic development projects to be sited in a manner which does not adversely impact resources of facilities of regional significance, does not encourage urban sprawl and in general promotes a functional mix of living, working, shopping and recreational activities through the policies of the local comprehensive plans and criteria of land development regulations, and other regulatory permitting.

**Goal 2.13:** To appropriately utilize the region's natural resources (air, water, ecological communities, forests, etc.) for economic development.

**Policy 2.13.1:** Assess the availability, quality and economic potential of natural resources in local jurisdictions, utilizing the best available information from the federal, state and regional agencies, including the appropriate water management districts.

- Policy 4.2.8:** Use water-conserving and water re-use processes and techniques in mining and other industrial processes.
- Goal 4.6:** Protect marine habitats from the adverse impacts of new development and redevelopment.
- Goal 4.8:** Avoid adverse impacts to the natural functions of the region's wetlands or surface water systems from development and redevelopment.
- Policy 4.8.3:** Ensure that plans, regulations, and management decisions consistently protect and enhance the following functions of the region's wetlands: open space, wildlife habitat, floodwater retention, and water quality enhancement.
- Policy 4.8.5:** Prohibit new interference to the functions of coastal and riverain wetlands as integrated natural systems. Restore ecological functions of wetland systems where they have been degraded or destroyed.
- Policy 4.8.11:** Reserve an upland buffer zone adjacent to wetlands, lakes, rivers, streams, springs and sinks as a water quality, quantity, and habitat protection buffer within which primary and secondary impacts to the wetland from activities such as drainage, filling, pesticide application, excavation, and construction are restricted. Define these buffer zones and the limits of all impacts to each feature's and buffer's function in a coordinated effort lead by local governments with assistance from the water management districts and the Departments of Environmental Protection and Community Affairs.
- Goal 4.9:** Maintain and enhance the habitat and populations of native species of plants and animals.
- Policy 4.9.1:** Preserve and protect areas of fish and wildlife habitat of sufficient diversity, size, and linkages to maintain viable populations of the indigenous species.
- Goal 4.10:** Reduce or mitigate the loss of habitat for endangered or threatened species in the region.
- Goal 4.11:** Reduce the number of new development and redevelopments which adversely affect the environmental quality, physical character, or natural function of the region's exceptional geographic features and environmentally sensitive areas.

**Policy 4.11.5:** Development adjacent to preservation and conservation areas should be compatible with the purpose of those areas. Where needed, the more recent development should provide buffers for previously existing land uses.

**Goal 4.21:** Use permitting requirements to reclaim lands disturbed for mineral extraction.

**Policy 4.21.1:** Reclaim land to be compatible with adjacent land uses and consistent with the local future land use designation. If reclaimed area is not scheduled for development, reclamation into native ecosystem(s) is preferred.

**Policy 4.21.2:** Require all mine operators to submit conceptual excavation and reclamation plans which demonstrate compliance with local mining ordinances and regulatory agency rules and ordinances.

**Goal 4.22:** To coordinate the regulation of the region's natural resource extraction activities to be comprehensive in scope and coordinated among local, regional, and state agencies.

**Policy 4.22.1:** Transmit copies of applications and permits, and vested rights determinations to state and local agencies involved with mining regulation (presently the counties, the water management districts, and the Department of Environmental Protection) for mutual review.

**Policy 4.22.2:** Establish standards for setbacks and buffer areas to promote land use compatibility.

**Policy 4.22.3:** Require mining operators to provide financial assurance against the estimated costs of reclamation activities.

**Policy 4.22.4:** Issue an approval to commence excavation activities only after all agency permits with supporting documentation have been submitted and a final local development order has been issued.

**Policy 4.22.6:** Require existing mining operations to adopt techniques for noise and vibration control to the extent that they shall be in conformance with the general noise and vibration levels established within their respective counties.

**Policy 4.22.7:** Use buffers to minimize the effects of resource extraction.

**Policy 4.22.8:** An environmental assessment shall be conducted and evaluated as part of the mining permit process.

**Policy 4.22.9:** Mining may be allowed in areas other than those in Goal Cluster 4.23 when permitted and mitigated in compliance with applicable federal, state and local regulations.

**Goal 4.23:** To use land use planning to protect significant regional resources from the adverse effects of resource extraction.

