

Record of Decision and Statement of Findings for
Department of the Army (DA) Permit Application SAJ-1993-01395

Attachment A

ATTACHMENT A - SECTION 1 COMMENTS RECEIVED IN RESPONSE TO JUNE 1, 2012, PUBLIC NOTICE

Commenter/ Organization	Comment	Response
de la Parte & Gilbert, PA/Florida Institute of Neurological Rehabilitation, Inc.	Please accept this letter on behalf of Florida Institute of Neurological Rehabilitation, Inc. ("FINR"), FINR II, Inc. ("FINR II") and FINR III, Inc. ("FINR III"), collectively the ("FINR Companies") .. FINR II is a neighboring landowner to CF Industries Inc's ("CF") proposed South Pasture Mine Extension ("SPME") in Hardee County, Florida. FINR and FINR III are affiliated companies, which lease the land owned by FINR II for use as a post-acute, state-licensed CARF - accredited and Joint Commission accredited inpatient rehabilitation facility specializing in the treatment of children and adults, who have sustained brain injury or some other form of neurotic trauma. By public notice dated June 1, 2012, the Army Corps of Engineers ("ACOE") advised interested persons that it had received an application for a Department of the Army permit pursuant to Section 404 of the Clean Water Act ("ACOE Permit"). A copy of the June 1, 2012 notice is enclosed for your convenience as Exhibit "A".	Comment acknowledged.
de la Parte & Gilbert, PA/Florida Institute of Neurological Rehabilitation, Inc.	If approved, the ACOE Permit will allow CF to destroy approximately 1,262 acres of wetlands and other surface waters. CF will attempt mitigate impacts to mined or disturbed wetlands and other surface waters by creating 1,568 acres of wetlands and restoring 122.7 acres of wetlands. However, the FINR Companies have serious concerns as to CF's ability to comply with the applicable permitting standards governing the SPME ACOE Permit.	The DA permit will include a permit condition requiring Mosaic to provide yearly compliance reports on the status of the authorized activities, the FDEP-required reclamation, and the Corps-required mitigation. The permit also includes a condition requiring a comprehensive compliance review every five years.
de la Parte & Gilbert, PA/Florida Institute of Neurological Rehabilitation, Inc.	Of particular interest is CF's proposal to conduct mining and reclamation activities within 5 feet of FINR II's property. This proposal is in direct conflict with the Hardee County Mining Ordinance, which prohibits any mining operations within one-quarter mile of a Rural Center land use classification, such as FINR II's property. See Hardee County Unified Land Development Code §3.14.02. A copy of which is enclosed for your convenience as Exhibit "B." If the quarter-mile mining setback is properly applied, approximately 711 acres of the 6,418 acres CF proposes to mine or about 11 percent of the impacted area could not be mined. A map illustrating the extent of the quarter-mile setback onto the South Pasture Mine Extension is also enclosed as Exhibit "C". CF is presently attempting to obtain a waiver of the quarter-mile setback from Hardee County, but CF's request is strongly opposed by the FINR Companies and its unlikely its request will be granted.	Compliance with Hardee County's regulations, and the decision concerning the setback waiver, are issues that are outside the Corps' regulatory authority.
de la Parte & Gilbert, PA/Florida Institute of Neurological Rehabilitation, Inc.	<u>Application Fails to Avoid and Minimize Impacts to Wetlands.</u> The FINR companies believe the quarter-mile no- mining setback must be taken into account in avoiding and minimizing impacts to wetlands under 40 CFR§230.10. The basic premise of the Section 404 permitting program is that destruction of wetlands shall not be permitted, if (1) a practicable alternative exists that is less damaging to the aquatic environment, or (2) the wetland destruction would cause thenation's waters to be significantly degraded. See 40 CFR§230.10(1). In order for a project to be permitted, it must be demonstrated that all practicable steps have been taken to avoid impacts to wetlands and other aquatic resources, potential impacts have been minimized, and compensation or mitigation will be provided for any remaining unavoidable impacts. Under the Clean Water Act 404(b)(1) Guidelines, if a project is not water dependent, there is a presumption that a less environmentally practicable alternative exist. Phosphate mining is not a water dependant activity. For this reason, the applicant must clearly demonstrate that practicable alternatives, which would not involve discharge of fill material into special aquatic sites, are not available. See 40 CFR §230(a)(3). In this case, CF cannot practicably dredge or fill within the quarter-mile setback because Hardee County's Mining Ordinance prohibits any mining activities within this area. By avoiding these wetlands, the proposed miningactivities will be less damaging to the aquatic environment and reduce the NPDES discharges to state waters. Since mining for phosphate is CF's only justification for destroying the wetlands located within the setback area and since mining of phosphate within a quarter-mile of FINR II's property is prohibited, CF has not shown why the Section 404 permitting program does not require the total avoidance of any impacts to these wetlands.	Section 5.3 of the decision document for the South Pasture Extension project explains how the Corps considered onsite alternatives in its review and in making its determination of the LEDPA.
de la Parte & Gilbert, PA/Florida Institute of Neurological Rehabilitation, Inc.	<u>Proposed Mitigation is Not Adequate</u> However, even if the avoidance and minimization doctrine does not require CF to avoid mining wetlands and other waters located within the setback area, this setback must be taken into account in determining the adequacy of CF's mitigation. CF's mitigation plan proposes to offset wetland impacts in the mined area by creating new wetlands, many of which will be located within the setback area. If CF is never allowed to mine this area, then it will be unable to create wetlands within this area and its mitigation plan will not be adequate. For example, the two attached maps cre ated by the Florida Department of Protection, which are attached as Exhibit "D", show that 116.5 acres or 6.84% of the wetlands to be destroyed by the project are located with this setback area, while 270.27 acres or 15.8% of the mitigated wetlands are located within this setback area. Absent adequate mitigation for anyunavoidable impacts, the proposed activity fails to meet the mitigation sequencing requirement of the Clean Water Act §404 regulatory program.	Section 5 of the decision document describes how the Corps considered avoidance and minimization in its review of South Pasture Extension. Section 8 of the decision document, and the attached approved compensatory mitigation plan, describe how Mosaic will provide compensatory mitigation for unavoidable impacts to aquatic resources.
de la Parte & Gilbert, PA/Florida Institute of Neurological Rehabilitation, Inc.	<u>Cumulative Impacts of the Proposed Activity are Contrary</u> Furthermore, among the cumulative impacts listed for consideration of the proposed activity on the public interest in the ACOE's Notice are economics, esthetics, consideration of the property ownership and the needs and welfare of the people. Approximately 298 acres of FINR II's 872 acre property is currently used by FINR and FINR III for rehabilitation, education and vocational services to survivors of brain injuries. By providing individualized assessment, restorative service, and foundational retraining in behavior, psychosocial, cognitive, physical functioning, communication, daily living, education and vocational areas, FINR and FINR III seek to assist their clients in attaining the maximum level of functioning and quality of life in the most normalized and least restrictive environment. As part of the brain injury rehabilitation process, FINR and FINR III use individualized and innovative treatment programs. These programs include a variety of outdoor activities such as gardening and horseback riding. The FINR Companies intend to expand the rehabilitation center to include a day-care center, multi-family residential units, restaurants and convenience stores, office buildings, a rehabilitation hospital and equestrian recreational use prior to or during the planned mining of the SPME.	Comment acknowledged.
de la Parte & Gilbert, PA/Florida Institute of Neurological Rehabilitation, Inc.	In order for FINR and FINR III programs to succeed, each client must achieve some level of successful re-entry into their communities. This requires services at the FINR site that enhance the client's strengths and abilities and overcome existing barriers to independence. A major obstacle to successful community integration for individuals with neurological impairment is difficulty in transferring or generalizing skills learned in the typical rehabilitation treatment environment to that of the "real world." Among the specific goals of community integration is to assist each individual in developing productive leisure and indoor/outdoor recreational activities. The mining and related activities associated with the CF's application will impact the serene environment of the FINR II property and interfere with the rehabilitation of FINR's clients. This would adversely impact FINR II's existing and future use of the FINR II property, the esthetics of the property, the economics of the FINR Companies and the economic benefit the FINR Companies bring to Hardee County, the welfare of the general public.	Section 4.1.8 of the Final AEIS addresses several of the issues related to community health, safety, and quality of life. Sections 6 and 7 of the decision document address the 404(b)(1) Guidelines and public interest review, respectively.
de la Parte & Gilbert, PA/Florida Institute of Neurological Rehabilitation, Inc.	By nature, phosphate mining is a highly invasive activity that results in the total destruction of the earth's surface down to the bottom of the phosphate matrix layer. This activity results in many direct and secondary impacts from the removal of soil, clay, sand, phosphate rock and water. Noise, odors, and dust generated by the mining activities invade neighboring properties. Patients of the FINR facility have suffered traumatic brain injuries and rely on FINR's peaceful atmosphere to help gradually reacquire everyday living activities and functions. Phosphate mining activities immediately adjacent to FINR II's property will significantly interfere with the FINR companies' land use as air, noise, and odor pollution will restrict their ability to provide a peaceful facility for the recovery of survivors of brain injuries. The air, noise, and dust pollution will significantly interfere with the patients' quality of life and will likely preclude or limit outdoor activities of FINR's patients. Additionally, CF's mining plans require for the construction of a ditch and berm system within 5 feet of FINR II's property line. This ditch and berm system will consist of a recharge ditch followed by a berm approximately 120 feet in width. This presence of an extensive recharge ditch within 5 feet of FINR's property threatens the safety of patients participating in outdoor activities.	Section 4.1.8 of the Final AEIS addresses several of the issues related to community health, safety, and quality of life. Sections 6 and 7 of the decision document address the 404(b)(1) Guidelines and public interest review, respectively.
de la Parte & Gilbert, PA/Florida Institute of Neurological Rehabilitation, Inc.	As such, if approved, CF's proposed activity will adversely impact the FINR Companies' existing and future use of the property. If the FINR Companies are no longer able to provide patients with the standard of care required for successful treatment and rehabilitation of neurological injuries, they will be forced to close their doors. The positive impact of the FINR facility on the economics of Hardee County and the needs and welfare of its people, as well as the adverse impacts to the FINR Companies' economics, esthetics, and property, must be considered when determining whether evaluating the cumulative impacts of the proposed activity on the public interest. When considering these impacts, the activity requested by CF in its permit application is not consistent with the public interest. As a result, the ACOE Permit application must be denied.	Section 4.1.8 of the Final AEIS addresses several of the issues related to community health, safety, and quality of life. Sections 6 and 7 of the decision document address the 404(b)(1) Guidelines and public interest review, respectively.

de la Parte & Gilbert, PA/Florida Institute of Neurological Rehabilitation, Inc.	Thank you for your consideration of our comments and attention to this important matter. If you have any questions, please feel free to contact our office.	Comment acknowledged.
USEPA/Water Protection Division	The Environmental Protection Agency, Region 4, has reviewed the information found in each of the four public notices' (PNs) and supplemental material in the Draft Area-wide Environmental Impact Statement on Phosphate Mining in the Central Florida Phosphate District (AEIS)2. The EPA is a cooperating agency with the U.S. Army Corps of Engineers, Jacksonville District (District) to develop an AEIS consistent with the requirements of the National Environmental Policy Act of 1969, as amended. The EPA has been involved in numerous meetings and discussions regarding the four referenced permits and the AEIS going back more than two years. As discussed below, the freshwater forested and herbaceous emergent wetlands and open waters that make up the creeks, rivers, sloughs, seeps, domes and depressions in the area covered by the AEIS are considered aquatic resources of national importance. We appreciate the opportunity to participate in the AEIS process and believe it has been beneficial in adding to the body of knowledge regarding phosphate mining in central Florida.	Comment acknowledged.
USEPA/Water Protection Division	We have three specific interests about these proposed projects both collectively and individually. Some of these concerns are related to the draft status of the AEIS and outstanding comments the EPA has on the draft AEIS. As noted, the AEIS process has made great progress in identifying and reviewing information related to the mining process in this area of Florida and the EPA appreciates all the work that the District, stakeholders and the permit applicants have put into this process. However, certain issues remain. These are the requested permit durations, avoidance of waters of the U.S. considered to be ecologically significant, and the proposed compensatory mitigation.	Comment acknowledged.
USEPA/Water Protection Division	The applicants requested different durations for their various permits, as listed below. CF Industries, South Pasture Mine. Expansion 20 years; Mosaic Fertilizer, Desoto Mine 22 years; Mosaic Fertilizer, Westgate East Mine 34 years and Mosaic Fertilizer, Ona Mine 45 years. Given the difficulty in projecting environmental impacts two decades or more into the future, it would appear to us to be prudent to award a permit for this length of time only if there is a clear ability to monitor progress on mitigation and adaptively manage where appropriate. We believe there are opportunities to lessen this concern and we are prepared to discuss these during efforts to develop permit specific compensatory mitigation plans consistent with the Section 404(b)(1) Guidelines and the 2008 Mitigation Rule (33 C.F.R. Parts 230 and 332; 40 C.F.R. Part 230).	The Corps has provided a draft permit, which includes permit conditions related to periodic compliance reviews and adaptive management., to USEPA in accordance with the 404(q) coordination process, along with a compensatory mitigation plan for this project.
USEPA/Water Protection Division	The PN's reference avoidance of some waters of the U.S. These modifications are excellent and reflect historic concerns voiced by the EPA and others related to the uncertainty and risk for created forested and herbaceous emergent aquatic habitats. The EPA believes that additional avoidance is warranted where mature bay swamps, heads and/or seepage slopes exist. There are specific recommendations that can address this interest once the District has approved the federal jurisdictional determinations.	Section 5.4 of the decision document for the South Pasture Extension project explains how the Corps considered onsite alternatives in its review. Section 5.4 of the Final AEIS describes the mitigation framework that the Corps, EPA, and FDEP developed to address the concerns about avoidance of specific resource categories.
USEPA/Water Protection Division	Additional interests relate to the conceptual nature of the proposed compensatory mitigation. The compensatory mitigation, as discussed in the PN's, proposes one acre created for every one acre to be impacted; and one linear foot of stream will be created for every stream linear foot impacted. These created habitats will be on-site and completed at various times in the future. We would like to see the applicants provisional compensatory mitigation consider ratios beyond an acre for acre/foot for foot due to temporal losses and risk associated with the mitigation time frames and establishing forested aquatic habitats. Therefore, off-site compensatory mitigation should play a larger role in the final plans to account for the temporal losses and uncertainty of successful restoration following phosphate mining. Finally, there is currently insufficient compensatory mitigation information to complete our review, as was noted in the draft AEIS3. The draft AEIS states that the initial permit applications only provided preliminary information because there are no approved federal jurisdictional determinations on the four mine sites and as of the date of the PN's, the applicants had yet to submit federal Section 404 compensatory mitigation plans. We would welcome a collaborative effort with the District and the applicants to address these questions.	Section 8 of the decision document, and the attached approved compensatory mitigation plan, describe how Mosaic will provide compensatory mitigation for unavoidable impacts to aquatic resources. The Corps considered temporal loss and risk in its evaluation of the mitigation.
USEPA/Water Protection Division	As summarized above, the information and comments being collected for the AEIS on Phosphate Mining in the Central Florida Phosphate District will be vital for our review and providing project specific comments and recommendations. Therefore, based on the information available, the EPA believes that the projects as currently proposed may not comply with the Section 404(b)(1) Guidelines and may have substantial and unacceptable adverse impacts on aquatic resources of national importance. This letter follows the field-level procedures outlined in the August 1992 Memorandum of Agreement between the EPA and the Department of the Army, Part IV, paragraph 3(a) regarding Section 404(q) of the Clean Water Act.	The Corps has provided a draft decision document and permit to USEPA in accordance with the 404(q) coordination process, along with a compensatory mitigation plan for this project and a 3(c) letter explaining how EPA's concerns have been addressed.
USEPA/Water Protection Division	I want to thank you and your staff for your cooperation and willingness to address our issues. We look forward to working closely with you and the applicant to resolve the concerns outlined above. If you have any questions, please call me at (404) 562-9345 or Duncan Powell of my staff at (404) 562-9258.	Comment acknowledged.
Gwendolyn Keyes Fleming, Regional Administrator/EPA Region 4	This letter follows our previous letter dated July 30, 2012 (enclosed) and the field-level procedures outlined in the August 1992 Memorandum of Agreement between the U.S. Environmental Protection Agency and the Department of the Army, Part IV, paragraph 3(b), regarding Section 404(q) of the Clean Water Act. Our opinion is that the discharges will have a substantial and unacceptable impact on aquatic resources of national importance (ARNI), as currently proposed. The ARNIs and our three specific interests (requested permit durations, avoidance of the ARNIs and the proposed compensatory mitigation) that are the basis of our opinion, were stated in our July 30, 2012, letter and are still currently being discussed among the agencies and the companies. The EPA is confident that these interests will be addressed in the U.S. Army Corps of Engineers Jacksonville District's permitting process and the processes to finalize the Area-wide Environmental Impact Statement on Phosphate Mining in the Central Florida Phosphate District. We believe there are solutions to our concerns and see positive steps being taken to address them. I want to thank you and your staff for your cooperation. We look forward to working with you and the applicants to resolve our concerns. If you have any questions, please call Mr. Duncan Powell of my staff at (404) 562-9258.	The Corps has provided a draft decision document and permit to USEPA in accordance with the 404(q) coordination process, along with a compensatory mitigation plan for this project and a 3(c) letter explaining how EPA's concerns have been addressed.
NMFS-Habitat Conservation Division	NOAA's National Marine Fisheries Service (NMFS), Habitat Conservation Division, has reviewed the public notice regarding Department of the Army File Number SAJ-2010-03680 and the associated Draft Area Wide Environmental Impact Statement (AEIS) for Phosphate Mining in the Central Florida Phosphate District dated June 28, 2012. Your office has received four applications for permits under Section 404 of the Clean Water Act from Mosaic Fertilizer, LLC, and CF Industries, Incorporated, for four proposed phosphate mining projects. The specific projects in the AEIS include: (1) Mosaic's new Desoto Mine; (2) Mosaic's new Ona Mine; (3) Mosaic's extension to the existing Wingate Creek Mine; and (4) CF Industries' extension to the South Pasture Mine in Central and Southwest Florida.	Comment acknowledged.
NMFS-Habitat Conservation Division	According to information provided in the AEIS, the proposed projects could reduce freshwater inflows in the Myakka and Peace Rivers by as much as two percent. The AEIS does not specifically identify or address potential secondary or cumulative effects of the reduced freshwater inflows on essential fish habitat (EFH) or commercially and recreationally valuable fish and invertebrate species within the lower Myakka and Peace rivers and Charlotte Harbor estuary. The role of freshwater inflows to sustain and maintain the ecologic health and diversity of estuarine ecosystems is widely documented and the impacts of reduced inflows should be thoroughly addressed in the Final AEIS. Estuarine habitats in the lower Peace and Myakka Rivers and Charlotte Harbor are designated as EFH as identified in the 2005 generic amendment of the Fishery Management Plans for the Gulf of Mexico. The generic amendment was prepared by the Gulf of Mexico Fishery Management Council as required by the 1996 amendment to the Magnuson Stevens Fishery Conservation and Management Act. Federal agencies that permit activities potentially impacting EFH are required to consult with NMFS and, as a part of the consultation process, prepare an EFH assessment. Contents of an EFH assessment should include: 1. An analysis of the effects, including secondary and cumulative effects, of reduced freshwater inflows from the proposed mining activities on EFH, federally managed fish and invertebrate species, and prey within the Myakka and Peace river estuaries and Charlotte Harbor; 2. The USACE's views regarding the effects of these activities on EFH; and, 3. Proposed mitigation or adaptive management strategies, if a demonstrated adverse impact to EFH and fishery resources would result from these activities.	Sections 6 and 7 of the decision document address the 404(b)(1) Guidelines and public interest review, respectively, including the project's effects on downstream water flow and ecological resources. Additionally, On December 16, 2015, the NMFS Habitat Conservation Division (NMFS-HCD) stated that they anticipated any adverse effects associated with the proposed project that might occur on marine and anadromous fishery resources would be minimal and, therefore, they did not object to issuance of a permit.

NMFS-Habitat Conservation Division	Finally, the project area is within the known distribution limits of a federally listed threatened species under purview of NMFS. In accordance with the Endangered Species Act of 1973, as amended, it is your responsibility to review this proposal and identify actions potentially affecting endangered or threatened species. Determinations involving listed species should be reported to our Protected Resources Division (PRD) at the letterhead address. If it is determined the activities may adversely affect any species listed as endangered or threatened under PRD purview, consultation must be initiated	The Corps conducted a separate coordination with NMFS-PRD for the smalltooth sawfish. As described in Section 10.1 of the decision document, the result of a November 6, 2013, discussion of the project with the National Marines Fisheries Service Protected Resource Division (NMFS-PRD) was a determination by the Corps that the proposed mines would have no effect on the smalltooth sawfish.
NMFS-Habitat Conservation Division	If you have questions regarding NMFS' review of this project, please contact Mr. Mark Sramek at the letterhead address, by telephone at (727) 824-5311, or e-mail at Mark.Sramek@noaa.gov.	Comment acknowledged.
Florida State Historic Preservation Office	This office received and reviewed the applications 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; 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. Our review of the Florida Master Site File indicates that no historical properties are recorded within the project area. Furthermore, because of the location and/or nature of the project it is unlikely that historic properties will be affected. If there are any questions concerning our comments or recommendations, please contact Michael Hart, Historic Sites Specialist, by phone at 850.245.6333, or by electronic mail at Michael.Hart@dos.myflorida.com. We appreciate your continued interest in protecting Florida's historic properties.	Section 10.3 of the decision document explains how the Corps considered the SHPO's letter in making its determination. The DA permit for this project includes a special condition requiring protection of previously unidentified archaeological/cultural materials and notification of appropriate authorities including the SHPO and THPO.
Seminole Tribe of Florida's Tribal Historic Preservation Office	The Seminole Tribe of Florida's Tribal Historic Preservation Office (STOF-THPO) has received the Jacksonville Corps of Engineers correspondence regarding the above mentioned project. The STOF-THPO has no objection to your proposal at this time, provided that site 8HR702 (Turkey Feeder Site) is avoided. If it cannot be avoided, further consultation with the STOF-THPO will be necessary. Finally, the STOF-THPO would like to be informed if cultural resources that are potentially ancestral or historically relevant to the Seminole Tribe of Florida are inadvertently discovered during the construction process. We thank you for the opportunity to review the information that has been sent to date regarding this project. Please reference THPO#010094 in any future documentation about this project.	Section 10.3 of the decision document explains how the Corps considered the STOF-THPO's letter in making its determination. The applicant avoided the referenced site, and it is within the boundaries of a preservation area. The DA permit for this project includes a special condition requiring protection of previously unidentified archaeological/cultural materials, including human remains, and notification of appropriate authorities including the SHPO and THPO.
Beverly Griffiths/Sierra Club Phosphate Committee	I am writing on behalf of the Sierra Club Florida Phosphate Committee to request an extension of time to respond to your notice of permitting for the above-referenced mine until after completion of the Phosphate AEIS which your agency is currently preparing. The permit application requires completion of an environmental impact statement to guide permitting, as your notice recognizes. That AEIS must also be available to the public in order to provide comments on this and future permits. Proceeding with the public input process for this permit before preparation of an EIS is premature and improper and deprives the public of the information necessary to submit comments.	The Notice of Availability for the Final AEIS was published in the Federal Register on May 3, 2013. On June 16, 2016, the Corps provided a second public notice for South Pasture Extension. During the intervening three years, the Corps continued to accept public comments on South Pasture Extension and the AEIS, and make those comments a part of the public record.
Beverly Griffiths/Sierra Club Phosphate Committee	You issued four notices of permitting on June 1, for the CF Industries South Pasture Extension and the Mosaic Wingate East, Ona and Desoto mines. We note that all of the notices you have issued are extremely sparse, omitting important information such as the nature of reclamation and the form of mitigation. The need for additional time and information in order to comment is reinforced by the limited nature of the information available.	The Corps prepared the public notice for South Pasture Extension in accordance with 33 CFR 325.3. The Corps published the June 16, 2016, public notice to provide additional information about South Pasture Extension.
Beverly Griffiths/Sierra Club Phosphate Committee	Please note additionally that the address for commenting on the Ona mine appears to refer to the Wingate East mine. We assume your reference is incorrect.	Comment acknowledged.
Beverly Griffiths/Sierra Club Phosphate Committee	It is clear that there is broad public interest in the pending AEIS and the permits which will depend on it. At this time we object to the proposed permit, request an extension of time for comment until a reasonable time after issuance of the pending AEIS, and ask that the Corps conduct a public hearing on this permit to consider the actual mining, reclamation and mitigation involved, and to consider the permit in light of the AEIS.	The Notice of Availability for the Final AEIS was published in the Federal Register on May 3, 2013. On June 16, 2016, the Corps provided a second public notice for South Pasture Extension. During the intervening three years, the Corps continued to accept public comments on South Pasture Extension and the AEIS, and make those comments a part of the public record. The Corps has provided a response to the request for a public hearing.
Beverly Griffiths/Sierra Club Phosphate Committee	Please acknowledge receipt of this message to bevgriffiths@verizon.net Thank you for your service and your concern for our environment.	Comment acknowledged.
Helen King/Protect Our Watersheds, Inc.	I am writing on behalf of Protect Our Watersheds, Inc. (POW) to request an extension of time to respond to your notice of permitting for the above-referenced mine until after completion of the Phosphate AEIS which your agency is currently preparing. The permit application requires completion of an environmental impact statement to guide permitting, as your notice recognizes. That AEIS must also be available to the public in order to provide comments on this and future permits. Proceeding with the public input process for this permit before preparation of an EIS is premature and improper and deprives the public of the information necessary to submit comments.	The Notice of Availability for the Final AEIS was published in the Federal Register on May 3, 2013. On June 16, 2016, the Corps provided a second public notice for South Pasture Extension. During the intervening three years, the Corps continued to accept public comments on South Pasture Extension and the AEIS, and make those comments a part of the public record.
Helen King/Protect Our Watersheds, Inc.	You issued four notices of permitting on June 1, for the CF Industries South Pasture Extension and the Mosaic Wingate East, Ona and Desoto mines. We note that all of the notices you have issued are extremely sparse, omitting important information such as the nature of reclamation and the form of mitigation. The need for additional time and information in order to comment is reinforced by the limited nature of the information available.	The Corps prepared the public notice for South Pasture Extension in accordance with <PN reg>. The Corps published the June 16, 2016, public notice to provide additional information about South Pasture Extension.
Helen King/Protect Our Watersheds, Inc.	It is clear that there is broad public interest in the pending AEIS and the permits which will depend on it. At this time we object to the proposed permit, request an extension of time for comment until a reasonable time after issuance of the pending AEIS, and ask that the Corps conduct a public hearing on this permit to consider the actual mining, reclamation and mitigation involved, and to consider the permit in light of the AEIS. Specifically, POW wants to ensure the best possible protections for our water, our environmental systems, the health of Charlotte Harbor and its fisheries during and after mining. Thank you for your service and your concern for our environment.	The Notice of Availability for the Final AEIS was published in the Federal Register on May 3, 2013. On June 16, 2016, the Corps provided a second public notice for South Pasture Extension. During the intervening three years, the Corps continued to accept public comments on South Pasture Extension and the AEIS, and make those comments a part of the public record. The Corps has provided a response to the request for a public hearing.
Dennis Mader/3PR	Pursuant to Section 404 of the Clean Water Act. , People for Protecting Peace River, Inc. (hereinafter, 3PR) formally requests a public hearing concerning Mosaic Fertilizer, LLC Permit Application No. SAJ-1993-01395 (IP-ACR)	The Corps has provided a response to the request for a public hearing.
Dennis Mader/3PR	During the permit decision process, the Corps must evaluate the project in relation to the public interest. The public benefits and detriments of all factors relevant to each case are to be carefully evaluated and balanced. Relevant factors may include conservation, economics, esthetics, wetlands, cultural values, fish and wildlife values, water supply, water quality, and any other factors judged important.	Section 7 of the decision document describes the Corps' evaluation of public interest pursuant to 33 CFR 320.4 and RGL 84-09.
Dennis Mader/3PR	Additionally, 3PR strongly recommends the Army Corps of Engineers (ACOE) deny Permit Application No. SAJ-1993-01395 (IP-ACR) and find the project <i>Environmentally Unsatisfactory</i> . The initial ACOE review of the project has identified adverse environmental impacts that are of sufficient magnitude that the proposed action must not proceed as proposed.	The decision document provides the Corps' final determinations for South Pasture Extension.

Dennis Mader/3PR	<p><u>PARTIES</u></p> <p>2. 3PR is a public interest environmental protection organization which is a Florida not-for-profit corporation and a citizen of the State of Florida whose address is: 3PR, P.O. Box 155, Wauchula, FL 33873. The corporate purposes of 3PR include the protection and preservation of water quality and wildlife habitat in and around Hardee County, Florida. 3PR is a citizen of the State of Florida pursuant to section 403.412(5), Florida Statutes. 3PR and its members will be substantially and adversely affected by the conditions and activity, which will result if this permit is issued.</p> <p>3. State of Florida, Department of Environmental Protection (hereinafter, "DEP") is an affected State permitting agency, whose address is: DEP, 8407 Laurel Fair Circle, Tampa, Florida 33610-7355.</p> <p>4. Department of the Army is an affected federal permitting agency, whose address is: Department of the Army, Jacksonville District Corps of Engineers, Tampa Regulatory Office, 10117 Princess Palm Drive Suite 120, Tampa, Florida 33610-8300.</p> <p>5. The Applicant is CF Industries, Inc., Hardee County Complex, P. O. Box 1549, Wauchula, FL 33873</p> <p>RECEIPT OF NOTICE</p> <p>6. 3PR first received notice of Permit Application No. SAJ-1993-01395 (IP- ACR) by email on June 2, 2012.</p>	Comment acknowledged.
Dennis Mader/3PR	<p><u>GENERAL FACTS</u></p> <p>7. The direct impacts of Applicant's proposed project will result in unpermittable adverse conditions Section 404 of the Clean Water Act and will be contrary to the public's interest.</p>	Sections 6 and 7 of the decision document address the 404(b)(1) Guidelines and public interest review, respectively
Dennis Mader/3PR	8. There will be significant unpermittable foreseeable adverse cumulative impacts on water quality, and conservation and protection of fish and wildlife resulting from the extraction of phosphate ore .	Sections 6 and 7 of the decision document address the 404(b)(1) Guidelines and public interest review, respectively. Section 4.12 of the Final AEIS describes the cumulative effects of phosphate mining, including South Pasture Extension.
Dennis Mader/3PR	9. There will be unpermittable foreseeable adverse secondary impacts from the proposed extraction of phosphate ore .	Sections 6 and 7 of the decision document address the 404(b)(1) Guidelines and public interest review, respectively, including secondary or indirect effects.
Dennis Mader/3PR	10. The Department of the Army has permitting authority over Applicant's proposed dredging activities pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344).	Comment acknowledged.
Dennis Mader/3PR	11. The Army Corps of Engineers has initially determined that the proposed project The U.S. Army Corps of Engineers (Corps) has determined the proposed project may affect, the Audubon's crested caracara (Caracara cheriway) and the Florida panther (Puma concolor coryi). Additionally, the Corps has determined the proposal may affect the Eastern indigo snake (Drymarchon couperi), wood stork (Mycteria americana), and the Florida grasshopper sparrow (Ammodramus savannarum floridanus).	Section 10.1 of the decision document describes the Corps' final determinations for South Pasture Extension pursuant to Section 7 of the Endangered Species Act.
Dennis Mader/3PR	12. The mitigation proposed by the Applicant is inadequate and will most likely not be viable for some time after construction activities.	Section 8 of the decision document, and the attached approved compensatory mitigation plan, describe how Mosaic will provide compensatory mitigation for unavoidable impacts to aquatic resources. The Corps considered temporal loss and risk in its evaluation of the mitigation.
Dennis Mader/3PR	(a) Whether Applicant has provided reasonable assurances that the applicable state and federal water quality standards will not be violated as a result of the proposed extraction of phosphate ore; (b) Whether Applicant has provided reasonable assurances that the proposed extraction of phosphate ore is in compliance with EPA approved water quality standards with regard to Section 404 of the Clean Water Act;	As stated in Section 10.5 of the decision document, the FDEP issued a water quality certification on June 22, 2012, as part of their ERP. This constitutes water quality certification under Section 401 of the Clean Water Act.
Dennis Mader/3PR	(c) Whether Applicant has provided reasonable assurances that the proposed activity is not contrary to the public interest as set forth in Section 404(b) of the Clean Water Act ;	Sections 6 and 7 of the decision document address the 404(b)(1) Guidelines and public interest review, respectively.
Dennis Mader/3PR	(d) Whether Applicant has provided reasonable assurances that the cumulative impacts of the proposed project, including applicable past, present and foreseeable cumulative impacts, will not cause violations of any state or federal standard;	Section 4.12 of the Final AEIS describes the cumulative effects of phosphate mining, including South Pasture Extension. The Corps' review of the project impacts, as described in the decision document, is limited to those impacts within the Corps' regulatory authority.
Dennis Mader/3PR	(e) Whether Applicant has provided reasonable assurances that the proposed project is consistent with Florida's Coastal Zone Management Program;	As stated in Section 10.6 of the decision document, the FDEP issued a coastal zone management consistency determination on June 22, 2012, as part of their ERP.
Dennis Mader/3PR	(f) Whether Applicant has provided reasonable assurances that permanent impacts associated with the disturbance of 1262 acres jurisdictional wetlands does not violate any state or federal standard;	The Corps' review of the project impacts, as described in the decision document, is limited to those impacts within the Corps' regulatory authority.
Dennis Mader/3PR	(g) Whether Applicant has provided reasonable assurances that the proposed extraction of phosphate ore is in compliance with Section 7 of the Endangered Species Act for the protection of the Audubon's crested caracara (Caracara cheriway), the Florida panther (Puma concolor coryi), the Eastern indigo snake (Drymarchon couperi), the wood stork (Mycteria americana), and the Florida grasshopper sparrow (Ammodramus savannarum floridanus).	Section 10.1 of the decision document describes the Corps' final determinations for South Pasture Extension pursuant to Section 7 of the Endangered Species Act.
Dennis Mader/3PR	<p><u>APPLICABLE LAWS AND STATUTES</u></p> <p>14. Federal Laws and Statutes: -Section 404 of the Clean Water Act (33 U.S.C. 1344), -Section 404(b) of the Clean Water Act, -Coastal Zone Management Act and the National Environmental Policy Act., -Section 7 of the Endangered Species Act.</p> <p>15. Florida Laws and Statutes: -Section 62-302 F.S. - Surface Water Quality Standards, -Section 62-302.530 F.S. - Table: Criteria for Surface Water Quality Classifications, -Sections 62-4.242, 62-4.243, 62-4.244, and 62-4.246 F.S.- antidegradation permitting requirements.</p>	The Corps' review of the project impacts, as described in the decision document, is limited to those impacts within the Corps' regulatory authority.
Dennis Mader/3PR	WHEREFORE, People for Protecting Peace River, Inc., formally requests that ACOE hold a public hearing concerning CF Industries, Inc., Permit Application SAJ-1993-01395 (IP-ACR) South Pasture Extension Phosphate Strip Mine. Respectfully submitted this 18th day of June 2012. .	The Corps has provided a response to the request for a public hearing.
Lisa Beaver/CHNEP	<p>Thank you for the opportunity to review and comment on Permit Application No. SAJ-1993-01395 (IP-ACR), CF Industries South Pasture Extension Mine. The Charlotte Harbor National Estuary Program (CHNEP) was created in 1995 pursuant to Section 320 of the Clean Water Act and is guided by our Comprehensive Conservation and Management Plan (CCMP) as required by the Act. This letter documents the interest of CHNEP regarding this permit.</p> <p>The letter was developed according to our adopted Advocacy and Review Procedures, which serve to implement Executive Order 12372, dated September 17, 1983. This letter primarily implements CCMP Action SG-P: Incorporate into federal, state and local permits and public works improved standard practices that better protect estuaries and watersheds. We commend CF Industries for presenting information related to this permit to CHNEP staff, Technical Advisory Committee, Management Comment and Policy Committee in the summer of 2010. We further commend CF Industries for providing additional data to CHNEP, upon our requests. We further thank CF Industries for participating in our Management Conference as a partner.</p> <p>Desirable Outcomes</p> <p>In our comments concerning the May 2012 Draft Areawide Environmental Impact Statement (DAEIS), CHNEP outlined desirable outcomes that apply to this permit. These desirable outcomes will help to implement the CCMP and include:</p>	Comment acknowledged.

Lisa Beever/CHNEP	Improve downstream ambient water quality. Parameters include dissolved oxygen, chlorophyll a, total dissolved solids, pH, sulfate, iron, phosphorus, nitrogen and fecal coliform. We anticipate that one or more of these parameters may improve based on the land use change. If those can be improved and other more challenging parameters are not degraded in the ambient environment, a desirable outcome is met.	Section 4.4.6 of the Final EIS describes the predicted effects of South Pasture Extension on surface water quality. Sections 6 and 7 of the decision document address the 404(b)(1) Guidelines and public interest review, respectively, including water quality.
Lisa Beever/CHNEP	Establish a more natural seasonal variation in freshwater flows for the Peace and Myakka Rivers. Peace River Integrated Modeling Project. Southwest Florida Water Management District Minimum Flows and Levels documentation for the Lower Myakka and Lower Peace can be used to identify natural seasonal variations.	Section 4.2.5 of the Final AEIS describes the predicted effects of the South Pasture Extension project on surface water flows within the Peace River, Horse Creek, and Payne Creek. Sections 6 and 7 of the decision document address the 404(b)(1) Guidelines and public interest review, respectively, including surface water hydrology.
Lisa Beever/CHNEP	Improve historic watershed boundaries. CHNEP contracted to develop geographic information systems data to identify historic watershed boundaries. Restoring watershed boundaries can be a component of mitigation.	The approved compensatory mitigation plan describes the permittee's watershed approach to compensatory mitigation.
Lisa Beever/CHNEP	Improve to more natural historic conditions, waterbodies that are affected by artificially created structures. This outcome can be completed by minimizing containment in the mining landscape. In addition, mitigation options include removal of artificial structures and restoring old mining containment areas to return flows to natural waterbodies.	The approved compensatory mitigation plan describes how the permittee included restoration and enhancement of previously impacted areas in the overall plan.
Lisa Beever/CHNEP	Protect and restore habitats freshwater wetlands, as well as native upland communities vital to the ecological function of the system. This outcome can be implemented with avoidance within the mines with special reference to the Critical Land and Water Identification Project (CLIP) priority 1 and priority 2 areas, as well as the Integrated Habitat Network.	Section 5.4 of the decision document for the South Pasture Extension project explains how the Corps considered onsite alternatives in its review, including the application of the Mitigation Framework described in Section 5.4 of the Final AEIS. The approved compensatory mitigation plan describes how the permittee incorporated the preservation and enhancement of key landscape systems, including upland and wetland areas, into the mitigation.
Lisa Beever/CHNEP	Create landscape level habitat connections. These connections include major and minor riparian corridors such as the Myakka River, Peace River, Horse Creek, West Fork Horse Creek, Brushy Creek, Lettis Creek, Oak Creek, Hickory Creek, Buzzards Roost Branch, Brandy Branch and other tributary systems. Riparian corridors include riparian wetlands as well as associated uplands such as oak scrub.	The approved compensatory mitigation plan describes how the permittee incorporated the preservation and enhancement of key landscape systems, including upland and wetland areas, into the mitigation.
Lisa Beever/CHNEP	Increase Conservation Lands within the Peace and Myakka River basins. In the past conservation areas were protected under deed restrictions, which have little public enforceability. In recent permits, FDEP has required transfer of easement or title. This applies to avoidance areas, restoration areas and off-site mitigation areas.	The approved compensatory mitigation plan describes how the permittee incorporated the preservation and enhancement of key landscape systems, including upland and wetland areas, into the mitigation, and how the permittee will preserve all onsite and offsite compensatory mitigation areas.
Lisa Beever/CHNEP	We noted that areas buffering Brushy Creek and Lettis Creek have been proposed for conservation within the mine boundaries. These "no mine" areas include CLIP priority 1 and 2 areas and protect the named waterbodies on the property. We prepared a map for our use that shows the relationship between - Proposed "no mine" areas; and - the named waterbodies from the National Hydrologic Database (NHD), - Integrated Habitat Network (IHN), and - CLIP Priority 1 and 2 areas. Remaining large areas of Clip Priority 1 exists in the northeastern corner of the property, bounded by earlier mining and US 17. We have added the Mosaic permit boundaries for reference.	Section 5.4 of the decision document for the South Pasture Extension project explains how the Corps considered onsite alternatives in its review, including the application of the Mitigation Framework described in Section 5.4 of the Final AEIS.
Lisa Beever/CHNEP	CHNEP may submit additional comments concerning this permit. If you have any questions or need additional information, please do not hesitate to contact me.	Comment acknowledged.
Mike Coates/Peace River Manasota Regional Water Supply Authority	The Peace River Manasota Regional Water Supply Authority (Authority) is an existing legal permittee utilizing water harvested from the Peace River in DeSoto County, Florida for public water supply. The Authority's Water Use Permit (SWFWMD WUP No. 20010420.008) establishes a withdrawal schedule from the Peace River based on combined daily flows of the Peace River (USGS gage 02296750), Horse Creek (USGS gage 02297310) and Joshua Creek (USGS gage 02297100). The USEPA also completed an EIS (904/9-03-001, January 2003) on the Peace River Facility and withdrawal from the Peace River for public water supply. The Authority has invested over \$300,000,000 in new infrastructure over about the past decade, including construction of a 6 billion gallon off-stream raw-water reservoir, 21-well aquifer storage/recovery wellfield, water treatment plant expansion, and transmission pipelines. This investment of public dollars is to insure reliable, high-quality, affordable drinking water supply to serve the four county region of the Authority as required by state statute. Authority drinking water supply facilities presently include: • 48 Million gallon per day (MGD) conventional surface water treatment plant • 120 MGD intake on the Peace River • 6.52 BG off-stream, raw water storage • 6.3 BG (21-well) treated water Aquifer Storage and Recovery System • About 50 miles of drinking water transmission pipelines in service These facilities provide drinking water to Authority customers including Charlotte, DeSoto and Sarasota Counties, and the City of North Port for distribution to residents in their retail service areas. The Authority's current contractual delivery obligation is 32.7 MGD (average day). During the 12-month period ending June 30, 2012 the Peace River Facility supplied over 75% of the drinking water used by the aforementioned four Customers.	Comment acknowledged.
Mike Coates/Peace River Manasota Regional Water Supply Authority	Quantity, timing and quality flow in the Peace River watershed, including Horse Creek and Joshua Creek are critical to the operation of the Peace River Facilities. Impacts to any of these three elements (flow, timing, quality) from a single or combination of mine operations could compromise the ability of the Authority to meet public drinking water needs and contractual obligations, and adversely impact the financial investment of public funds in infrastructure constructed to provide public water supply. Our concerns regarding the four permit applications and potential mine-related (both separate and cumulative) impacts are listed below	Section 4.4.6 of the Final EIS describes the predicted effects of South Pasture Extension on surface water quality. Section 4.2.5 of the Final AEIS describes the predicted effects of the South Pasture Extension project on surface water flows within the Peace River. Sections 6 and 7 of the decision document address the 404(b)(1) Guidelines and public interest review, respectively, including water quality and surface water hydrology.

Mike Coates/Peace River Manasota Regional Water Supply Authority	<p>1. Quantity & Timing of River Flow</p> <p>A major issue relative to the Authority's regional drinking water supply operations on the Peace River relates directly to how potential reductions in stream flows are assessed in the applications. Flow-related impacts affecting Peace River Facility withdrawals and the Authority's drinking water system reliability will be masked by use of techniques that consider the annual or long-term average changes in flow impacts from mining. "Averaging" tends to mask impacts on water supply availability during dry conditions by combining dry weather flows with high volume wet season flows. An "average" condition typically provides adequate flow to meet water supply needs, however, conditions are rarely average, and in the past 12 years have tended to be very dry for extended periods.</p> <p>Analysis of mine related impacts on river flow should include evaluation of all potential mine-related impacts over a full range of actual historical river flows so that impacts to permitted water supply facilities such as ours can be discerned. Reduced supply availability and water system reliability could necessitate any or all of the following costly actions:</p> <ul style="list-style-type: none"> • Installation for more pumping capacity on the river, • Construction of more water storage capacity, • Implementation of alternative treatment methods (such as membranes) and/or, • Development of new sources. 	A	Section 4.2.5 of the Final AEIS describes the predicted effects of the South Pasture Extension project on surface water flows within the Peace River. Sections 6 and 7 of the decision document address the 404(b)(1) Guidelines and public interest review, respectively, including surface water hydrology.
Mike Coates/Peace River Manasota Regional Water Supply Authority	<p>2. Surface Water Quality</p> <p>The Peace River Water Treatment Plant is a conventional surface water treatment facility using aluminum sulfate as a coagulant primarily for color removal. The treatment facility does not (and cannot) reduce dissolved solids (such as sulfate, chloride, sodium, etc.), which are regulated drinking water parameters in Florida. Although average water quality data from mine discharges are somewhat informative, they don't tell much about potential worse case impacts, which are caused by specific events and not averages.</p> <p>The evaluation should consider what the maximum observed parameter/constituent values were, the number of observations available, and the number that were above water quality standards to aid in assessment of impacts to drinking water supplies.</p>	The	Section 4.4.6 of the Final EIS describes the predicted effects of South Pasture Extension on surface water quality. Sections 6 and 7 of the decision document address the 404(b)(1) Guidelines and public interest review, respectively, including water quality.
Mike Coates/Peace River Manasota Regional Water Supply Authority	<p>In addition, a related and very important water quality issue is that of impacts from mining related facilities such as processing plants, and phospho gypsum stacks. The protracted and ongoing USAC phosphogypsum stack closure which discharges high TDS water into Whidden Creek which outfalls to the Peace River clearly shows that such facilities can affect water quality in the river, and by extension could adversely affect public drinking water supplies relying on surface water in the Peace River Basin.</p> <p>Are such facilities proposed to support these mine operations? Where would such facilities be located, when would they be constructed and ultimately closed, and what are the projected impacts of these facilities current surface water quality in the Peace Basin?</p>		Section 4.12 of the Final AEIS describes the cumulative effects of phosphate mining, including South Pasture Extension.
Mike Coates/Peace River Manasota Regional Water Supply Authority	<p>The Authority appreciates the opportunity to comment on the referenced permit applications.</p> <p>We request a thorough analysis of the potential impacts to our drinking water source be undertaken as part of the USACE permitting process for each individual permit application as well as the cumulative impact of all four.</p>		Section 4.12 of the Final AEIS describes the cumulative effects of phosphate mining, including South Pasture Extension. Sections 6 and 7 of the decision document address the 404(b)(1) Guidelines and public interest review, respectively, including water quality and surface water hydrology.

Vivian Arenas-Battles
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ATTORNEYS AT LAW

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June 25, 2012

Louis A. de la Parte, Jr.
Founder (1929-2008)

By Email and U.S. Mail

Col. Alfred A. Pantano, Jr.
Interim District Engineer
Department of The Army
Jacksonville District Corps of Engineers
10117 Princess Palm Avenue
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Tampa, Florida 33610

Regulatory Division
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pn.comment.southpasture.ext@usace.army.mil

Re: CF Industries, Inc. – Hardee Phosphate Complex
South Pasture Extension – DOA Permit Application
No. SAJ-1993-01395 (IP-ACR)

RECEIVED

JUN 26 2012

Tampa Regulatory Office

Dear Col. Pantano:

Please accept this letter on behalf of Florida Institute of Neurological Rehabilitation, Inc. ("FINR"), FINR II, Inc. ("FINR II") and FINR III, Inc. ("FINR III"), collectively the ("FINR Companies"). FINR II is a neighboring landowner to CF Industries Inc.'s ("CF") proposed South Pasture Mine Extension ("SPME") in Hardee County, Florida. FINR and FINR III are affiliated companies, which lease the land owned by FINR II for use as a post-acute, state-licensed CARF – accredited and Joint Commission accredited inpatient rehabilitation facility specializing in the treatment of children and adults, who have sustained brain injury or some other form of neurotic trauma. By public notice dated June 1, 2012, the Army Corps of Engineers ("ACOE") advised interested persons that it had received an application for a Department of the Army permit pursuant to Section 404 of the Clean Water Act ("ACOE Permit"). A copy of the June 1, 2012 notice is enclosed for your convenience as Exhibit "A".

If approved, the ACOE Permit will allow CF to destroy approximately 1,262 acres of wetlands and other surface waters. CF will attempt mitigate impacts to mined or disturbed wetlands and other surface waters by creating 1,568 acres of wetlands and restoring 122.7 acres of wetlands. However, the FINR Companies have serious concerns as to CF's ability to comply with the applicable permitting standards governing the SPME ACOE Permit. Of particular interest is CF's

proposal to conduct mining and reclamation activities within 5 feet of FINR II's property. This proposal is in direct conflict with the Hardee County Mining Ordinance, which prohibits any mining operations within one-quarter mile of a Rural Center land use classification, such as FINR II's property. *See* Hardee County Unified Land Development Code §3.14.02. A copy of which is enclosed for your convenience as Exhibit "B." If the quarter-mile mining setback is properly applied, approximately 716 acres of the 6,418 acres CF proposes to mine or about 11 percent of the impacted area could not be mined. A map illustrating the extent of the quarter-mile setback onto the South Pasture Mine Extension is also enclosed as Exhibit "C". CF is presently attempting to obtain a waiver of the quarter-mile setback from Hardee County, but CF's request is strongly opposed by the FINR Companies and it is unlikely its request will be granted.

Application Fails to Avoid and Minimize Impacts to Wetlands

The FINR Companies believe the quarter-mile no-mining setback must be taken into account in avoiding and minimizing impacts to wetlands under 40 CFR §230.10. The basic premise of the Section 404 permitting program is that destruction of wetlands shall not be permitted, if (1) a practicable alternative exists that is less damaging to the aquatic environment, or (2) the wetland destruction would cause the nation's waters to be significantly degraded. *See* 40 CFR §230.10(1). In order for a project to be permitted, it must be demonstrated that all practicable steps have been taken to avoid impacts to wetlands and other aquatic resources, potential impacts have been minimized, and compensation or mitigation will be provided for any remaining unavoidable impacts.

Under the Clean Water Act 404(b)(1) Guidelines, if a project is not water dependent, there is a presumption that a less environmentally practicable alternative exists. Phosphate mining is not a water dependant activity. For this reason, the applicant must clearly demonstrate that practicable alternatives, which would not involve discharge of fill material into special aquatic sites, are not available. *See* 40 CFR §230(a)(3). In this case, CF cannot practicably dredge or fill within the quarter-mile setback because Hardee County's Mining Ordinance prohibits any mining activities within this area. By avoiding these wetlands, the proposed mining activities will be less damaging to the aquatic environment and reduce the NPDES discharges to state waters. Since mining for phosphate is CF's only justification for destroying the wetlands located within the setback area and since mining of phosphate within a quarter-mile of FINR II's property is prohibited, CF has not shown why the Section 404 permitting program does not require the total avoidance of any impacts to these wetlands.

Proposed Mitigation is Not Adequate

However, even if the avoidance and minimization doctrine does not require CF to avoid mining wetlands and other waters located within the setback area, this setback must be taken into account in determining the adequacy of CF's mitigation. CF's mitigation plan proposes to offset wetland impacts in the mined area by creating new wetlands, many of which will be located within the setback area. If CF is never allowed to mine this area, then it will be unable to create wetlands within this area and its mitigation plan will not be adequate. For example, the two attached maps created by the Florida Department of Protection, which are attached as Exhibit "D", show that 116.5 acres or 6.84% of the wetlands to be destroyed by the project are located within this setback area, while 270.27 acres or 15.8% of the mitigated wetlands are located within this setback area. Absent adequate mitigation for any unavoidable impacts, the proposed activity fails to meet the mitigation sequencing requirement of the Clean Water Act §404 regulatory program.

Cumulative Impacts of the Proposed Activity are Contrary to the Public Interest

Furthermore, among the cumulative impacts listed for consideration of the proposed activity on the public interest in the ACOE's Notice are economics, esthetics, considerations of property ownership and the needs and welfare of the people. Approximately 298 acres of FINR II's 872 acre property is currently used by FINR and FINR III for rehabilitation, education and vocational services to survivors of brain injuries. By providing individualized assessment, restorative service, and foundational retraining in behavior, psychosocial, cognitive, physical functioning, communication, daily living, education and vocational areas, FINR and FINR III seek to assist their clients in attaining the maximum level of functioning and quality of life in the most normalized and least restrictive environment. As part of the brain injury rehabilitation process, FINR and FINR III use individualized and innovative treatment programs. These programs include a variety of outdoor activities such as gardening and horseback riding. The FINR Companies intend to expand the rehabilitation center to include a day-care center, multi-family residential units, restaurants and convenience stores, office buildings, a rehabilitation hospital and equestrian recreational use prior to or during the planned mining of the SPME.

In order for FINR and FINR III programs to succeed, each client must achieve some level of successful re-entry into their communities. This requires services at the FINR site that enhance the client's strengths and abilities and

overcome existing barriers to independence. A major obstacle to successful community integration for individuals with neurological impairment is difficulty in transferring or generalizing skills learned in the typical rehabilitation treatment environment to that of the "real world." Among the specific goals of community integration is to assist each individual in developing productive leisure and indoor/outdoor recreational activities. The mining and related activities associated with the CF's application will impact the serene environment of the FINR II property and interfere with the rehabilitation of FINR's clients. This would adversely impact FINR II's existing and future use of the FINR II property, the esthetics of the property, the economics of the FINR Companies and the economic benefit the FINR Companies bring to Hardee County, the welfare of the general public.

By nature, phosphate mining is a highly invasive activity that results in the total destruction of the earth's surface down to the bottom of the phosphate matrix layer. This activity results in many direct and secondary impacts from the removal of soil, clay, sand, phosphate rock and water. Noise, odors, and dust generated by the mining activities invade neighboring properties. Patients of the FINR facility have suffered traumatic brain injuries and rely on FINR's peaceful atmosphere to help gradually reacquire everyday living activities and functions. Phosphate mining activities immediately adjacent to FINR II's property will significantly interfere with the FINR Companies' land use as air, noise, and odor pollution will restrict their ability to provide a peaceful facility for the recovery of survivors of brain injuries. The air, noise, and dust pollution will significantly interfere with the patients' quality of life and will likely preclude or limit outdoor activities of FINR's patients. Additionally, CF's mining plans require for the construction of a ditch and berm system within 5 feet of FINR II's property line. This ditch and berm system will consist of a recharge ditch followed by a berm approximately 120 feet in width. This presence of an extensive recharge ditch within 5 feet of FINR's property threatens the safety of patients participating in outdoor activities.

As such, if approved, CF's proposed activity will adversely impact the FINR Companies' existing and future use of the property. If the FINR Companies are no longer able to provide patients with the standard of care required for successful treatment and rehabilitation of neurological injuries, they will be forced to close their doors. The positive impact of the FINR facility on the economics of Hardee County and the needs and welfare of its people, as well as the adverse impacts to the FINR Companies' economics, esthetics, and property, must be considered when determining whether evaluating the cumulative impacts of the proposed activity on the public interest. When considering these impacts, the activity requested by CF

Col. Alfred A. Pantano, Jr.
Interim District Engineer
June 25, 2012
Page 5 of 5

in its permit application is not consistent with the public interest. As a result, the ACOE Permit application must be denied.

Thank you for your consideration of our comments and attention to this important matter. If you have any questions, please feel free to contact our office.

Respectfully submitted,

de la PARTE & GILBERT, P.A.

A handwritten signature in cursive script, appearing to read "Edward P. de la Parte".

Edward P. de la Parte

Enclosures

cc: Joseph Brennick (without enclosures)



DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
10117 PRINCESS PALM AVENUE, SUITE 120
TAMPA, FLORIDA 33610

REPLY TO
ATTENTION OF

Regulatory Division
Tampa Permits Section

June 01, 2012

PUBLIC NOTICE

Permit Application No. SAJ-1993-01395 (IP-ACR)

TO WHOM IT MAY CONCERN: This district has received an application for a Department of the Army permit pursuant to Section 404 of the Clean Water Act (33 U.S.C. §1344) as described below:

APPLICANT: CF Industries, Inc.
Hardee Phosphate Complex
Post Office Box 1549
Wauchula, Florida 33873

WATERWAY & LOCATION: The project is located partially in wetlands associated with Brushy Creek, Lettis Creek and Troublesome Creek, which are intermittent streams within the Peace River watershed. Specifically, the project is located along C.R. 663 (Ona Fort Green Road) in Sections 1, 2, 3, 10, 11, and 12, Township 34S, Range 23 East and Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10, Township 34 South, Range 24 East in Hardee County, Florida.

Directions to the site are as follows: Exit I-75 at Exit 240 (C.R. 674) in Hillsborough County. Proceed east on C.R. 674 to S.R. 39 and turn right. Proceed south on S.R. 39 to S.R. 62 and then left. Proceed east on S.R. 62 until it intersects C.R. 663 South. Turn right onto C.R. 663 South and continue south for approximately 3 miles.

LATITUDE & LONGITUDE: Latitude 27° 32' 57.199" North
Longitude 81° 56' 13.958" West

PROJECT PURPOSE:

Basic: To extract phosphate ore.

Overall: To extract phosphate ore from the mineral reserves located in the Central Florida Phosphate District (CFPD) and to construct the associated infrastructure required to extract and process the phosphate ore at separation/beneficiation facilities recognizing that the ore extracted must be within a practicable distance to a new or existing beneficiation plant.

PROPOSED WORK: The applicant requests a 20 year permit to mine phosphate ore located on 18,287 acres of property in Hardee County, Florida. The applicant proposes mining operations to extract the phosphate ore reserves on the proposed South Pasture Mine Extension for approximately 14 years. This project would provide phosphate ore to extend the life of the currently operating and adjacent South Pasture Mine and beneficiation plant. Upon completion of mining operations, all land disturbed by mining operations will be reclaimed, with some areas being established as wetlands mitigation as described below.

In total, approximately 1,262 acres of impacts to U.S. Army Corps of Engineers (Corps) jurisdictional wetlands and surface waters of the U.S. are proposed. Of these proposed 1,262 acres of impacts, a total of 1,226 acres are wetlands comprised of 447.7 acres are forested wetlands, 778.3 acres are herbaceous wetlands. A total of 35.5 acres are jurisdictional open waters to include 33,341 linear feet of intermittent ditched and un-ditched stream impacts.

The jurisdictional impacts include 0.9 acre of temporary impacts to wetlands and surface waters of the U.S. for a single, necessary consolidated dragline and infrastructure corridor crossing of Brushy Creek. Construction of this crossing would result in a total of approximately 0.7 acre of temporary impacts to forested wetlands, 0.1 acre of temporary impacts to herbaceous wetlands, and 0.1 acre of temporary impacts to intermittent streams.

The applicant has proposed to hydraulically transport matrix containing ore excavated from the South Pasture Mine Extension to the existing South Pasture Mine beneficiation plant across lands subject to DA permit number SAJ-1993-01395 (MOD 15-CJW) and to return sand and clay residuals to both the integrated South Pasture Mine and South Pasture Mine Extension tracts.

AVOIDANCE AND MINIMIZATION INFORMATION: The applicant has proposed to avoid approximately 1,094.6 acres on the property as avoidance and minimization of impacts; this avoided area includes 523.1 acres of wetlands (including 55,501 linear feet of intermittent streams) and 571.4 acres of uplands.

PROPOSED MITIGATION: The applicant proposes mitigation on-site on the South Pasture Mine Extension and off-site on applicant property adjacent to South Pasture mining areas for unavoidable impacts to waters of the U.S. In addition to on-site wetland establishment and restoration, both on-site and off-site preservation is proposed.

On Site Mitigation

On-site mitigation is proposed to consist of 400.4 acres of wetland preservation (66.4 acres herbaceous wetland, 321.7 acres forested wetland, and 12.4 acres open water), 1,568.7 acres of wetland establishment and 122.7 acres of wetland restoration. In addition, 55,501 linear feet of intermittent stream channel would also be avoided and protected. Of the 1,568.7 acres of proposed wetland establishment, 1,009.0 would be herbaceous wetland, 488.5 acres would be forested wetland, and 71.1 acres would be open water. Of the 122.7 acres of proposed wetland restoration, 92.6 acres would be herbaceous wetland, 25.6 acres would be forested wetland, and 4.6 acres would be open water.

As mitigation for the proposed removal of 33,341 linear feet of intermittent stream channel, the applicant proposes to establish 43,838 linear feet of intermittent stream channel on reclaimed landforms and to restore 4,204 linear feet of avoided, historically disturbed intermittent stream channel located in proposed preservation areas.

The applicant also proposes to grant a permanent conservation easement prior to commencing mining operations in order to provide permanent protection to 1,094.6 acres within the proposed preservation area where any disturbance by mining would be avoided. This area includes 523.1 acres of wetlands and 571.4 acres of uplands. The conservation easement is proposed to be granted to the Florida Department of Environmental Protection (FDEP), with provisions allowing the Corps to enforce the easement. Upon completion of mitigation, a second conservation easement, totaling 1,789.4 acres, would be granted to provide permanent protection to the established mitigation wetlands and intermittent streams, including stream buffer corridors, also with provisions allowing the Corps to enforce the easement.

Off-Site Mitigation

The applicant proposes to grant conservation easements to permanently protect 434.5 acres of off-site wetlands and 481.1 acres of off-site uplands associated with Horse Creek and Payne Creek, all within the Peace River watershed and located on applicant property adjacent to South Pasture mining areas. The entire 915.6 acres that make up these areas would be placed under permanent conservation easements that would be granted to the Florida Department of Environmental Protection, with provisions allowing the Corps to enforce the easements.

EXISTING CONDITIONS: The 7,512.8-acre project site consists predominantly of agricultural land, with 1,769.2 acres of jurisdictional waters of the United States including: 786.4 acres of forested wetland, 930.1 acres of herbaceous wetland, 31.1 acres of intermittent stream, and 21.5 acres of other surface waters (ditches and cattle ponds). The site also contains 242.3 acres of non-jurisdictional aquatic resources including: 25.8 acres of forested wetland, 186.0 acres of herbaceous wetland, 0.3 acres of intermittent stream, and 30.2 acres of other surface waters (ditches and cattle ponds). The existing land use surrounding the project site consists of A-1 zoning designation, which is agricultural land. Other similar phosphate mining operations are located or planned contiguous to the project. CF's currently operating South Pasture Mine is located immediately adjacent to the north.

ENDANGERED SPECIES: Wildlife surveys have been conducted on the subject property. Audubon's crested caracara (*Polyborus plancus audubonii*), wood storks (*Mycteria americana*), and Eastern indigo snakes (*Drymarchon couperi*) have been confirmed onsite. There is one nesting pair of caracara currently located within the subject property. The project has suitable habitat and is within the consultation area for the Florida grasshopper sparrow (*Ammodramus savannarum floridanus*). The project has suitable habitat for the Florida panther (*Puma concolor coryi*) and is outside of the Panther Focus Area. The project has a small area of potentially suitable habitat for the Florida scrub jay (*Aphelocoma coerulescens*), however no scrub jays have been observed during listed species surveys.

With use of the January 2010 U.S. Fish and Wildlife Service (USFWS) Eastern Indigo Snake Programmatic Concurrence Key, the U.S. Army Corps of Engineers (Corps) has determined the proposed project "may affect" the threatened eastern indigo snake. The following sequential process was used to make the may affect determination for the eastern indigo snake: A>B>C>D. With use of the January 25, 2012 USFWS Wood Stork Concurrence Key, the Corps has determined the proposed project "may affect" the endangered wood stork. The following sequential process was used to make the may affect determination for the wood stork: A>B>C>E. Based upon the presence of caracara on the property, the Corps has determined that the proposal may affect the caracara. Based on the presence of suitable habitat, the Corps has made the preliminary determinations that the proposal may affect, but is not likely to adversely affect the Florida grasshopper sparrow, the Florida panther, and the Florida scrub jay.

The Corps will request initiation of formal consultation for the wood stork, the Eastern indigo snake and the caracara, and informal consultation for the Florida grasshopper sparrow and the Florida panther with the Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act by separate letter.

ESSENTIAL FISH HABITAT (EFH): This notice initiates consultation with the National Marine Fisheries Service on EFH as required by the Magnuson-Stevens Fishery Conservation and Management Act 1996. Our initial determination is that the proposed action would not have a substantial adverse impact on EFH or Federally managed fisheries in the Gulf of Mexico. Our final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the National Marine Fisheries Service.

IMPACT ON CULTURAL RESOURCES: Based on the review of archeological surveys conducted on the South Pasture Mine Extension, it is the Corps' initial determination that there are no listed historical or archaeological sites, or sites eligible for listing on the National Register of Historic Places that will be affected by this proposed project. Our final determination relative to historic resource impacts is subject to review by and coordination with the State Historic Preservation Officer and those federally recognized tribes with concerns in Florida and the Permit Area.

NOTE: This public notice is being issued based on information furnished by the applicant. This information has not been verified or evaluated to ensure compliance with laws and regulation governing the regulatory program. The jurisdictional line has been verified by Corps personnel.

AUTHORIZATION FROM OTHER AGENCIES: Water Quality Certification is required from the Florida Department of Environmental Protection. At this time, the FDEP has issued an Intent to Approve the Environmental Resource Permit number 0294666-001 as Water Quality Certification.

COMMENTS: This Public Notice is for the South Pasture Extension Mine, one of the four proposed projects being considered in the Areawide Environmental Impact Statement (AEIS) to address phosphate mining in the Central Florida Phosphate District. Comments regarding the proposed South Pasture Extension Mine should be submitted in writing to the District Engineer at the letterhead address or via email to: pn.comment.south.pasture.ext@usace.army.mil within 30 days from the date of this notice. Comments may include, but are not limited to, topics such as: avoidance of impacts to Waters of the United States (WOUS), minimization of impacts to WOUS, and compensatory mitigation of impacts to WOUS, endangered species, etc.

The Corps will consider the information in the Draft AEIS, Final AEIS, comments on those documents, and comments on this public notice in the evaluation of the probable impact to the associated wetlands in order to determine whether to issue, modify, condition or deny permits related to mining activities within the areas described by the enclosed drawings. This will also be based on an analysis of the applicant's avoidance and minimization efforts for the project, as well as the compensatory mitigation proposed.

Project-specific comments for the other three proposed projects in the AEIS, DeSoto Mine, Wingate East Mine, and Ona Mine, are also being solicited concurrently by separate public notices, which can be found on the Corps website at <http://www.saj.usace.army.mil/Divisions/Regulatory/publicnotices.htm>.

ADDITIONAL INFORMATION: In accordance with National Environmental Policy Act (NEPA) and applicable NEPA implementing regulations at 33 CFR Part 325 Appendix B, the U.S. Army Corps of Engineers, Jacksonville District (Corps) is preparing an Areawide Environmental Impact Statement (AEIS) to analyze the impacts and alternatives of four pending phosphate mine applications in the Central Florida Phosphate District (CFPD), including the subject application in this public notice. The AEIS enables the Corps to evaluate the direct and indirect impacts of those four currently proposed similar phosphate mining actions and their alternatives, and the cumulative impacts of past, present, and reasonably foreseeable actions including phosphate mining, with a more broad and holistic approach than would be possible in four separate EISs. The AEIS is also a more efficient approach to reviewing impacts and alternatives of the four proposed projects than conducting duplicative analyses in four separate EISs. Additional information about the AEIS can be found on the following web site: <http://www.phosphateaeis.org>.

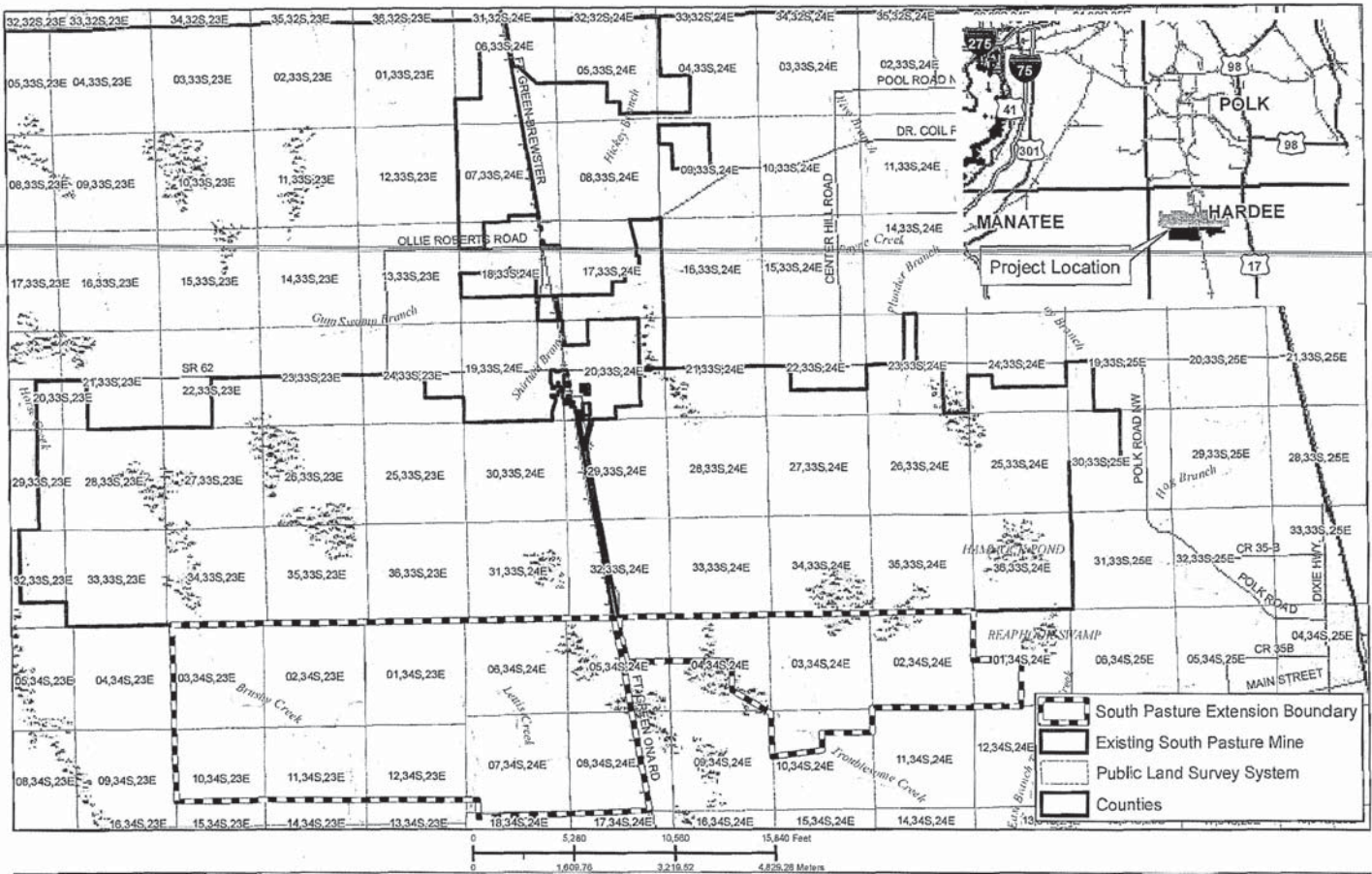
Please submit any comments regarding the AEIS, including the Draft AEIS, via e-mail to: TeamAEIS@PhosphateAEIS.org. Information about specific public comment periods for the AEIS pursuant to NEPA can be found on the project website listed above.

EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including cumulative impacts thereof; among these are conservation, economics, esthetics, general environmental concerns, wetlands, historical properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food, and fiber production, mineral needs, considerations of property ownership, and in general, the needs and welfare of the people. Evaluation of the impact of the activity on the public interest will also include application of the guidelines promulgated by the Administrator, the Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act of the criteria established under authority of Section 102(a) of the Marine Protection Research and Sanctuaries Act of 1972. A permit will be granted unless its issuance is found to be contrary to the public interest. The US Army Corps of Engineers (Corps) is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

COASTAL ZONE MANAGEMENT CONSISTENCY: In Florida, the State approval constitutes compliance with the approved Coastal Zone Management Plan. In Puerto Rico, a Coastal Zone Management Consistency Concurrence is required from the Puerto Rico Planning Board. In the Virgin Islands, the Department of Planning and Natural Resources permit constitutes compliance with the Coastal Zone Management Plan.

REQUEST FOR PUBLIC HEARING: Any person may request a public hearing. The request must be submitted in writing to the District Engineer within the designated comment period of the notice and must state the specific reasons for requesting the public hearing.





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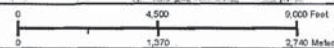
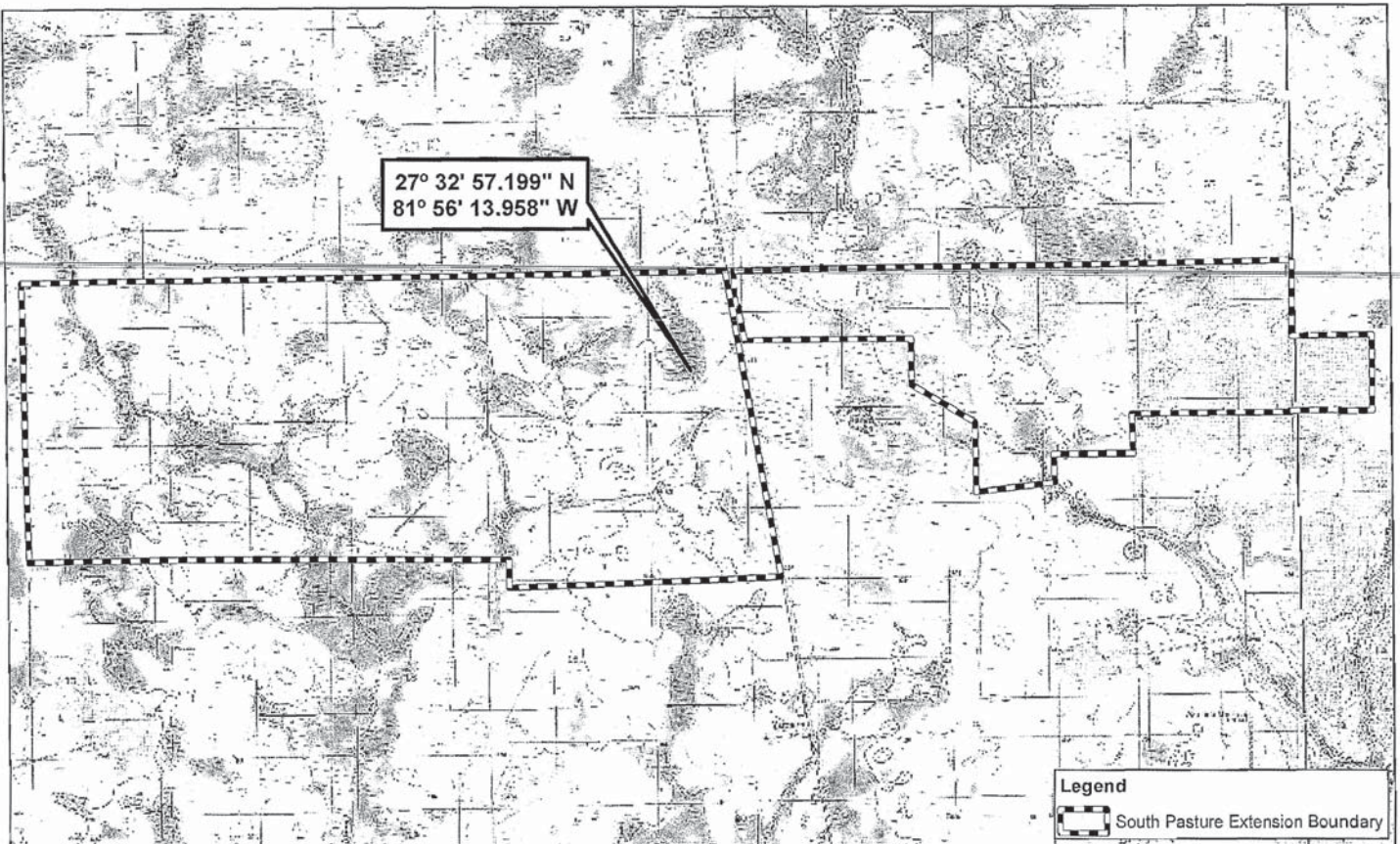
Figure EN-1 Location Map
CF Industries South Pasture Extension
Hardee County, FL



Cardno ENTRIX
3605 Crescent Park Drive
Riverside, FL 33578-3625
ph: (813) 664-4500
fx: (813) 664-0440

Center Sec 29
Twp 33 S
Rng 24 E

SAJ-1993-01395 (IP-ACR)
Project Location



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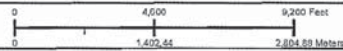
Figure EN-2 - Quad Map
CF Industries South Pasture Extension
Hardee County, FL



Image: FT. C
Center Be
Twp 33
Rng 24



SAJ-1993-01395 (IP-ACR)
Site Map
Drawing 2 of 14



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Figure EN-7 Existing Land Use
CF Industries South Pasture Extension
Hardee County, FL



SAJ-1993-01395 (IP-ACR)
 Existing Land Use Map
 Drawing 3 of 14



 South Pasture Extension Boundary
ACOE Wetlands
 Jurisdictional
 Non-Jurisdictional

0 4,600 9,200 Feet
 0 1,402.44 2,804.88 Meters

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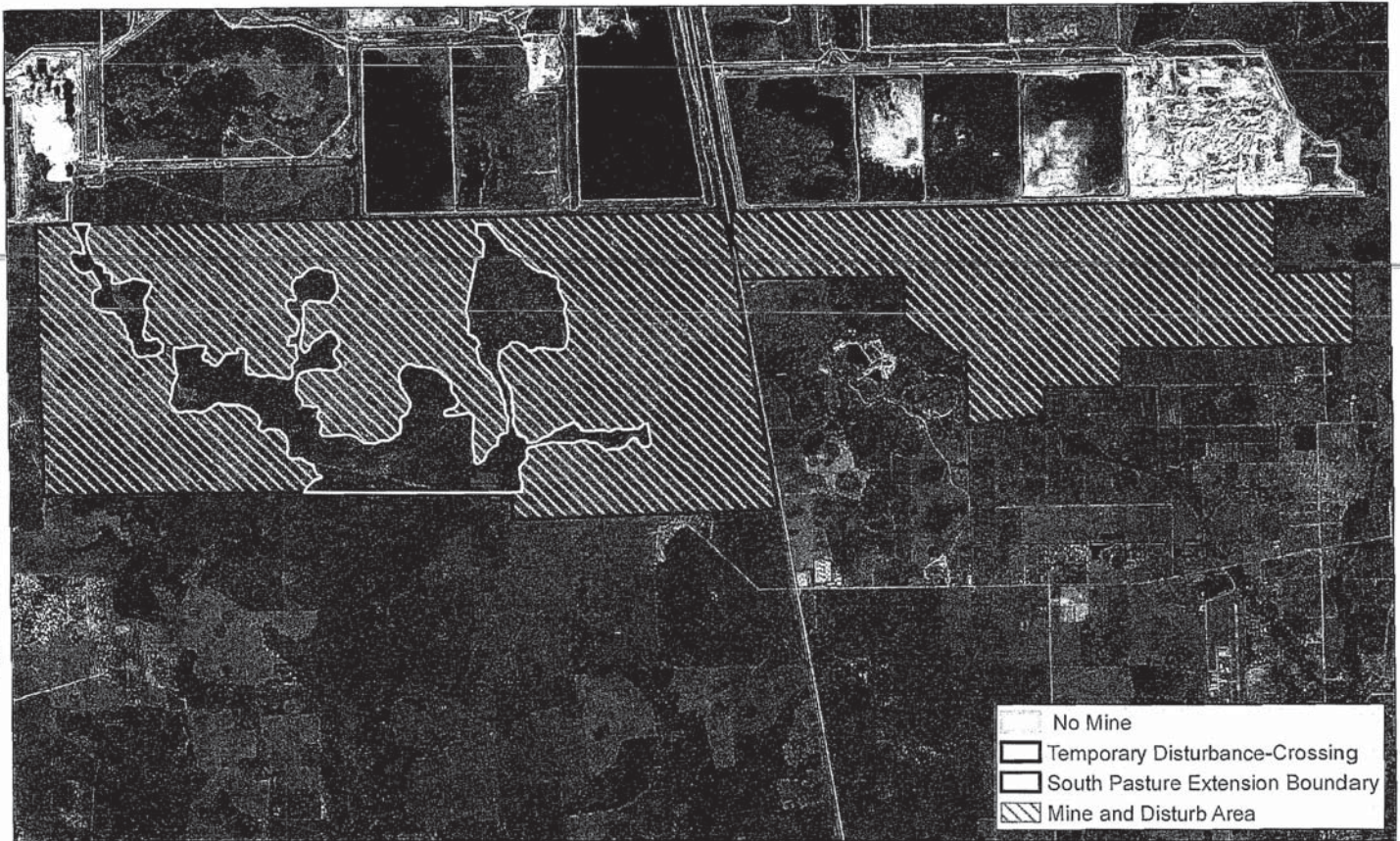
Figure EN-8 ACOE Wetlands
CF Industries South Pasture Extension
Hardee County, FL