**Policy 4.23.1:** Resource extraction shall not be allowed in areas of habitat known to support viable populations of threatened and endangered species.

**Policy 4.23.2:** Resource extraction shall not be allowed in any rivers, streams, lakes, or springs which cannot be restored. In addition, resource extraction shall not be allowed in wetlands contiguous to regionally significant rivers, streams, lakes, or springs. "Restoration" is defined as restoring the type, nature, and function of the ecosystem in existence prior to mining.

**Policy 4.23.3:** Resource extraction shall not be allowed in "other affected areas" where mitigation or restoration cannot be accomplished. "Other affected areas" are defined as wetlands (other than those identified in policy 4.23.2), floodplains, and habitat of species of special concern.

**Policy 4.23.4:** Investigate sites proposed for resource extraction for the presence of significant archaeological resources. If present, make provisions for either protection on-site or mitigation (salvage) before mining activities are permitted.

**Policy 4.23.5:** Encourage the development of mining of land containing important economically-recoverable mineral reserves that are consistent with the respective county's comprehensive plans and that are locations consistent with policies 4.23.1, 4.23.2, 4.23.3 and 4.23.4.

**Policy 4.23.6:** Pursue cooperative acquisition or other options between local governments, the water management district and the state, to allow for the preservation of environmentally significant regional resources that may be impacted by mining activities.

Ms. Lauren Milligan  
April 10, 2008  
Page 5.

On December 13, 2007, WRPC staff mailed a monitoring letter to the Florida Department of Community Affairs (DCA) requesting their review of the Tarmac King Road Limestone Mine Project to determine if it will qualify as a Development of Regional Impact (DRI). In that letter, WRPC staff specifically raises a question of the water consumption threshold for mining activity and the proposed use. Pursuant to Florida Statutes Section 380.06, as the state land planning agency, only DCA may declare a given project to have DRI status.

With a proposal of this magnitude, there is a likelihood of impact on a broad range of issues. Mitigation of impacts is possible in many cases. The major areas of concern regarding potential impacts for the proposed mine include groundwater quality and quantity and surface water quality and quantity impacts where true mitigation is not likely. Due to scale and intensity of use, WRPC staff notes impact to regionally significant ecosystems and habitat, both onsite and in adjacent locations, as a matter requiring further investigation. Vast adjacent coastal and submerged lands have conservation status, where changes to regionally significant land use will necessitate specific mitigation actions to ensure viable natural systems function and economic viability of fisheries. Other areas of concern may not be known at this time.

Because questions persist regarding potential impacts, WRPC staff anticipate a DRI process will likely be needed to ascertain how the project could fully affect the Region's SRPP. Therefore, in reference to SRPP goals and policies listed above, WRPC staff cannot assess regional impacts from available information. To date, WRPC staff continue to await a response to the aforementioned monitoring letter.

No comments were received from Levy County with reference to this project.

We appreciate the opportunity to comment on this proposal.

Sincerely,



Michael R. Moehlman  
Executive Director

MRM/vaw dpc bd  
Enc.



# Florida Department of Environmental Protection

Bureau of Mine Reclamation  
2051 East Paul Dirac Drive  
Tallahassee, Florida 32310-3760

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

**VIA Email and USPS**

December 31, 2008

Mr. Robert M. Carpenter c/o  
Mr. W. Jeffrey Pardue  
Breedlove, Dennis & Associates, Inc.  
30 East Liberty Street  
Brooksville, Florida 34601

Dear Mr. Pardue:

RE: Application of Environmental Resource Permit by Lane Construction Co. for the  
Nature Coast Mine File No. 0283664-001 Request for Additional Information

We have reviewed the application that you submitted on December 5, 2008 for a  
application for an Environmental Resource Permit. A request for additional  
information identifying the remaining items necessary to complete you application is  
listed below.

In order to review your application, we will need these listed items within 90 calendar  
days. If necessary, you may request an extension of up to 90 additional days. If neither  
the information nor a request for an extension is received by 90 calendar days, your  
application may be denied without prejudice. If you revise your project after  
submitting the initial joint application, please contact us as soon as possible. We  
appreciate your assistance. If you have questions, please contact me at the above  
address or at (850) 488-8217 or via Email at David.Adams@dep.state.fl.us.