Imagery: 201
 Center Sec:
 Twp 33 S
 Rng 24 E



**SAJ-1993-01395 (IP-
 ACR)**
USACE Wetlands Map



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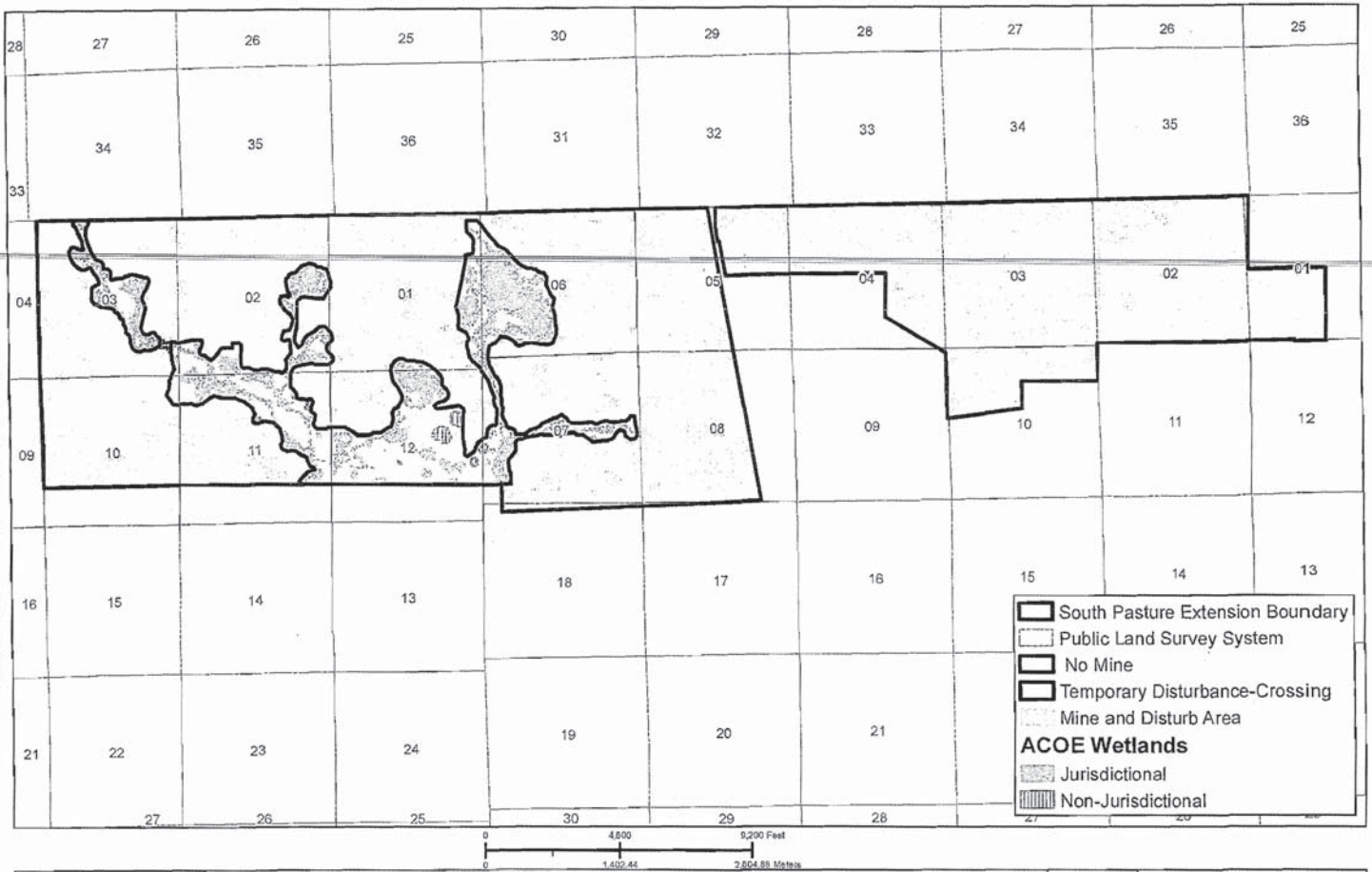
Figure EN-10 Impact Areas
CF Industries South Pasture Extension
Hardee County, FL



Image: 201
Center Sec
Twp 33 S
Rng 24 E



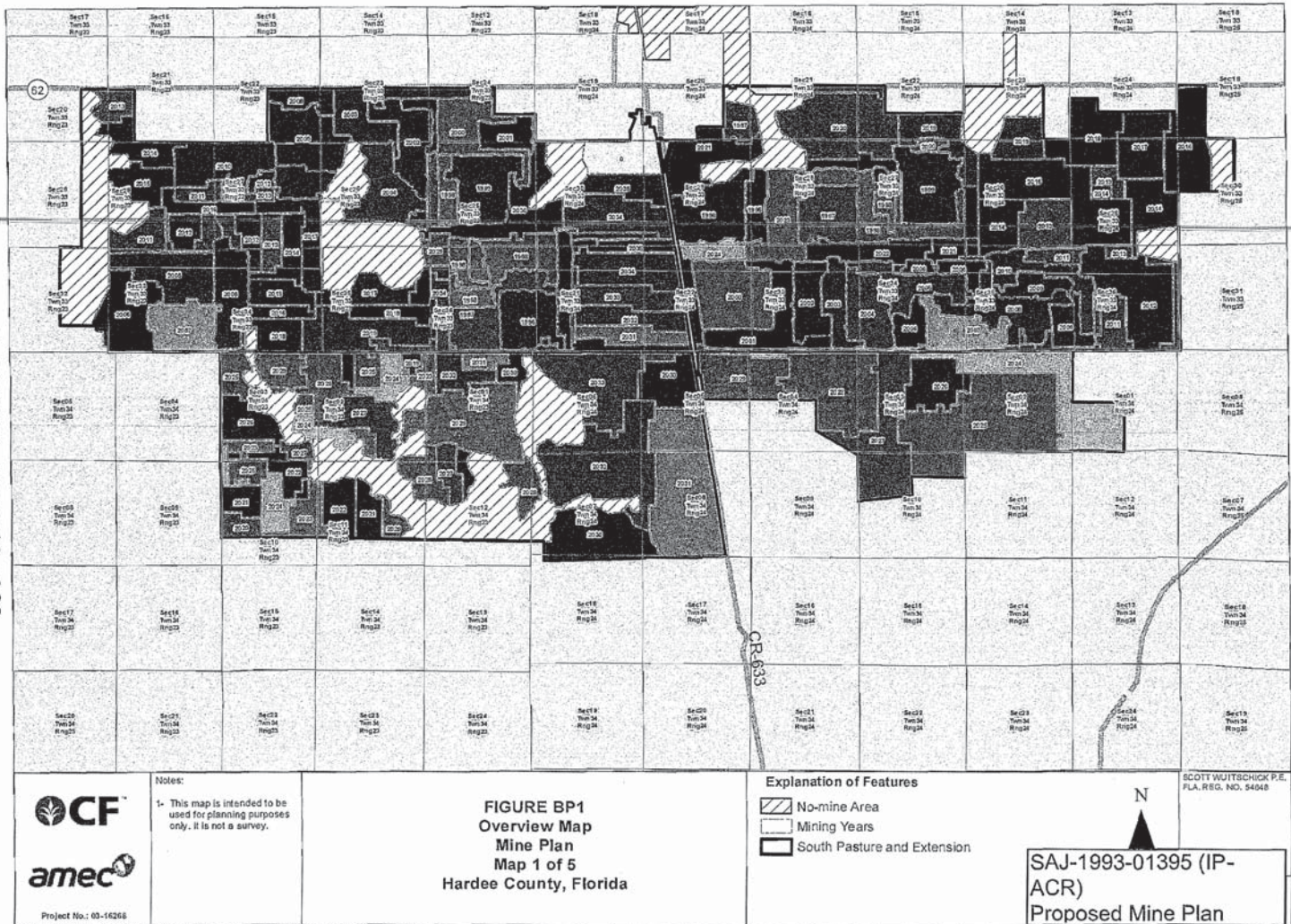
SAJ-1993-01395 (IP-
ACR)
Proposed Impact Map

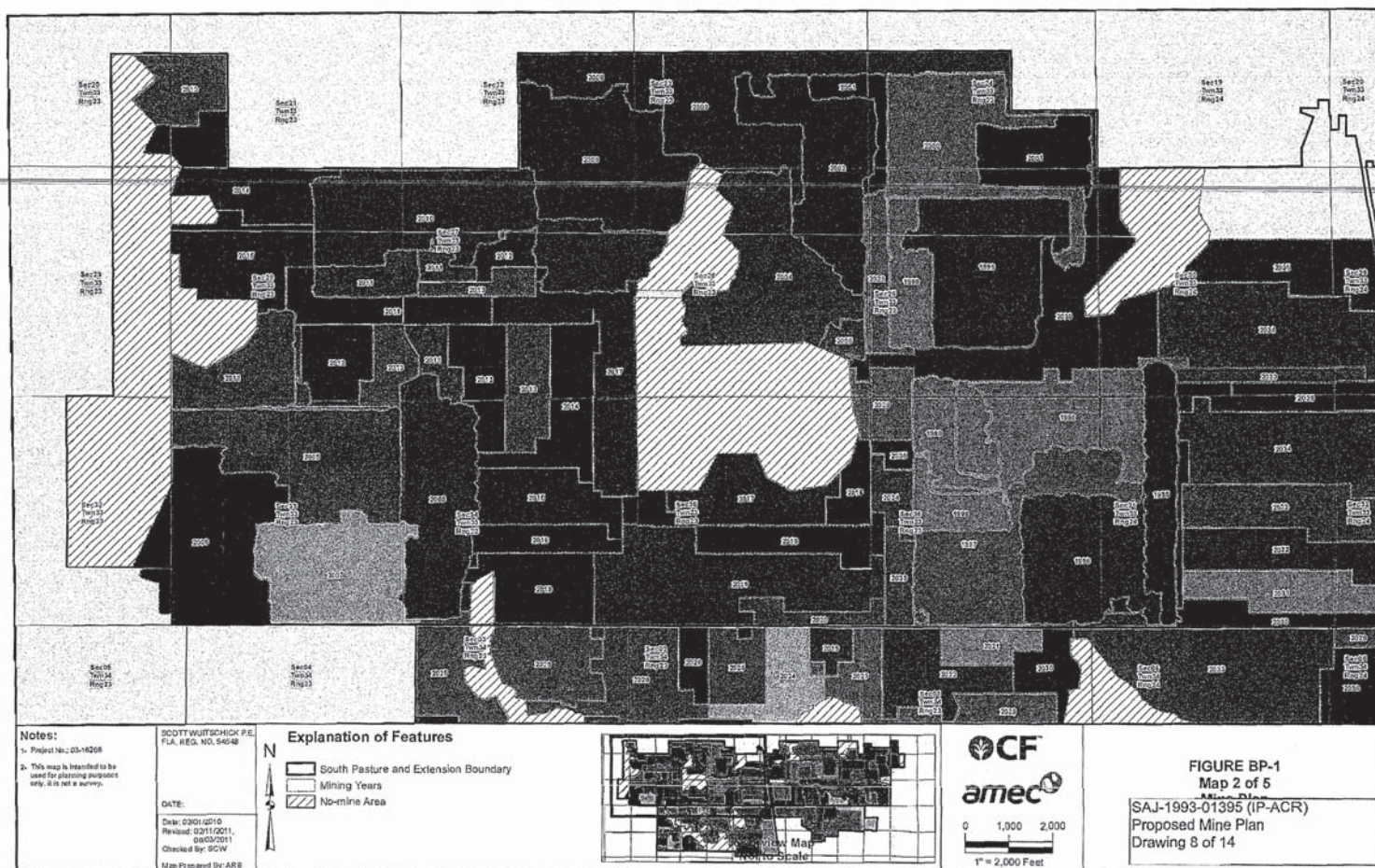


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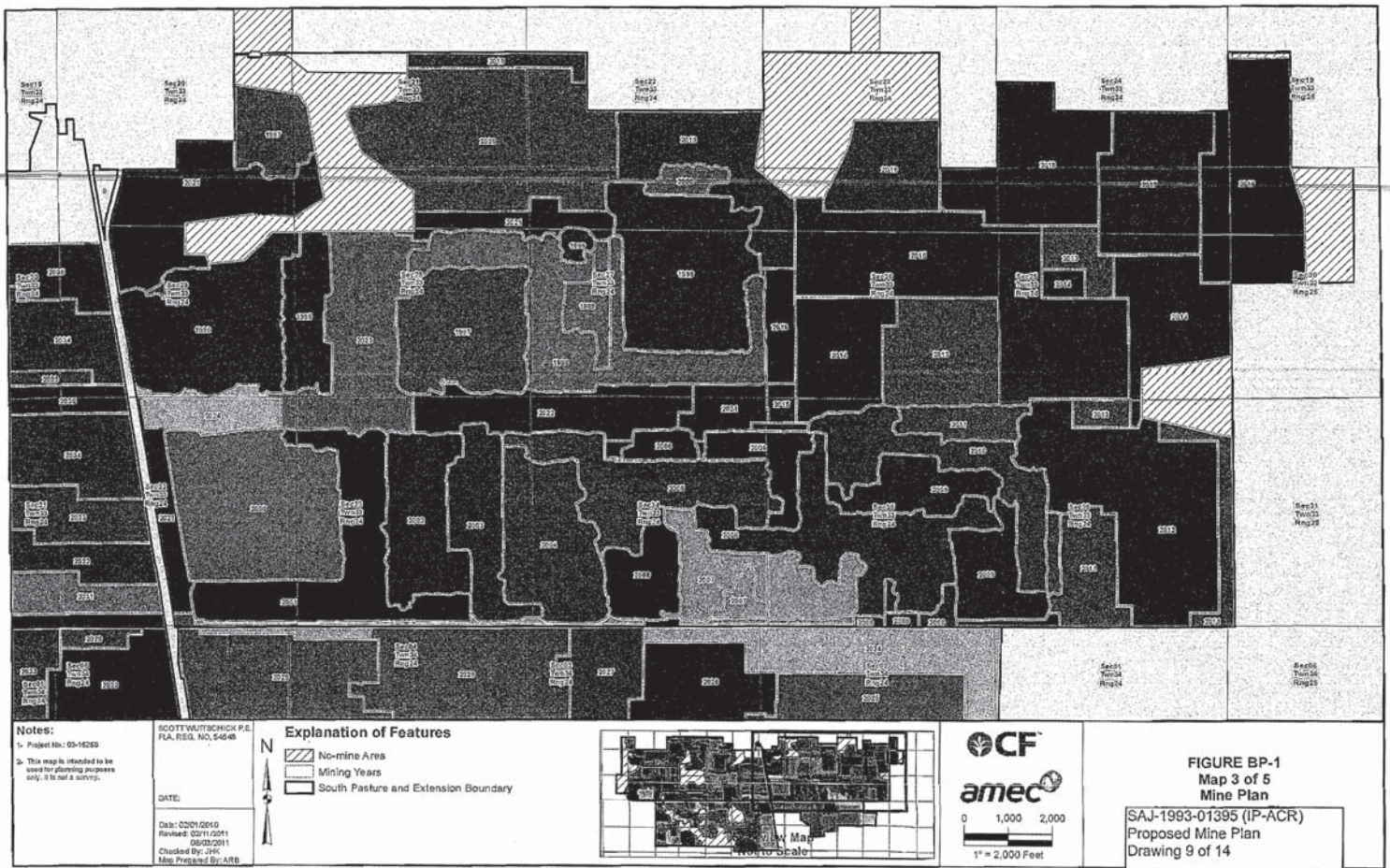
Figure EN-11 Wetland Impacts Map
CF Industries South Pasture Extension
Hardee County, FL

Cardno ENTRIX
 3005 Crescent Park Drive ph. (813) 864-4500
SAJ-1993-01395 (IP-ACR)
Proposed Wetland Impacts Map
Drawing 6 of 14

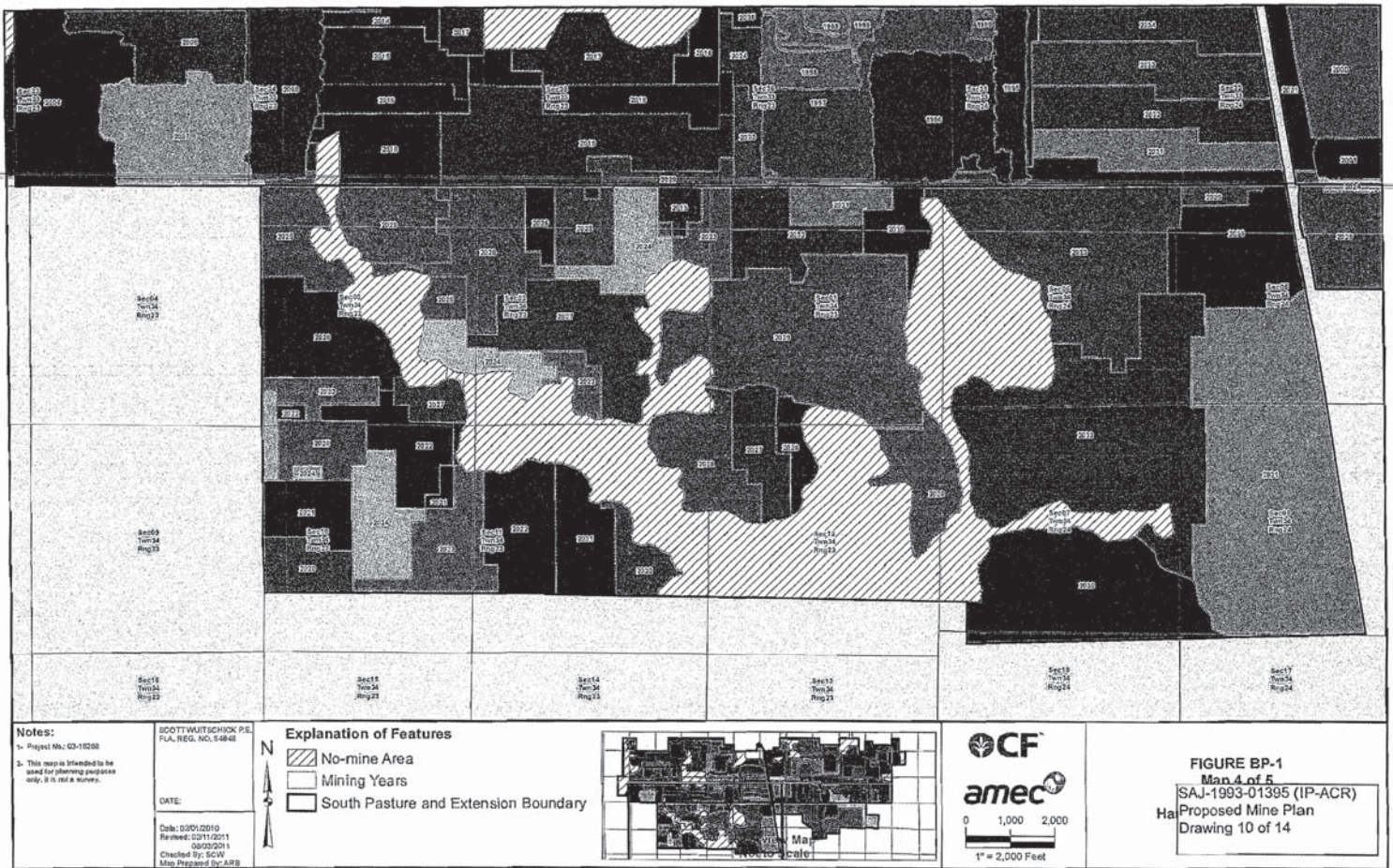




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Notes:
1- Project No: 02-10208
2- This map is intended to be used for planning purposes only, it is not a survey.

SCOTT WUTSCHICK P.E.
FLA. REG. NO. 54846
DATE: 03/01/2010
Revised: 03/11/2011
04/22/2011
Checked By: SCW
Map Prepared By: ARB

Explanation of Features
No-mine Area
Mining Years
South Pasture and Extension Boundary

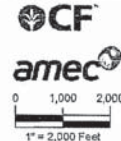
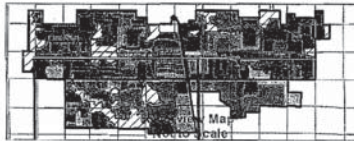
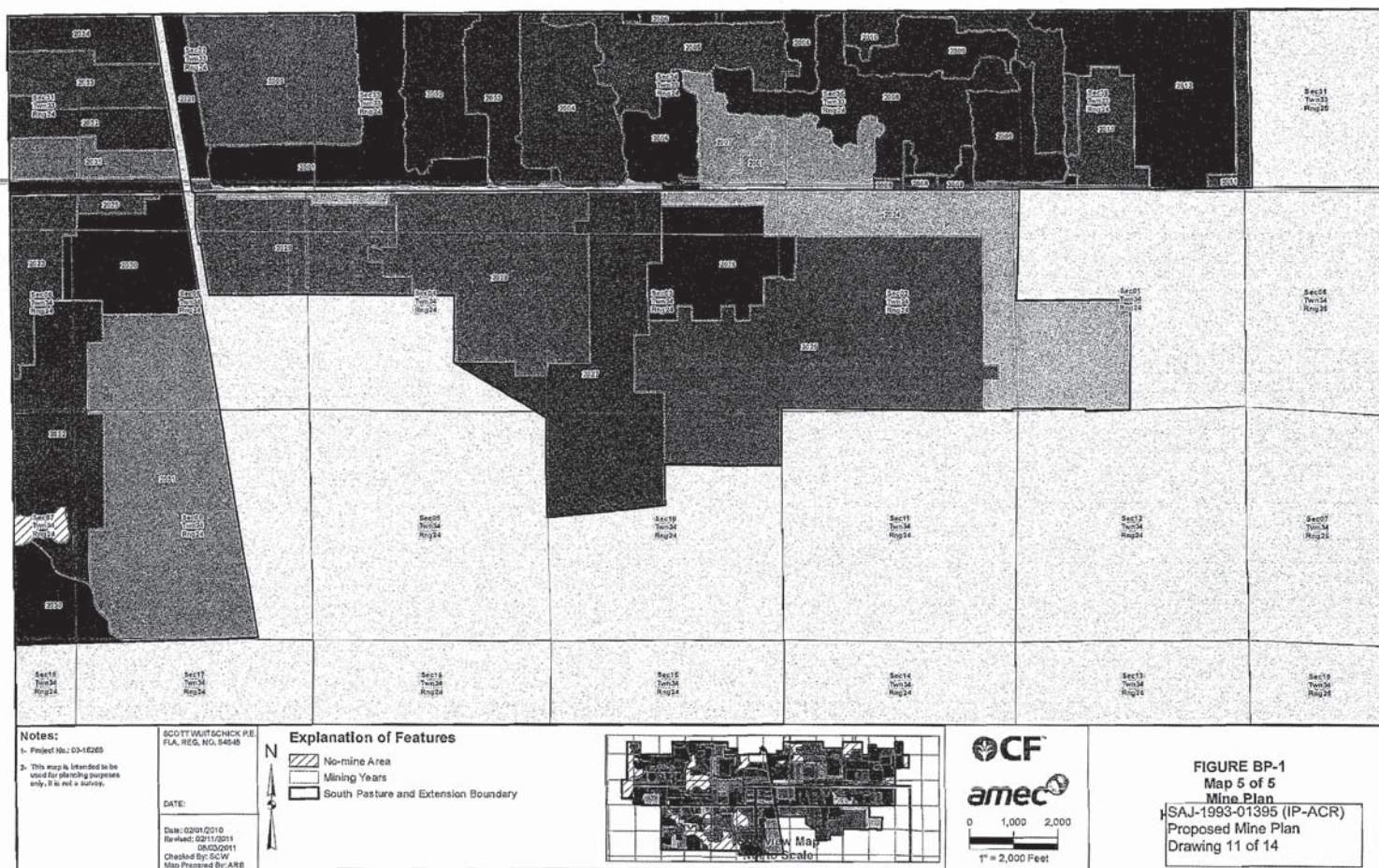


FIGURE BP-1
Man 4 of 5
SAJ-1993-01395 (IP-ACR)
Proposed Mine Plan
Drawing 10 of 14



Notes:
1- Project No.: 03-16265
2- This map is intended to be used for planning purposes only. It is not a survey.

SCOTT WUTSCHICK P.E.
FLA. REG. NO. 54548

DATE:

Date: 02/01/2010
Reviewed: 02/11/2011
Checked By: SCW
Map Prepared By: ARB

Explanation of Features
 No-mine Area
 Mining Years
 South Pasture and Extension Boundary

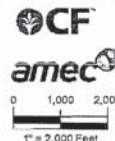
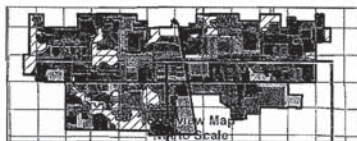
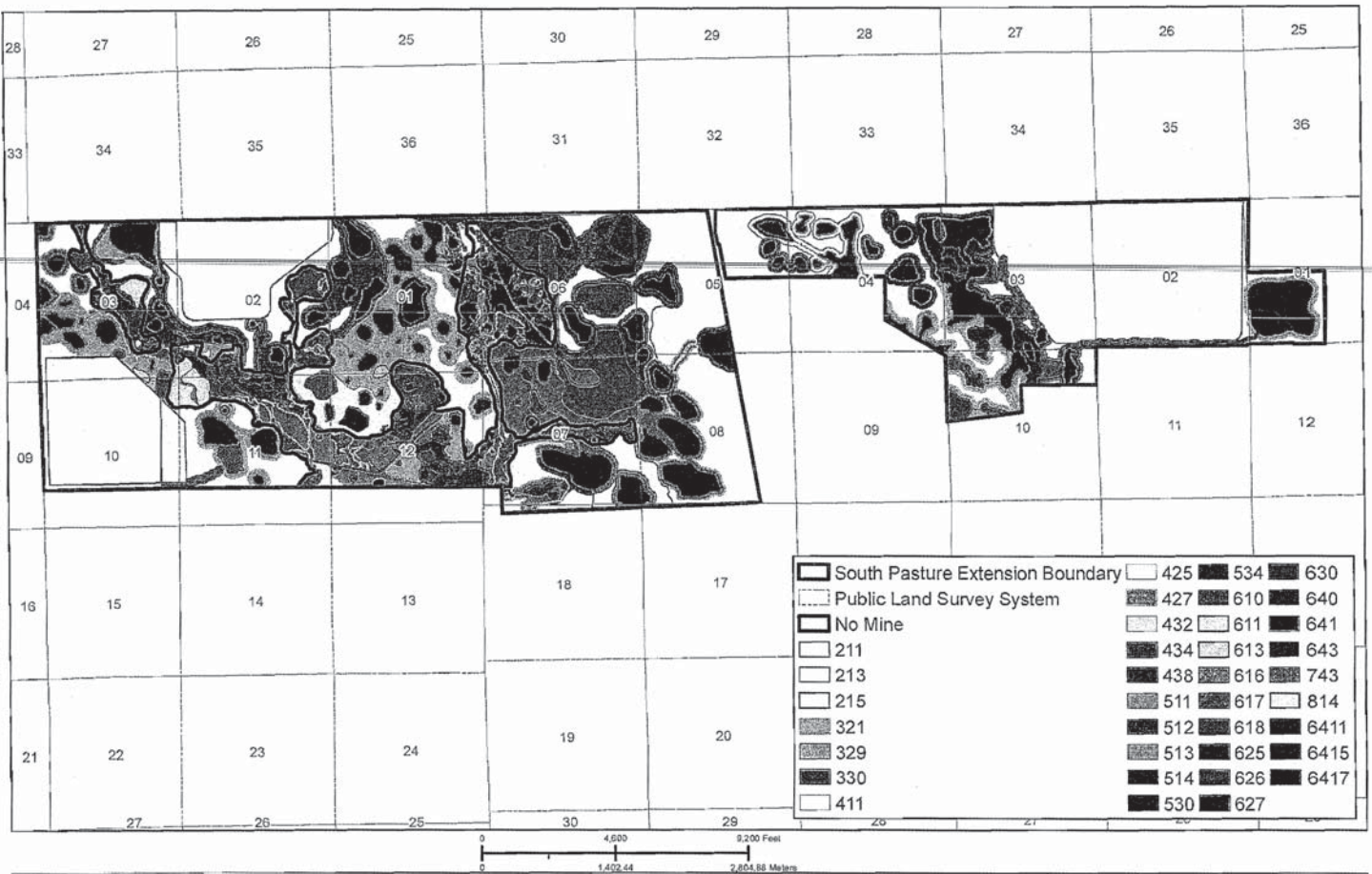


FIGURE BP-1
Map 5 of 5
Mine Plan
SAJ-1993-01395 (IP-ACR)
Proposed Mine Plan
Drawing 11 of 14

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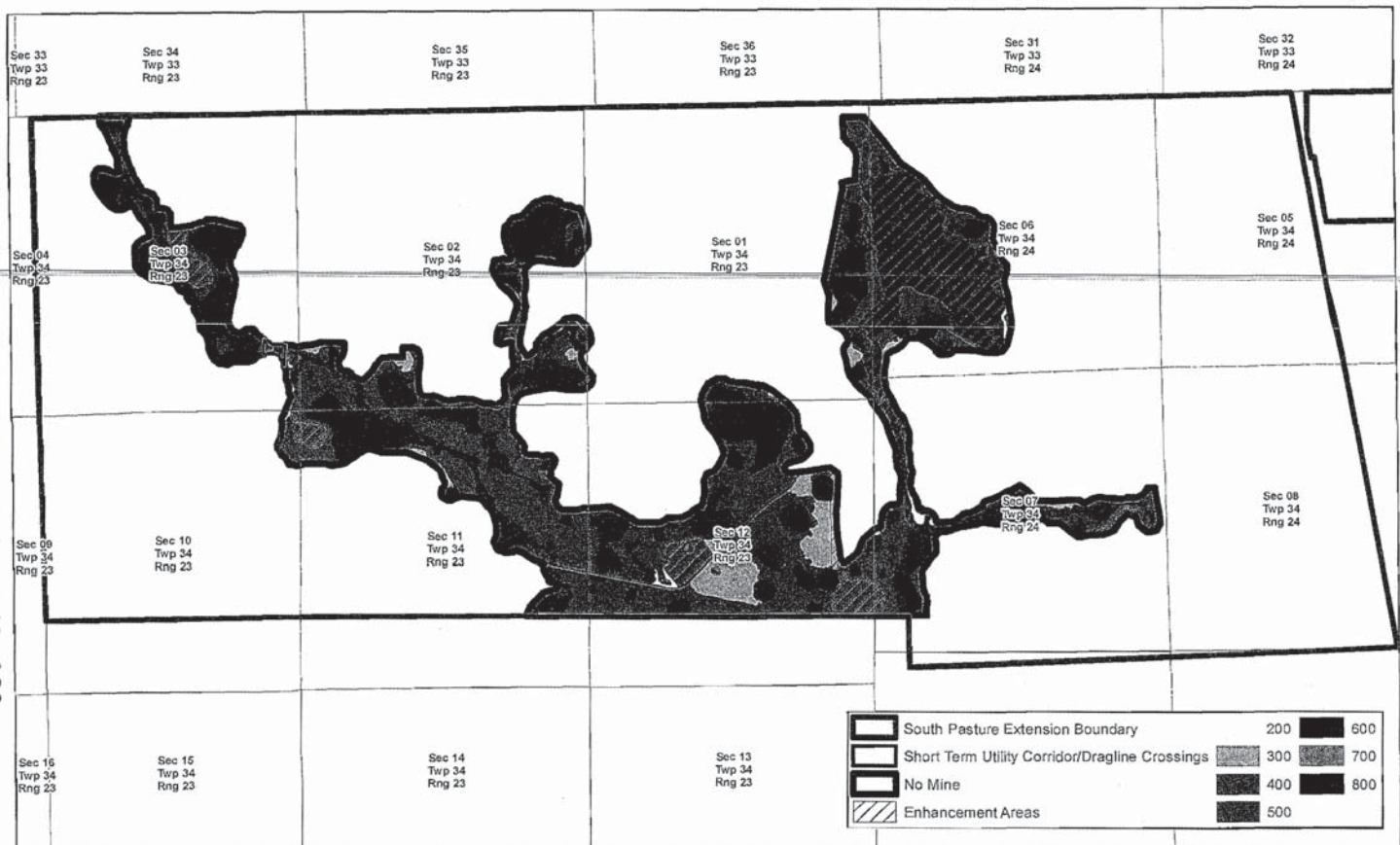
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Figure EN-14 Post-Reclamation Land Use

CF Industries South Pasture Extension
Hardee County, FL



SAJ-1993-01395 (IP-ACR)
Post-Reclamation / Mitigation
Landscape
Drawing 12 of 14



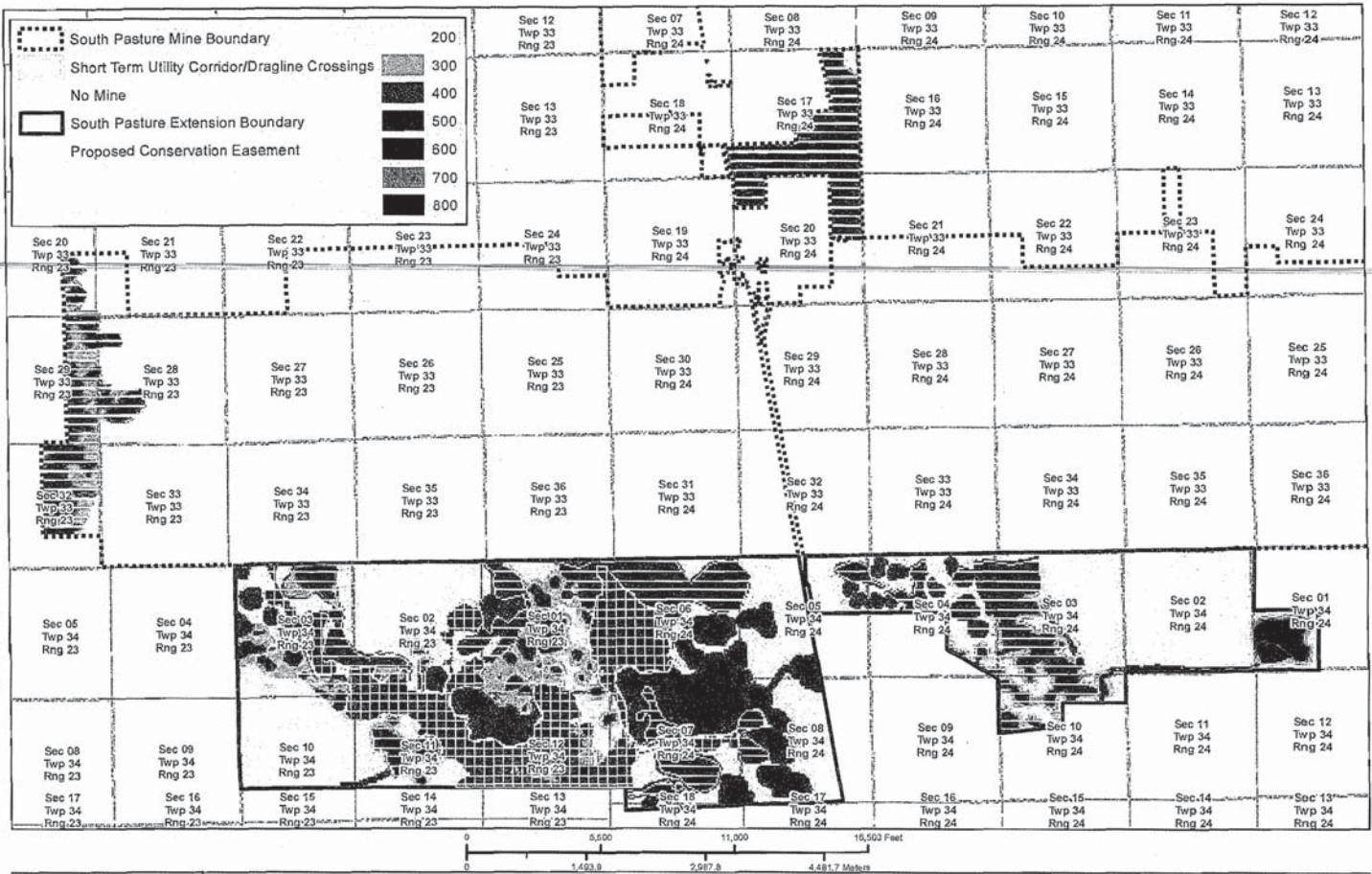
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Figure EN - 17 Preservation and Enhancement Areas

CF Industries
South Pasture Extension
Hardee County, FL



SAJ-1993-01395 (IP-ACR)
Proposed Preservation and
Enhancement Areas
Drawing 13 of 14



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Figure EN-16 Proposed Conservation Easement
CF Industries
South Pasture Extension
Hardee County, FL

Cardno
ENTRIX

3005 Crescent Park Drive ph. (813) 654-4500

SAJ-1993-01395 (IP-ACR)
Proposed Conservation
Easement Areas
Drawing 14 of 14

UNIFIED LAND DEVELOPMENT CODE

_____ **HARDEE COUNTY**
FLORIDA

Published by Order of the Board of County Commissioners

Adopted June 21, 2007

M	MUNICIPAL CODE CORPORATION
CC	Tallahassee, Florida2008

OFFICIALS
of
HARDEE COUNTY, FLORIDA
AT THE TIME OF THIS PUBLICATION

Robert R. Smith, Jr., Chair

Minor Bryant, Vice Chair

Clifton N. Timmerman

Gordon R. Norris

Dale Johnson

County Commission

Exhibit "B"

UNIFIED LAND DEVELOPMENT CODE

Lexton H. Albritton, Jr.

County Manager

Nicholas Staszko

Director, Planning and Development

Kenneth B. Evers

County Attorney

CURRENT OFFICIALS
of
HARDEE COUNTY, FLORIDA

Minor Bryant, District I

Sue Birge, District II

Terry Atchley, District III

Grady Johnson, District IV

Dale Johnson, District V

County Commission

Lexton H. Albritton, Jr.

County Manager

Kevin Denny

Director, Planning and Development

Kenneth B. Evers

UNIFIED LAND DEVELOPMENT CODE

County Attorney

PREFACE

This volume contains the Unified Land Development Code of Hardee County, Florida, adopted June 21, 2007.

The Unified Land Development Code has been printed as submitted by the County. Obvious misspellings and punctuation errors have been corrected without notation. Words or phrases added by the editor for purposes of clarification are enclosed in brackets.

Amendatory Legislation

A feature of this publication that will be particularly useful is the Table of Amendments located at the back of this volume. Any amendatory legislation may be located therein by number and date of enactment, and the sections or subsections amended will be listed. In addition, the sources of any amendments to a section are listed in a parenthetical history note following the amended section. The absence of such a note indicates that the section is derived unamended from the land development code as originally submitted for publication.

Page Numbering System

The page numbering system used in this publication is a prefix system. The letters to the left of the colon are an abbreviation which represents a certain portion of the volume. The number to the right of the colon represents the number of the page in that portion. In the case of an article of the land development code, the number to the left of the colon indicates the number of the article. In the case of an appendix to the code, the letter immediately to the left of the colon indicates the letter of the appendix.

LAND DEVELOPMENT CODE	LDC1:1
LAND DEVELOPMENT CODE APPENDIX	LDCA:1
TABLE OF AMENDMENTS	TA:1
LAND DEVELOPMENT CODE INDEX	LDCl:1

Index

As part of the publication project, a comprehensive index was prepared. Each particular subject has been placed under several headings, some couched in lay phraseology and others in legal terminology. There are numerous cross references within the index which stand as guideposts to direct the user to the particular item in which he is interested.

Looseleaf Supplements

Another special feature of this volume is the supplemental service, by which the publication will be periodically kept up to date. Upon the final passage of amendments, they will be properly edited and the page or pages affected will be reprinted. These new pages will be distributed to holders of copies of the publication with instructions for the manner of inserting the pages and deleting the obsolete pages.

Exhibit "B"

UNIFIED LAND DEVELOPMENT CODE

The instruction sheet for the most current supplement should be placed in the front of the volume, and it is recommended that deleted pages be saved and filed for historical reference.

Acknowledgments

This volume is presented for the use and benefit of the citizens of Hardee County. This publication was under the direct supervision of Linda Davis, Editor, of the Municipal Code Corporation, Tallahassee, Florida. Credit is gratefully given to the other members of the publisher's staff for their sincere interest and able assistance throughout the project.

The publishers would also like to extend their sincere appreciation to Nicholas Stazko, Planning Director, for his cooperation and assistance throughout the publication of the volume.

	MUNICIPAL CODE CORPORATION Tallahassee, Florida 2008
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HARDEE COUNTY, FLORIDA

ORDINANCE NO. 2007-11

AN ORDINANCE OF HARDEE COUNTY, FLORIDA, ADOPTING THE LAND DEVELOPMENT CODE CONSISTENT WITH AND IMPLEMENTING THE HARDEE COUNTY COMPREHENSIVE PLAN; PROVIDING FOR GENERAL PROVISIONS; PROVIDING FOR REGULATIONS FOR SPECIFIC DISTRICTS; PROVIDING FOR DEVELOPMENT DESIGN AND IMPROVEMENT STANDARDS; PROVIDING FOR THE REGULATION OF SIGNS; PROVIDING FOR RESOURCE PROTECTION STANDARDS; PROVIDING FOR PUBLIC FACILITY MONITORING AND PERMITTING; PROVIDING FOR A PROCESS FOR DEVELOPMENT APPROVAL; PROVIDING FOR ADMINISTRATION AND ENFORCEMENT; PROVIDING FOR DEFINITIONS; PROVIDING FOR APPENDICIES; REPEALING ORDINANCE NO. 96-02 AND ANY AMENDMENTS THERETO; PROVIDING FOR SEVERABILITY AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, Chapters 125 and 163, Florida Statutes, empower and mandate the Board of County Commissioners of Hardee County, Florida, hereinafter referred to as the "Board", to prepare and enforce land development regulations that are consistent with and implement the Hardee County Comprehensive Plan; and

WHEREAS, pursuant to and consistent with the requirements of Section 125.66, Florida Statutes, the Board complied with notice and public hearing requirements; and

WHEREAS, the Board has considered all written and oral comments received during such public hearings; and

WHEREAS, in exercise of its authority, the Board has deemed it necessary to adopt the Land Development Code to insure that that the local land development regulations are consistent with the Hardee County Comprehensive Plan and are in full compliance with the laws of Florida; to encourage the most appropriate use of land, water and resources consistent with the public interest; and to deal effectively with future growth and development of land in Hardee County.

Exhibit "B"

UNIFIED LAND DEVELOPMENT CODE

NOW, THEREFORE, be it ordained by the Board of County Commissioners of Hardee County, Florida, as follows:

SECTION 1 This Ordinance is enacted to adopt the Hardee County Land Development Code, as set forth in Exhibit 1, attached, to carry out the purpose and intent of, and exercise the authority set out in, The Local Government Comprehensive Planning and Land Development Regulation Act, Section 163.3161 et seq., Florida Statutes, and Chapter 125, Florida Statutes, as amended.

SECTION 2 The standards and regulations contained in this Land Development Code shall be reasonably applied where they are economically and environmentally feasible, not contrary to the public interest, and consistent with the protection of private property rights. This Land Development Code shall not be applied in a manner which would cause a regulatory taking of property within the meaning of the State Constitution or the United States Constitution. This Land Development Code shall be construed and applied as a whole, and no specific standard or regulation shall be construed or applied in isolation from the other standards and regulations of this Land Development Code.

SECTION 3 A certified copy of the Land Development Code shall be located in the Office of the Planning and Development Division. The Planning and Development Division shall also make copies available to the public for a reasonable charge.

SECTION 4 In the event that any portion of this Ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision and such holding shall not affect the validity of the remaining portions of this Ordinance.

SECTION 5 This Ordinance shall be effective immediately upon adoption in accordance with law.

PASSED AND DULY ADOPTED in regular session, by the BOARD OF COUNTY COMMISSIONERS OF HARDEE COUNTY, FLORIDA, this 21st day of June, 2007.

(SEAL)	BOARD OF COUNTY COMMISSIONERS OF HARDEE COUNTY, FLORIDA
	By:
	Bobby Ray Smith
	Chairman
ATTEST:	
.....	
B. Hugh Bradley	
Ex-Officio Clerk to the Board	

Exhibit "B"

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management facilities as the initial phase or phases, the operation and maintenance entity shall have the ability to accept responsibility for the operation and maintenance of the stormwater management systems of future phases of the project.

In phased developments that have an integrated stormwater management system, but employ independent operation and maintenance entities for different phases, such entities, either separately or collectively, shall have the responsibility and authority to operate and maintain the stormwater management system for the entire project. That authority shall include cross easements for stormwater management and the authority and ability of each entity to enter and maintain all facilities, should any entity fail to maintain a portion of the stormwater management system within the project.

3.14.00. - Performance Standards.

3.14.01. General Provisions.

The purpose of this Section is to provide additional and supplementary regulation for specific development types permitted in the County that, by their nature and characteristics, require additional definition and procedural requirements. In addition, this Section contains procedures and requirements for activities pursuant to permitted and special exception uses special approvals and permits as identified in this Code.

All uses shall conform to the standards of performance described in this Article and shall be constructed, maintained and operated so as not to be injurious or offensive to the occupants of adjacent premises by reason of the emission or creation of noise, vibration, smoke, dust or other particulate matter, toxic or noxious waste materials, odors, fire and explosive hazard or glare. Within 100 feet of a residential district, all processes and storage, except for vehicle parking, shall be in completely closed buildings. Processes and storage located at a greater distance shall be effectively screened by a solid wall or fence at least six feet in height. Where other ordinances or regulations, whether federal, state, or local that may be adopted hereinafter impose greater restrictions than those specified herein, compliance with such other ordinances and regulations is mandatory.

3.14.02. Mining Regulations.

The purpose of this Section is to protect the public health, safety and general welfare; to ensure the orderly development of mineral resources in a manner compatible with all development of the County as set out in the Hardee County Comprehensive Plan to ensure that mined or excavated areas can be put to some worthwhile use after the mining or earth moving operation is completed and to establish procedures: (a) for monitoring the effects on the environment caused by mining activities, (b) to ensure the timely reporting of the results of monitoring of mining, (c) for making any revisions to existing plans relating to mining necessary to ensure the use of best management practices and developing technology for the control of pollution and other adverse impacts of such activities, (d) to ensure reclamation of the affected areas, (e) to ensure that it is in the public interest of the citizens of Hardee County to allow specific mining activity. The provisions set forth herein shall apply to any mining activity proposed in Hardee County, whether phosphate, limerock, shell, sand, or other mineral/material.

3.14.02.01. Policy Considerations.

(A) It is specifically recognized that methods and procedures for mineral extraction and land reclamation must be adaptable to changing markets, developing technologies and public interest considerations because of the significant impact on the environment, the length of time necessary to complete such activities and the impossibility of predicting technology

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available and conditions existing in the future.

(B) The intent of this Section is to provide a flexible frame of regulations within which the County may consider each application for a Master Mining Plan for mineral extraction in the context of the technology and conditions existing at the time of application, but preserving the ability of the Applicant to submit, and the County to require detailed design plans and specifications prior to each stage of development of a mining unit, which detailed plans shall utilize the best management practices and technology then available, and shall conform to all applicable Hardee County, state and federal laws then in force.

(C) Except as may contradict or be less stringent than the terms of this Section all applicable Hardee County state or federal laws now or at any time in the future in force relating to mining, including but not limited to dam constructions, waste disposal or reclamation are made a part of this Section. A violation of any such laws which does occur in Hardee County shall be deemed to be a violation of this Section. The County expressly reserves the right to amend or revise any permits granted hereunder pursuant to the procedures set out herein to conform to all adopted Hardee County, state or federal laws as may be now or in the future in force.

(D) Applicability. This Section shall apply to all applications for Master Mining Plan and Annual Review approval for mining activities conducted within the boundaries of Hardee County, Florida filed on or after its effective date. No mining activities may be conducted within Hardee County except those for which appropriate zoning, Master Mining Plan, and development approvals have been obtained. All requirements of this Section shall apply to applications for amendments or transfers of a Master Mining Plan issued before the effective date hereof to the extent that the subject of such amendment or transfer constitutes a change to the Master Mining Plan and shall be reviewed for new or different effects of the mining activity in the context of the requirements of this Section. Revised application fees, financial responsibility requirements, and other administrative provisions shall apply to approved mining operations beginning with the first Annual Review for that operation after the effective date hereof. Reclamation schedules as specified in Section 3.14.02.05 (C)(01)(c) must also be included, but mining and reclamation plans and schedules previously approved by Hardee County will remain in effect unless the operator is unable to comply therewith or otherwise requests significant modification thereof, in which case the requirements of this Section shall comply to the extent of the modification. The Annual Review Fees and Annual Monitoring Fees established by Subsection 3.14.02.09 of this Section shall be effective on the effective date of this Code. Operators shall remit within 60 days of the effective date of this Code the pro rated increase in the Annual Review Fees and Annual Monitoring Fees. For the purpose of this Section the "pro rated increase" in fees shall mean that amount equal to the difference between the fees owed under the fee schedule set forth in Section 3.14.02.09, less the fees paid by the operator at its last Annual Review, times the ratio of the number of days until the next Annual Review over 365.

(E) Review by Planning and Zoning Board: All applications for rezoning, DRI (Development of Regional Impact) approvals, Master Mining Plan approval and Annual Unit Review shall be referred to and reviewed by the Hardee County Planning and Zoning Board for consistency with the Hardee County Comprehensive Plan and compliance with all applicable Hardee County Ordinances. Such reviews shall be conducted at a regularly scheduled meeting of the Planning and Zoning Board, which Board shall make a written report of its findings and recommendations to, the Hardee County Board of County Commissioners. Joint meetings of

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the two Boards for the purpose of the Annual Unit Review required by this Section may be held at the request of either Board.

3.14.02.02. Zoning Requirements.

Except as otherwise provided herein, no mining activities shall be conducted on any land in Hardee County except when such land has been properly zoned, and a Master Mining Plan for mineral extraction has been granted by the Board of County Commissioners to conduct such activities. Copies of the applications for or approvals of any necessary rezoning, special exceptions or variances shall accompany the application for Master Mining Plan approval.

3.14.02.03. Definitions.

In addition to the definitions enumerated in Article 9 of this Code, the following terms as used in this Section have the meanings set forth below, unless the context clearly indicates otherwise.

(A) *Active Dewatering Activities:* Those activities conducted for the purpose of accelerating the dewatering of clay settling ponds and sand clay mix areas to achieve adequate crustal development to support reclamation. Such activities may include but are not necessarily limited to construction and use of perimeter and internal drainage ditches.

(B) *Air Quality:* The applicable concentration levels for those pollutants for which the Florida Department of Environmental Protection has promulgated ambient air quality standards under Chapter 403, Florida Statutes.

(C) *Applicable Hardee County, State and Federal Laws:* When used in this Section, unless otherwise specifically provided, this phrase shall mean those laws, standards, regulations, rules, orders or other official act of a governmental authority with jurisdiction over a project for mineral extraction or mining activity as defined herein. This phrase shall not include matters relating exclusively to the internal management of such authority, the procedures for processing applications, rulemaking, the administration or conduct of any type, of hearing, appeals or other procedural matters. Where there is a conflict, the more stringent or stricter standard shall apply, except as may otherwise be provided by law.

(D) *Anniversary Date:* The annual recurrence of the date of execution of the Master Operating Permit by the Chairman of the Board of County Commissioners.

(E) *Annual Unit Review:* The procedure whereby each mining and reclamation unit, covering at least one year's operation, is submitted to the Board of County Commissioners for detailed examination for compliance with the Master Mining Plan, the Development Order and for compliance with all applicable Hardee County, state and federal laws. The term Annual Review shall include both the Annual Unit Review and the Annual Operating Report as the text requires.

(F) *Annual Operating Report:* The yearly progress report submitted by the Applicant to the Board of County Commissioners describing the past year's operations and the progress of ongoing reclamation so that the Board of County Commissioners may review the activities for continuing compliance with the Master Mining Plan, the Development Order and all applicable Hardee County, state, and federal laws.

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(G) *Applicant/Operator*: The person, firm or corporation named on the Application for Master Mining Plan approval as the intended Operator of the project.

(H) *Beneficiation*: The process whereby the matrix is washed to separate the mineral from the earthen materials with which it is naturally combined. Specifically for purposes of this Section, beneficiation shall mean the processing of the matrix to separate phosphate rock from the sand and clay soils in which it exists in a natural state.

(I) *Board*: The Board of County Commissioners of Hardee County, Florida; designee and/or authorized representative.

(J) *County Engineer*: The person so designated and appointed by the Board or its designated representative.

(K) *Dam or Dike*: A barrier erected to impound or restrain the flow of water or liquid materials.

(L) *Development Order*: As defined by the Florida Statutes, but excluding zoning approvals, except as otherwise provided by law.

(M) *Development of Regional Impact (DRI)*: As defined by the Florida Statutes.

(N) *Disturbed Lands*: All lands disturbed by mining activity, including mineral extraction, beneficiation, use for settling ponds, and/or any other lands which are an integral part of the mining operation.

(O) *Ecosystem Management Agreement*: As defined by the Florida Statutes.

(P) *Ecosystem Management Permitting*: Permitting activities conducted under an Ecosystem Management Agreement per section 403.075, F.S.

(Q) *Flood Elevations*: The surface water elevation which has an average recurrence interval in which a flood equal to or greater than that magnitude specified as an annual maximum as determined by the County Engineer.

(R) *Future Land Use Map*: The Conceptual Future Land Use Map, contained in the Hardee County Comprehensive Plan as currently adopted by Hardee County.

(S) *Ground Water*: That water occurring beneath the surface of the ground whether or not flowing through known or definite channels.

(T) *Legal Description*: A property description as recorded in the office of the Clerk of the Circuit Court for Hardee County.

(U) *Master Mining Plan*: The general plan describing the overall scope of the mining activities for the life of the mine, and describing the general nature of the operations, geographic characteristics, impacts, monitoring reclamation and other features relevant to the plan of the mine.

(V) *Matrix*: The ore body consisting of the phosphate rock and other earthen materials naturally occurring with it.

(W) *Mineral Extraction*: The extraction of ore from the earth by whatever method including the removal of overburden for the purpose of reaching underlying ore. Such term shall also include the treating, crushing, cleaning, beneficiation, or other processing of rocks sand, clays, gravel or other materials extracted from the earth for the purpose of further extracting the ore from the matrix. This term shall not include chemical processing, refining, manufacturing of materials from the ore nor shall it include earth moving or dolomite mining.

(X) *Mineral or Ore*: Any material extracted from the land for commercial purposes, other than limestone.

(Y) *Mining Activity*: The extraction and transportation of ore, storing of wastes, ore or material, reclamation of disturbed land and other operations necessary for ore extraction in a manner consistent with the public health, safety and welfare.

(Z) *Mining Operations*: Those physical activities other than prospecting and site preparation, which are necessary for extraction, waste disposal, storage, or dam maintenance prior to abandonment.

(AA) *Mining Unit*: An area of land as specified in the Master Mining Plan from which minerals will be extracted within a period of time not to exceed four years. Such period of time shall be referred to as the unit year.

(BB) *Monitoring Station*: A device or procedure for monitoring any aspect of air, water, radiation or other medium of the environment. Each device or sampling point shall be a station.

(CC) *Natural Ground*: The surface of the earth as it exists prior to the beginning of pre-mining activities and mining, and includes the surface of any land previously mined or excavated by earlier operators whether reclaimed or not.

(DD) *Operator*: The person, firm or corporation engaged in the extraction of phosphate rock.

(EE) *Overburden*: The collective term for all earthen material overlying mineral ore deposit.

(FF) *Owner*: A person, firm or corporation who has the primary possessors legal interest in the tract of land under consideration.

(GG) *Permit*: A written approval, permit or license granted by the Board in accordance with this Section authorizing the commencement and conduct of mining activity.

(HH) *Phosphatic Clays*: A waste product from phosphate beneficiation operations that consists of a mixture of water and suspended fine solid particles less than 105 microns (150 Tyler Screen) in size, usually containing a high percentage of clays.

(II) *Pre-mining Activity*: Those activities as specified in an approved Master Mining Plan which are necessary to prepare for commencement of mining activity, and may include excavation for construction of water recirculation systems settling areas, construction of the dragline, and construction of beneficiation facilities, as specified in the Development Order and Master Mining Plan.

(JJ) *Production Use of Water*: All surface, stream and subsurface waters diverted for use in Applicant's operations but not including waters impounded and entirely isolated on private

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property owned and used by Applicant/Operator as part of a water recirculation system.

(KK) *Professional Engineer*: An engineer registered in the State of Florida.

(LL) *Project*: The total area and scope of operations to be conducted on a given tract, and for which a permit is sought under this Section.

(MM) *Reclamation*: The restructuring reshaping and restoration or revegetation of disturbed lands to a form in which the lands may be of beneficial use and as required by this Section and all applicable Hardee County, state and federal laws.

(NN) *Reclamation Unit*: A specified area of land upon which reclamation activities will be accomplished within a period of time as specified in the Master Mining Plan.

(OO) *Reclaimed Land*: Land upon which reclamation activities have been completed through initial revegetation by the Operator.

(PP) *Settling Ponds*: Areas surrounded by dams into which fluids are placed for the purpose of separating suspended solid matter from water, but not including mined out areas in which sand/clay reclamation is being conducted.

(QQ) *Spoil*: Displaced overburden.

(RR) *Tailings*: Waste products of phosphate beneficiation operations that consists of solid particles generally larger than 105 microns (150 Tyler Screen) in size and usually consisting of a water/sand mix.

(SS) *Thickener*: A mechanism constructed for the purpose of reducing the water content of the waste product from phosphate beneficiation operations.

(TT) *Toe (of a dam)*: The junction between the exterior face of the dam and the adjacent terrain.

(UU) *Tract*: The area of land under consideration.

(VV) *Uplands*: Those areas which are landward of waters of the state and the landward extent of waters of the state as defined in Chapter 62-340, Florida Administrative Code, or other Hardee County, state and federal laws.

(WW) *Water Recirculation Systems*: Those structures used primarily for mine and process water clarification, including reservoirs, dams, dikes, canals and other impoundment structures.

(XX) *Wetlands*: Those lands submerged under waters of the state, and the landward extent of waters of the state as defined by Chapter 62-340, Florida Administrative Code or other Hardee County, state and federal laws.

3.14.02.04. Exemptions.

The following activities shall not be subject to the procedures set out in this Section:

Normal site preparation and grading necessary for the commencement of construction or other activities permitted by the Hardee County Unified Land Development Code, but not

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including pre-mining activities.

3.14.02.05. Administrative and Permit Procedures.

(A) *Administration:* The requirements of this Section shall be administered by the Board through the County Engineer acting as the coordinating department head for review by other concerned County departments.

(B) *Procedures for Master Mining Plan Review:* In addition to any submittals or procedures required by this Section or any other applicable Hardee County, state or federal law relating to developments of regional impact, ecosystem management permitting, applications for mining activities which are developments of regional impact shall comply with the following:

(01) *Master Mining and Reclamation Plan:* The Applicant shall submit 25 copies of a proposed Master Mining and Reclamation Plan (also referred to as the Master Mining Plan) which outlines the proposed mining or earth moving activity waste disposal water use, land reclamation and monitoring for the project and shall include at a minimum:

a. *Owner:* The names, addresses and telephone numbers of the owner(s) of the project and its agents located in Hardee County upon which service of any papers under this Section may be made.

b. *Applicant/Operator:* The names, addresses and telephone numbers of the Applicant if other than the owner, and its agent residing in Hardee County upon which service of any papers under this Section may be made.

c. *Engineer:* The name, address and telephone number of the Florida registered professional engineer of record for the project, who shall prepare and sign all engineering documents submitted to the County.

d. *Legal Description:* The legal description of the project tract and the acreage included in said description and the nature of the Applicant's legal interest in the lands comprising the project tract.

e. *Material:* Type and volume of material to be extracted.

f. *Topographic Maps:*

(01) A topographic map or maps of the entire tract covered in the application shall be provided. Said map shall show contour lines at two-foot intervals accurate within one foot, which depict the actual ground contours prior to the commencement of mining operations. The contour map or maps shall be indexed using a grid system of one sheet per section on a 1" = 400' scale with the section corners located;

(02) There shall also be provided a composite topographic map on a single sheet, not to exceed 72 inches by 72 inches in size, using an appropriate scale.

g. *Mining Plan:* Maps and other appropriate documents depicting the project tract and including:

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- (01) Owners and locations of all tracts of land contiguous to the tracts of land under consideration, for the project;
- (02) Locations of each mining unit;
- (03) Mining sequence of the units for the life of the mine shown on a year-by-year basis;
- (04) The schedule of operation and completion of each mining unit for the life of the mine shown on a year-by-year basis;
- (05) Locations and sizes of proposed settling ponds together with an estimate of the maximum area which would be affected by a dam breakage;
- (06) Locations and sizes of proposed thickeners and appurtenant devices together with an estimate of the maximum area which would be affected by a dam breakage;
- (07) Location and general description of all physical plant facilities or other structures, including permanent pipelines and pipelines at road crossings to be constructed on the project tract;
- (08) Location and general description of all flood control features;
- (09) Location and general description of all points of discharge for air pollutants, wastewater, and stormwater runoff;
- (10) Location and general description of all existing natural and man-made streams and lakes, and definition of the 100-year and 25-year flood plains pursuant to methodology approved by the Southwest Florida Water Management District, or its successor;
- (11) Location and description of all points of withdrawal of water for production use, whether surface or subsurface;
- (12) Location and description of all existing and proposed monitoring stations;
- (13) Location and description of all existing wells;
- (14) Contour elevations of the limestone strata beneath the tracts under consideration;
- (15) Type and classification of the soil overburden;
- (16) Water table elevations both existing and the historical high;
- (17) Results of the exploratory drilling showing the elevation of the base of the ore zone;
- (18) A detailed transportation analysis;
- (19) The results of a detailed survey of the entire tract by a qualified

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archeologist in order to make a full assessment of its archeological and historical resources;

(20) The location of any archeological sites, historical sites cemeteries or burial grounds contained on the tract and what, if any, measures the Applicant proposes to preserve or dispose of such findings;

(21) Location of all existing utility lines, easements and existing roads, public or private;

(22) If sand/clay mix disposal is to be used as a reclamation technique, the details of the nature and placement of such materials, including the specifications of retaining dams, estimated settling and dewatering period and the physical characteristics of the sand/clay mix including the types of reagents used in the sand/clay mix and expected residual levels;

h. *Monitoring Plan:* A composite map or maps, or other appropriate document shall be provided depicting as to the project showing:

(01) Locations and description of each monitoring station or group of stations;

(02) The type of device or monitoring procedure for each station;

(03) Monitoring schedules for each stations;

(04) A detailed plan for compiling and submitting reports of the results from each monitoring station;

(05) The allowable limits for each parameter being monitored.

i. *Inspection Plan:* The Applicant shall provide a plan for regular inspection of all dams, settling ponds, thickeners, and any other operational features of the mining activities.

j. *Production Water Use Plan:* The Applicant shall provide a plan for the production use of water and data verifying the availability of the quantity required, including any water use permits, water balance report and water recirculation plan.

k. *Reclamation Plan:* A composite and other map(s) shall be provided depicting as to the project tract.

(01) Contours to which the tract will be graded or restored;

(02) Location of each reclamation unit;

(03) Sequence of reclamation of the units for the life of the mine shown on a year-by-year basis;

(04) Schedule of reclamation and completion of each unit for the life of the mine shown on a year-by-year basis;

(05) General description and density of plantings;

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(06) Locations and dimensions of proposed dams together with an estimate of the maximum area which would be affected by a breakage.

(k)[l.] *Pre-Mining Activities:* A detailed schedule and plans outlining all pre-operating construction and other activities necessary to prepare the tract for start-up of mining activity.

(l)[m.] *Financial Responsibility:*

a. Every Applicant shall furnish to the Board evidence of financial responsibility in an amount based upon the total number of acres to be mined or excavated and utilized as settling pond areas during the first year of actual mining operations under the proposed mining and reclamation plan according to the following schedules:

(01) For each acre of land to be mined or excavated, \$5,000.00;

(02) For each acre-foot of the maximum above grade of the largest settling pond, sand/clay mix settling area or thickening pond proposed during the first year of actual mining, \$1,000.00.

b. Such evidence of financial responsibility shall be by:

(01) Evidence of insurance, surety bonds, letters of credit, or other financial instruments acceptable to Hardee County, where a payee is required it shall be payable to Hardee County to cover all costs and expenses of completion of reclamation of any areas which are not reclaimed as required by the approved Master Mining and Reclamation Plan and the costs of cleanups of any pollutants released by failure of any settling or thickening pond, dam, spillway or other outlet structure and damages to public lands and waters caused thereby; or

(02) A financial statement which has been audited and certified without qualification by a certified public accountant giving indication of ability to respond to liability in the amounts determined according to the above schedule. If the statement reflects the financial position of the Applicant as of a date more than 60 days prior to the date of filing of the application it shall be accompanied by copies of all interim balance sheets if any, of the Applicant certified by the chief financial officer to be true and correct; and if the latest interim balance sheet reflects the Applicant's financial position as of a date more than 60 days prior to filing of the application, by a certification of the chief financial officer of the Applicant dated no earlier than 60 days prior to filing that no material adverse changes have occurred to the Applicant's financial condition in the interim. Applicant shall be responsible for payment of all reasonable costs incurred by the County, including but not limited to the fees of any accountant or financial consultant, in the review of such financial statement. The above notwithstanding, if at any time the Board should determine that the Applicant is of doubtful ability to respond to liability in the amount determined according to schedule in subsection a. above, the Board may require the Applicant to provide evidence of financial

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responsibility in the manner provided in subsection b. (01).

c. Subsequent Proofs: At the time of submission of the Annual Report required by Subsection 13.14.03.05 (C) of this Section, the Applicant shall provide updated financial information and proof of financial responsibility applicable to each prospective unit.

(m)[n.] *Operating Plans.* In order for the Board to adequately review the operations to be conducted pursuant to the Master Mining Plan, the Applicant shall also submit the following:

a. Copies of all local, state and federal permits issued for the project or any applications for any such permits pending but not yet issued. The Applicant shall also file a summary listing of all project permits by agency, identification number and date of issuance and expiration;

b. An updated proof of financial responsibility, if necessary;

c. Detailed engineering specifications and drawings of any plants, structures dams or dikes constructed or to be constructed preparatory to initial mining activities;

d. Current high resolution aerial photographs taken along flight lines out to a distance of one mile on adjacent properties. These aerial photographs shall be provided on contact prints at a scale of 1" = 400'. Additional enlargements shall be furnished by the Applicant as required by the County Engineer;

e. The detailed units design and plan information for the initial mining unit.

(n)[o.] *Procedures for Review:* Within 60 days from the date of submittal the Applicant shall be notified in writing by the County Engineer as to the completeness of the applications, if additional information is required, the Applicant shall provide it within 30 days or such other reasonable time as may be approved by the County Engineer. Upon receipt of all required information the application shall be deemed filed, and the County Engineer shall prepare a staff report and recommendation, which shall be forwarded to the Planning and Zoning Board for review at its next regularly scheduled meeting. At such meeting the Planning and Zoning Board shall review the application as required by this Section, and shall recommend approval with conditions or disapproval of the Master Mining Plan and DRI if appropriate, and shall forward its recommendation in writing to the Board of County Commissioners with a request to set a public hearing date.

(o)[p.] *Public Hearing:* The Board of County Commissioners upon receipt of sufficiency notification on the Mining DRI or Substantial Deviation from the regional planning agency shall set a public hearing date on each application within 30 days after receipt of sufficiency notice to be no later than 90 days after the issuance of notice by the regional planning agency that a public hearing may be set, unless extended by mutual agreement of the Board and the Applicant. Notice of the time and place of the hearing shall be given in the same manner as for a rezoning. Within 30 days of the close of the public hearing, the Board shall approve, approve with conditions, or disapprove the Master Mining Plan, in writing and giving the

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reasons for any conditions or disapproval.

(p)[q.] *Effect of Master Mining Plan Approval:* Approval of the Master Mining Plan shall be deemed to be permission to operate the project and approval of all necessary pre-operating construction activities, but shall not relieve the Applicant of compliance with any other applicable Hardee County, state or federal laws nor with the requirements of this ordinance for annual review of the operations.

(q)[r.] *Term of Master Mining Plan Approval:* Once Master Mining Plan and DRI approval is granted the Applicant shall have three years within which to commence operations unless some other time is specified by the Board in the Master Mining Plan approval.

(r)[s.] *Scope:* The scope of or limitations on operations permitted under any Master Mining Plan shall be specified in the order of approval, which may reference the whole or any part of the Development Order, the Master Mining Plan or any other recommendation submitted to the Board by a County department, public or private agency, or individual. A copy of any so incorporated documents, recommendations or pertinent part thereof shall be attached and made a part of the Plan.

(s)[t.] *Effect of Unit Review:* At the time of Annual Unit Review as provided for in this Section, each mining unit then under consideration shall be reviewed in detail and the Board expressly reserves the right to alter, amend or modify the Master Mining Plan to incorporate any reasonable additional conditions to the permit relating to a particular unit, if such changes are found to be in the public interest or necessary to ensure compliance with the then applicable Hardee County, state or federal laws.

(t)[u.] *Inspection:* A condition of the approval of each Master Mining Plan under this Section shall be the agreement of the Applicant to allow designated representatives of the Board upon appropriate notice to enter upon the premises of any operations conducted thereunder for the purpose of inspection to ensure compliance with the terms and conditions of the plan approval, this Section and applicable Hardee County state or federal laws.

(u)[v.] *Absolute Liability:*

a. As a further condition of the issuance of any Master Plan approval under this Section the Applicant shall be subject to absolute liability, without, the necessity of proof of negligence in any form or manner, to any injured party for damages resulting from failure of any dam, impoundment, spillway or other outlet structure, settling pond or thickening pond, sand/clay mix area, or from failure of the Permittee to complete any reclamation of lands as required;

b. The liability of this Section shall be in addition to those imposed as civil or criminal penalties by any other section of this Section or any other applicable Hardee County, state or federal law.

(C) *Annual Unit Review:*

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(01) *Submittal of Unit Plan:* Twenty-five copies of a detailed mining and reclamation plan for each unit as identified in the DRI and Master Mining Plan for at least one year's operation shall be submitted yearly by the Applicant 60 days prior to the anniversary date of approval of the Master Mining Plan. An alternative anniversary date for the purposes of setting the annual recurrence date for the Annual Unit Review and submittal of the Unit Plan may be established by the Board. If unit approval is granted for a period longer than one year, it shall not be necessary to submit the next Unit Plan until 60 days prior to the anniversary date one year before the expiration of that unit's term. The Unit Plan shall conform to the approved Master Mining Plan and the DRI. No mining operations within a unit shall commence prior to receiving written approval from the Board.

a. *Unit Mining Plan:* A map of the mining unit shall be provided in an appropriate scale depicting as to that unit:

- (01) The existing ground contours with contour lines at two-foot intervals accurate within one foot;
- (02) Location of the unit with respect to the tract;
- (03) The schedule of operation and completion of the unit;
- (04) Location and construction plans of all settling ponds and sand clay mix areas;
- (05) Location and construction plans of all thickeners and appurtenant devices;
- (06) Location and construction plans of all physical plant facilities;
- (07) Location and construction plans of all major pipelines, roadways and related items;
- (08) Location and construction plans of all storm drainage and flood control structures and their relationships with the approved Master Mining and Reclamation Plan;
- (09) Location of all points of discharge for air pollutants, waste water and storm water runoff, together with an estimate of the quantities, chemical and physical characteristics of each. Only those pollutants regulated under any federal, state or local standards shall be required to be identified and quantified individually;
- (10) Location of all natural and manmade streams;
- (11) Sources of and data pertinent to production water to be used for the unit;
- (12) Location of all existing utility lines and existing roads public and private;
- (13) An aerial photo of appropriate scale to show the unit and surrounding areas of comparable size;

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(14) If sand/clay mix, disposal is to be used as a reclamation technique, the details of the nature and placement of such materials including the specifications of retaining dams, estimated settling and dewatering period and the estimated settling and dewatering period and the physical characteristics of the sand/clay mix including the types of reagents used in the sand/clay mix and expected residual levels.

b. *Monitoring and Inspection Plan:* A composite map, maps, or other documents shall be provided depicting:

(01) Location and description of all monitoring stations within the unit;

(02) Types of devices, including manufacturer and model numbers and procedure of each station;

(03) Monitoring schedule at each station;

(04) A detailed plan for compiling and submitting reports of the results from each monitoring station;

(05) A proposal detailing the Operator's course of action if monitoring indicates that the allowable levels have been exceeded;

(06) A proposal detailing the Operator's inspection plans for the unit, including items to be inspected and the frequency of inspection for each item;

c. *Reclamation Plan:* A composite map or, maps, and other documents shall be provided depicting:

(01) Location of the reclamation unit with respect to the tract;

(02) Proposed final ground contours using contour lines at two-foot intervals;

(03) Schedule of reclamation operations and completion of each reclamation unit;

(04) Detailed description and location of vegetation to be planted;

(05) After the completion of the initial units a detailed description, including maps, and aerial photographs of the reclamation progress of prior units.

d. *Emergency Response Plans:* The Operator shall prepare emergency response plans to be followed in the event of a dam failure for each settling pond, sand clay mix area or thickening pond currently active or to become active in the following operational year. Each plan shall include mapping showing areas subject to downstream flooding and a notification of local and state officials. All appropriate Operator employees shall be trained in the implementation of the emergency response plans. The Operator shall maintain records documenting such training.

(02) *Annual Operating Report:* Each year at the same time as the submission of the mining unit design for annual review or, if no mining unit is submitted for review that year, within 60 days prior to the anniversary date of the issuance of the Master Mining

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Plan the Applicant shall file 25 copies of an Annual Operating Report with the Board. An alternative anniversary date for the purposes of setting the annual recurrence date for the submittal of the Annual Operating Report may be established if approved by the Board. The report shall review mining operations, reclamation progress, monitoring and inspection results during the preceding operational year. All lands upon which operations will be performed during the upcoming year shall be identified.

(03) *Financial Responsibility*: Each year at the time of Annual Review the Applicant shall furnish to the Board evidence of financial responsibility updated to the anniversary date. The amount shall be based upon the following schedule:

- a. For each acre of land to be mined in the year following the anniversary date, \$5,000.00;
- b. For each acre of land mined or previously covered by a settling pond, sand clay mix area, or thickening pond but not reclaimed in compliance with this Section and the permit as of the anniversary date \$5,000.00;
- c. For each acre-foot of the maximum above grade storage of the largest settling pond, sand/clay mix settling area or thickening pond in the year following the anniversary date, \$1,000.00;
- d. At the Annual Review when the last mining unit of the Master Mining Plan is presented, the Operator shall demonstrate to the Board adequate financial ability to ensure the completion of all land reclamation in adherence to the Master Mining Plan. Such evidence shall be by:

(01) Evidence of insurance, surety bonds, letters of credit, or other financial instruments acceptable by Hardee County, where a payee is required it shall be payable to Hardee County, to cover all costs and expenses of completion of reclamation of any areas which are not reclaimed as required by the approved Master Mining and Reclamation Plan and the costs of cleanups of any pollutants released by failure of any settling or thickening pond, dam, spillway or other outlet structure and damages to public lands and waters caused thereby; or

(02) A financial statement which has been audited and certified without qualification by a certified public accountant giving, indication of ability to respond to liability in the amounts determined according to the above schedule. If the statement reflects the financial position of the Applicant as of a date more than 60 days prior to the date of submission of the Annual Unit Review and the Annual Operating Report it shall be accompanied by copies of all interim balance sheets if any, of the Applicant certified by the chief financial officer to be true and correct; and if the latest interim balance sheet reflects the Applicant's financial position as of a date more than 60 days prior to the submission of the Annual Unit Review and Annual Operating Report, by a certification of the chief financial officer of the Applicant dated no earlier than 60 days prior to filing that no material adverse changes have occurred to the Applicant's financial condition in the interim. The Applicant shall be responsible for payment of all reasonable costs incurred by the County,

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including but not limited to the fees of any accountant or financial consultant, in the review of such financial statement. The above notwithstanding, if at any time the Board should determine that the Applicant is of doubtful ability to respond to liability in the amount determined according to schedule in subsection a. above, the Board may require the Applicant to provide evidence of financial responsibility in the manner provided in Subsection 13.14.02.05(B)(03).

(04)[03] Procedures for Annual Review: The procedures for the Annual Review shall be the same as for issuance of the Master Mining Plan.

(05)[04] Standard of Review: At the public hearings all persons shall be heard. The Board shall review the Annual Operating Report and Unit Plan for compliance with the Development Order, Master Mining Plan and supporting documents and all applicable Hardee County, state or federal laws then and any time before in effect and applicable to the project, and shall render its findings in writing, approving or disapproving or approving with conditions the unit plan for the next unit and the Annual Operating Reports.

(D) *Dam Construction Plans Review:*

At the time the Operator submits dam construction plans to the State, they shall be concurrently submitted to Hardee County for review. At that time Contingency plans for containment and cleanup of any spill from a dam breakage shall also be submitted for review and approval.

3.14.02.06. *Standards.*

All mining and reclamation activities within Hardee County shall at a minimum, conform to these standards.

(A) *Mining Standards:*

(01) No mining operations, except temporary storage of excavated materials, shall be performed within:

- a. One-quarter mile from the following future land use classifications specified and shown on the Future Land Use Map: incorporated towns and cities; Town Center; Highway Mixed Use; Residential Mixed Use; and Rural Center. The Board of County Commissioners may allow mining operations within one-quarter mile upon demonstration by the Applicant/Owner that such mining operations will not significantly interfere with current or planned uses within or adjacent to such land use classification;
- b. Five hundred feet from a public park boundary, cemetery, historical site, or permanent buildings (including Mobile Homes or Manufactured Housing) used for residential, commercial, church or public purposes, on site at time of application for a mining unit approval, in areas not controlled by Paragraph A(01)a. above;
- c. One hundred feet from an existing public right-of-way, or public easement for drainage, utility or road purposes, in areas not controlled by Paragraphs A(01)a.

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and (01)b. above;

d. Fifty feet from Permittee's property line, in areas not controlled by paragraphs A(01)a., A(01)b., and A(01)c. above.

(02) No settling pond, sand clay mix area, or thickening pond shall be constructed within:

a. Five hundred feet from a public park boundary, cemetery, historical site, or permanent buildings (including Mobile Homes or Manufactured Housing) used for residential, commercial, church or public purposes on site at time of application for mining unit approval;

b. Five hundred feet from any right-of-way line of any public road;

c. Two hundred feet from Permittee's property line in areas not controlled by Paragraphs A(02)a. and A(02)b. above.

(03) No excavated material or stock pile shall be left longer than 14 days within:

a. Five hundred feet of the Applicant's property line which abuts a public park boundary, cemetery, historical site, or permanent building (including Mobile Homes or Manufactured Housing) used for residential, commercial, church or public purposes, on site at time of application for mining unit approval;

b. One hundred feet from an existing public right-of-way or public easement for drainage, utility or road purposes, in areas not controlled by Paragraph A(03)a. above;

c. Fifty feet from Permittee's property line in areas not controlled by paragraphs A(03)a. and A(03)b. above.

(04) Effect on Adjoining Owners:

a. The above setback requirements are the minimum, and the Board expressly reserves the right to require whatever setbacks may be necessary, on a case by case evaluation, to protect adjoining property uses, including but not limited to citrus operations and improved pasture;

b. The setback requirements described in subparagraphs (01) through (03) above shall not apply where owners of the land protected by said setbacks have expressly consented to a reduction thereof by written instrument executed with the formality of a deed and recorded in the public records of Hardee County, Florida. Such consent and recordation must occur prior to any mining activities by the Applicant in the areas subject to the agreement and certified copies of the recorded instrument shall be furnished to the County Engineer, who shall acknowledge receipt in writing.

(05) Excavated materials and stock piles shall not be higher than a slope-line of 1 vertical to 5 horizontal projected from the nearest point of Applicant's property line.

(06) Increases to ambient noise levels resulting from mining operations shall not result

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in readings in excess of 75 decibels as measured at the Applicant's property lines, nor shall mining operations generate noise in excess of that allowed by any applicable Hardee County, state or federal law.

(07) Soil vibrations caused by any mining operations shall be below the levels which would be detrimental to the health, welfare and well being of the general public or existing structures.

(08) No blasting or other use of explosives shall be performed without the written permission of the Board. Should blasting or other use of explosives be permitted, the transportation, handling, storage and use of explosives shall be directed and supervised by a person of proven experience and ability in blasting operations, and shall conform to all applicable Hardee County, state or federal laws.

(09) Spillways and other outlet structures from settling ponds shall be designed and constructed in accordance with a plan developed and certified by a professional engineer. The minimum design capacity shall be based on a 12-inch, 24-hour rainfall.

(10) All clay settling ponds and sand clay mix areas shall be contained within fenced areas, or shall otherwise be blocked to public access.

(11) Archeological and historical sites, cemeteries, and burial grounds shall be preserved, or if removal of remains is deemed necessary, it shall be accomplished by process of applicable law.

(12) No mining, placement of fill, construction of permanent buildings or other facilities inside the 100-year flood elevation shall be permitted unless the Applicant can show that the operations will not increase the flood hazards. Dragline crossings are permitted as approved under the Master Mining Plan.

(B) *Monitoring Standards:* Monitoring and reporting in accordance with these regulations shall be performed by the Applicant for a period of one year prior to beginning mining operations, with continuous monitoring and reporting until all mining operations cease. The Board may, at any time, order additional monitoring as may be reasonably necessary to protect the public health, safety and welfare.

(01) The waters of all natural and man-made streams entering upon the Operator's property shall be monitored once weekly at the point of entry and exit, or at a location and frequency specified by the County Engineer, to determine the quantity and quality.

(02) The air quality shall be monitored around the boundary of the Applicant's property. Monitoring devices shall be installed at intervals not to exceed 5,280 feet, or in accordance with a suitable air monitoring plan prepared under the seal of a professional engineer. The monitoring shall be performed on a continuous basis.