Sincerely,

David Adams - Environmental Specialist III

Enclosure

cc: Southwest DEP District. Office, ERP  
Southwest Florida Water Management District, Permitting



**Division of Recreation and Parks District 2 comments on  
Application of Joint Environmental Resource Permit by Nature Coast Development  
for the Nature Coast Mine (Citrus County, Florida: File No. 0283664-001)**

Staff of the Bureau of Parks District 2 and Crystal River Preserve State Park (CR Preserve) has reviewed available information concerning the proposed 148.94-acre Nature Coast Mine (NCM) project in Citrus County, Florida. The proposed mining activity would be located immediately adjacent and bounded by three sides of the CR Preserve. The proximity of the proposed NCM to CR Preserve is such that the project has significant potential to alter the natural hydroperiod of the area beyond the proposed 148.94-acre mine parcel.

The Joint Environmental Resource Permit application (Joint ERP) was submitted to the Department of Environmental Protection (DEP) Bureau of Mining and Minerals Regulation (BMR) on 07/18/07. Three additional RAI's (Request for Additional Information) were submitted to BMR on 06/04/08, 09/19/08, and 11/25/08. As proposed, the NCM would eliminate two natural streams and associated forested riparian wetlands that bisect the NCM property and continue through the CR Preserve towards the Crystal River, a significant spring-fed waterbody. The proposed mitigation would divert this natural flow around the southern and western perimeter of the NCM property.

The most significant BMR project assessment to date was a Preliminary Evaluation (PEL) on 09/26/08 that concluded the proposal as submitted could not be recommended for approval. The PEL assessment cited State of Florida legislation requiring the applicant to "achieve the goal of no net loss of wetlands or other surface water functions". In addition, we believe that the NCM project as proposed will result in a substantial alteration of the natural hydroperiod and the natural communities of CR Preserve. Listed below are major concerns we have regarding this application.

**Local Hydrology and Natural Hydroperiod**

- We believe the proposed mining project would alter the natural hydroperiod, resulting in negative impacts to adjacent natural communities in CR Preserve, including significant upland and wetland ecosystems. Specifically, we believe that the proposed removal of approximately 70 million cubic yards of material composing the shallow, surficial aquifer and streams will result in irreversible alterations of groundwater and surface water flow off-site and dewater the surrounding area due to increased evaporative loss of water from the proposed mine pit.
  - We believe the degree to which ecological function in adjacent ecosystems will be altered, alone or combined with other actions (e.g., adjacent CEMEX Mine in northern Citrus County or the proposed nuclear plant in southern Levy County), cannot be determined by the level of information typically generated by the applicant, DEP or the water management district during the permit-application review process. Therefore, we request that the DEP and water management district initiate a collaborative study with the United States Geological Survey (USGS) to identify hydrologic changes that have occurred in the tri-county area of Marion, Citrus, and Levy where the proposed mining project and a proposed nuclear facility (in southern Levy County) would be located.

- A similar study has been requested by Indian River County to evaluate hydrological changes that have occurred in that county since a study performed by USGS in 1988 (See <http://pubs.er.usgs.gov/usgspubs/wri/wri884073>). Dr. Louis C. Murray, a hydrologist with the USGS office in Orlando, Florida advised Indian River County that such a study would provide local water resource managers with a more current and detailed hydrologic picture of conditions at the county level. Documentation of current hydrologic and water quality information would provide insight into cumulative impacts that have occurred to the aquifer system in the watershed where the NCM is proposed. That information would facilitate the regulatory agencies and municipalities in determining compliance of the proposed projects with governing laws, rules and regulations. Dr. Murray has informed Indian River County that a similar hydrological study performed recently in Polk County was completed as a 50% cost-share project with the USGS, with the remaining 50% provided by the water management district and Polk County. A link to the Polk County study via the USGS' website can be found at <http://pubs.usgs.gov/sir/2006/5320/>.
  