(03) Observation wells shall be constructed around the boundary of the Applicant's property for purposes of monitoring the ground water levels potentiometric level of, the aquifer(s) from which production water is being withdrawn and the water quality of each. The monitoring for the water levels shall be done on a continuous basis. The monitoring of the water quality shall be performed once monthly or periodically as specified by the County Engineer as necessary to monitor ground water quality.

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(04) Rainfall gauges shall be installed on the Applicant's property. They shall be placed at random with an average density of one per two square miles or two minimum, whichever is the greater number, or at locations or densities as specified by the County Engineer. The monitoring shall be performed on a continuous basis with recordings tabulated monthly.

(05) Effluent from all sewage treatment plants shall be monitored for quantity and quality. The water quality and monitoring of the effluent shall meet the standards established by applicable Hardee County, state and federal laws.

(06) The effluent from all operations and treatment plants other than sewage shall be monitored for quantity and quality. The water quality and monitoring shall meet the standards established by applicable Hardee County, state and federal laws.

(07) Water for production use, as defined herein shall be monitored for quantity and quality. The monitoring for quantity shall be performed on a continuous basis. The monitoring for quality shall be performed once monthly or periodically as specified by the County Engineer as necessary to monitor water quality.

(08) All dams shall be inspected daily by a representative of the Applicant and in accordance with all applicable Hardee County, state and federal laws.

(C) *Reclamation Standards:*

(01) Between one-quarter mile and one-half mile from the following future land use classifications specified and shown on the Future Land Use Map: incorporated towns and cities; Town Center; Highway Mixed Use; Residential Mixed Use; and Rural Center, the reclamation by placement of sand tailings, and/or over burden or a combination of both, shall be considered the method of maximizing urban land development potential. The use of land/lakes reclamation is also encouraged. Between one-half mile and one mile from the same future land use classifications there shall be a Reclamation Transition Zone, in which reclamation shall maximize the opportunity for urban development of mined land. The Board of County Commissioners may allow alternative methods of reclamation upon demonstration by the Applicant/Owner that such reclamation will not significantly interfere with current or planned uses within or adjacent to such land use classification;

(02) The restoration of wetlands and construction of lakes are encouraged in Reclamation Transition zone, and shall be considered maximization of urban land development potential;

(03) All reclamation within 300 feet from the right-of-way of arterial and collector roads shall be by sand tailings and/or overburden or a combination of both;

(04) All upland areas disturbed by mining shall be reclaimed in accordance with these standards;

(05) Except as provided otherwise in this Section, all duly adopted state and federal reclamation criteria and standards shall apply to reclamation or restoration of lands located in Hardee County, Florida;

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(06) All surface areas of the mining site actually mined or disturbed by mining activities, and lying within one-half mile of incorporated towns and cities, and Future Land Use Classifications of Town Center; Highway Mixed Use; Residential Mixed Use; and Rural Center shall be reclaimed not later than two years after completion of mining operations as defined in the approved Master Mining and Reclamation Plan;

(07) All surface areas of the mining site actually mined or disturbed by mining activities and lying within 300 feet from the right-of-way of arterial and collector roads shall be reclaimed not later than two years after completion of mining operations as defined in the approved Master Mining and Reclamation Plan.

(08) All other areas shall be reclaimed as follows:

a. Areas not including settling ponds, sand clay mix areas, sand tailings piles or recirculating water systems shall be reclaimed within four (4) years from the date mining operations are completed. All backfilling and reshaping must be completed within 18 months. All soil treatment, soil enrichment and grassing (or temporary vegetation) must be completed within two years. All initial permanent vegetation (trees and shrubs) must be completed within three years. The fourth year shall include at least a one-year growing season for the permanent vegetation. Shade adapted or other species specific site requirements may be planted at a later date than specified;

b. Settling ponds and sand clay mix areas shall be reclaimed within four years after active dewatering activities are complete and the area is sufficiently consolidated to support reclamation activities being taken out of use as settling ponds, using the same requirements as paragraph a. above;

c. Recirculating water systems and sand tailings piles shall be reclaimed within two years after commencement of reclamation. All backfilling, reshaping, enrichment and treatment of the soil, and all revegetation must be completed within one year. The second year shall include the one-year growing season for permanent vegetation;

d. The Board of County Commissioners of Hardee County, Florida may require a more expeditious reclamation schedule in order to minimize impacts to neighbors, wetlands, offsite drainage or floodplains. Also, the Board may grant a more lengthy reclamation schedule, if there are circumstances outside the Applicant's/Operator's control that delays the reclamation process.

(09) The reclaimed upland shall, at a minimum, be compacted sufficiently to permit the safe operation of conventional farm and agricultural equipment and other ordinary agricultural use of land.

(10) All reclaimed land shall be revegetated in accordance with the approved Development Order, Master Mining Plan, and in accordance with any Conceptual Reclamation Plan submitted and approved in accordance with applicable state and federal laws. In addition to other requirements relating to revegetation, the Operator shall guarantee a plant survival rate of 80%, and in the event the survival rate is not maintained, the Operator shall replant as necessary to achieve such rate.

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(11) No permanent body of water with a bottom width of less than 100 feet or an average bottom diameter of less than 100 feet, if circular in shape, shall be permitted.

(12) Lake Design:

a. In order to encourage a variety of emergent habitats and a balance of deep and shallow water bodies throughout the mined area in Hardee County, the development of deeper lakes or water bodies, with a smaller littoral zone than that set out in Section 62C-16.051, Florida Administrative Code, may be permitted if specifically approved by the Board.

b. All such deeper lakes shall be a minimum of eight feet deep as measured from the water surface, with a maximum side slope of one vertical and four horizontal. This depth requirement may be reduced to six feet where bedrock would otherwise have to be pierced.

(13) During backfilling, if tailings are used, such tailings shall be placed in the fill area first and overburden shall be used for top soil. If sand/clay mix is used to reclaim mined out areas, reclamation shall be completed in the period of time specified for a particular unit in the Development Order and Master Mining Plan.

(14) After mining operations cease on the entire sites no more than 30 percent of the land area shown on the Master Mining Plan as settling areas shall be covered by un-reclaimed settling ponds or pits.

(15) After mining is complete, all phosphatic clay pits and settling ponds shall be restricted from public access until reclamation is complete.

(16) All disturbed land shall be reclaimed to a slope not greater than 4 horizontal to 1 vertical, and in no case shall be left in an incline too steep to accommodate normal agricultural operations.

(17) Approval of Reclamation:

a. After reclamation of each unit, the Operator shall make written application to the Board of County Commissioners for approval of the reclamation. The application shall identify the lands and contain certification by the project superintendent or manager that reclamation has been performed according to these regulations. The Board reserves the right to require a certification from a professional engineer or a professional geologist;

b. At the time of Annual Unit and Operating Review, the Operator shall also file the status of any reclamation permit or approval as applied for pending or received from any other local, state or federal governmental authority, and shall give notice to such other agency of the requirements for reclamation as set out in this Section and in any development order or permit relating to its operations in Hardee County;

c. The Board shall act upon the application within thirty days of receipt of the complete information. In the event the reclamation is not approved, the Board shall inform the Operator in writing of the specific areas of non-compliance and shall specify a reasonable period of time for compliance. Failure to comply with such

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reclamation order within the time specified shall be a violation of this Section subject to the enforcement procedures set out herein.

(D) *Standard for Production Use of Water:* The water usage for operations subject to this Section shall not exceed the available water supply as determined by these standards or the standards set by any other applicable regulatory agency, whichever allows the lesser usage rate.

(01) A proposed rate of withdrawal for production use of any ground water shall be determined after analyzing the results of an on site test well program performed by the Applicant. The test program and analysis shall be performed under the control and seal of a professional engineer or certified hydrologist.

a. Test wells shall be drilled to determine the depth and characteristics of the subsurface, geologic and hydrologic units and variations in water quality and potentiometric levels.

b. Detailed pumping tests shall be conducted on the aquifer(s) from which production withdrawal is proposed with monitoring of water level and potentiometric levels in the pumped aquifer, and all overlying aquifers by means of observation wells located at various distances from the pumping wells.

c. The hydrogeologic characteristics, including transmissivity and storage coefficient of the pumped aquifers, and coefficient of vertical permeability of the confining layers shall be determined.

d. The proposed production withdrawal rates shall be that amount which can be shown not to cause any significant lowering of the potentiometric levels of the production aquifer beyond the project boundaries.

e. The effects of production withdrawal shall be monitored during mining operations. Withdrawal rates shall be adjusted as required to maintain the permitted potentiometric levels at the project boundaries.

(02) Unreasonable changes of the natural hydraulic connections between the surficial water bearing material and the Floridian aquifer or the introduction of deleterious chemical or physical constituents into the local ground water or surface water shall not be permitted. The Board may order the Applicant to take whatever measures are necessary to alleviate adverse impacts due to lowering of the water level, or if water quality deterioration is occurring beyond the project boundaries. In the event that such measures do not appear to alleviate the water problem the Board may temporarily direct that all mining activities cease while a thorough investigation is made.

(03) The Applicant shall provide a complete inventory of all existing wells on the property under consideration including locations, potentiometric elevations complete chemical analysis, proposed disposition and in so far as possible; depths, diameters, casing schedules, types of pumps and logs. All wells not proposed for use in the mining operations may be plugged in accordance with accepted standard procedures, as specified by the Board.

All free flowing wells shall be sealed immediately after obtaining the required

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measurement.

3.14.02.07. Inspection and Reporting Requirements.

(A) The Board may inspect the Applicant's property at any reasonable time. The field office of the Applicant shall be informed of the presence of county inspection personnel and shall provide adequate protection for the safety of the inspection personnel.

(B) The Applicant shall perform the following:

(01) Inspection of all dams daily;

(02) Keep available at all time, any required records of inspection and the results of monitoring;

(03) Retain an authorized representative on site while operations are in progress;

(04) Retain on site a copy of the approved Master Mining Plan, and a copy of all approved Unit Plans.

(C) During the interval between the date of issuance of the Master Mining Plan and the date of commencement of mining operations the Operator shall submit to the County quarterly, one copy of a tabulation of readings, observations and measurements obtained from all monitoring and inspections.

(D) At quarterly intervals after the date of issuance of the Master Mining Plan until the date mining operations begin, and at quarterly intervals beginning within one week after mining operations begin, the Operator shall submit to the County one copy of the tabulation of readings observation and measurements obtained from all monitoring and inspections, along with a report, interpreting and analyzing the effects of the mining operation under the seal of a professional engineer or other qualified person.

(E) Dam inspection reports, signed by each inspector making the inspection daily and counter-signed by a competent supervisor shall be submitted to the County Engineer monthly.

(F) In order to ensure that the County has a complete record relating to the project, the Operator shall immediately provide the County with copies of all permits, applications for permits, orders, reports, studies or other documents at any time submitted to or received from any Hardee County, state or federal agency relating to the projects unless such material duplicates information already submitted to the County in which case the Applicant/Operator shall be required only to notify the County of the submittal or receipt of such material to or from the agency and the purpose for which it is being used.

3.14.02.08. Transfers, Amendments and Substantial Deviation.

(A) *Transfer of Permit:*

(01) Prior to the transfer of rights under any existing Development Orders or the Master Mining Plan or other permit, the Permittee and the prospective transferee must apply to the Board for a transfer permit. Such transfer shall apply to changes in ownership of land or transfer of rights under existing permits, but shall not involve or authorize any

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other changes to or deviation from the Development Order or Master Mining Plan. Any other change to or deviation from the terms of the Development Order or Master Mining Plan may be deemed an amendment, subject to other provisions of this Section;

(02) At the same time as the application for transfers, the prospective transferee must also furnish proof of financial responsibility as is required herein, covering all lands or rights to be transferred;

(03) If the Board finds adequate proof of responsibility by the prospective transferee, the transfer shall be approved by the Board;

(04) Upon acceptance of the transfer, the transferee becomes the Applicant under this Section and assumes the responsibility of compliance with all the terms of this Section and Code, regulations adopted hereunder, and of the Development Order and Master Mining Plan.

(B) *Amendments:* Amendment to the Master Mining Plan or provisions thereunder may be sought from time to time by the Applicant.

(01) Any application for amendment shall follow the procedures outlined for the original application for Master Mining Plan approval.

(02) In the case of non-substantive matters, the Board may elect to act upon any application for amendment without a public hearing.

(C) *Substantial Deviation Determination:*

(01) With any Operator initiated amendment to or change in the Master Mining Plan or the Development Order, the Operator shall also submit a request for determination of substantial deviation from the development order as required by Chapter 380, Florida Statutes. The Board shall make such determination prior to review of and decision on the amendment. No amendment which is determined to be a substantial deviation shall become effective until the completion of all procedures relating to substantial deviations as set out in Chapter 380, Florida Statutes.

(02) The Board expressly reserves the right to find that the addition of property to any mining tract, by itself or together with any simultaneous or prior additions, is a substantial deviation, regardless of earlier approvals of additions of property to the tract.

3.14.02.09. Fees.

(A) A schedule of nonrefundable fees is hereby established and may be revised periodically by resolution, by the Board. It is expressly recognized that these fees are reasonable and necessary to help offset the additional cost to Hardee County incurred in the adequate review of these ongoing projects, to ensure the health, safety and welfare of the citizens of Hardee County. Such costs are extraordinary and are more justly borne by the Applicant who will receive great financial benefit from mining and earth moving activities in Hardee County.

(B) Hardee County Mining Fee Schedule:

(01) *Initial Application Fee:* \$1.20 per acre of land under consideration in the Master Mining Plan and shall be payable one time upon application. If the Applicant elects to

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enter into an Ecosystem Management Agreement as provided by Sections 403.075 and 403.0752, Florida Statutes, the initial application fee shall be due at the time the agreement is entered into.

(02) *Operating-Approval Fee:* This fee shall be paid in lieu of any impact review fee required by other ordinance: \$8.40 per acre of any land to be disturbed by mining, earth moving, and related activities as set out in the Master Mining Plan. This fee shall be paid within 30 days after the Development Order has been issued by the Board approving the Master Mining Plan.

(03) *Annual Review Fee:* After the initial mining unit, \$8.40 per acre disturbed and not reclaimed, and to be disturbed in the coming unit year by mining or related activities, excluding any acreage that has been reclaimed in accordance with the requirements of this Section and payable annually after the first year of operation. This fee shall be paid annually 60 days prior to the anniversary date of approval of the Master Mining Plan or the approved Annual Review date if different from the anniversary date.

(04) *Amendment Fee:* \$8.40 per acre of land not already being considered for mining activity or under permit for mining activity payable upon application, plus all costs of review payable upon invoice by Hardee County.

(05) *Annual Monitoring Fee:* \$1.20 per acre of land within the tract subject to the Master Mining Plan, payable annually 60 days prior to the anniversary date of approval of the Master Mining Plan.

3.14.02.10. Compliance.

(A) Failure to comply with these regulations or any orders, stipulations or requirements of the Board, may constitute grounds for suspension or revocation of the permit by the Board.

(01) *Notice of Violation:* The Operator shall provide the County with copies of any notice of violation, noncompliance order, stop-work order or other written notification by any Hardee County, state or federal agency of any alleged violation or failure to comply with any law, ordinances, rules, regulations, standards or orders within 48 hours of receipt by the Operator. Failure to provide such copy shall be considered a violation of this Section, subject to all penalties provided hereunder.

(02) If at any time during the term of the permit the Operator fails to comply with these rules and regulations, approved development orders, the appropriate rules and regulations of other departments, regulatory agencies of the County, the State of Florida or the federal government, or with the terms of the permit, the County Engineer/designee shall immediately notify the Operator in writing and order that the violative activity cease and appropriate corrective measures be instituted within a specified period of time.

(03) The Operator may appeal such orders to the Board no later than ten days following their receipt. The appeal shall be heard and decided by the Board at its next regularly scheduled meeting within two weeks from the date of the notice of appeal.

(04) Compliance with the orders shall be reported to the Board in writing and confirmed in writing by the County Engineer.

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(05) Should the Operator fail to comply with or appeal the notice of violation and corrective orders within the specified time period the Board may suspend the Master Mining Plan approval and permission to operate until such time as compliance is proven by the Applicant/Operator.

(06) A timely filed appeal shall stay the effect of the notice of violation unless the County Engineer certifies to the Board, and the Board finds that there is an imminent peril to the public health, safety and welfare. In any event, once a timely filed appeal has been found in favor of the County, the Board may suspend the Master Mining Plan approval and permission to operate until such time as compliance is proven by the Applicant/Operator.

(B) Failure on the part of the Applicant to begin operations within a period of two years from approval of the Master Mining Plan may be cause for revocation of the Master Mining Plan approval and the permission to operate. Any subsequent application for permission to commence mining will be treated as an initial application.

3.14.02.11. Penalties.

(01) Criminal Penalty: Violation of this Section and rules and regulations adopted hereunder, may, at the discretion of the Board of County Commissioners be subject to the penalties and procedures established by Section 125.69 Florida Statutes, including approved mining operation and completion schedule of each mining unit and/or approved reclamation operation and completion schedule of each reclamation unit. Under Section 125.69, such violations shall be prosecuted in the same manner as misdemeanors in the name of the state in a court having jurisdiction of misdemeanors by the prosecuting attorney thereof and upon conviction and shall be punishable by fines not to exceed \$500.00 or by imprisonment in the county jail not to exceed six months or both such fine and imprisonment. Each day on which a violation of a continuing nature occurs shall be a separate violation. Procedures include notice of an apparent violation by the County to the Owner/Operator and an opportunity to correct such violation.

(02) Civil and Injunctive Relief: In addition, the County may institute a civil action in the Circuit Court to seek injunctive relief to enforce compliance with this Section, including approved mining operation and completion schedule of each mining unit and/or approved reclamation operation and completion schedule of each reclamation unit, and may also seek the imposition and recovery of damages and a civil penalty for each violation in an amount not less than \$2,500.00 nor to exceed \$5,000.00 per violation. Each day during any portion of which a continuing violation occurs shall be a separate violation. It shall not be a defense to any judicial remedy for injunction, damages or civil penalty that the County has failed to serve a notice of violation or to pursue any administrative remedy, or that criminal proceedings or other enforcement proceedings are pending, except that remedies to recover damages are alternative and shall preclude recovery of damages more than once by the County.

(03) Special Masters: In addition, the County may institute proceedings before a Special Master, pursuant to Section 8.11.00 of this Code, in the enforcement of these regulations, including approved mining operation and completion schedule of each mining unit and/or approved reclamation operation and completion schedule of each reclamation unit.

(04) In addition, failure of any dam, spillway or other outlet structure or settling pond, sand

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clay settling area, or thickening pond or any other cause attributable to the Operator's mining operation resulting in degradation of the quality of any waters outside the Operator's property, shall subject the Operator to a civil penalty to be paid to the County in an amount equal to the cost of restoration of water quality in the affected area plus all costs of cleanup and administrative costs to the County.

(05) In addition, failure of an Operator to have completed reclamation of lands as required at the conclusion of any unit year may subject the Operator to a civil penalty to be paid to the County in an amount equal to the evidence of financial responsibility required to be maintained on account of the lands involved.

(06) In addition, the Board may require the Operator to provide evidence of financial responsibility in the manner provided in paragraph 2.06.05(C)(03)(d)(1), to ensure that a violation of this Section, the rules and regulations adopted hereunder, including approved mining operations and completion schedule of each mining unit and/or approved reclamation operation and completion schedule of each reclamation unit, is corrected or cured. The Board may, at any time take such actions as it deems necessary to cure a violation. The Operator shall be liable for all cost of the County in curing a violation or completing reclamation, and the County shall have the right to proceed against any financial responsibility in order to recover such cost. The remedies provided for in this paragraph (06) are cumulative to remedies and penalties set forth in paragraphs (01) through (05).

3.14.02.12. Waiver.

Upon application by the Operator the Board may waive any portion of these regulations as to the Operator's project, upon a showing that the Operator shall suffer undue hardship if required to comply, and upon a finding by the Board that such waiver will not result in increased adverse impacts nor be harmful to the health, safety and welfare of the citizens of Hardee County.

3.14.02.13. Expert Certification.

When any drawing, document or other information are required by the terms of this Section to be certified, signed and/or sealed by a Florida Registered Professional Engineer or other qualified professional person the certification shall state that person executing the document is personally familiar with and has reviewed the document in question and that the information reflected therein meets generally accepted professional practices in the field in which they are an expert.

3.14.02.14. Duplication of Information.

Whenever any information is required to be submitted by the terms of this Section and such information has previously been submitted or exists within the County's records, in lieu of submitting duplicate or redundant information, the Applicant/Operator may notify the County in writing by letter to the County Engineer specifying the information previously submitted, and stating where such information already exists within the County records.

3.14.02.15. Computation of times.

Whenever an act is required or allowed to be done within a specified time by the terms of Section 3.14.02.05, such times shall be computed in accordance with the Florida Rules of

Exhibit "B"

Procedure. If such time periods conflict with any scheduling mandated by applicable state or federal laws then the time periods in question shall be adjusted to comply with such state or federal laws but shall be kept as close to the time periods set out herein as possible. All time periods may be extended by the Board for good cause.

3.15.00. - Compatibility, Landscaping and Buffering Standards.

The Board of County Commissioners finds that landscaping makes important contributions to the public safety and the general welfare of the County. The purpose and intent of this Section is to set forth requirements and standards for the provision of canopy trees, buffer yards, the conservation of native plants and trees, and the conservation of water resources in the County. Specifically, it is intended that buffer yards will aid in reducing the potential negative impacts caused by glare, noise, dust, dirt, litter, odors and view of various land uses on adjacent land uses. It is further intended that the planting of canopy trees will aid in lowering the ambient temperature of the air through increased shading; in conserving water; in enhancing the appearance of properties; in improving property values; and generally in protecting the health, safety and welfare of the public through the improvement of the quality of the human environment. As part of the development approval process, Hardee County shall ensure that all new development is properly buffered to prevent adverse impacts on surrounding land uses. The requirements of this Section shall apply to:

- (A) The construction of any new building or improvements that require off-street parking and other impervious surfaces to be constructed on the site, other than a single-family, detached residence or a detached duplex structure, that are exempt from all provisions of this Section;
- (B) The alteration of existing structures or improvements, other than a single-family, detached residence and a detached duplex structure, where the alteration adds usable floor area that requires additional off-street parking and other impervious surfaces to be constructed on the site;
- (C) The construction or expansion of off-street parking and/or loading areas;
- (D) The paving of any existing unpaved off-street parking and/or loading areas.

Prior to issuance of any Development Permit covered, a Landscape Plan shall be submitted showing tree canopy and buffer yard information required by this Section. The Landscape Plan shall be drawn to a scale with sufficient clarity and detail to indicate the type, nature and character of the improvements on the site, and the relative location of all landscaping in relation to said improvements. The Landscape Plan may be submitted separately, but shall be a part of the Site Development Plan, when a Site Development Plan is required under Section 7.05.00.

3.15.01. Classification of Land Uses.

For the purposes of this Section, all land uses are classified in accordance with the following list. Classifications are based upon the incompatibilities present between various types of land uses. Uses with similar density, intensity, off-street parking, paved areas, and traffic generation make up Classifications I through IX.

C l a s	LAND USE CLASSIFICATIONS
------------------	--------------------------

Exhibit "B"



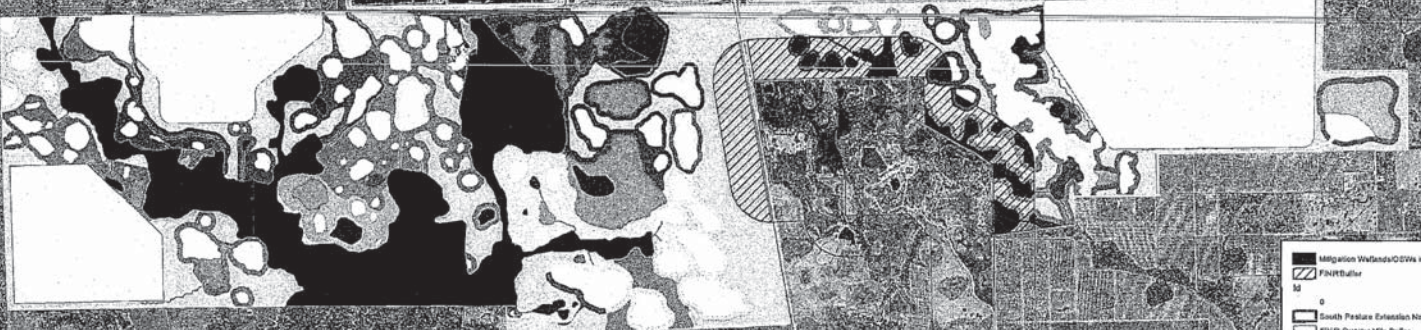
South Pasture Extension And 1/4-Mile FINR Buffer



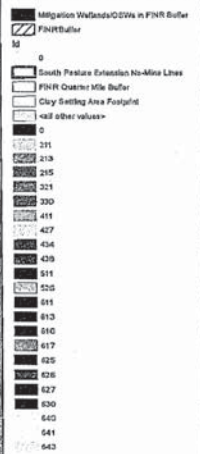
SPE Permitted Wetlands/OSWs = 1,702.9 Acres
Permitted Wetlands/OSWs in FINR Buffer = 116.5 acres
(or 6.84% of the permitted wetlands and OSWs).

- South Pasture Extension No-Action Lines
- FINR Buffer
- SPE OSWs in FINR Buffer
- SPE Wetlands in FINR Buffer
- SPE OSWs
- SPE Wetlands
- FINR Quarter Mile Buffer

South Pasture Extension And 1/4-Mile FINR Buffer



Total SPE Wetland/OSW Mitigation = 1,710.8 Acres
Wetland/OSW Mitigation in FINR Buffer = 270.27 acres
(or 15.8% of the required mitigation).





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

JUL 30 2012

Colonel Alan M. Dodd
District Engineer
Department of the Army
Jacksonville District Corps of Engineers
701 San Marco Boulevard, Room 372
Jacksonville, Florida 32207-0019

Subject: Four Individual Permit Public Notices
Mosaic Fertilizer LLC., Wingate East Mine, SAJ-2009-3221(IP-KDS)
Mosaic Fertilizer LLC., Ona Mine, SAJ-2011-1869(IP-JPF)
Mosaic Fertilizer LLC., Desoto Mine, SAJ-2011-1968(IP-MEP)
CF Industries, Inc., South Pasture Mine Extension SAJ-1993-1395(IP-ACR)

Dear Colonel Dodd:

The Environmental Protection Agency, Region 4, has reviewed the information found in each of the four public notices¹ (PNs) and supplemental material in the Draft Area-wide Environmental Impact Statement on Phosphate Mining in the Central Florida Phosphate District (AEIS)². The EPA is a cooperating agency with the U.S. Army Corps of Engineers, Jacksonville District (District) to develop an AEIS consistent with the requirements of the National Environmental Policy Act of 1969, as amended. The EPA has been involved in numerous meetings and discussions regarding the four referenced permits and the AEIS going back more than two years. As discussed below, the freshwater forested and herbaceous emergent wetlands and open waters that make up the creeks, rivers, sloughs, seeps, domes and depressions in the area covered by the AEIS are considered aquatic resources of national importance. We appreciate the opportunity to participate in the AEIS process and believe it has been beneficial in adding to the body of knowledge regarding phosphate mining in central Florida.

We have three specific interests about these proposed projects both collectively and individually. Some of these concerns are related to the draft status of the AEIS and outstanding comments the EPA has on the draft AEIS. As noted, the AEIS process has made great progress in identifying and reviewing information related to the mining process in this area of Florida and the EPA appreciates all the work that the District, stakeholders and the permit applicants have put into this process. However, certain issues remain. These are the requested permit durations, avoidance of waters of the U.S. considered to be ecologically significant, and the proposed compensatory mitigation. The applicants requested different durations for their various permits, as listed below. CF Industries, South Pasture Mine Expansion 20 years; Mosaic Fertilizer, Desoto Mine 22 years; Mosaic Fertilizer, Westgate East Mine 34 years and Mosaic Fertilizer, Ona Mine 45 years. Given the difficulty in projecting environmental impacts two decades or more into the future, it would appear to us to be prudent to award a permit for this length of time only if there is a clear ability to monitor progress on mitigation and adaptively

¹ http://www.saj.usace.army.mil/Divisions/Regulatory/publicnotices_Florida.html, as viewed between June 1, 2012 and July 27, 2012.

² http://www.phosphateaeis.org/doc_draft_aeis.html, as viewed between June 1, 2012 and July 27, 2012.

manage where appropriate. We believe there are opportunities to lessen this concern and we are prepared to discuss these during efforts to develop permit specific compensatory mitigation plans consistent with the Section 404(b)(1) Guidelines and the 2008 Mitigation Rule (33 C.F.R. Parts 230 and 332; 40 C.F.R. Part 230).

The PNs reference avoidance of some waters of the U.S. These modifications are excellent and reflect historic concerns voiced by the EPA and others related to the uncertainty and risk for created forested and herbaceous emergent aquatic habitats. The EPA believes that additional avoidance is warranted where mature bay swamps, heads and/or seepage slopes exist. There are specific recommendations that can address this interest once the District has approved the federal jurisdictional determinations.


Additional interests relate to the conceptual nature of the proposed compensatory mitigation. The compensatory mitigation, as discussed in the PNs, proposes one acre created for every one acre to be impacted; and one linear foot of stream will be created for every stream linear foot impacted. These created habitats will be on-site and completed at various times in the future. We would like to see the applicants provisional compensatory mitigation consider ratios beyond an acre for acre/foot for foot due to temporal losses and risk associated with the mitigation time frames and establishing forested aquatic habitats. Therefore, off-site compensatory mitigation should play a larger role in the final plans to account for the temporal losses and uncertainty of successful restoration following phosphate mining. Finally, there is currently insufficient compensatory mitigation information to complete our review, as was noted in the draft AEIS³. The draft AEIS states that the initial permit applications only provided preliminary information because there are no approved federal jurisdictional determinations on the four mine sites and as of the date of the PNs, the applicants had yet to submit federal Section 404 compensatory mitigation plans. We would welcome a collaborative effort with the District and the applicants to address these questions.

As summarized above, the information and comments being collected for the AEIS on Phosphate Mining in the Central Florida Phosphate District will be vital for our review and providing project specific comments and recommendations. Therefore, based on the information available, the EPA believes that the projects as currently proposed may not comply with the Section 404(b)(1) Guidelines and may have substantial and unacceptable adverse impacts on aquatic resources of national importance. This letter follows the field-level procedures outlined in the August 1992 Memorandum of Agreement between the EPA and the Department of the Army, Part IV, paragraph 3(a) regarding Section 404(q) of the Clean Water Act.

³ http://www.phosphateaeis.org/doc_draft_aeis.html, Chapter 5.6 Mitigation Plans for Currently Proposed Mines, page 5-18 as viewed between June 1, 2012 and July 27, 2012.

I want to thank you and your staff for your cooperation and willingness to address our issues. We look forward to working closely with you and the applicant to resolve the concerns outlined above. If you have any questions, please call me at (404) 562-9345 or Duncan Powell of my staff at (404) 562-9258.

Sincerely,



James D. Giattina
Director
Water Protection Division

cc: Fish and Wildlife Service, Vero Beach, Florida (Begazio)
National Marine Fisheries Service, St. Petersburg, Florida (Sramek)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

AUG 23 2012

Colonel Alan M. Dodd
District Engineer
Department of the Army
Jacksonville District Corps of Engineers
701 San Marco Boulevard, Room 372
Jacksonville, Florida 32207-0019

Subject: Four Individual Permit Public Notices
Mosaic Fertilizer LLC., Wingate East Mine, SAJ-2009-3221(IP-KDS)
Mosaic Fertilizer LLC., Ota Mine, SAJ-2011-1869(IP-JPF)
Mosaic Fertilizer LLC., Desoto Mine, SAJ-2011-1968(IP-MEP)
CF Industries, Inc., South Pasture Mine Extension SAJ-1993-1395(IP-ACR)

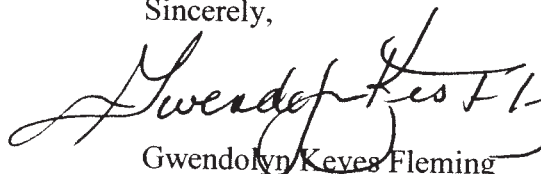
Dear Colonel Dodd:

This letter follows our previous letter dated July 30, 2012 (enclosed) and the field-level procedures outlined in the August 1992 Memorandum of Agreement between the U.S. Environmental Protection Agency and the Department of the Army, Part IV, paragraph 3(b), regarding Section 404(q) of the Clean Water Act. Our opinion is that the discharges will have a substantial and unacceptable impact on aquatic resources of national importance (ARNI), as currently proposed. The ARNIs and our three specific interests (requested permit durations, avoidance of the ARNIs and the proposed compensatory mitigation) that are the basis of our opinion, were stated in our July 30, 2012, letter and are still currently being discussed among the agencies and the companies.

The EPA is confident that these interests will be addressed in the U.S. Army Corps of Engineers Jacksonville District's permitting process and the processes to finalize the Area-wide Environmental Impact Statement on Phosphate Mining in the Central Florida Phosphate District. We believe there are solutions to our concerns and see positive steps being taken to address them.

I want to thank you and your staff for your cooperation. We look forward to working with you and the applicants to resolve our concerns. If you have any questions, please call Mr. Duncan Powell of my staff at (404) 562-9258.

Sincerely,



Gwendolyn Keyes Fleming
Regional Administrator

Enclosure

cc: Mr. Alfredo Begazo, Fish and Wildlife Service
Mr. Mark Sramek, National Marine Fisheries Service



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505
(727) 824-5317; FAX 824-5300
<http://sero.nmfs.noaa.gov>

JUL 31 2012

F/SER46:MS/rs

Colonel Alan M. Dodd
District Commander, Jacksonville District
Department of the Army, Corps of Engineers
Attn: Regulatory Division
South Permits Branch/Fort Myers Section
1520 Royal Palm Square Boulevard – Suite 310
Fort Myers, Florida 33919-1036

Dear Colonel Dodd:

NOAA's National Marine Fisheries Service (NMFS), Habitat Conservation Division, has reviewed the public notice regarding Department of the Army File Number SAJ-2010-03680 and the associated Draft Area Wide Environmental Impact Statement (AEIS) for Phosphate Mining in the Central Florida Phosphate District dated June 28, 2012. Your office has received four applications for permits under Section 404 of the Clean Water Act from Mosaic Fertilizer, LLC, and CF Industries, Incorporated, for four proposed phosphate mining projects. The specific projects in the AEIS include: (1) Mosaic's new Desoto Mine; (2) Mosaic's new Ona Mine; (3) Mosaic's extension to the existing Wingate Creek Mine; and (4) CF Industries' extension to the South Pasture Mine in Central and Southwest Florida.

According to information provided in the AEIS, the proposed projects could reduce freshwater inflows in the Myakka and Peace Rivers by as much as two percent. The AEIS does not specifically identify or address potential secondary or cumulative effects of the reduced freshwater inflows on essential fish habitat (EFH) or commercially and recreationally valuable fish and invertebrate species within the lower Myakka and Peace rivers and Charlotte Harbor estuary. The role of freshwater inflows to sustain and maintain the ecologic health and diversity of estuarine ecosystems is widely documented and the impacts of reduced inflows should be thoroughly addressed in the Final AEIS.

Estuarine habitats in the lower Peace and Myakka Rivers and Charlotte Harbor are designated as EFH as identified in the 2005 generic amendment of the Fishery Management Plans for the Gulf of Mexico. The generic amendment was prepared by the Gulf of Mexico Fishery Management Council as required by the 1996 amendment to the Magnuson Stevens Fishery Conservation and Management Act. Federal agencies that permit activities potentially impacting EFH are required to consult with NMFS and, as a part of the consultation process, prepare an EFH assessment. Contents of an EFH assessment should include:



1. An analysis of the effects, including secondary and cumulative effects, of reduced freshwater inflows from the proposed mining activities on EFH, federally managed fish and invertebrate species, and prey within the Myakka and Peace river estuaries and Charlotte Harbor;
2. The USACE's views regarding the effects of these activities on EFH; and,
3. Proposed mitigation or adaptive management strategies, if a demonstrated adverse impact to EFH and fishery resources would result from these activities.

EFH consultation can be initiated independent of other project review tasks or can be incorporated in environmental planning documents, such as the Final AEIS. Upon review of the EFH assessment, NMFS will determine if it is necessary to provide EFH conservation recommendations on the project.

Finally, the project area is within the known distribution limits of a federally listed threatened species under purview of NMFS. In accordance with the Endangered Species Act of 1973, as amended, it is your responsibility to review this proposal and identify actions potentially affecting endangered or threatened species. Determinations involving listed species should be reported to our Protected Resources Division (PRD) at the letterhead address. If it is determined the activities may adversely affect any species listed as endangered or threatened under PRD purview, consultation must be initiated.

If you have questions regarding NMFS' review of this project, please contact Mr. Mark Sramek at the letterhead address, by telephone at (727) 824-5311, or e-mail at Mark.Sramek@noaa.gov.

Sincerely,



Miles M. Croom
Acting Assistant Regional Administrator
Habitat Conservation Division

Cc:
F/SER3



RECEIVED

JUN 25 2012

Tampa Regulatory Office

FLORIDA DEPARTMENT of STATE

RICK SCOTT
Governor

KEN DETZNER
Secretary of State

Tampa Regulatory Division
Jacksonville USACE
10117 Princess Palm Avenue, Suite 120
Tampa, Florida 33610

June 20, 2012

Re: Projects Reviewed by the Florida State Historic Preservation Office
No Historic Properties Likely Affected - **See Enclosed List**
Dates Received – June 7- June 18, 2012

To Whom It May Concern:

This office received and reviewed the applications 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; 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.

Our review of the Florida Master Site File indicates that no historical properties are recorded within the project area. Furthermore, because of the location and/or nature of the project it is unlikely that historic properties will be affected.

If there are any questions concerning our comments or recommendations, please contact Michael Hart, Historic Sites Specialist, by phone at 850.245.6333, or by electronic mail at Michael.Hart@dos.myflorida.com. We appreciate your continued interest in protecting Florida's historic properties.

Sincerely,

Laura A. Kammerer
Deputy State Historic Preservation Officer
For Review and Compliance

DIVISION OF HISTORICAL RESOURCES

R. A. Gray Building • 500 South Bronough Street • Tallahassee, Florida 32399-0250

Telephone: 850.245.6300 • Facsimile: 850.245.6436 • www.flheritage.com

Commemorating 500 years of Florida history www.fla500.com



VIVA FLORIDA 500.



VIVA FLORIDA 500.

Tampa Regulatory Division
Jacksonville USACE
June 20, 2012
Page 2

<i>DHR NO.</i>	<i>App. No.</i>	<i>Project Name</i>	<i>County</i>
2011-02590	SAJ-1993-01395 (IP-ACR)	CF Industries, Inc./ CF Industries South Pasture Extension	Hardee
2011-02755	SAJ-2004-06625 (LP-MGH)	City of Treasure Island/ City of Treasure Island Mitigation at Eleanor Island	Pinellas

SEMINOLE TRIBE OF FLORIDA TRIBAL HISTORIC PRESERVATION OFFICE

TRIBAL HISTORIC
PRESERVATION OFFICE
SEMINOLE TRIBE OF FLORIDA
AH-TAH-THI-KI MUSEUM
30290 JOSIE BILLIE HWY
PMB 1004
CLEWISTON, FL 33440
PHONE: (863) 983-8549
FAX: (863) 902-1117



TRIBAL OFFICERS
CHAIRMAN
JAMES E. BILLIE
VICE CHAIRMAN
TONY SANCHEZ, JR.
SECRETARY
PRISCILLA D. SAYEN
TREASURER
MICHAEL D. TIGER

Angela Ryan
Department of the Army
Jacksonville District Corps of Engineers
10117 Princess Palm Avenue, Suite 120
Tampa, Florida 33610

THPO#: 010094
Project #: SAJ-1993-01395

June 25, 2012

Subject: Assessment of Effects for the Proposed CF Industries South Pasture Extension Mine, Hardee County, Florida

Dear Ms. Ryan,

The Seminole Tribe of Florida's Tribal Historic Preservation Office (STOF-THPO) has received the Jacksonville Corps of Engineers correspondence regarding the above mentioned project. The STOF-THPO has no objection to your proposal at this time, provided that site 8HR702 (Turkey Feeder Site) is avoided. If it cannot be avoided, further consultation with the STOF-THPO will be necessary. Finally, the STOF-THPO would like to be informed if cultural resources that are potentially ancestral or historically relevant to the Seminole Tribe of Florida are inadvertently discovered during the construction process.

We thank you for the opportunity to review the information that has been sent to date regarding this project. Please reference **THPO-010094** in any future documentation about this project.

Sincerely,

Direct routine inquiries to:

Paul N. Backhouse, Ph.D.
Acting Tribal Historic Preservation Officer
Seminole Tribe of Florida

Anne Mullins
Compliance Review Supervisor
annemullins@semtribe.com

AES:am:pb

From: [BEVERLY GRIFFITHS](#)
To: [pn.comment.south.pasture.ext](#)
Subject: Public Notice Comments-South Pasture Extension Mine
Date: Friday, June 15, 2012 6:02:06 PM

June 15, 2012

Department of the Army
Jacksonville District Corps of Engineers
10117 Princess Palm Avenue, Suite 120
Tampa, FL 33610

Re: South Pasture Extension Mine, Permit Application No. SAJ-1993-01395 (IP-ACR), Notice Date June 1, 2012

Dear Sirs;

I am writing on behalf of the Sierra Club Florida Phosphate Committee to request an extension of time to respond to your notice of permitting for the above-referenced mine until after completion of the Phosphate AEIS which your agency is currently preparing.

The permit application requires completion of an environmental impact statement to guide permitting, as your notice recognizes. That AEIS must also be available to the public in order to provide comments on this and future permits. Proceeding with the public input process for this permit before preparation of an EIS is premature and improper and deprives the public of the information necessary to submit comments.

You issued four notices of permitting on June 1, for the CF Industries South Pasture Extension and the Mosaic Wingate East, Ona and Desoto mines. We note that all of the notices you have issued are extremely sparse, omitting important information such as the nature of reclamation and the form of mitigation. The need for additional time and information in order to comment is reinforced by the limited nature of the information available.

Please note additionally that the address for commenting on the Ona mine appears to refer to the Wingate East mine. We assume your reference is incorrect.

It is clear that there is broad public interest in the pending AEIS and the permits which will depend on it. At this time we object to the proposed permit, request an extension of time for comment until a reasonable time after issuance of the pending AEIS, and ask that the Corps conduct a public hearing on this permit to consider the actual mining, reclamation and mitigation involved, and to consider the permit in light of the AEIS.

Please acknowledge receipt of this message to bevgriffiths@verizon.net

Thank you for your service and your concern for our environment.

Beverly Griffiths, on behalf of the Sierra Club Florida Phosphate Committee

Dear Sir;

I am writing on behalf of Protect Our Watersheds, Inc. (POW) to request an extension of time to respond to your notice of permitting for the above-referenced mine until after completion of the Phosphate AEIS which your agency is currently preparing.

The permit application requires completion of an environmental impact statement to guide permitting, as your notice recognizes. That AEIS must also be available to the public in order to provide comments on this and future permits. Proceeding with the public input process for this permit before preparation of an EIS is premature and improper and deprives the public of the information necessary to submit comments.

You issued four notices of permitting on June 1, for the CF South Pasture Extension and the Mosaic Wingate East, Ona and Desoto mines. We note that all of the notices you have issued are extremely sparse, omitting important information such as the nature of reclamation and the form of mitigation. The need for additional time and information in order to comment is reinforced by the limited nature of the information available.

It is clear that there is broad public interest in the pending AEIS and the permits which will depend on it. At this time we object to the proposed permit, request an extension of time for comment until a reasonable time after issuance of the pending AEIS, and ask that the Corps conduct a public hearing on this permit to consider the actual mining, reclamation and mitigation involved, and to consider the permit in light of the AEIS.

Specifically, POW wants to ensure the best possible protections for our water, our environmental systems, the health of Charlotte Harbor and its fisheries during and after mining.

Thank you for your service and your concern for our environment.

Helen Jelks King, O.D., on behalf of Protect Our Watersheds, Inc. (POW)

Re: Public Hearing Request for Permit Application No. SAJ-1993-01395 (IP-ACR) CF Industries, Inc., South Pasture Extension Phosphate Strip Mine

1. Pursuant to Section 404 of the Clean Water Act. , People for Protecting Peace River, Inc. (hereinafter, 3PR) formally requests a public hearing concerning Mosaic Fertilizer, LLC Permit Application No. SAJ-1993-01395 (IP-ACR) During the permit decision process, the Corps must evaluate the project in relation to the public interest. The public benefits and detriments of all factors relevant to each case are to be carefully evaluated and balanced. Relevant factors may include conservation, economics, esthetics, wetlands, cultural values, fish and wildlife values, water supply, water quality, and any other factors judged important.

Additionally, 3PR strongly recommends the Army Corps of Engineers (ACOE) **deny** Permit Application No. SAJ-1993-01395 (IP-ACR) and find the project *Environmentally Unsatisfactory*. The initial ACOE review of the project has identified adverse environmental impacts that are of sufficient magnitude that the proposed action must not proceed as proposed.

PARTIES

2. 3PR is a public interest environmental protection organization which is a Florida not-for-profit corporation and a citizen of the State of Florida whose address is: 3PR, P.O. Box 155, Wauchula, FL 33873. The corporate purposes of 3PR include the protection and preservation of water quality and wildlife habitat in and around Hardee County, Florida. 3PR is a citizen of the State of Florida pursuant to section 403.412(5), Florida Statutes. 3PR and its members will be substantially and adversely affected by the conditions and activity, which will result if this permit is issued.

3. State of Florida, Department of Environmental Protection (hereinafter, "DEP") is an affected State permitting agency, whose address is: DEP, 8407 Laurel Fair Circle, Tampa, Florida 33610-7355.

4. Department of the Army is an affected federal permitting agency, whose address is: Department of the Army, Jacksonville District Corps of Engineers, Tampa Regulatory Office, 10117 Princess Palm Drive Suite 120, Tampa, Florida 33610-8300.

5. The Applicant is CF Industries, Inc., Hardee County Complex, P. O. Box 1549, Wauchula, FL 33873

RECEIPT OF NOTICE

6. 3PR first received notice of Permit Application No. SAJ-1993-01395 (IP-ACR) by email on June 2, 2012.

GENERAL FACTS

7. The direct impacts of Applicant's proposed project will result in unpermittable adverse conditions Section 404 of the Clean Water Act and will be contrary to the public's interest.

8. There will be significant unpermittable foreseeable adverse cumulative impacts on water quality, and conservation and protection of fish and wildlife resulting from the extraction of phosphate ore .

9. There will be unpermittable foreseeable adverse secondary impacts from the proposed extraction of phosphate ore .

10. The Department of the Army has permitting authority over Applicant's proposed dredging activities pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344).

11. The Army Corps of Engineers has initially determined that the proposed project The U.S. Army Corps of Engineers (Corps) has determined the proposed project may affect, the Audubon's crested caracara (Caracara cheriway) and the Florida panther (Puma concolor coryi).

Additionally, the Corps has determined the proposal may affect the Eastern indigo snake (Drymarchon couperi), wood stork (Mycteria americana), and the Florida grasshopper sparrow (Ammodramus savannarum floridanus).

12. The mitigation proposed by the Applicant is inadequate and will most likely not be viable for some time after construction activities.

DISPUTED ISSUES OF LAW AND FACTS

13. 3PR alleges the following disputed issues of law and material fact for determination of Permit Application No. SAJ-1993-01395 (IP-ACR)

(a) Whether Applicant has provided reasonable assurances that the applicable state and federal water quality standards will not be violated as a result of the proposed extraction of phosphate ore;

(b) Whether Applicant has provided reasonable assurances that the proposed extraction of phosphate ore is in compliance with EPA approved water quality standards with regard to Section 404 of the Clean Water Act;

(c) Whether Applicant has provided reasonable assurances that the proposed activity is not contrary to the public interest as set forth in Section 404(b) of the Clean Water Act ;

(d) Whether Applicant has provided reasonable assurances that the cumulative impacts of the proposed project, including applicable past, present and foreseeable cumulative impacts, will not cause violations of any state or federal standard;

(e) Whether Applicant has provided reasonable assurances that the proposed project is consistent with Florida's Coastal Zone Management Program;

(f) Whether Applicant has provided reasonable assurances that permanent impacts associated with the disturbance of 1262 acres jurisdictional wetlands does not violate any state or federal standard;

(g) Whether Applicant has provided reasonable assurances that the proposed extraction of phosphate ore is in compliance with Section 7 of the Endangered Species Act for the protection of the Audubon's crested caracara (*Caracara cheriway*), the Florida panther (*Puma concolor coryi*), the Eastern indigo snake (*Drymarchon couperi*), the wood stork (*Mycteria americana*), and the Florida grasshopper sparrow (*Ammodramus savannarum floridanus*).

APPLICABLE LAWS AND STATUTES

14. Federal Laws and Statutes:

- Section 404 of the Clean Water Act (33 U.S.C. 1344),
- Section 404(b) of the Clean Water Act,
- Coastal Zone Management Act and the National Environmental Policy Act.,
- Section 7 of the Endangered Species Act.

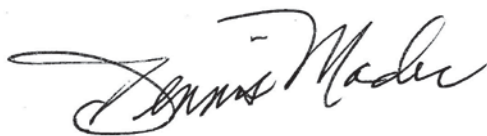
15. Florida Laws and Statutes:

- Section 62-302 F.S. - Surface Water Quality Standards,
- Section 62-302.530 F.S. - Table: Criteria for Surface Water Quality Classifications,
- Sections 62-4.242, 62-4.243, 62-4.244, and 62-4.246 F.S.- antidegradation permitting requirements.

WHEREFORE, People for Protecting Peace River, Inc., formally requests that ACOE hold a public hearing concerning CF Industries, Inc., Permit Application SAJ-1993-01395 (IP-ACR) South Pasture Extension Phosphate Strip Mine.

Respectfully submitted this 18th day of June 2012. .

BY _____



Dennis Mader
Executive Director 3PR
P.O. Box 155
Wauchula, FL
33873

Re: Public Hearing Request for Permit Application No. SAJ-1993-01395 (IP-ACR) CF Industries, Inc., South Pasture Extension Phosphate Strip Mine

1. Pursuant to Section 404 of the Clean Water Act. , People for Protecting Peace River, Inc. (hereinafter, 3PR) formally requests a public hearing concerning Mosaic Fertilizer, LLC Permit Application No. SAJ-1993-01395 (IP-ACR) During the permit decision process, the Corps must evaluate the project in relation to the public interest. The public benefits and detriments of all factors relevant to each case are to be carefully evaluated and balanced. Relevant factors may include conservation, economics, esthetics, wetlands, cultural values, fish and wildlife values, water supply, water quality, and any other factors judged important.

Additionally, 3PR strongly recommends the Army Corps of Engineers (ACOE) **deny** Permit Application No. SAJ-1993-01395 (IP-ACR) and find the project *Environmentally Unsatisfactory*. The initial ACOE review of the project has identified adverse environmental impacts that are of sufficient magnitude that the proposed action must not proceed as proposed.

PARTIES

2. 3PR is a public interest environmental protection organization which is a Florida not-for-profit corporation and a citizen of the State of Florida whose address is: 3PR, P.O. Box 155, Wauchula, FL 33873. The corporate purposes of 3PR include the protection and preservation of water quality and wildlife habitat in and around Hardee County, Florida. 3PR is a citizen of the State of Florida pursuant to section 403.412(5), Florida Statutes. 3PR and its members will be substantially and adversely affected by the conditions and activity, which will result if this permit is issued.

3. State of Florida, Department of Environmental Protection (hereinafter, "DEP") is an affected State permitting agency, whose address is: DEP, 8407 Laurel Fair Circle, Tampa, Florida 33610-7355.

4. Department of the Army is an affected federal permitting agency, whose address is: Department of the Army, Jacksonville District Corps of Engineers, Tampa Regulatory Office, 10117 Princess Palm Drive Suite 120, Tampa, Florida 33610-8300.

5. The Applicant is CF Industries, Inc., Hardee County Complex, P. O. Box 1549, Wauchula, FL 33873

RECEIPT OF NOTICE

6. 3PR first received notice of Permit Application No. SAJ-1993-01395 (IP-ACR) by email on June 2, 2012.

GENERAL FACTS

7. The direct impacts of Applicant's proposed project will result in unpermittable adverse conditions Section 404 of the Clean Water Act and will be contrary to the public's interest.

8. There will be significant unpermittable foreseeable adverse cumulative impacts on water quality, and conservation and protection of fish and wildlife resulting from the extraction of phosphate ore .

9. There will be unpermittable foreseeable adverse secondary impacts from the proposed extraction of phosphate ore .

10. The Department of the Army has permitting authority over Applicant's proposed dredging activities pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344).

11. The Army Corps of Engineers has initially determined that the proposed project The U.S. Army Corps of Engineers (Corps) has determined the proposed project may affect, the Audubon's crested caracara (Caracara cheriway) and the Florida panther (Puma concolor coryi).

Additionally, the Corps has determined the proposal may affect the Eastern indigo snake (Drymarchon couperi), wood stork (Mycteria americana), and the Florida grasshopper sparrow (Ammodramus savannarum floridanus).

12. The mitigation proposed by the Applicant is inadequate and will most likely not be viable for some time after construction activities.

DISPUTED ISSUES OF LAW AND FACTS

13. 3PR alleges the following disputed issues of law and material fact for determination of Permit Application No. SAJ-1993-01395 (IP-ACR)

(a) Whether Applicant has provided reasonable assurances that the applicable state and federal water quality standards will not be violated as a result of the proposed extraction of phosphate ore;

(b) Whether Applicant has provided reasonable assurances that the proposed extraction of phosphate ore is in compliance with EPA approved water quality standards with regard to Section 404 of the Clean Water Act;

(c) Whether Applicant has provided reasonable assurances that the proposed activity is not contrary to the public interest as set forth in Section 404(b) of the Clean Water Act ;

(d) Whether Applicant has provided reasonable assurances that the cumulative impacts of the proposed project, including applicable past, present and foreseeable cumulative impacts, will not cause violations of any state or federal standard;

(e) Whether Applicant has provided reasonable assurances that the proposed project is consistent with Florida's Coastal Zone Management Program;

(f) Whether Applicant has provided reasonable assurances that permanent impacts associated with the disturbance of 1262 acres jurisdictional wetlands does not violate any state or federal standard;

(g) Whether Applicant has provided reasonable assurances that the proposed extraction of phosphate ore is in compliance with Section 7 of the Endangered Species Act for the protection of the Audubon's crested caracara (*Caracara cheriway*), the Florida panther (*Puma concolor coryi*), the Eastern indigo snake (*Drymarchon couperi*), the wood stork (*Mycteria americana*), and the Florida grasshopper sparrow (*Ammodramus savannarum floridanus*).

APPLICABLE LAWS AND STATUTES

14. Federal Laws and Statutes:

- Section 404 of the Clean Water Act (33 U.S.C. 1344),
- Section 404(b) of the Clean Water Act,
- Coastal Zone Management Act and the National Environmental Policy Act.,
- Section 7 of the Endangered Species Act.

15. Florida Laws and Statutes:

- Section 62-302 F.S. - Surface Water Quality Standards,
- Section 62-302.530 F.S. - Table: Criteria for Surface Water Quality Classifications,
- Sections 62-4.242, 62-4.243, 62-4.244, and 62-4.246 F.S.- antidegradation permitting requirements.

WHEREFORE, People for Protecting Peace River, Inc., formally requests that ACOE hold a public hearing concerning CF Industries, Inc., Permit Application SAJ-1993-01395 (IP-ACR) South Pasture Extension Phosphate Strip Mine.

Respectfully submitted this 18th day of June 2012. .

BY _____



Dennis Mader
Executive Director 3PR
P.O. Box 155
Wauchula, FL
33873

Re: Public Hearing Request for Permit Application No. SAJ-1993-01395 (IP-ACR) CF Industries, Inc., South Pasture Extension Phosphate Strip Mine

1. Pursuant to Section 404 of the Clean Water Act. , People for Protecting Peace River, Inc. (hereinafter, 3PR) formally requests a public hearing concerning Mosaic Fertilizer, LLC Permit Application No. SAJ-1993-01395 (IP-ACR) During the permit decision process, the Corps must evaluate the project in relation to the public interest. The public benefits and detriments of all factors relevant to each case are to be carefully evaluated and balanced. Relevant factors may include conservation, economics, esthetics, wetlands, cultural values, fish and wildlife values, water supply, water quality, and any other factors judged important.

Additionally, 3PR strongly recommends the Army Corps of Engineers (ACOE) **deny** Permit Application No. SAJ-1993-01395 (IP-ACR) and find the project *Environmentally Unsatisfactory*. The initial ACOE review of the project has identified adverse environmental impacts that are of sufficient magnitude that the proposed action must not proceed as proposed.

PARTIES

2. 3PR is a public interest environmental protection organization which is a Florida not-for-profit corporation and a citizen of the State of Florida whose address is: 3PR, P.O. Box 155, Wauchula, FL 33873. The corporate purposes of 3PR include the protection and preservation of water quality and wildlife habitat in and around Hardee County, Florida. 3PR is a citizen of the State of Florida pursuant to section 403.412(5), Florida Statutes. 3PR and its members will be substantially and adversely affected by the conditions and activity, which will result if this permit is issued.

3. State of Florida, Department of Environmental Protection (hereinafter, "DEP") is an affected State permitting agency, whose address is: DEP, 8407 Laurel Fair Circle, Tampa, Florida 33610-7355.

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5. The Applicant is CF Industries, Inc., Hardee County Complex, P. O. Box 1549, Wauchula, FL 33873

RECEIPT OF NOTICE

6. 3PR first received notice of Permit Application No. SAJ-1993-01395 (IP-ACR) by email on June 2, 2012.

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7. The direct impacts of Applicant's proposed project will result in unpermittable adverse conditions Section 404 of the Clean Water Act and will be contrary to the public's interest.

8. There will be significant unpermittable foreseeable adverse cumulative impacts on water quality, and conservation and protection of fish and wildlife resulting from the extraction of phosphate ore .

9. There will be unpermittable foreseeable adverse secondary impacts from the proposed extraction of phosphate ore .

10. The Department of the Army has permitting authority over Applicant's proposed dredging activities pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344).

11. The Army Corps of Engineers has initially determined that the proposed project The U.S. Army Corps of Engineers (Corps) has determined the proposed project may affect, the Audubon's crested caracara (Caracara cheriway) and the Florida panther (Puma concolor coryi).

Additionally, the Corps has determined the proposal may affect the Eastern indigo snake (Drymarchon couperi), wood stork (Mycteria americana), and the Florida grasshopper sparrow (Ammodramus savannarum floridanus).

12. The mitigation proposed by the Applicant is inadequate and will most likely not be viable for some time after construction activities.

DISPUTED ISSUES OF LAW AND FACTS

13. 3PR alleges the following disputed issues of law and material fact for determination of Permit Application No. SAJ-1993-01395 (IP-ACR)

(a) Whether Applicant has provided reasonable assurances that the applicable state and federal water quality standards will not be violated as a result of the proposed extraction of phosphate ore;

(b) Whether Applicant has provided reasonable assurances that the proposed extraction of phosphate ore is in compliance with EPA approved water quality standards with regard to Section 404 of the Clean Water Act;

(c) Whether Applicant has provided reasonable assurances that the proposed activity is not contrary to the public interest as set forth in Section 404(b) of the Clean Water Act ;

(d) Whether Applicant has provided reasonable assurances that the cumulative impacts of the proposed project, including applicable past, present and foreseeable cumulative impacts, will not cause violations of any state or federal standard;

(e) Whether Applicant has provided reasonable assurances that the proposed project is consistent with Florida' s Coastal Zone Management Program;

(f) Whether Applicant has provided reasonable assurances that permanent impacts associated with the disturbance of 1262 acres jurisdictional wetlands does not violate any state or federal standard;

(g) Whether Applicant has provided reasonable assurances that the proposed extraction of phosphate ore is in compliance with Section 7 of the Endangered Species Act for the protection of the Audubon's crested caracara (*Caracara cheriway*), the Florida panther (*Puma concolor coryi*), the Eastern indigo snake (*Drymarchon couperi*), the wood stork (*Mycteria americana*), and the Florida grasshopper sparrow (*Ammodramus savannarum floridanus*).

APPLICABLE LAWS AND STATUTES

14. Federal Laws and Statutes:

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- Section 404(b) of the Clean Water Act,
- Coastal Zone Management Act and the National Environmental Policy Act.,
- Section 7 of the Endangered Species Act.

15. Florida Laws and Statutes:

- Section 62-302 F.S. - Surface Water Quality Standards,
- Section 62-302.530 F.S. - Table: Criteria for Surface Water Quality Classifications,
- Sections 62-4.242, 62-4.243, 62-4.244, and 62-4.246 F.S.- antidegradation permitting requirements.

WHEREFORE, People for Protecting Peace River, Inc., formally requests that ACOE hold a public hearing concerning CF Industries, Inc., Permit Application SAJ-1993-01395 (IP-ACR) South Pasture Extension Phosphate Strip Mine.

Respectfully submitted this 18th day of June 2012. .

BY _____



Dennis Mader
Executive Director 3PR
P.O. Box 155
Wauchula, FL
33873



CHARLOTTE HARBOR NATIONAL ESTUARY PROGRAM

1926 Victoria Avenue, Fort Myers, Florida 33901
239/338-2556, Fax 239/338-2560, www.chnep.org

July 31, 2012

John Fellows, AEIS Project Manager
U.S. Army Corps of Engineers
10117 Princess Palm Avenue, Suite 120
Tampa, Florida 33610-8302

Re: Permit Application No. SAJ-1993-01395 (IP-ACR), CF Industries South Pasture Extension Mine

Dear Mr. Fellows:

Thank you for the opportunity to review and comment on Permit Application No. SAJ-1993-01395 (IP-ACR), CF Industries South Pasture Extension Mine. The Charlotte Harbor National Estuary Program (CHNEP) was created in 1995 pursuant to Section 320 of the Clean Water Act and is guided by our *Comprehensive Conservation and Management Plan* (CCMP) as required by the Act. This letter documents the interest of CHNEP regarding this permit.

The letter was developed according to our adopted Advocacy and Review Procedures, which serve to implement Executive Order 12372, dated September 17, 1983. This letter primarily implements CCMP Action SG-P: Incorporate into federal, state and local permits and public works improved standard practices that better protect estuaries and watersheds.

We commend CF Industries for presenting information related to this permit to CHNEP staff, Technical Advisory Committee, Management Comment and Policy Committee in the summer of 2010. We further commend CF Industries for providing additional data to CHNEP, upon our requests. We further thank CF Industries for participating in our Management Conference as a partner.

Desirable Outcomes

In our comments concerning the May 2012 Draft Areawide Environmental Impact Statement (DAEIS), CHNEP outlined desirable outcomes that apply to this permit. These desirable outcomes will help to implement the CCMP and include:

- Improve downstream ambient water quality. Parameters include dissolved oxygen, chlorophyll a, total dissolved solids, pH, sulfate, iron, phosphorus, nitrogen and fecal coliform. We anticipate that one or more of these parameters may improve based on the land use change. If those can be improved and other more challenging parameters are not degraded in the ambient environment, a desirable outcome is met.
- Establish a more natural seasonal variation in freshwater flows for the Peace and Myakka Rivers. Peace River Integrated Modeling Project. Southwest Florida Water Management District Minimum Flows and Levels documentation for the Lower Myakka and Lower Peace can be used to identify natural seasonal variations.
- Improve historic watershed boundaries. CHNEP contracted to develop geographic information

systems data to identify historic watershed boundaries. Restoring watershed boundaries can be a component of mitigation.

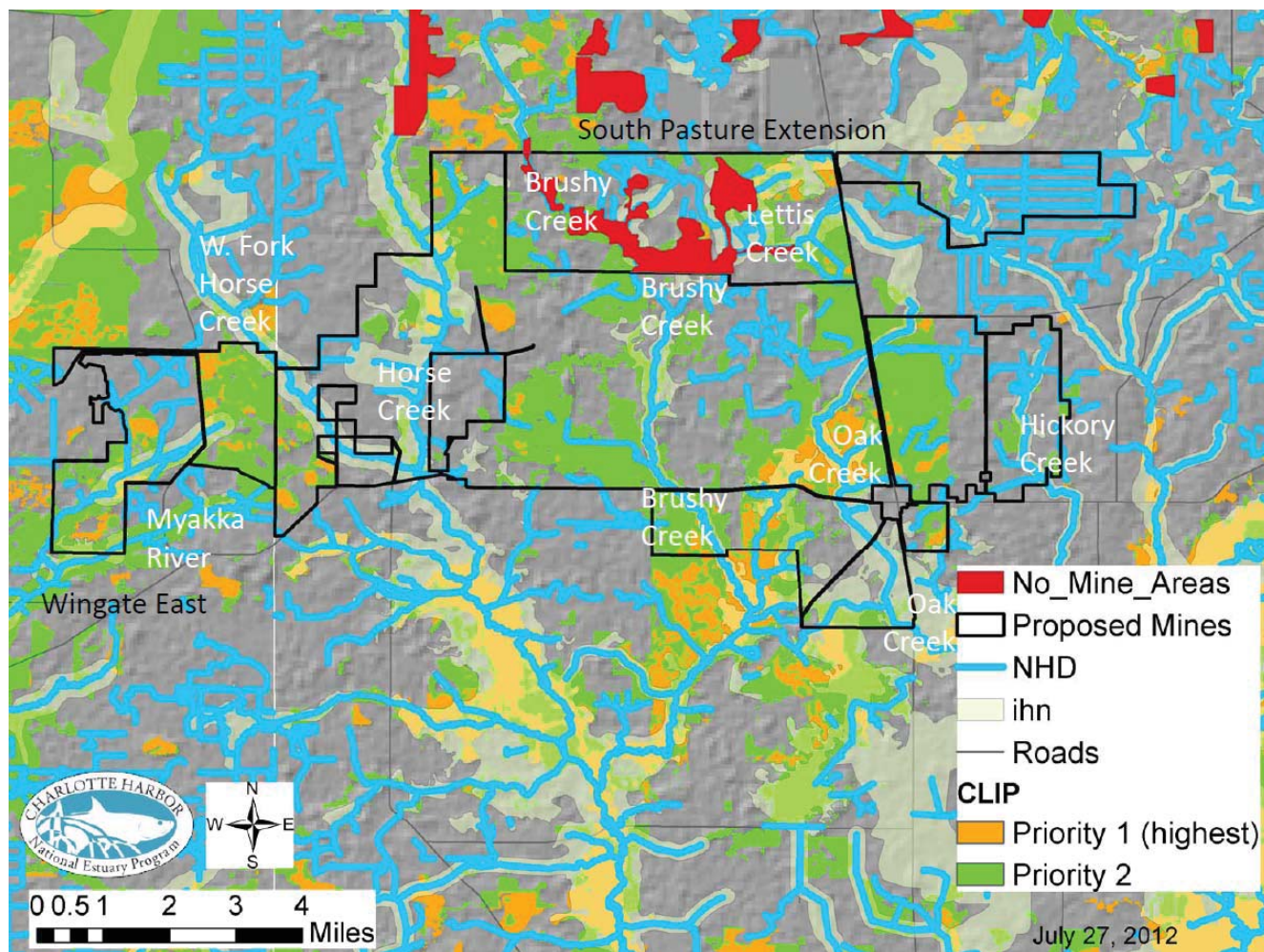
- Improve to more natural historic conditions, waterbodies that are affected by artificially created structures. This outcome can be completed by minimizing containment in the mining landscape. In addition, mitigation options include removal of artificial structures and restoring old mining containment areas to return flows to natural waterbodies.
- Protect and restore habitats freshwater wetlands, as well as native upland communities vital to the ecological function of the system. This outcome can be implemented with avoidance within the mines with special reference to the Critical Land and Water Identification Project (CLIP) priority 1 and priority 2 areas, as well as the Integrated Habitat Network.
- Create landscape level habitat connections. These connections include major and minor riparian corridors such as the Myakka River, Peace River, Horse Creek, West Fork Horse Creek, Brushy Creek, Lettis Creek, Oak Creek, Hickory Creek, Buzzards Roost Branch, Brandy Branch and other tributary systems. Riparian corridors include riparian wetlands as well as associated uplands such as oak scrub.
- Increase Conservation Lands within the Peace and Myakka River basins. In the past conservation areas were protected under deed restrictions, which have little public enforceability. In recent permits, FDEP has required transfer of easement or title. This applies to avoidance areas, restoration areas and off-site mitigation areas.

We noted that areas buffering Brushy Creek and Lettis Creek have been proposed for conservation within the mine boundaries. These “no mine” areas include CLIP priority 1 and 2 areas and protect the named waterbodies on the property.

We prepared a map for our use that shows the relationship between

- Proposed “no mine” areas; and
- the named waterbodies from the National Hydrologic Database (NHD),
- Integrated Habitat Network (IHN), and
- CLIP Priority 1 and 2 areas.

Remaining large areas of Clip Priority 1 exists in the northeastern corner of the property, bounded by earlier mining and US 17. We have added the Mosaic permit boundaries for reference.



CHNEP may submit additional comments concerning this permit.

If you have any questions or need additional information, please do not hesitate to contact me.

Sincerely,

Lisa B. Beever, PhD, AICP
Director

PEACE RIVER MANASOTA REGIONAL WATER SUPPLY AUTHORITY

HON. ROBERT SKIDMORE
CHARLOTTE COUNTY

HON. ELTON A. LANGFORD
DeSOTO COUNTY

HON. JOHN R. CHAPPIE
MANATEE COUNTY

HON. JON THAXTON
SARASOTA COUNTY

PATRICK J. LEHMAN, P.E., EXECUTIVE DIRECTOR

July 30, 2012

Mr. John Fellows
US Army Corps of Engineers
10117 Princess Palm Avenue, Suite 120
Tampa, Florida, 33610-8301

RECEIVED

JUL 31 2012

Tampa Regulatory Office

RE: Comments on Permit Applications:

USACE Permit Application # SAJ-2011-01968
USACE Permit Application # SAJ-2010-03680
USACE Permit Application # SAJ-1993-01395
USACE Permit Application # SAJ-2009-03221

Dear Mr. Fellows:

The Peace River Manasota Regional Water Supply Authority (Authority) is an existing legal permittee utilizing water harvested from the Peace River in DeSoto County, Florida for public water supply. The Authority's Water Use Permit (SWFWMD WUP No. 20010420.008) establishes a withdrawal schedule from the Peace River based on combined daily flows of the Peace River (USGS gage 02296750), Horse Creek (USGS gage 02297310) and Joshua Creek (USGS gage 02297100). The USEPA also completed an EIS (904/9-03-001, January 2003) on the Peace River Facility and withdrawal from the Peace River for public water supply.

The Authority has invested over \$300,000,000 in new infrastructure over about the past decade, including construction of a 6 billion gallon off-stream raw-water reservoir, 21-well aquifer storage/recovery wellfield, water treatment plant expansion, and transmission pipelines. This investment of public dollars is to insure reliable, high-quality, affordable drinking water supply to serve the four county region of the Authority as required by state statute. Authority drinking water supply facilities presently include:

- 48 Million gallon per day (MGD) conventional surface water treatment plant
- 120 MGD intake on the Peace River
- 6.52 BG off-stream, raw water storage
- 6.3 BG (21-well) treated water Aquifer Storage and Recovery System
- About 50 miles of drinking water transmission pipelines in service

These facilities provide drinking water to Authority customers including Charlotte, DeSoto and Sarasota Counties, and the City of North Port for distribution to residents in their retail service areas. The Authority's current contractual delivery obligation is 32.7 MGD (average day). During the 12-month period ending June 30, 2012 the Peace River Facility supplied over 75% of the drinking water used by the aforementioned four Customers.

Quantity, timing and quality flow in the Peace River watershed, including Horse Creek and Joshua Creek are critical to the operation of the Peace River Facilities. Impacts to any of these three elements (flow, timing, quality) from a single or combination of mine operations could compromise the ability of the Authority to meet public drinking water needs and contractual obligations, and adversely impact the financial investment of public funds in infrastructure constructed to provide public water supply.

Our concerns regarding the four permit applications and potential mine-related (both separate and cumulative) impacts are listed below

1. Quantity & Timing of River Flow

A major issue relative to the Authority's regional drinking water supply operations on the Peace River relates directly to how potential reductions in stream flows are assessed in the applications. Flow-related impacts affecting Peace River Facility withdrawals and the Authority's drinking water system reliability will be masked by use of techniques that consider the annual or long-term average changes in flow impacts from mining. "Averaging" tends to mask impacts on water supply availability during dry conditions by combining dry weather flows with high volume wet season flows. An "average" condition typically provides adequate flow to meet water supply needs, however, conditions are rarely average, and in the past 12 years have tended to be very dry for extended periods.

Analysis of mine related impacts on river flow should include evaluation of all potential mine-related impacts over a full range of actual historical river flows so that impacts to permitted water supply facilities such as ours can be discerned. Reduced supply availability and water system reliability could necessitate any or all of the following costly actions:

- Installation for more pumping capacity on the river,
- Construction of more water storage capacity,
- Implementation of alternative treatment methods (such as membranes) and/or,
- Development of new sources.

2. Surface Water Quality

The Peace River Water Treatment Plant is a conventional surface water treatment facility using aluminum sulfate as a coagulant primarily for color removal. The treatment facility does not (and cannot) reduce dissolved solids (such as sulfate, chloride, sodium, etc.), which are regulated drinking water parameters in Florida. Although average water quality data from mine discharges are somewhat informative, they don't tell much about potential worse case impacts, which are caused by specific events and not averages.

July 30, 2012
Page Three

The evaluation should consider what the maximum observed parameter/constituent values were, the number of observations available, and the number that were above water quality standards to aid in assessment of impacts to drinking water supplies.

In addition, a related and very important water quality issue is that of impacts from mining related facilities such as processing plants, and phosphogypsum stacks. The protracted and ongoing USAC phosphogypsum stack closure which discharges high TDS water into Whidden Creek which outfalls to the Peace River clearly shows that such facilities can affect water quality in the river, and by extension could adversely affect public drinking water supplies relying on surface water in the Peace River Basin. Are such facilities proposed to support these mine operations? Where would such facilities be located, when would they be constructed and ultimately closed, and what are the projected impacts of these facilities current surface water quality in the Peace Basin?

The Authority appreciates the opportunity to comment on the referenced permit applications. We request a thorough analysis of the potential impacts to our drinking water source be undertaken as part of the USACE permitting process for each individual permit application as well as the cumulative impact of all four.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Coates", written in a cursive style.

Mike Coates, P.G.
Deputy Director

cc: Doug Manson

ATTACHMENT A - SECTION 2 COMMENTS RECEIVED IN RESPONSE TO JUNE 16, 2016, PUBLIC NOTICE

Comments from Center for Biological Diversity Website		
Commenter/ Organization	Comment	Response
1380 commenters - Standard Language Letter (see attached list for names)	I am writing to let you know that I do not want one more square inch of Florida's precious land dug up and poisoned by phosphate strip mining. The state's already home to the world's largest phosphate mine, and now an application being reviewed by the U.S. Army Corps of Engineers seeks to mine 7,500 additional acres in the Peace River watershed as part of a plan to mine 52,000 acres in the region. I urge you to do everything in your power to stop this plan.	Comment acknowledged.
1380 commenters - Standard Language Letter (see attached list for names)	Phosphate strip mining/It completely destroys landscapes and wildlife habitat, including wetlands, forests and streams.	Section 5 of the decision document describes how the Corps considered avoidance and minimization in its review of South Pasture Extension. Section 8 of the decision document, and the attached approved compensatory mitigation plan, describe how Mosaic will provide compensatory mitigation for unavoidable impacts to aquatic resources.
1380 commenters - Standard Language Letter (see attached list for names)	It can use an average of 69 million gallons of groundwater a day, jeopardizing future water supply and depriving wetlands, streams and rivers of water.	Section 4.3.5 of the Final AEIS describes South Pasture Extension's effects on groundwater.
1380 commenters - Standard Language Letter (see attached list for names)	And it creates approximately 30 million tons of radioactive byproduct each year that must be stored in 200-foot-tall gypstacks and toxic waste ponds called "clay settling areas," which are slime ponds that will permanently cover approximately 40 percent of an average mine site. These are the largest repositories of hazardous waste in the nation.	Section 3.1.4 of the Final AEIS describes the role of clay settling areas in phosphate mining. As explained in Section 1.3.1 of the Final AEIS, phosphogypsum stacks are associated with fertilizer production. The Corps considered the four phosphate mines reviewed under the AEIS to have independent utility from the fertilizer plants.
1380 commenters - Standard Language Letter (see attached list for names)	With Florida's phosphate projected to be depleted by 2035, the few mining jobs gained in the short term do not justify the permanent loss of agricultural and ranching jobs, the negative health effects or the profound environmental damage.	Section 4.6.5 of the Final AEIS describes the economic effects of South Pasture Extension.
1380 commenters - Standard Language Letter (see attached list for names)	Please -- lend your support to the growing movement to stop this project, end phosphate strip mining, and protect Florida's lands.	Comment acknowledged
Marianne Amann	Added the following to the standard language letter: Florida exists only because of tourism. The anti environmental practices Florida is pursuing will ultimately bring destruction to the state. Money. You won't extend Medicaid to help give medical care to your citizens but you'll let companies destroy large areas that ultimately cost us all money oh except the companies that get rich off it.	Comment acknowledged.
Vic Anderson	Added the following to the standard language letter: (expletive deleted) Here the law to EFFECT Phosphate Mining PROHIBITION : 1972 Clean Water Act - "33 U.S. Code § 1251 - Congressional declaration of goals and policy: (a) Restoration and maintenance of chemical, physical and biological integrity on Nation's waters; national goals for achievement of objective The objective of this chapter is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. In order to achieve this objective it is hereby declared that, consistent with the provisions of this chapter - (1) it is the national goal that the discharge of pollutants into the navigable waters be ELIMINATED by 1985."	The decision document describes how the Corps' review of the application for South Pasture Extension complied with all relevant federal regulations, including Section 404 of the Clean Water Act.
Brooks Armstrong	Added the following to the standard language letter: Please realize that we do not need Mosaic to feed the world by strip mining. This unsustainable practice is totally not necessary, except for this company to make huge profits.	Section 2.2.6.2 of the Final AEIS explains why avoiding the use of phosphate fertilizers is not a feasible alternative.
Marcia Bailey	Added the following to the CDB form letter: I CAN'T SAY THIS BETTER. FOR THE ENVIRONMENT AND THE PEOPLE, PLEASE WORK AGAINST THIS.	Comment acknowledged.
Barry Benjamin	Added the following to the standard language letter: As a former resident of West Palm Beach, Florida, I am aware of and have seen the destruction of Florida lands and wildlife from this destructive form of mining. Please support our efforts to stop this kind of destruction for short term goals and profits.	Comment acknowledged.
LeeAnn Bennett	Added the following to the standard language letter: American taxpayers don't want to pay for the clean up for yet another project. We already have how many tens of thousands of SUPERFund sites to clean up, why should we want another one? We need to find an alternative to all this strip mining and do something with all this hazardous waste.	Section 4.1.8.8 of the Final AEIS describes how the Corps considered waste in its review of phosphate mining.
Ms. Ruth Cassidy	Added the following to the standard language letter: This area is already being Poisoned by releases from Lake Okeechobee!! ENOUGH! I urge you to do everything in your power -- and MORE--to STOP this plan.	Sections 6 and 7 of the decision document address the 404(b)(1) Guidelines and public interest review, respectively.
Kate Ellison	Added the following to the standard language letter: If you think about it, this new mine of the Peace River will not be the last. Even now there is a proposed strip mine in Bradford and Union counties. My area in next. When will this destruction end? Where will it end?	Comment acknowledged.
Jan Freyburgher	Added the following to the standard language letter: We have to STOP putting profit before people and environment!! I live in Florida and I'd like for my voice to count -- I do not want one more square inch of Florida's precious land dug up.	Sections 6 and 7 of the decision document address the 404(b)(1) Guidelines and public interest review, respectively.
Cynthia Gefvert	Added the following to the standard language letter: As your constituent and a licensed, professional geologist	Comment acknowledged.
Paul Groh	Added the following to the standard language letter: First and foremost stand up for your taxpaying constituency! DO NOT be a finger puppet or lackey for big business, PERIOD!! Do the right thing for the people!! If you don't, I say VOTE OUT ALL- INCUMBENTS!! REELECT NO ONE!	Comment acknowledged.
Cheryl Gross	Added the following to the standard language letter: The fertilizer produced provides few of the vital elements needed for nutritious food crops,so it's benefits are limited.	Section 1.2.1.1 of the Final AEIS describes the need for phosphate rock as a source of phosphorus in fertilizer.
JM Hague	Added the following to the standard language letter: PLEASE ACT RESPONSIBILITY: NO MORE RADIOACTIVE WASTE, TOXIC WATER, MURDERING THE INTERCONNECTED WEB OF LIFE. YOUR CONSTITUENCY--INNOCENT CHILDREN, FAMILIES, VETERANS, THE ELDERLY--SHOULD COME BEFORE CORPORATIONS OF GREEDY, SHORT-SIGHTED, CONSCIENCELESS USERS AND ABUSERS OF OUR AMERICA. THANK YOU FOR BEING A GOOD PERSON AND NOT AN IGNORANT FOLLOWER OF SELFISHNESS AND DECEIT.	Sections 6 and 7 of the decision document address the 404(b)(1) Guidelines and public interest review, respectively.
S. & M. Hampton	Added the following to the standard language letter: We are in communication with people in Bradford County and Union County, where the HPS company is hoping to establish new phosphate mining opportunities. We STRONGLY OPPOSE phosphate mining in Florida. As our elected official, we expect you to represent our opposition to phosphate mining in Florida. We look forward to learning of your actions to OPPOSE phosphate mining in Florida. Feel free to write to us to tell us that you OPPOSE phosphate mining in Florida....on our behalf.	Comment acknowledged.
Sue Hayden	Added the following to the standard language letter: I know the governor is in favor of completely destroying the state of Florida for his own gain BUT surely someone in government must realize that Florida depends on tourism, not to mention the concern for quality of life of its residents. While the rest of the world is taking on the challenge of undoing much of the great harm that humans have done to this planet, is Florida going to stand up and be one of the black marks? Do you want to go down in history as being one of the politicians that continued to insist on destroying the planet, its creatures and human quality of life all for the sake of greed??	Comment acknowledged.
Leo Thomas Johnson	Added the following to the standard language letter: As a voting Floridian resident..... I'm asking you, if you have not taken the time yet to truly reflect upon your position, please at this time, I urge you to do so, do everything in your power can be applied, to stop this very destructive environmental plan, from receiving final approval by the state government. Specifically, I am asking whether you can personally commit to lend your support to the growing movement to stop this project, end phosphate strip mining, and protect Florida's lands.	Comment acknowledged.
Alfred Jonas	Added the following to the standard language letter: And furthermore, could it really be possible that the state is the center of phosphate mining for fertilizer production, is also in the midst of an environmental crisis from excess fertilizer run-off? You have to be an idiot, and breathtakingly short-sighted, to want to damage the terrain further to get more phosphate to make more fertilizer.	Section 1.7 of the decision document explains the Corps-defined purpose and need, and provides purpose and need statements for the applicant and for the public.