- We are extremely concerned that the proposed NCM will potentially result in irreversible impacts to adjacent public lands due to subsequent alteration in natural sheet flow, changes to natural chemical characteristics of ground and surface water as well as hydroperiod (i.e., depth or stage of fluctuating ground and surface water; duration of water levels at a given depth or stage; and periodicity or seasonality of water-level fluctuations). Natural communities of concern from those changes include: 1) the streams, 2) all associated wetlands, and 3) upland habitats including hydric hammocks. By disrupting the natural sheet flow process that normally would occur in adjacent natural communities, detrimental changes in the timing, volume, duration and chemical characteristics of discharges into the estuarine system are expected. The predicted result would be a short-circuiting of the gradual sheet flow and groundwater discharge that normally would occur in the hydric hammock, with devastating impacts on the adjacent estuarine communities. Consequently, we recommend that the applicant be required to determine the potential impacts to the Crystal River waterbody when groundwater and surface water discharges over a broad area are reduced and converted to more rapid discharge of surface water in a smaller, more concentrated area as a result of the proposed mining activities. Detailed studies are paramount to determine how the proposed NCM would alter the natural hydrologic regime that has functioned so well for thousands years. This information is critical for a complete understanding of the magnitude and extent of direct, indirect and cumulative impacts, but appears to be better suited for determination by the proposed USGS hydrologic evaluation.
  - We believe that the loss of the natural stream through and creation of a vegetated “ditch” around the perimeter of the proposed mine site will disrupt the natural hydroperiod of all adjacent wetlands. The shallow seasonal water fluctuations in these wetlands are important because

shallow seasonal pools of water support amphibian breeding during the dry season. Lower elevation areas toward the west that are inundated and connected for longer periods will support various native fish. Predation by these fish effectively prohibits successful reproduction of many amphibian species. Increasing areas of deeper, flowing water in the dryer eastern parts of this watershed by either channeling stream flow through a created ditch or artificially manipulating water flow connectivity to NCM boundary wetlands (Drainage Basin Construction Plan 12/01/08) is expected to alter the natural hydroperiod and allow fish to occupy sections where they normally would be excluded. This is expected to result in overall negative affects on amphibian populations in the local preserve area.

- Additionally, we have strong concerns about the loss of wetland connection and ecological function of two natural forested wetland systems shared by the NCM site and CR Preserve (i.e., Basin 4.5 and 4.6 Construction Plans 12/01/08). These areas are located immediately north of the west outfall of the proposed mine property. These two depressional-forested wetlands (i.e., Wetland G and F) currently are part of an adjacent large basin swamp.
- The area commonly referred to as the “Springs Coast” region is significant for its designation as an Outstanding Florida Water (OFW) for all waterbodies adjacent to CR Preserve and St. Martins Marsh Aquatic Preserve.
  - Waterbodies adjacent to CR Preserve have been designated as both an aquatic preserve and an OFW. Therefore, according to state law (Chapter 62-302 F.A.C.), these waterbodies should be granted the highest form of protection, with no degradation of current water quality.
    - We believe that water entering the CR Preserve from the “fast course” ditch excavated around the perimeter of the proposed NCM mine will not benefit from the essential filtering effect of the dense, naturally vegetated sinuous stream channel that is proposed to be mined. Excess sediment, nutrients and contaminated stormwater runoff from the highway, containing toxic pollutants, will result in significant adverse impacts to CR Preserve because of the perimeter ditch that would be excavated for this proposed mining project.
    - We recommend that the applicant propose a scientific approach to document the existing water quality and hydroperiod conditions on the site over a minimum of one annual cycle. We also request that a summary of the water quality and hydroperiod impacts documented from completed or on-going mining in the tri-county area (e.g., CEMEX Mine in northern Citrus County) and other areas of Florida be used in any analysis of potential impacts from the proposed NCM mine. Existing data may be available from various agencies, including the water management districts. The proposed approach also should include a component

for modeled predictions of the magnitude and extent of potential changes in the existing water quality and hydroperiod conditions. Water quality parameters that are critical to ecosystem maintenance and required for both ground and surface water monitoring include, but are not limited to:

- pH
  - chloride
  - sulfate
  - specific conductivity
  - turbidity
- Additional hydrologic data are critical for determining the extent and magnitude of hydroperiod and water quality impacts from proposed: a) mining and removing  $\pm 70,180,000$  yd<sup>3</sup> of the shallow aquifer, b) WUP (water use permit) withdrawals and c) other cumulative impacts to the aquifer system. We strongly believe that according to the accepted definition of “dewatering” that the NCM mining activities will dewater both on-site and surrounding areas, even if groundwater pumping is not proposed. (*Bacchus, S.T., 2006, Nonmechanical dewatering of the regional Floridan aquifer system, in Harmon, R.S., and Wicks, C., eds., Perspectives on Karst geomorphology, hydrology, and geochemistry—A tribute volume to Derek C. Ford and William B. White: Geological Society of America Special Paper 404, p. 219-234*). Other studies also have suggested that hydroperiods can be altered within adjacent natural communities by mining activities. (*Curtis, T.G. 1989, Estimating unsteady water behavior using boundary integral approximations, in Moore, J.E., Zaporozec, A.A, Csallany, S.C., and Varney, T.C., eds. Recent advances in groundwater hydrology: Smyrna Georgia, American Institute of Hydrology, p 298-310*). Again, we feel this concern needs to be addressed.
- A hydrologic model of mining impacts should predict and evaluate the estimated magnitude and extent of the permanent alteration in the surficial aquifer hydroperiod from the volumetric removal of the aquifer structure (matrix) and other hydrologic alterations from the proposed mining activities.
    - As an example, a groundwater impact analysis of a 20-acre mine in Indian River County predicted the following drawdown impacts (*BCI Engineers & Scientists, Inc. 2007. Groundwater Impact Analyses for the Wild Turkey Sand Mine Indian River County, Florida. BCI Project # :23-15875. 34pp.*):
      - “Simulated drawdowns exceeding 0.5 ft occurred at a maximum distance of approximately 900 ft from the dewatering ditch.” (p. 12)
      - “During conditions of drought, water levels...will be lower and possibly dry. This means that the zone of mine impacts will extend further into adjacent property.” (p. 13)
      - “The simulations generally indicate that there will be drawdown away from the mine cut, with drawdowns exceeding 0.5 ft extending 900 ft or more past the dewatering ditches. These drawdowns will be associated with increased flow from the Florida aquifer...” (p. 15)

- Given the example analysis above, we are concerned about extreme drawdown conditions within CR Preserve wetlands that would result from NCM mining activities, which could be in excess of seven times the amount of impact as observed in the modeled 20-acre mine.
- A hydrologic model of mining impacts also should predict the impacts from altered surface sheetflow.
  - Since impoundment of water (a practice used by the phosphate mining industry and most other mining projects) represents another means of altering natural hydroperiod, it is of great importance that the Joint ERP review process quantifies the magnitude and extent of the alterations associated with the proposed mining project. Estimated changes in the hydroperiod of the surficial aquifer throughout the entire period of this land use operation and the effect of these changes on the natural communities, especially on state-managed land, should be identified and alternatives discussed.
- We believe the applicant should document the net groundwater flow in the basin surrounding the proposed NCM mine site in order to determine the magnitude and extent of impacts/changes within the watershed including when precipitation is negative over long periods (i.e., annual dry seasons and periods of below average rainfall).
- Included in that analysis, we would like to see an estimation of the aquifer dewatering from increased evaporative loss.
  - Rather than using pan evaporation rates, the analysis should use evaporative loss rates comparable to those measured in the 2000 USGS study of larger waterbodies more comparable to the proposed NCM mine pit (*Swancar, A., T.M. Lee, and T.M. O'Hare 2000. Hydrogeologic Setting, Water Budget, and Preliminary Analysis of Ground-Water Exchange at Lake Starr, a Seepage Lake in Polk County, Florida Water-Resources Investigations Report 00-4030. 65pp.*)
- A hydrologic model of mining impacts also should predict and evaluate the impacts from both lateral saltwater intrusion from the coast and vertical intrusion from upward flow of water from lower zones in the aquifer system with significantly different chemical composition (e.g., pH, sulfite, and chloride) than the natural surficial aquifer.

### **Listed Species**

- The proposed NCM mine could negatively affect a 8 federally listed animal species and 30 state listed animal species, in addition to 13 state-listed plants species found in the CR Preserve and associated St. Martins Marsh Aquatic Preserve. It is imperative that the potential impacts of the mine on these listed species be addressed during the permit review process to avoid a taking of these listed species.