Samuel Kendall	Added the following to the standard language letter: The area is full of beautiful wetlands and farmlands--cherished by people and used by wildlife. Fertilizer is easily and safely produced by composting organic materials. This natural procedure should be encouraged perhaps even with legislation. Organic farming could provide jobs at the same high rate that solar energy installations do now.	Section 2.2.6.2 of the Final AEIS explains why avoiding the use of phosphate fertilizers is not a feasible alternative.
Chelsea Lauber	Added the following to the standard language letter: This industry threatens the beauty and unique biodiversity which draws millions of tourists and draws millions of investment dollars from "snowbirds" to our state every year. This doesn't take into account the absolutely necessary agricultural and ranching businesses which this mining threatens.	Section 4.6.5 of the Final AEIS describes the economic effects of South Pasture Extension.
Chelsea Lauber	Added the following to the standard language letter: Please don't let Florida become known for its toxic waste - what a horrible billboard that would make.	Comment acknowledged.
Tammy Lettieri	Added the following to the standard language letter: STOP DESTROYING OUR PRECIOUS LAND.	Comment acknowledged.
Linda MacLeman	Added the following to the standard language letter: The Army Corps of Engineers nearly destroyed the everglades. Please don't let them continue to allow destruction of the fragile Florida ecosystem!	Comment acknowledged.
Sandra Mathes	Added the following to the standard language letter: "Earth provides enough to satisfy every man's needs, but not every man's greed." Mahatma Gandhi "Increasingly, the world around us looks as if we hated it." Alan Watts The ultimate test of a moral society is the kind of world that it leaves to its children." Dietrich Bonhoeffer	Comment acknowledged.
Martin Osborne	Added the following to the standard language letter: Lets start protection the environment. The toxic blooms from Lake O are because you have all ignored reality and the will of the people of Florida. Start looking out for your constituents first and foremost.	Sections 6 and 7 of the decision document address the 404(b)(1) Guidelines and public interest review, respectively.
Marian Linda Perry	Added the following to the standard language letter: As one who grew up in a phosphate mining town	Comment acknowledged.
LaVonne Roberts	Added the following to the standard language letter: STOP GIVING AWAY FLORIDA TO THE CORPORATIONS !!!!!!!!!!! HERNANDO COUNTY HAS BEEN RUINED BY THIS!!!!!!!!!!!!!!!!!!	Comment acknowledged.
Iris Schmalenberger	Not really worried how Steve will vote and I trust Thad will vote the same.	Comment acknowledged.
Bobbi Segal	Added the following to the standard language letter: This blight must end NOW. We have to evolve into responsible people.	Comment acknowledged.
James Sorrells	Added the following to the standard language letter: Typically, aside from Senator Nelson, the ongoing lack of leadership on the environmental and wildlife from is a disgrace. Especially being 3rd generation Floridians, the conservation of the state and all its natural places and wildlife are a top priority for us. Please consider moving proactively and with a sense or urgency instead of ignoring the impending crisis that is looming large in our great state. "If your actions inspire others dream more, to learn more, to do more and become more, then you area leader." --John Quincy Adams	Comment acknowledged.
Daniel Staples	Added the following to the standard language letter: I believe Rick Scott stole money from the people of Florida he should be put in jail.	Comment acknowledged.
Charles Trowbridge	Added the following to the standard language letter: And I am concerned with the high level of radon gas left behind by these mining industries!!	Section 3.3.7 of the Final AEIS provides information on the possibility of increased indoor radon concentrations, mining practices that reduce the potential for public exposure, and other radiation-related public health concerns. Section 4.8.2 of the Final AEIS describes the expected effects of phosphate mining, including those associated with South Pasture Extension, on radiation levels.
Sandy Wilson	Added the following to the standard language letter: The elimination of strip mining for phosphate can really help the habitat recover from years of abuse.	Section 5 of the decision document describes how the Corps considered avoidance and minimization in its review of South Pasture Extension, including the preservation of as much of the higher-quality habitats as was practicable. Section 8 of the decision document, and the attached approved compensatory mitigation plan, describe how Mosaic will provide compensatory mitigation for unavoidable impacts to aquatic resources.
339 commenters - additional 'public interest' language (see attached list for names)	Added the following to the standard language letter: Phosphate strip mining is not in the public interest.	Section 7 of the decision document addresses the Corps' public interest review for South Pasture Extension.
339 commenters - additional 'public interest' language (see attached list for names)	Added the following to the standard language letter: It destroys thousands of acres of natural ecosystems, including wetlands, forests, streams and vital habitat for endangered plants and animals, resulting in a loss of genetic diversity, with no possibility of returning it to its pre-mining condition.	Section 8 of the decision document, and the attached approved compensatory mitigation plan, describe how Mosaic will provide compensatory mitigation for unavoidable impacts to aquatic resources. Section 10.1 of the decision document describes the Corps' final determinations for South Pasture Extension pursuant to Section 7 of the Endangered Species Act.
Lisa Modola - added the additional 'public interest' language above to the standard language letter, plus more.	Not in Bradford and Union County in the New River and Santa Fe River watersheds. Not in the Peace River watershed. Fly over the Phosphate Mine tailing ponds in Polk County sometime and see the miles of destruction they have caused.	Comment acknowledged.
NOTE: The following are comments from letters sent from the CBD site that don't use the 'standard' language.		
Kathryn Dorn	I heard that the U.S. Army Corps of Engineers is considering an application for another 7,500 acres of phosphate mining in the peace River watershed. Please do not allow this proposed project to go through.	Comment acknowledged.
Kathryn Dorn	Even aside from the massive environmental devastation that strip mines cause to this state's natural habitats - which are already threatened by development and rising sea levels - and the huge amounts of groundwater that phosphate mining consumes, not to mention the vast piles of unusable phosphogypsum "by-product," I am sure that I don't need to remind you of the cyanobacteria bloom currently damaging Lake Okeechobee and estuaries on both our Gulf and Atlantic coasts. Fertilizer-filled runoff water from farms and lawns contains too much nitrogen and phosphorus, feeding the cyanobacteria and allowing then to choke out most other organisms in the lake and estuaries. Why would we knowingly shoot ourselves in the foot multiple times by letting companies tear apart Florida's natural habitats and disrupt the flow of water to strip-mine our phosphate, which they then sell to farms as a fertilizer component to dump on the ground, so that it ends up in our waterways and surrounds us with toxin-releasing cyanobacteria?	Sections 6 and 7 of the decision document address the 404(b)(1) Guidelines and public interest review, respectively. These analyses include consideration of ecological resources and groundwater. As explained in Section 1.3.1 of the Final AEIS, phosphogypsum stacks are associated with fertilizer production, which outside the scope of the South Pasture Extension review. Similarly, the use of fertilizers and their potential environmental effects is also of the scope of this review.
Kathryn Dorn	Added the following to the standard language letter: As a state and as a species, we have to find safer way to grow food and ripping up the state to extract phosphate won't help.	Section 2.2.6.2 of the Final AEIS explains why avoiding the use of phosphate fertilizers is not a feasible alternative.
Kathryn Dorn	Phosphate mining does not serve Florida's interests. Please oppose this application and any future phosphate-mining applications! Thank you for your time!	Comment acknowledged.
Donna Grace	Please stop the phosphate strip mining. I urge you to do everything in your power to stop the plan to mine the Peace River watershed!	Comment acknowledged.

Donna Grace	Phosphate strip mining completely destroys landscapes and wildlife habitat.	Section 5.7 of the Final AEIS describes reclamation as required by FDEP. Section 8 of the decision document, and the approved compensatory mitigation plan, describe how Mosaic will provide compensatory mitigation for unavoidable impacts to aquatic resources. Section 4.5.3 of the Final AEIS describes how the Corps considered direct and secondary impacts to wildlife habitat in the Final AEIS. Section 4.5.3.5 of the Final AEIS describes the specific evaluation of wildlife habitat impacts associated with the South Pasture Extension project conducted for the Final AEIS. Section 4.12.5 of the Final AEIS describes the cumulative effects on ecological resources.
Donna Grace	Then it creates tons of radioactive byproduct each year that must be stored. These are the largest repositories of hazardous waste in the nation and what are the chances that they will remain intact and not leak? Very low.	As explained in Section 1.3.1 of the Final AEIS, phosphogypsum stacks are associated with fertilizer production. The Corps considered the four phosphate mines reviewed under the AEIS to have independent utility from the fertilizer plants.
Donna Grace	This will mean the permanent loss of agricultural and ranching jobs, and it will cause profound environmental damage. Please support ending phosphate strip mining, and protect Florida's lands.	Section 4.6.5 of the Final AEIS describes the economic effects of South Pasture Extension. Section 8 of the decision document, and the attached approved compensatory mitigation plan, describe how Mosaic will provide compensatory mitigation for unavoidable impacts to aquatic resources.
Jill Jaksetic	An application from Mosaic (the largest phosphate mining company in Florida) is being reviewed by the U.S. Army Corps of Engineers seeks to mine 7,500 additional acres in the Peace River watershed.	Comment acknowledged.
Jill Jaksetic	While writing this letter to you, I took some time out to learn more about Mosaic. They seem to have a great record of environmental stewardship and promoting responsible fertilizer use. What are their plans for cleaning up their existing mess and restoring habitats lost due to mining in our state? It would be wonderful if part of receiving this permit meant Mosaic pledges to complete the aforementioned items in a timely manner.	Section 5.7 of the Final AEIS describes reclamation as required by FDEP.
Non-CBD Website Comments		
Commenter/ Organization	Comment	Response
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	I am responding to your invitation to submit public comment on the proposed permit SAJ-1993-01395 (IP-JPF) or the South Pasture Mine Extension. Although your notice purports that "... comments made in response to this notice will be considered in making ... final determinations," based on the manner by which the USACE ignominiously abdicated its pledge to consider the comments 3PR assiduously provided for the AEIS, then it is difficult for us to trust that you will in good faith honor your commitment during this round of permitting....	The Corps has considered all comments provided for South Pasture Extension.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	Allow me to remind you, Mr. Fellows, that 3PR's 92 pages of comments were not even included in the final version of the AEIS. So no one would have been able to consider our point of view upon reading the Final AEIS and it seems obvious that no one on your staff read our comments before development of the Final AEIS – since you had apparently conveniently "misplaced" them. Your remedy to that untenable situation was to publish our comments and your so-called responses as an "addendum."	The referenced comments and others, and the Corps' responses to those comments, are in Attachment A of the Addendum. As stated in the introduction to the Addendum, the Final AEIS addressed the comments received.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	It is worthwhile noting, even at that, that the USACE responded directly to less than 30% of the roughly 370 comments cited in the 3PR submission. Although we specifically asked for "... forthright, sober evaluations and replies (to our comments,)" the vast majority of our comments were acknowledged only perfunctorily with the following response: "Included in summary above."	Within each category, comments that were similar are summarized in bold text with a summary comment and a summary response provided in accordance with CEQ NEPA regulations at Part 1503.4(b). Individual comments contributing to the summary comment follow immediately below the summary comment and response.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	USACE Environmental Assessment SAJ-1993-01395 Conclusions Based on a Deeply Flawed AEIS: Since almost all of your analysis of SAJ-1993-01395 is predicated on various parts of the AEIS, and given that 3PR's comments on review of the AEIS were all but ignored, it will be necessary to reiterate our rejection of the AEIS as a valid document by which to evaluate the adequacy of CESAJ-RD-W SAJ-1993-01395 (IP-JPF).	The Corps has determined that the Final AEIS and Addendum satisfy the requirements of NEPA.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	3PR found with strong and reasonable basis that the AEIS was inconsistent with the NEPA purpose of "Protection of the Environment". The USACE failed to provide an area-wide impact study that actually assessed the obvious excessive environmental destruction associated with phosphate strip mining. The failure of the AEIS, as we reiterated time and time again in our comments, can be traced back to its origins, including the scoping process, when the USACE, whom the public relies upon to uphold the spirit of the NEPA ("Protection of the Environment"), allowed the entire project to be commandeered by the Applicant, resulting in, but not limited to, the following fatal flaws:	Sections 1.1.1 and 1.4 of the Final AEIS describe the purpose for the AEIS.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	1. Adhering to a time frame for the whole project that only benefited the interests of the Applicant. Not only was the entire project hurried through, but insufficient time (only 60 days) was allowed for the public to properly review a document that exceeded 3000 pages, much of it highly technical data.	The Corps prepared the AEIS in a timely manner, in accordance with applicable federal regulations and guidance. The comment period for the Draft AEIS was extended by the Corps to allow additional time for review and comment. In addition, the Corps has always stated that the public could continue to submit comments outside of the proscribed comment periods.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	2. As per the request of the Applicant, not allowing any new studies to be commissioned for the purpose of evaluating such complex scientific issues as, for instance, contamination of ground water due to the accumulated presence of roughly 160,000 acres of industrial waste disposal sites (CSA's)	The Corps independently evaluated the information in the document to ensure that it was technically adequate and not biased, and made the final determinations on whether the data provided was adequate and accurate. Section 4.4.2.3 of the Final AEIS describes the effects of phosphate mining, including South Pasture Extension, on groundwater quality.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	3. Appointing an ally of the applicant (CH2M Hill) to administer the study	The Final AEIS was prepared by a third-party contractor selected in accordance with CEQ and Corps regulations and guidance. The Corps regularly participated in the preparation of the document, independently evaluated the information in the document to ensure that it was technically adequate and not biased, and made the final determinations on whether the data provided was adequate and accurate.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	4. Abundantly and indiscriminately using data and information provided by paid consultants of the industry while avoiding vital information developed by independent scientific institutions.	The Corps independently evaluated the information in the document to ensure that it was technically adequate and not biased, and made the final determinations on whether the data provided was adequate and accurate.

Dennis Mader/ 3PR (People for Protecting Peace River Inc)	5. Failing to consider the accumulation of more than twenty mountains of contaminated, radioactive and highly dangerous wastes from fertilizer production in Polk, Hillsborough and Manatee Counties (phospho-gypsum stacks) and their obvious relationship to the extraction phase of the Applicant's operations – phosphate strip mining.	As explained in Section 1.3.1 of the Final AEIS, phosphogypsum stacks are associated with fertilizer production. The Corps considered the four phosphate mines reviewed under the AEIS to have independent utility from the fertilizer plants.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	It was our recommendation that the AEIS should have been rejected in its entirety and replaced by a much more concise and complete document based entirely on objective, rational, and complete scientific analyses. A review and comment period of at least 12 months should have been provided to evaluate such a leviathan – not 60 days. (3359 – 33613 PR Review Comments. July 2013). 3PR also recommended: "In order for "fair" review to take place, it is also essential that interested parties and potential reviewers be provided: (1) access to the four proposed phosphate strip mine properties so that the information and assertions of the Applicants may be verified; (2) all referenced and related documents, communications, and resources consulted or relied upon (in digital formats); <u>that interactions between the USCOE and the Applicants take place only in a public forum, or that complete records of such communications be recorded and immediately made available for public viewing.</u> " (3361 – 3368, 3PR Review Comments. July 2013)	The Corps has determined that the Final AEIS and Addendum satisfy the requirements of NEPA. The comment period for the Draft AEIS was extended by the Corps to allow additional time for review and comment. In addition, the Corps has always stated that the public could continue to submit comments outside of the proscribed comment periods. The Corps does not have the authority to allow public access to private property. All references and other information used to develop the Draft and Final AEISs, and all communications between the Corps and the applicants is available to the public, subject to FOIA requirements.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	"It appears that the DAEIS allows, even with 'no permit,' that the most significant and devastating of all aspects of phosphate strip mining will still be allowed to take place. The direct impacts include, but are not limited to: near total topographic alteration of the landscapes of entire regions, regional wide destruction of aquifers, vast and extensive alteration of recharge systems, area-wide reconfiguration of the surface-water runoff patterns of rivers, creeks, and seepage regimes, and area-wide changes to the average evapotranspiration rate." (176 – 181 3PR Review Comments. July 2013)	Section 4.1.9 of the Final AEIS provides additional information about the No Action Alternative scenarios as applied to the effect analyses. Chapter 4 in general describes the direct, indirect, and cumulative impacts of the alternatives considered.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	The USAC has failed abysmally "... to fulfill the NEPA purpose of "Protection of the Environment" in preparing and administering 'Environmental Impact Statements'" (172 – 173 3PR Review Comments July 2013). Initial indications of this failure began during the scoping process: "3PR vehemently objects to the scoping process as providing any legitimate bases for the development of the AEIS under NEPA, because the data and analyses, recommendations, and opinions of independent scientists and environmental professionals were not properly considered or incorporated." (310 – 312 3PR Review Comments July 2013). Initial indications of this failure began during the scoping process: "3PR vehemently objects to the scoping process as providing any legitimate bases for the development of the AEIS under NEPA, because the data and analyses, recommendations, and opinions of independent scientists and environmental professionals were not properly considered or incorporated." (310 – 312 3PR Review Comments July 2013). 3PR provided the results of qualified site specific environmental studies, which were summarily rejected without comment or explanation. 3PR provided these environmental analyses through its professional consultants, Winchester Environmental Associates, Inc. Several important primary concerns relating to phosphate strip mining were evaluated through on-site and offsite environmental analyses, including wetlands mitigation, wetland reclamation, endangered species, cumulative impacts, and downstream estuarine concerns. The lead scientist for this exercise is one the most experienced professional consultants in the region, and has qualified as an expert witness and testified in legal proceedings many times. (313 -319 3PR Review Comments July 2013) If important site-specific relevant research and information provided directly by the highly experienced and reputable representative of a prominent local professional consulting firm is not welcomed by the USACE, then it is clear that no independent voices were to be considered in the scoping process. This single example is emblematic of the dreadful deficiencies of the scoping process and insincere efforts to claim public involvement and objectivity. This incident solidifies the appearance evident throughout the scoping process of near total reliance on information and representations provided by the Applicants and pro-mining interests. (327 – 333 3PR Review Comments July 2013)	Scoping for the AEIS was conducted in accordance with the appropriate regulations, including for noticing and for soliciting public comments. Section 1.8.3 of the Final AEIS describes the scoping process.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	Resistance to independent scientific information appears to be endemic to phosphate strip mine permitting procedures. However, such rejection of public involvement is diametrically inconsistent with the spirit and intent of NEPA and the public participation and involvement requirements guaranteed under the Act. Moreover, NEPA stresses that public scrutiny is essential to its fair implementation and sole mission of "Protection of the Environment". NEPA requires that agencies encourage participation at all levels and requests involvement and comments from the public, affirmatively soliciting comments from those persons or organizations which may be interested or affected. (320 – 326 3PR Review Comments July 2013)	Section 1.8 of the Final AEIS documents the public's involvement throughout the AEIS review process.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	3PR questions the adequacy of the scoping process for the DAEIS, because it did not sufficiently include involvement of well-known research institutions, regional ecologists, and sources of credible research, especially Archbold Biological Station (preeminent research center for conservation biology, plant ecology and restoration biology in central Florida), the Natural Resources Flight of the Avon Park Air Force Range (conducting federal research for large-scale ecosystem conservation land management involving many listed plants and animals native to central Florida), Center for Plant Conservation Network at Bok Tower Gardens (conducting extensive research relating to listed/endemic native plant relocations, reintroduction strategies, and endemic plant ecology), Tall Timbers (ecological, botanical, management, and forests research) and other central Florida biologists who have conducted independent ecosystems studies. Neither has their relevant published research been cited or considered. (283 – 292 3PR Review Comments July 2013)	The Corps conducted scoping for the AEIS in accordance with the appropriate regulations, including for noticing and for soliciting public comments. Chapter 1 of the Final AEIS provides details of the scoping process. Chapter 7 of the Final AEIS provides a list of references for the information used to prepare the Final AEIS.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	<u>3PR questions and contends that the DAEIS promotes many positions for which there is intense and adamant disagreement among scientists and researchers who are "independent" of the phosphate industry, its related agencies, consultants, attorneys and public relations personnel.</u> Many of these disagreements have to do with the tremendous extent of wetlands, upland native ecosystems, and native biota historically destroyed by phosphate strip mining, and the fact that many of these systems can never, and have not, been replicated, replaced, or effectively restored to any reasonably viable or functional ecological systems, and that the native assets involved are essential to protect in trust for the future of humanity (225 – 231 3PR Review Comments July 2013)	Section 4.5 of the Final AEIS describes the direct and indirect effects of phosphate mining on ecological resources. Section 4.12.5 of the Final AEIS describes the cumulative effects of phosphate mining on ecological resources. Chapter 5 of the Final AEIS provides information on compensatory mitigation and on reclamation as required by FDEP.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	<u>The DAEIS almost completely omits and avoids the tremendous body of scientific literature and research data and analyses which show the negative impacts which phosphate strip mining and its related industries have imparted to native upland and wetlands ecosystems and biota, rivers, streams, estuaries and other aquatic resources, groundwater resources, surface water resources, aquifers, water quality, availability, and distribution, climate, community planning, and public health and safety, and many other areas of concern to the environment and the human population which depends upon it.</u> (232 – 237 Review Comments July 2013)	Chapter 4 of the Final AEIS describes the direct, indirect and cumulative effects of phosphate mining.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	The DAEIS is insufficient and/or unsupported by independently developed, regionally relevant data and proper site-specific evaluations and research. Most sections are highly deficient and preclude meaningful review and comment. <u>The content of the DAEIS appears to rely disproportionately on representations, data, and analyses obtained from the Applicants and/or other sources directly or indirectly related to the phosphate strip mining industry, such as The Phosphate Council.</u> (211 – 213 Review Comments July 2013)	The Corps independently evaluated the information in the document to ensure that it was technically adequate and not biased, and made the final determinations on whether the data provided was adequate and accurate. Chapter 7 of the Final AEIS provides a list of references for the information used to prepare the Final AEIS.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	<u>The totality of upland transfiguration and ecosystem destruction will also have profound negative impacts to water quality and quantity. In fact, the DAEIS cites that phosphate strip mining in uplands will result in excavation of pits and pumping, potential reductions in water table elevations of "20 feet", and direct impacts to the surficial aquifer system (SAS), hydrology and sensitive habitats, groundwater dewatering, impacts to shallow wells, lowering of local water tables, and further extensive alterations to surface water management systems by ditching and construction of clay waste disposal (CSAs) sites including dams and berms.</u>	Section 4.2 of the Final AEIS describes the direct and indirect effects of phosphate mining on surface water hydrology. Section 4.3 of the Final AEIS describes the direct and indirect effects of phosphate mining on water quality. Section 4.12.2 of the Final AEIS describes the cumulative effects of phosphate mining on surface water hydrology. Section 4.12.3 of the Final AEIS describes the cumulative effects of phosphate mining on groundwater. Section 4.12.4 of the Final AEIS describes the cumulative effects of phosphate mining on surface water quality.

Dennis Mader/ 3PR (People for Protecting Peace River Inc)	<u>Acknowledgement or analysis of the relationship of the specialized vegetative communities which occur in the Southwestern Florida Flatwoods Ecoregion (Figure 4) and their high degree of correlation to regionally specific and unique soils is conspicuously absent throughout the DAEIS. Possibly it is inconvenient to discuss the destruction of ecological resources which can never be restored or replaced.</u>	Section 4.5 of the Final AEIS describes the direct and indirect effects of phosphate mining on ecological resources. Section 4.12.5 of the Final AEIS describes the cumulative effects of phosphate mining on ecological resources. Chapter 5 of the Final AEIS provides information on compensatory mitigation and on reclamation as required by FDEP.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	<u>NEPA requires coordination with state and local agencies and consistency with their laws, regulations, and planning.</u>	Section 1.5 of the Final AEIS describes other permit actions required, including state and local authorizations. Section 1.8 of the Final AEIS documents the public's involvement throughout the AEIS review process, including comments received from state and local agencies. Copies of those comments, and the Corps' responses, are in Appendix A of the Final AEIS. Chapter 6 of the Final AEIS documents the major federal regulation and executive orders that may apply to phosphate mining as evaluated in the Final AEIS.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	<u>"The AEIS study area is located within a water supply planning area that SWFWMD has defined as the Southern Water Use Caution Area (SWUCA) on the basis of concerns that cumulative reliance on withdrawals from the upper FAS through well systems to meet potable, agricultural, and industrial water supply demands has resulted in an unsustainable lowering of the potentiometric surface of the Floridan aquifer." The DAEIS acknowledges SWUCA, discusses SWUCA, then fails to appropriately consider the tremendous magnitude of the negative water resource impacts potentially threatening the "Water Use Caution Area" by area-wide phosphate strip mining, most of which takes place in uplands, yet the impacts of which absolutely and profoundly affect river flows, aquifers, and wetlands.</u>	Section 4.2 of the Final AEIS describes the direct and indirect effects of phosphate mining on surface water hydrology. Section 4.3 of the Final AEIS describes the direct and indirect effects of phosphate mining on groundwater. Section 4.12.2 of the Final AEIS describes the cumulative effects of phosphate mining on surface water hydrology. Section 4.12.3 of the Final AEIS describes the cumulative effects of phosphate mining on groundwater.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	<u>Natural systems are composed of the interrelated and inseparable factors of physical/geologic, hydrologic, atmospheric/climatic, and biotic. Damage to one creates damage to the others. Phosphate strip mining has a long history of obliterating these life-giving assets and precluding their natural recovery. (201 – 203 Review Comments July 2013).</u>	Section 4.5 of the Final AEIS describes the direct and indirect effects of phosphate mining on ecological resources. Section 4.12.5 of the Final AEIS describes the cumulative effects of phosphate mining on ecological resources. Chapter 5 of the Final AEIS provides information on compensatory mitigation and on reclamation as required by FDEP.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	USACE: a facilitator and advocate for the Applicant to meet its production goals: Furthermore 3PR contends that not only has the USACE failed in its responsibility to produce a valid document by which to evaluate SAJ-1993-01395 (IP-JPF) but it has actually become a facilitator and advocate for the Applicant to meet its production goals: Obviously if the USACE intended to fulfill its commitment to the public and uphold the NEPA purpose of "Protection of the Environment" it would see that Alternative 1 (No-Action) would be the point where a stand would take place. The No Action Alternative – "the least environmentally damaging alternative of all the avoidance alternatives, including the Applicant's Preferred Alternative." The USACE rejects the No Action Alternative because it is deemed "impracticable" because it does not fulfill the "Applicants Basic Need" to "extract phosphate ore" and obtain an "uninterrupted phosphate rock supply to meet projected demands"	Section 4.1.9 of the Final AEIS provides additional information about the No Action Alternative scenarios as applied to the effect analyses. Section 5 of the decision document describes how the Corps considered the No Action Alternative in its review of South Pasture Extension.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	"In order to continue to produce the phosphate rock currently being supplied by the South Pasture Mine to meet demand uninterrupted, the applicant needs to expand mining operations into the South Pasture Extension as soon as possible to optimize rock blending opportunities and rock recovery between the two parcels. Therefore, mining activities on the South Pasture Extension are scheduled to begin in 2016 and continue for approximately 20 years, to 2035 to allow for rock extraction and beneficiation to be integrated and to optimize rock blending, materials backfill, and reserve recovery at both sites. With this in mind, the applicant needs a minimum life for a mine extension of at least ten years of mining on the South Pasture Extension, which, when integrated with mining on the South Pasture Mine (with mining occurring on both sites at times simultaneously and at times sequentially, as needed to optimize rock blending, reserve recovery, and materials backfill), would supplement and ultimately allow operation of the South Pasture Plant until at least 2035." P. 4 CESAJ-RD-W Environmental Assessment, Draft Clean Water Act Section 404(b)(1) Guidelines Analysis, and Draft Public Interest Review for Department of the Army (DA) Permit Application SAJ-1993-01395 (IP-JPF)	Comment acknowledged.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	The role of the USACE is to implement the NEPA purpose of "Protection of the Environment" from the predations of the phosphate industry, not to devise a permit that meets the production goals of the Applicant.	Sections 1.1.1 and 1.4 of the Final AEIS describe the purpose for the AEIS.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	The "No-action Alternative" is summarily rejected because it does not meet the "Basic and Overall Purpose" of the Applicant: To extract phosphate ore.	Section 1.7.1 of the decision document provides the basic and overall purpose for South Pasture Extension, as determined by the Corps. Section 5 of the decision document describes how the Corps considered the No Action Alternative in its review of South Pasture Extension.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	3PR objects to the "purpose and need" as stated in the DAEIS. "The Applicant's purpose and need forms the basis for the alternatives analysis. The purpose and need for an Environmental Impact Statement is "Protection of the Environment" in federal actions. Nowhere is this NEPA directive found in the DAEIS. The position taken by the USACE is inconsistent with federal law, and has the effect not only of promoting phosphate strip mining, but to virtually assure and predetermine that alternatives proposed by the Applicants are approved (permitted). This position taken by the USCOE effectively excludes Alternative-1 ("No Action" / "no permit"). It is clear that all of the other alternatives are merely additional scenarios acceptable to the Applicants. In actuality, NEPA requires that "the agency" propose the "alternatives, including the proposed action," not the Applicant's.	Sections 1.1.1 and 1.4 of the Final AEIS describe the purpose for the AEIS. Section 1.2 of the Final AEIS explains how the Corps is required to consider the purpose and need of a project. Section 5 of the decision document describes how the Corps considered all alternatives, including the No Action Alternative, in its review of South Pasture Extension. Chapter 2 of the Final AEIS describes how the Corps identified alternatives under NEPA.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	40 CFR 1502.13 Purpose and need. The statement shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action. The "Purpose and Need" for the AEIS should be changed to: "The purpose of the proposed action is 'Protection of the Environment' via comprehensive analysis of the direct and cumulative environmental impacts of phosphate strip mining in the CFPD, and assuring the protection the natural environmental, public health safety, and the conservation of water and air resources in considering federal permit applications." (813 -830 3PR Review Comments July 2013)	Sections 1.1.1 and 1.4 of the Final AEIS describe the purpose for the AEIS. Section 1.2 of the Final AEIS explains how the Corps is required to consider the purpose and need of a project.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	"Questions regarding whether phosphate strip mining should take place must be decided in an academic environment, while seeking out and acknowledging the difficult problems which must be overcome in order to find methods of phosphate mining which impart only acceptable impacts. Phosphate mining is an industry in business for profit. From the industry's perspective its mission is no doubt to increase efficiency and make more money. Profit must in no way be the basis of decision-making where the NEPA mission of "Protection of the Environment" is concerned." (851 – 856 3PR Review Comments July 2013)	Section 5 of the decision document for South Pasture Extension describes how the Corps evaluated all alternatives, including the Applicant's Preferred Alternative.

Dennis Mader/ 3PR (People for Protecting Peace River Inc)	<p>USACE Fails to Consider Cumulative Impacts of Regional Phosphate Strip Mining</p> <p>"Phosphate mining has often been presented by the mining industry as a 'temporary' disturbance of land. However, it is unrealistic and inaccurate to assert that a 30-plus year mining project is a 'temporary' disturbance, or that large-scale removal, disturbance, mixing of native soils, and construction of CSAs and phosphogypsum stacks, maintenance corridors, ditches, berms, pipelines, and processing facilities, will result in anything other than 'major,' 'long-term,' and complete destruction to native ecosystems, as it has with phosphate strip mining in the past. Mined land, whether in the process of being mined, whether reclaimed or not, is an impediment to wildlife and ecosystem function through habitat fragmentation, the creation of physical barriers, altered hydrology, soil changes, and many other problems. Mined land fragments habitats and prohibits wildlife from moving within their home ranges and thus restricts them from the resources needed for their survival and reproduction. In addition, the disturbed, physically altered, often chemically different soils, promotes the spread of nuisance and/or exotic opportunistic plant species that, under these conditions, invade, exclude, and/or preclude native species and habitats on-site and, through dispersal mechanisms, jeopardize the integrity of adjacent native habitats, and well beyond. Recommendation: A brief tour by air and ground though the phosphate mining district will dispel any myths concerning the level of impacts and destruction created by this industry. Seeing is knowing and believing." (834 – 850 3PR Review Comments July 2013)</p>	Section 4.12 of the Final AEIS describes the cumulative impacts of phosphate mining, including determinations of degree of effect and significance.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	<p>Excerpts from the article, "What's Next for Bone Valley," by journalist Tom Palmer, published Thursday, July 23, 2015, in The Lakeland Ledger, describes the dilemma faced by Polk County, after decades of phosphate strip mining has left 250,000 acres ravaged and undeveloped:</p> <p>"In 1990, the Central Florida Regional Planning Council met with mining company officials and other interest groups to try to understand the issues ahead for mined land. The phosphate industry had maintained for decades that its mining operations were only a temporary use. "That raised the question of what would be the subsequent uses for the land. That study, which occurred only 15 years after state law required phosphate companies to reclaim mined land, made no recommendations. Instead, it was the first attempt by local planners to persuade phosphate company officials to begin thinking about what their land could be used for after mining and reclamation were completed. In the meantime, Bone Valley was sometimes seen as a "sacrifice zone," a place where activities ranging from power plants to hazardous waste incinerators opposed in other parts of the state could find a home..... "The next attempt to look at the area's future came in 1999 in an effort launched by Polk County's planning staff. However, that study hit a dead end after phosphate company representatives declined to participate, arguing they weren't ready to discuss the issue....</p> <p>"Bone Valley contains tributaries of the Peace, Alafia and Little Manatee rivers, all of which have been affected in some way by mining activities. Mosaic has announced plans to restore some of the streams and to improve wildlife habitat as part of its reclamation plans. The concern is what happens after Mosaic, or any other company required to complete reclamation projects, finishes, sells the land and moves on. " Hence, there is no credible evidence that 250,000 acres of "reclaimed" phosphate land will ever be developed in a way that could benefit local economies. According to the article above the phosphate industry in 10 decades of mining has not produced a beneficial outcome for their post-mined property. History proves that reclamation (returning old lands to a useful purpose) is a marketing myth. The record of the phosphate industry is dismal in this respect.</p>	Section 4.12 of the Final AEIS describes the cumulative impacts of phosphate mining, including past, present, and future impacts. Section 4.12.6 of the Final AEIS describes the cumulative economic effects of phosphate mining.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	<p>The following article summarizes the USF search for a construction site for a new campus near Lakeland addresses construction issues on "reclaimed" phosphate land and some the health issues associated with these lands. Based on most evidence "reclaimed mines" is an oxymoron. Old phosphate lands are severely compromised for any development.</p> <p>All of central Florida is in a reclamation crisis. Even those mine sites which are supposedly "reclaimed" are found by the US EPA to be dangerously radioactive and contaminated with heavy metals. How can we ignore the implications of the Teneroc study which expresses concern for the city of Auburndale's drinking water? It seems that every time we pick up a central Florida newspaper these days we read of environmental health problems related to phosphate mining and processing. The Tampa Tribune of July 13th 2003, reports cancer in epidemic proportions in certain Plant City neighborhoods located near old mines and active phosphate plants ("What Lies Beneath Affects Rising Homes") As far as building development is concerned The July 15th 2003 Lakeland Ledger report on a land acquisition committee for a new USF college campus makes it sounds as though you can't even give away reclaimed phosphate lands:</p> <ul style="list-style-type: none"> • "At the Williams Acquisition Holding Co. site, experts found that nearly 70 percent of the property couldn't be developed because of poor soil composition... the land had been mined, leaving it unstable for development." • "The Hacklake Forests site near Fort Meade posed the greatest challenges. The property, once mined for phosphate, is laden with clay settling areas that would require additional supports for any structures that are built there. There also are elevated radon levels on the property because it was once mined. Radon is a colorless, odorless gas linked with mining that has been known to cause illness in those who inhale it." • " At Old Florida Plantation, radon posed a problem, one of the engineers estimate would cost \$375,000 to \$750,000 to mitigate. Because part of that site had been mined for phosphate, additional supports would be needed at an estimated cost of \$2.8 million to \$3.7 million." 	Section 5.7 of the Final AEIS describes reclamation.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	<p>3PR Strenuously Disagrees with USACE's "Water Dependency Determination"</p> <p>Water Dependency Determination: Because the project's basic purpose, extracting phosphate ore, does not require siting within a water of the U.S., the proposed discharge is not water dependent. Environmental Assessment SAJ-1993-01395 p. 6</p> <p>"The direct impacts include, but are not limited to: near total topographic alteration of the landscapes of entire regions, regional wide destruction of aquifers, vast and extensive alteration of recharge systems, area-wide reconfiguration of the surface-water runoff patterns of rivers, creeks, and seepage regimes, and area-wide changes to the average evapotranspiration rate." (176 - 181 3PR Review Comments. July 2013)</p> <p>Impacts to Water Resources</p> <p>Perhaps the most controversial topic regarding mining is its potential impact on water resources. There are two primary categories of concern regarding water resources: impacts on hydrology by phosphate industry water usage and land use changes and impacts on water quality by discharges of industry water into the waterways. There is no question that mining has impact on the hydrogeology of the shallow aquifer system and watershed hydraulic characteristics (Erwin et al., 1997).</p> <ul style="list-style-type: none"> • Structural changes in the superficial aquifer occur due to removal of material and refilling with alternate materials, possessing different hydraulic properties. • Reclaimed areas have more silt and clay-sized particles, causing basins to show a slower response to rainfall recharge. • Permeability decreases and bulk density increases, reducing infiltration and increasing above-ground storage. • Hydraulic conductivities become much more variable. Overburden basins have slower conductivity than clay settling basins or sand/clay mix basins, presumably due to cracks in the clay containing basins. Sand tailings basins have the highest conductivities. • Water-table tests indicate a reduction in confinement between the surficial and intermediate layers. Overburden-capped sand tailings basins most closely match unmined basins in fluctuations to the surficial aquifer levels. • Sand/clay mix and clay basins are elevated above the natural grade, and show little connection with hydraulic groundwater systems in the area. Ongoing differential settling of clay-containing basins will create regularly changing equilibrium conditions. These factors create a complex hydraulic system that is difficult to accurately model. Sand containing trenches may increase groundwater flow and mine-trench orientation will have a large impact on ground water outcomes (Erwin et al., 1997). 	The Corps made its determination that South Pasture Extension is not "water dependent" in accordance with 40 CFR 230.10(a)(3). The extraction of phosphate ore does not need access or proximity to special aquatic sites, nor does it need to be sited within special aquatic sites. The groundwater use described in the comments can come from upland-based pumping facilities.