- The eastern indigo snake is a federally listed species found in CR Preserve, specifically within upland communities such as pine flatwoods and the drier portions of hydric hammocks. Research in Florida suggests that this species requires a large home range (~ 4.8 ha), and therefore it is not surprising to find this animal in multiple natural community types.
- Waterbodies adjacent to the CR Preserve provide significant refuge within the Crystal River and associated estuarine system for the Florida manatee and three marine turtle species (green, Atlantic Ridley, and loggerhead) which use the highly productive neritic resources of the region. Manatee abundance in this region has been increasing over the past 20 years making the spring-fed Crystal River an important foraging, breeding ground and winter refuge for this species (*Hauxwell, J.A., T.K. Frazer, and C. Osenberg 2003. Effects of herbivores and competing primary producers on Vallisneria americana in Kings Bay: implications for restoration and management. South Florida Water Management District Technical Report Contract # 01CON000007 79 pp.*). Green turtles are herbivores at all stages of their life history, but those individuals that forage on a diet of seagrasses in the CR Preserve estuary are a critically important “teen-age” cohort. Both loggerhead and Atlantic Ridley marine turtles forage on shellfish within those same waters.

## **Recreation**

- Recreation is a primary driving force in the economics of CR Preserve and the “Springs Coast” region. The recreational experience in the CR Preserve is unique, with highly scenic vistas and remote, peaceful spots for fishing or nature-enjoyment seemingly around every bend and up every tidal creek. We are very concerned that activities from the proposed NCM mine site could dramatically diminish the outdoor experience so avidly sought by canoeists, anglers, and other low-impact recreationists. We recommend BMR require that the applicant fund an independent environmental cost/benefit analysis relative to allowing this type of land use change in proximity to a state-owned wilderness area.
  - We believe that the proposed NCM mining activities, including heavy equipment, blasting of the aquifer matrix, and truck traffic, will negatively influence visitation to our most popular trail, the Eco-walk. Thousands of runners, hikers, school groups, birdwatchers and nature enthusiasts access this trail each year. At the proposed initiation (2009), mining activities would be about 3600 feet away, but by the end of the mine life (2023-25), mining activities would be only 175 ft. from park visitors that use this scenic nature trail. The noise and aesthetics from a NCM presence will seriously degrade park visitor activities in this area.
  - We are very concerned that waters from the “redirected slough” (stream) would dramatically change and likely increase flow rates into two seasonal wetlands shared by CR Preserve. Currently these wetlands are inundated only seasonally and are located adjacent to a section of the Eco-walk trail system. The trail in this area often is saturated and often has a few inches of standing water in the wet season (late summer). Any increased water in these wetlands would almost certainly make this section of trail

impassable for an indeterminate length of time (possibly the entire late summer/early fall in wetter years), requiring us to close this northern section of the trail.

### **On-site Mitigation**

- The on-site mitigation proposed by the applicant creates a channelized vegetated ditch to replace the natural, forested riparian wetlands and stream that would be destroyed. This vegetated ditch would be located around the property perimeter.
  - We saw no data presented by the applicant to support the conclusion that a successful restoration (i.e., ecological function) of the redirected stream and riparian wetlands would be feasible.
  - In addition, there are no data regarding the sheetflow and water budget changes associated with the mined stream and riparian wetlands.
- Apparently the applicant is considering a “Deed of Conservation Easement,” as referenced in Exhibit 2 of the 21 August 2008 RAI. The proposed details of this “conservation easement” will need to be reviewed.
  - Through this Deed of Conservation Easement, the applicant has suggested that DEP would take on the management of this parcel following its development. Costly water quality, burn management, invasive species control and other site management problems have been associated with similar mines in Florida. Currently DEP does not have a dedicated funding source for such sites that require costly resource management restoration.
  - A more detailed plan associated with the proposed Deed of Conservation Easement” for the project must be presented and reviewed.
    - The applicant should determine and report, in a detailed plan, exactly what land management activities are proposed to be allowed on the “Conservation Easement” proposed as mitigation for the mine.
    - The applicant should also describe in detail the measures that would be employed to restore the natural hydroperiod and ecological function of the on-site mitigation. This analysis should include an estimated budget and cost of restoration, the source and the supplier of the plant material.