part of comment above	<p>An Overview of Phosphate Mining and Reclamation in Florida Casey Beavers. April 2013 Phosphate giant Mosaic pumps from Florida's aquifer to dilute its pollution Craig Pittman, Times Staff Writer Saturday, July 20, 2013 8:21pm</p> <p>A Mosaic mine operates in 2010 in Hillsborough County, where a permit allows Mosaic to withdraw water from wells for mining and production facilities. Mosaic also uses freshwater to dilute pollution from plants, a process the industry calls "blending." Last year, a state water agency granted the world's largest phosphate mining company a permit to pump up to 70 million gallons of water a day out of the ground for the next 20 years. Some of those millions of gallons of water — no one can say how much — is being used by the phosphate giant known as Mosaic to dilute polluted waste so it can be dumped into creeks without violating state regulations. The permit allows Mosaic to withdraw water from more than 250 wells in Hillsborough, Manatee, Polk, Hardee and DeSoto counties, an area that since 1992 has been under tight restrictions for any new residential and commercial water use. "The water use is crazy," said John Thomas, a St. Petersburg attorney who challenged the Mosaic permit on behalf of a client who ended up settling. "They're pulling an awful lot of water out to discharge with their waste." Odd though it may sound, that's a standard practice for the phosphate industry, according to Santino Provenzano, Mosaic's environmental superintendent. It's allowed under the state Department of Environmental Protection's rules, said Brian Starford of the Southwest Florida Water Management District, the agency commonly known as Swiftmud. Without that freshwater to dilute it, what Mosaic is discharging would violate the DEP's limits on a type of pollution called "conductivity," he explained. That term refers to the solids that are left in the waste after it's processed. "If they were exceeding the standards, the DEP would not allow the discharge," explained Starford, whose agency issued the Mosaic permit. DEP press secretary Patrick Gillespie said using freshwater to dilute a phosphate plant's discharge "is permissible and used only in closure activities or in storm-related activities in order to meet department water quality standards." Mosaic spokesman David Townsend said the company is only using freshwater for dilution with waste from inactive processing plants, which he said complies with DEP rules. He could not provide a list of where those were located or how many there were. The diluted waste is discharged "usually into a creek or smaller water body that feeds into a larger one at some point," he said. The issue of how much water Mosaic pumps out of the ground was explored by a recent environmental impact study on phosphate mining that was commissioned by the U.S. Army Corps of Engineers. The report found that the miners' water use in some areas could lower the aquifer by up to 10 feet, but contended the aquifer would eventually recover when the pumping stopped. The same agency that issued Mosaic's water permit, Swiftmud.</p>	part of comment above
part of comment above	<p>declared a 5,100-square-mile area covering all or part of eight counties south of Interstate 4 to be the Southern Water Use Caution Area in 1992. The reason: so much water had been pumped out of the aquifer in that region that the water table had fallen 50 feet. Mosaic previously had a permit that allowed it to take up to 99 million gallons a day from underground, so the permit issued last year is a reduction. As of last month, the mining giant was pulling only 30 of its allotted 70 million gallons a day out of the ground, Provenzano said. Half of that was being used in the mining process and the other half was being used at production facilities, he said. He said he could not specify how much was being used to dilute the pollution from some plants, a process the industry prefers to call "blending." In approving the Mosaic permit, Swiftmud officials had to rule that the company had offered "reasonable assurances" that its use of the water isn't wasteful and won't adversely affect downstream users and the environment. But Thomas questioned whether Swiftmud or Mosaic have ever considered coming up with a different way to deal with the pollution. By repeatedly pumping millions of gallons of water from underground just for blending, he said, the company will leave behind "a swiss cheese aquifer with pools of groundwater contamination and cascades of diluted gyp stack waste for decades."</p> <p>Craig Pittman, St. Petersburg Times Staff Writer, July 20, 2013</p>	part of comment above
part of comment above	<p>3PR Strenuously Disagrees with USACE's "Water Dependency Determination" Water Dependency Determination: Because the project's basic purpose, extracting phosphate ore, does not require siting within a water of the U.S., the proposed discharge is not water dependent. Environmental Assessment SAJ-1993-01395 p. 6 It is seriously disingenuous and a dereliction of public trust to classify this project as "not water dependent" simply because the project's basic purpose does not "require siting within a water of the U.S." As shown in the articles above the Applicant uses enormous volumes of water at many stages of mining and production, most of which is drawn from the subterranean aquifers of Florida, and it is known that many of Florida's waterways and water bodies, including the Peace River and others, depend on recharge from these aquifers for their existence. For example Kissengen's springwater rose from the Floridan Aquifer at the rate of 20 million gallons a day. Kissengen Spring was once a second magnitude spring. Increased groundwater withdrawal, beginning in the late 1930s, lowered the potentiometric surface of the aquifers. Kissengen Spring gradually ceased flowing. The spring was publicly declared inactive in 1950 as the result of overpumpage. Until 1950, tourists used the area for picnicking, boating, and swimming There was a pavilion for parties and dancing. The waters were thought medically beneficial to those with various ailments. In 1962 a sinkhole filled in the spring vent with clay. (Wikipedia) By your reasoning because the phosphate mine was not located in the spring itself there was no "water dependency" relationship between the phosphate industry and the demise of the spring. Again the USACE has failed the public in its role of fulfilling the NEPA purpose of "Protection of the Environment" by assuming a complicit arrangement with the very industry whose duty it is to regulate. Obviously there is an advantage to the industry in being exempt from the water-dependency classification which the USACE is willing to abet at a price to the public.</p>	part of comment above
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	<p>Summary Back to the Drawing Board This proposal (Environmental Assessment SAJ-1993-01395) is characterized by the same fatal flaws as the AEIS. The entire document in its assumptions and its very basis smacks of the same accommodating relationship between the Applicant and the USACE. Instead of standing up and doing the right thing, the USACE has turned a blind eye to the flagrant destruction of the environment which is so conspicuously obvious to anyone who is willing to look even superficially at the outcome of a century of phosphate strip mining in this region. It is in fact equally derelict of the USACE's mandated responsibility which 3PR roundly condemned in its comments on the AEIS, and which the USACE ultimately ignored by a sleight of hand. If the USACE has any intention of fulfilling the NEPA purpose of "Protection of the Environment" which is in the interest of the public (not the Applicant) then it must begin with the No-Action Alternative which affords total preservation of our existing and struggling water resources, and which, based on all the sources that we have cited in this document and our 134 pp review of the AEIS, is the only means of preventing the kind of environmental degradation which is the legacy of the phosphate strip mining industry in west central Florida and elsewhere.</p>	The decision document for South Pasture Extension describes how the Corps evaluated South Pasture Extension under NEPA, the Clean Water Act 404(b)(1) Guidelines, and the public interest test. Section 5 of the decision document describes how the Corps considered the No Action Alternative in its review of South Pasture Extension. Sections 1.1.1 and 1.4 of the Final AEIS describe the purpose for the AEIS.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	The USACE has a long history of failure in Florida. You are responsible for the environmental problems that currently plague The Everglades, the dire condition of the Kissimmee River, the degradation of the oyster beds of Apalachicola, the algae blooms that are currently the bane of the St. Lucie estuary and at the mouth of the Caloosahatchee River, and, by your reckless permitting of developers, the loss of countless acres of wetlands across the state. At the rate you going you will be adding yet another black eye to this pathetic legacy.	Comment acknowledged.
Dennis Mader/ 3PR (People for Protecting Peace River Inc)	It is our intention to make sure that all our national representatives get a copy of this 3PR review of Environmental Assessment SAJ-1993-01395 so that they can be full apprised of the shoddy manner by which you continue to betray public interest and our trust in your regulatory capacity to act in a manner which actually protects the environment, as opposed to tucking your tail between your legs and bending over backwards to serve the interest of a ruthless industry which has plundered the environmental and aquatic resources of Florida virtually unimpeded for nearly a century.	Comment acknowledged.
Gina LaBruno	As the Army Corps of Engineers requests to a Public Interest Review and Response. I must wonder by where standards for deciding to allow permit's for MOSAIC's operations are deemed from.	The decision document explains the criteria that the Corps used to evaluate the South Pasture Extension DA permit application.
Gina LaBruno	Over the past 100 years, phosphate mining has irreversibly harmed countless acres of Florida habitat -- Conservation:"7,500 Additional Acres" Understand that the amount of mined land permitted fast forwards the continuous sea level rise, High nutrient levels, Over-consumption/use via groundwater wells, adding into the mix fertilizer and gypsum stacks. The totals in all of this exceed any normal capacity for common survival in any environment. This base of environmental factors and clear total of acres being: 52,000 The mapped photo showing the area of mined, dredged, torn up acreage that much of is also being filled with toxic acid.	Section 4.12 of the Final AEIS describes the cumulative effects of phosphate mining, including on ecological resources.
Gina LaBruno	The marked areas mapped out are displaying the size of an area that would be well beyond capable Conservation: *The action of conserving something, in particular, preservation, protection, or restoration of the natural environment, natural ecosystems, vegetation Synonyms: preservation, protection, safeguarding, safekeeping *Preservation, repair, and prevention of deterioration of archaeological, historical, and cultural sites and artifacts.	Comment acknowledged.

Gina LaBruno	This weighs with clear perspective. In that allowing this land to be destroyed based upon the essence and influence MOSAIC presents to the county's development boards. The facts presented by MOSAIC are a fabrication. The time now becomes, I ask The Army Corps of Engineers to regress based on fundamental truth. The destruction to Florida's layers brings detrimental change on the land's DNA. "Destructing the land's ability to repair" This is where the focus must now lie	Comment acknowledged.
Gina LaBruno	The hydrologic regime (management and storage of surface water) laws must be amended to bring Florida's environment back into balance. Ensuring MOSAIC's Practices would have no more standing to drill Florida lands or fill them with radioactive toxic waste. Included and also recognized: *Aesthetics, * General environmental concerns, * Wetlands, Fish and wildlife values, * Flood hazards, *Floodplain values, * Land use, * Shore erosion and accretion, * Water supply and conservation, * Water quality Included and also recognized: *Aesthetics, * General environmental concerns, * Wetlands, Fish and wildlife values, * Flood hazards, *Floodplain values, * Land use, * Shore erosion and accretion, * Water supply and conservation, * Water quality	Changing state laws on management and storage of surface waters is beyond the Corps' regulatory authority. Sections 6 and 7 of the decision document address the 404(b)(1) Guidelines and public interest review, respectively, for South Pasture Extension.
Gina LaBruno	The Recent requirements presented the EPA with a 2 billion dollar settlement leaving MOSAIC in control of funds which are set aside to address the radioactive waste piles	Comment acknowledged.
Gina LaBruno	The Army Corps of Engineers, placing a light on economic reality, focusing attention on the practices ventured. The damages caused by this company are multiplied above and beyond any safe reclamation values. Leaving little chance that their claimed beneficiation process is in compliance, leaving a question is this actual truth. So before any more permits are even considered The Army Corps of Engineers should instead bring in outside Plight Assessment Teams to review the claims and actual effects influenced by the Phosphate Industry.	Chapter 4 of the Final AEIS describes the direct, indirect, and cumulative effects of phosphate mining.
Gina LaBruno	In doing so this will heed to all 21 Public Interest concerns and give a fairly rounded outcome. * Historic properties, * Navigation, * Recreation, * Energy needs, * Safety, * Food and fiber production, * Mineral needs, * Consideration of property ownership, * The needs and welfare of the people.	Section 7 of the decision document addresses the public interest review for South Pasture Extension.
Gina LaBruno	4 1/2yrs The people I have met, the land I view, here is documented insight and first hand knowledge towards what is actually happening to land and Florida citizens.	Comment acknowledged.
Andy Mele Manatee/Sarasota Sierra Club Group Conservation Committee Suncoast Waterkeeper	The Army Corps of Engineers is processing a permit application from Mosaic for South Pasture Mine Extension, 7,500 acres of new mine in the Peace River watershed.	Comment acknowledged.
Andy Mele Manatee/Sarasota Sierra Club Group Conservation Committee Suncoast Waterkeeper	This is part of a 52,000 acre onslaught of new and expanded mines in Manatee, Hardee, DeSoto and Polk Counties that will destroy the headwaters of two major regional rivers, endanger a major source of drinking water for Sarasota County and threaten the County's potable water wellfield.	Section 4.12 of the Final AEIS describes the cumulative effects of phosphate mining, including the four currently proposed actions.
Andy Mele Manatee/Sarasota Sierra Club Group Conservation Committee Suncoast Waterkeeper	Phosphate mining has already permanently altered or ruined more than 600 square miles of Florida native habitat, natural wetlands of the United States, aquifers and agricultural land. Mosaic's wetland mitigation has been wholly insufficient, and the most cursory field examination will confirm this statement. Nothing remains on the Florida landscape after phosphate mining but toxic waste "settling areas," Disney-esque artificial landscapes that die off within a few years, and lifeless, stagnant pools where groundwater has filled in around the distinctively barren fingerlike landforms left by the draglines pre-1975.	Chapter 4 of the Final AEIS describes the direct, indirect, and cumulative effects of phosphate mining. Chapter 5 of the Final AEIS describes the compensatory mitigation process for the Corps and the state, and also describes the state's mandatory reclamation requirements.
Andy Mele Manatee/Sarasota Sierra Club Group Conservation Committee Suncoast Waterkeeper	The federally-permitted wetlands dredge-and-fill operations conducted by Mosaic have resulted in a permanent loss of natural wetlands function to the State of Florida and the United States, and to a massive impairment of the region's hydrology from aquifer interruption and excavation, excessive water usage, and the dilution of toxic wastes to bring them within regulatory guidelines so that they can be released into surface or ground waters.	Section 4.12 of the Final AEIS describes the cumulative effects of phosphate mining, including on ecological resources, surface water and groundwater hydrology, and water quality.
Andy Mele Manatee/Sarasota Sierra Club Group Conservation Committee Suncoast Waterkeeper	Phosphate mining is one of the most brutal and destructive practices on Earth. It completely ruins the natural and economic potential of native Florida habitat and former agricultural lands, leaving behind ruined economies, half-abandoned towns and creates impenetrable obstacles to wildlife migration – and survival.	Section 4.12 of the Final AEIS describes the cumulative effects of phosphate mining, including on economics and ecological resources.
Andy Mele Manatee/Sarasota Sierra Club Group Conservation Committee Suncoast Waterkeeper	It leaves behind mountains of radioactive waste in phosphogypsum "stacks" – creating the largest repository of toxic and hazardous waste in the nation. In the photo below, a stack is breaching, and draining millions of gallons of water with an average pH of 2 – like battery acid – into nearby waterways, killing millions of fish.	As explained in Section 1.3.1 of the Final AEIS, phosphogypsum stacks are associated with fertilizer production. The Corps considered the four phosphate mines reviewed under the AEIS to have independent utility from the fertilizer plants.
Andy Mele Manatee/Sarasota Sierra Club Group Conservation Committee Suncoast Waterkeeper	Half of the land in Polk County looks like this (below, in Hillsborough), mined and destroyed lands as far as the eye can see: (Photographs included) Hardee, DeSoto and Manatee Counties aren't far behind in this race to the bottom.	Comment acknowledged.
Andy Mele Manatee/Sarasota Sierra Club Group Conservation Committee Suncoast Waterkeeper	Mosaic is concealing the truth about its impact on the environment and communities of Florida through misleading and outright untruthful statements.	The Corps independently evaluated the information used in the preparation of the Final AEIS and in the evaluation of the application for South Pasture Extension to ensure that it was technically adequate and not biased, and made the final determinations on whether the data provided was adequate and accurate.
Andy Mele Manatee/Sarasota Sierra Club Group Conservation Committee Suncoast Waterkeeper	- Land mined for phosphate will never be the same again.	Chapter 5 of the Final AEIS describes the compensatory mitigation process for the Corps and the state, and also describes the state's mandatory reclamation requirements.
Andy Mele Manatee/Sarasota Sierra Club Group Conservation Committee Suncoast Waterkeeper	<ul style="list-style-type: none"> It will never have any significant economic role to play. Thousands of jobs will be lost forever. Many Florida towns and counties have become dependent on phosphate mining. When the mines are exhausted, the local economies are left impoverished. The wealth is stripped from the ground forever, the sustainable jobs that have employed tens of thousands and anchored whole communities are gone forever, and the profits leave the state to go to shareholders. 	Section 4.12.6 of the Final AEIS describes the cumulative economic effects of phosphate mining.
Andy Mele Manatee/Sarasota Sierra Club Group Conservation Committee Suncoast Waterkeeper	<ul style="list-style-type: none"> The state's groundwater is part of the wealth that is being taken by Mosaic. Since state law regards water as public property, Mosaic pays nothing for its 70 million gallons per day of permitted withdrawals, even though, according to SWFWMF, the water table in the Floridan aquifer has been lowered, in some areas, as much as 50 feet. 10% of that water is used for "blending," Mosaic's term for the process by which toxic and hazardous wastewater discharges are diluted to the point where they meet state regulatory standards. 	Section 4.12.3 of the Final AEIS describes the cumulative effects of phosphate mining on groundwater.
Andy Mele Manatee/Sarasota Sierra Club Group Conservation Committee Suncoast Waterkeeper	<ul style="list-style-type: none"> Phosphate mining is a net loss to the state of Florida. Local governments, also dependent, are corrupted. 	Comment acknowledged.

Andy Mele Manatee/Sarasota Sierra Club Group Conservation Committee Suncoast Waterkeeper	<ul style="list-style-type: none"> There are dozens of diseases associated with chronic exposure to acid aerosols evaporating off the stacks, corrosive gases released from the Mosaic chemical plants, and radioactive dust blowing off the land and stacks, as well as sustained leaks and breaches spreading contaminants throughout nearby (poor and minority) communities and into groundwater. According to a DOI study, as much as half the radioactive sediment deposited on and in phosphogypsum stacks is pm 4.5 and smaller, easily suspended in the air, easily inhaled, and easily absorbed by the body. The mining process concentrates background radioactivity up to 60 times (radium). These airborne and waterborne sediments are harmful to humans and wildlife. The stacks and toxic waste settling areas have breached, and will breach again, leaching toxic and acidic water into the ground and killing millions of fish in nearby rivers. 	Section 4.1.8 of the Final AEIS addresses several of the issues related to community health, safety, and quality of life.
Andy Mele Manatee/Sarasota Sierra Club Group Conservation Committee Suncoast Waterkeeper	<ul style="list-style-type: none"> Mosaic's promises to make the land better than it was are fallacies. Reclamation (required by law) is NOT restoration. True restoration would bankrupt Mosaic. 	Chapter 5 of the Final AEIS describes the compensatory mitigation process for the Corps and the state, and also describes the state's mandatory reclamation requirements.
Andy Mele Manatee/Sarasota Sierra Club Group Conservation Committee Suncoast Waterkeeper	<ul style="list-style-type: none"> There are alternatives to harsh, destructive chemical fertilizers made from phosphate products and nitrates. Regenerative Agriculture is the future. Phosphate is the past, and it is on the wrong side of history. There are other sources of phosphate, if it must be used. While awaiting permits, Mosaic has imported phosphate feedstocks from Morocco, Saudi Arabia and Peru. The trade networks are well-established, and economically feasible for the corporation. 	Section 2.2.6.2 of the Final AEIS explains why avoiding the use of phosphate fertilizers is not a feasible alternative.
Andy Mele Manatee/Sarasota Sierra Club Group Conservation Committee Suncoast Waterkeeper	<ul style="list-style-type: none"> Chemical fertilizers strip nutrients from the soil, cause massive losses of precious topsoil, and wash downstream to form enormous "dead zones," larger than some states. 	Comment acknowledged.
Andy Mele Manatee/Sarasota Sierra Club Group Conservation Committee Suncoast Waterkeeper	<ul style="list-style-type: none"> Mosaic claims Florida phosphate is a "mineral of strategic importance," wrapping itself in the flag as it sells the vast majority of the rock and its end products to foreign customers. 61.5% is sold off the North American continent, and much of the remaining 38.5% goes to Canada and Mexico. If in fact phosphate is a mineral of strategic importance, it would be in the public interest to leave it as a strategic reserve in the ground for some future time of need, instead of squandering it permanently for short-term profits. Therefore, there is no public benefit whatsoever to phosphate strip mining, chemical fertilizer manufacturing, or the permanent unmanaged storage of radioactive, toxic and hazardous waste in mountains that are the highest points in the Florida landscape. 	Section 1.2 of the Final AEIS describes the need for phosphate rock. As explained in Section 1.3.1 of the Final AEIS, phosphogypsum stacks are associated with fertilizer production. The Corps considered the four phosphate mines reviewed under the AEIS to have independent utility from the fertilizer plants.
Andy Mele Manatee/Sarasota Sierra Club Group Conservation Committee Suncoast Waterkeeper	The Corps must evaluate any mining permits from Mosaic on their merits and deficiencies, and not be limited, as is so often the case in Section 404 permitting, by an artful, narrowly-crafted statement of purpose and need that creates a spurious precision in the mine's purpose, and falsely eliminates any possible alternatives, e.g. for wetlands avoidance and preservation beyond the typical 15-16%. This is classic manipulation of the permitting process, and one would hope that Corps permit reviewers would see past the self-serving statement of need and purpose, and make determinations based on the overall public interest.	Section 1.7.1 of the decision document describes the basic purpose and overall purpose and need for South Pasture Extension. Section 7 of the decision document addresses the public interest review for South Pasture Extension.
Andy Mele Manatee/Sarasota Sierra Club Group Conservation Committee Suncoast Waterkeeper	By any measure you care to employ, phosphate mining is a net loss to our economy, our health, and our environment. To suggest otherwise, given the preponderance of evidence, is arbitrary and capricious.	Sections 6 and 7 of the decision document address the 404(b)(1) Guidelines and public interest review, respectively, for South Pasture Extension.
Andy Mele Manatee/Sarasota Sierra Club Group Conservation Committee Suncoast Waterkeeper	Mosaic has made billions from the destruction of west-central Florida and its economy. It has reaped the fullest possible benefits from its properties. The state and the nation owe Mosaic nothing. When it acquires properties with the intent to mine, it has not received any <i>a priori</i> guarantees or contracts with towns, counties, state or the federal government, and is counting on winning the needed re-zonings (up-zonings, not down-zonings, at the company's behest) and permits based solely on past results. Therefore a cessation of permitting cannot and does not constitute a "taking." Mosaic took the risk of acquiring its properties, and bears the sole responsibility for that risk. Sierra Club and Suncoast Waterkeeper respectfully request that you deny the federal Section 404 permit for South Pasture Extension, and deny any further permits to strip-mine phosphate in the state of Florida	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	On behalf of the staff and members of the Center for Biological Diversity, we respectfully submit the following comments to the U.S. Army Corps of Engineers ("Corps") regarding the June 16, 2016 Public Notice for the above referenced permit application for the proposed mine called South Pasture Extension in Hardee County, Florida ("Project"). We submit these comments on behalf of our members, including our thousands of members and supporters who recreate and live in Hardee, and nearby counties.	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	We have reviewed the Public Notice and conclude the project is not in the public interest, will have significant environmental impacts on wetlands, and will likely harm endangered species and their habitats. For these reasons, we respectfully request the Corps deny the permit application.	Sections 6 and 7 of the decision document address the 404(b)(1) Guidelines and public interest review, respectively, for South Pasture Extension, including the project's effects on wetlands and listed species.
Jaclyn Lopez Center for Biological Diversity	Also, given the size of the project and permanent impacts, we request both an extension to the public comment period and a public meeting to present additional public comments demonstrating that this Project.	The Corps has provided a response to the request for a public hearing.
Jaclyn Lopez Center for Biological Diversity	<p>I. South Pasture Extension Application Background</p> <p>The Corps is currently considering four permit applications from Mosaic: the Desoto, Ona, Wingate East Expansion, and South Pasture Extension phosphate mines. On February 18, 2011, the Corps published a Notice of Intent to Prepare a Draft Areawide Environmental Impact Statement for Phosphate Mining Affecting Waters of the United States in the Central Florida Phosphate District ("DAEIS"), which included the South Pasture Extension in its scope. In its Notice of Intent, the Corps stated the "DAEIS is intended to be sufficient in scope to address Federal, State, and local requirements and environmental issues" and that based on the potential environmental impacts of the proposed activities, "both individually and cumulatively," the Corps will prepare an AEIS to fulfill its National Environmental Policy Act ("NEPA") obligations and "render a final decision on the permit applications."</p>	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	The Corps issued a Public Notice for the South Pasture Extension application on June 1, 2012. Also on June 1, 2012, the Corps published a notice of availability for the DAEIS, evaluating environmental impacts for the four proposed phosphate mines, including the South Pasture Expansion. The Corps received over four thousand public comments during the 60-day comment period. The Corps issued a Public Notice for the South Pasture Extension application on June 1, 2012. On May 3, 2013, the Corps published a notice of availability for the Final Areawide Environmental Impact Statement on Phosphate Mining in the Central Florida Phosphate District ("FAEIS"). On July 13, 2013, the Corps released an Addendum to the FAEIS that corrected its surface water hydrology analysis, included public comments received during the comment period for the DAEIS but not responded to in the FAEIS, and included a Spanish language translation of the Executive Summary.	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	On June 16, 2016, the Corps released a Supplemental Environmental Assessment, draft public interest review, and draft Clean Water Act ("CWA") 404(b)(1) Guidelines analysis for the South Pasture Extension (collectively Supplemental Environmental Assessment or "SEA").	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	II. The Corps Must Deny the CWA Permit Application for the South Pasture Extension Phosphate Mine	The decision document for South Pasture Extension describes how the project complies with the applicable federal regulations.

Jaclyn Lopez Center for Biological Diversity	In enacting the Clean Water Act in 1972, Congress sought "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." The statute provides that "the discharge of any pollutant by any person shall be unlawful" absent a permit. A section 404 permit must satisfy regulations promulgated by the Corps and the Environmental Protection Agency ("EPA"). The regulations under section 404(b)(1) of the CWA provide that adverse impacts to wetlands must be avoided to the extent that practicable alternatives are available which will result in less adverse impacts. A "practicable" alternative is one that is "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes." The 404(b)(1) Guidelines establish a presumption that all practicable alternatives that do not involve a discharge into wetlands have less adverse impact on the environment "unless clearly demonstrated otherwise."	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	To determine whether a practicable alternative exists, the Corps must undertake a multi-step analysis. The Corps must first determine whether the project is water dependent. A water- dependent project is one that "requires access or proximity to or siting within the special aquatic site in question to fulfill its basic purpose." If the Corps determines that the project is not water-dependent, it then must presume that practicable alternatives not involving wetlands exist. The Corps may not grant a permit unless the presumption is rebutted by a clear contrary demonstration by the Project applicant. Where no practicable alternative sites exist that would avoid filling or have a less adverse impact on wetlands, the Corps must consider whether "appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem."	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	Corps regulations require the Corps to evaluate the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest weighing foreseeable benefits against foreseeable detriments using all factors that may be relevant. Relevant factors are numerous and include wetlands impacts, fish and wildlife habitat values, and recreational, aesthetic, and economic values. Further, a permit will not be granted if contrary to public interest. These public interest considerations comprise what is commonly referred to as the "public interest test."	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	A. The South Pasture Extension Project is Contrary to the Public Interest	Section 7 of the decision document addresses the public interest review for South Pasture Extension.
Jaclyn Lopez Center for Biological Diversity	When evaluating a permit application, the Corps shall evaluate the probable impacts of the proposed activity on the public interest. This public interest review requires weighing all relevant factors in a general balancing process. These factors include conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, energy needs, safety, and the broader "needs and welfare of the people." The Corps must deny a permit application if it is "contrary to the public interest." In order to perform this public interest review, the permit application must contain a complete description of the proposed activity, including information on the location, purpose, and need for the activity. This description must be thorough enough to provide public notice.	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	An agency must exercise independent judgment in defining the purpose and need of a project and cannot rely exclusively on the statements and opinions of the applicant. Additionally, the Corps may not put forward a purpose and need statement that is so narrow as to "define competing 'reasonable alternatives' out of consideration."	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	The Corps' regulations state "the unnecessary alteration or destruction of [wetlands] should be discouraged as contrary to the public interest." Wetlands considered to perform functions important to the public interest include: - Wetlands which serve significant natural biological functions, including food chain production, general habitat and nesting, spawning, rearing and resting sites for aquatic or land species; - Wetlands set aside for study of the aquatic environment or as sanctuaries or refuges; - Wetlands the destruction of alteration of which would affect detrimentally natural drainage characteristics, sedimentation patterns, salinity distribution, flushing characteristics, current patterns, or other environmental characteristics; - Wetlands which are significant in shielding other areas from wave action, erosion, or storm damage. Such wetlands are often associated with barrier beaches, islands, reefs and bars; - Wetlands which serve as valuable storage areas for storm and flood waters; - Wetlands which are ground water discharge areas that maintain minimum baseflows important to aquatic resources and those which are prime natural recharge areas; - Wetlands which serve significant water purification functions; and - Wetlands which are unique in nature or scarce in quantity to the region or local area.	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	The regulations further provide that "[n]o permit will be granted which involves the alteration of wetlands identified as important by paragraph (b)(2) of this section...unless the district engineer concludes, on the basis of the analysis required in paragraph (a) of this section, that the benefits of the proposed alteration outweigh the damage to the wetlands resource." Courts have upheld permit denials based on findings that wetlands were important within the meaning of 33 C.F.R. § 320.4(b)(2).	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	Haag (2010) found wetlands are a dominant feature in Florida's landscape and represent a greater percentage of the land surface in Florida than in any other state in the conterminous United States. There are an estimated 11.4 million acres of wetlands, occupying 29% of the area of the State. ³¹	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	Indeed this Project will destroy 7,513 acres, comprised of 1,472.5 acres of Corps wetlands and 2,663.5 acres of Southwest Florida Water Management District wetlands.	As described in Section 1.4 of the decision document, the applicant proposes 1218.5 acres of impacts to waters of the United States within the 7513-acre property. As described in the approved compensatory mitigation plan, the permittee will preserve 1095 acres of wetlands and uplands not proposed for mining.
Jaclyn Lopez Center for Biological Diversity	As Semlitsch and Bodie (1999) argue, small wetlands are crucial for maintaining regional biodiversity in a number of plant, invertebrate, and vertebrate taxa (e.g. amphibians). A consequence of losing these wetlands lies in potential changes to the metapopulation dynamics of the remaining wetlands. ³² The consequences could be a reduction in the number or density of individuals dispersing and an increase in dispersal distances among wetlands. ³³ A reduction in wetland density can decrease the probability that a population can be "rescued" from extinction by a neighboring source population because of lower numbers of available recruits and greater distances between wetlands. ³⁴ Remaining wetlands could face increased probabilities of population extinctions. ³⁵	Section 8 of the decision document, and the approved compensatory mitigation plan, describe how Mosaic will provide compensatory mitigation for unavoidable impacts to aquatic resources. As detailed in the mitigation plan, the permittee proposes preservation, enhancement, and establishment of aquatic resources across a wide range of sizes and hydroperiods.
Jaclyn Lopez Center for Biological Diversity	The particular wetlands impacted support a host of imperiled species, including foraging and breeding opportunities for the wood stork and caracara. Anecdotal information provided to the Corps during the AEIS process indicates that past mining efforts have altered drainage, flushing, cleaning, and other ecosystem benefits of wetlands.	Section 10.1 of the decision document describes the Corps' final determinations for South Pasture Extension pursuant to Section 7 of the Endangered Species Act, including for the wood stork and caracara. Section 4.12.5 of the Final AEIS describes the cumulative effects of phosphate mining on ecological resources, including wetlands.
Jaclyn Lopez Center for Biological Diversity	Moreover, neither the SEA nor the FEIS state a public need. The FEIS states that the overall purpose of the four mines is to mine phosphate ore, and the SEA details historic production capacity, historic production, and the need for the applicant to meet its production capacity.	Section 1.2 of the Final AEIS discusses how the Corps considers purpose and need under NEPA and the 404(b)(1) Guidelines. Section 1.2.1 of the Final AEIS describes the public's need. Section 1.2.2 of the Final AEIS describes the applicant's purpose and need statements for all four proposed actions. Section 1.2.3 of the Final AEIS describes the Corps-defined purpose and need, as considered in the AEIS. Section 1.7 of the decision document references the public and applicant's need discussion in the Final AEIS, and describes the project-specific basic and overall project purpose, and the applicant's need, for South Pasture Extension.

Jaclyn Lopez Center for Biological Diversity	However, the Corps does not discuss the public's need to mine phosphate ore or the public's need for Mosaic to have a mine in close proximity to its existing beneficiation plant infrastructure, nor does it explain the public's interest in the applicant meeting its desired production output. Since the purpose of the proposed action informs the alternatives analysis, and since the purpose and need statement are not in the public's interest, proper consideration has not be given to alternatives that were not the applicant's preferred alternative, especially the No Action Alternative. The Corps should independently address the purpose and need of the proposed project in its site-specific EIS to better inform its alternatives analysis.	Section 1.2.1 of the Final AEIS describes the public's need for phosphate. The practicable pumping distance for phosphate ore, as described in Section 3.1.5 of the Final AEIS and as referenced in Section 5.1 of the decision document, is a factor in the determination of whether or not an alternative is practicable. As explained in Section 1.7.1 of the decision document, production is part of the applicant's statement of need. As also explained in Section 1.7.1, and as stated in 33 CFR Part 325, Appendix B, when defining the purpose and need for a project "while generally focusing on the applicant's statement, the USACE will in all cases, exercise independent judgment in defining the purpose and need for the project from both from the applicant's and the public's perspective."
Jaclyn Lopez Center for Biological Diversity	Neither the SEA nor the FAEIS evaluate the impacts of additional phosphogypsum stacks and management system dikes and impoundments that would result from approval of the South Pasture Expansion, reasoning that stacks and impacts are addressed through a separate permitting mechanism. Aside from the Corps' failure to evaluate this cumulative impact, it is difficult to believe the applicant would invest in a mine expansion for the stated purpose of obtaining phosphate ore for phosphate fertilizer production if it could not also rely on its ability to expand its phosphogypsum management system. The dredge and fill activities of the South Pasture Extension Mine are inextricably related to any future phosphogypsum stack management expansion, and any related phosphogypsum permit should be applied for and evaluated at the same time as a 404 permit to facilitate a comprehensive impact analysis.	Section 4.12 of the Final AEIS describes the cumulative impacts of phosphate mining. As explained in Section 1.3.1 of the Final AEIS, phosphogypsum stacks are associated with fertilizer production. The Corps considered the four phosphate mines reviewed under the AEIS to have independent utility from the fertilizer plants.
Jaclyn Lopez Center for Biological Diversity	The stacks are not in the public interest as they are radioactive and there's no long term solution for what will be done with the 1 billion tons (and growing) radioactive waste generated by the process. Indeed, the EPA's recent settlement agreement with Mosaic, calling for \$2 billion to remedy violations with respect to existing phosphogypsum stacks. The consent decree also calls a Resource Conservation and Recovery Act ("RCRA") hazardous waste determination for eight phosphogypsum stacks. If any of the Project would contribute to one of those stacks, operations must not begin until a RCRA plan is in place.	As explained in Section 1.3.1 of the Final AEIS, phosphogypsum stacks are associated with fertilizer production. The Corps considered the four phosphate mines reviewed under the AEIS to have independent utility from the fertilizer plants.
Jaclyn Lopez Center for Biological Diversity	Also submitted to the Corps via public comments on its AEIS, members of the public adjacent to mine sites cite loss of springs and ecosystem benefits of wetlands that were destroyed and/or moved by mining practices.	Section 4.12 of the Final AEIS describes the cumulative effects of phosphate mining, including on wetlands and water resources.
Jaclyn Lopez Center for Biological Diversity	Likewise, neighboring property owners have complained of fugitive dust.	Section 4.1.8.1 and 4.13.1 of the Final AEIS address air quality.
Jaclyn Lopez Center for Biological Diversity	This anecdotal information must be taken seriously and addressed by the Corps before it allows further indirect damage to adjacent lands. Such serious health and environmental concerns must be addressed prior to issuing permits for additional mining activities.	The Corps provided copies of all comments received on the Draft AEIS, and the Corps' responses to those comments, in Appendix A of the Final AEIS or in the Addendum.
Jaclyn Lopez Center for Biological Diversity	B. The Corps Must Comply with its Mandate to Avoid, Minimize, and Select the Least Environmentally Damaging Alternative Practicable	Section 5 of the decision document describes how the Corps evaluated avoidance (offsite) and minimization (onsite) alternatives for South Pasture Extension. Section 12.4.1 of the decision document provides the Corps' LEDPA determination.
Jaclyn Lopez Center for Biological Diversity	Under the Clean Water Act the Corps has the responsibility of evaluating permit applications for the discharge of fill into waters of the U. S. The CWA gave the EPA the task of developing the 404 (b)(1) Guidelines (Guidelines) with the specific goal of providing the environmental criteria and framework by which the Corps evaluates dredge and fill applications. 40 CFR Part 230 - Section 404 (b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material, Subpart A - General, Section 230.1 Purpose and policy states: (a) The purpose of these Guidelines is to restore and maintain the chemical, physical, and biological integrity of waters of the United States through the control of discharges of dredged or fill material. (c) Fundamental to these Guidelines is the precept that dredged or fill material should not be discharged into the aquatic ecosystem, unless it can be demonstrated that such a discharge will not have an unacceptable adverse impact either individually or in combination with known and/or probable impacts of other activities affecting the ecosystems of concern. (d) From a national perspective, the degradation or destruction of special aquatic sites, such as filling operations in wetlands, is considered to be among the most severe environmental impacts covered by these Guidelines. The guiding principle should be that degradation or destruction of special sites may represent an irreversible loss of valuable aquatic resources.	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	Nichols et. al. (2008) succinctly describe the role of the Guidelines in framing the Corps' review of permit applications for discharges of fill in wetlands: Central to the Guidelines is the fundamental requirement for an alternatives analysis. "...[N]o discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the environment, so long as the alternative does not have other significant adverse environmental consequences.... [T]he application is required in every case (irrespective of whether the discharge site is a special aquatic site or whether the activity associated with the discharge is water dependent) to evaluate opportunities for the use of non-aquatic areas and other aquatic sites that would result in less adverse impact on the aquatic ecosystem." Thus, applicants must demonstrate that for any discharge or fill activity there is no practicable alternative site for the proposed activity that will have less adverse environmental impacts.	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	For special aquatic sites such as wetlands, however, the Guidelines propose a more difficult test for avoidance with two presumptions. For proposed discharges to special aquatic sites there is a presumption that an alternative site that is not a special aquatic site exists and a presumption that such a site will result in less adverse environmental impacts on the aquatic ecosystem. These rebuttable presumptions clarify how to determine if discharges proposed for special aquatic sites meet the requirement that the practicable alternatives have less significant adverse impact on the environment and do not have other significant environmental impacts.	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	Furthermore, the Clean Water Act and EPA's Guidelines make mitigation a requirement of the Section 404 program through standards set at 40 CFR §§ 230.10 (a)-(d). The Memorandum of Agreement between EPA and the Corps concerning mitigation under the CWA 404 (b)(1) Guidelines (Mitigation MOA) defines the three steps of mitigation - the first two being avoidance and minimization of impacts: 1. Section 230.10(a) allows permit issuance for only the least environmentally damaging practicable alternative. The thrust of this section on alternatives is avoidance of impacts. Section 230.10(a)(1) requires that to be permissible, an alternative must be the least environmentally damaging practicable alternative (LEDPA). In addition, Section 230.10(a)(3) sets forth rebuttable presumptions that 1) alternatives for non-water dependent activities that do not involve special aquatic sites are available... 2. Minimization. Section 230.10(d) states that appropriate and practicable steps to minimize the adverse impacts will be required through project modifications and permit conditions.	Comment acknowledged.

Jaclyn Lopez Center for Biological Diversity	Sequencing requires the applicant must first demonstrate impacts to wetlands have been avoided. Next the applicant must demonstrate any remaining unavoidable impacts have been minimized. Lastly, and only after avoidance and minimization of impacts has occurred, the applicant must compensate for any remaining impacts [i.e. compensatory mitigation]. Nichols et. al. provide an excellent description of the avoidance requirement: Avoidance is the first step in the sequencing process by which the Corps determines whether or not the proposed project is the least environmentally damaging practicable alternative (LEDPA). The LEDPA is identified by an evaluation of the direct, secondary, and cumulative impacts on the aquatic ecosystem and "other ecosystems" of each alternative under consideration. The Guidelines state: "...no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem so long as the alternative does not have other significant adverse environmental consequences.	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	The universality of the requirement to evaluate opportunities for use of non-aquatic areas and other aquatic sites that would result in less adverse impact on the aquatic ecosystem was reiterated in a EPA and Army guidance memo in 1993.37 The Corps formalized the requirement for sequencing in its regulations regarding Compensatory Mitigation for Losses of Aquatic Resources, 33 CFR §332.1: (2) Pursuant to these requirements, the district engineer will issue an individual section 404 permit only upon a determination that the proposed discharge complies with applicable provisions of 40 CFR part 230, including those which require the permit applicant to take all appropriate and practicable steps to avoid and minimize adverse impacts to waters of the United States. Practicable means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. Compensatory mitigation for unavoidable impacts may be required to ensure that an activity requiring a section 404 permit complies with the Section 404(b)(1) Guidelines.	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	Therefore, based on the detailed description of the CWA's requirements, the 404 (b)(1) Guidelines, the mitigation sequencing requirement, and the least environmentally damaging practicable alternative are fundamental to the federal review of permit applications for the discharge of fill into wetlands.	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	1. Practicable Alternatives Exist and All Reasonably Related Activities Have Not Been Included in the Permit Application The Clean Water Act (as well as the National Environmental Policy Act) require the Corps to analyze the alternatives to the proposed project. The regulations provide that adverse impacts to wetlands must be avoided to the extent that practicable alternatives are available which will result in less adverse impacts.38 A "practicable" alternative is one that is "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes." If it is otherwise a practicable alternative, an area not presently owned by the applicant which could reasonably be obtained, utilized, expanded or managed in order to fulfill the basic purpose of the proposed activity may be considered." Guidelines establish a presumption that all practicable alternatives that do not involve a discharge into wetlands have less adverse impact on the environment "unless clearly demonstrated otherwise."	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	The applicant has failed to demonstrate that the proposed project is in fact needed, much less that there are no practicable alternatives. Alternatives explore other ways of meeting the purpose and need. Proposing alternatives that are actually projects slated for another time circumvents the purpose of an alternatives analysis which is to consider other actions. The SEA does not adequately explain how the No Action alternative, which conflates a second alternative, an uplands only alternative, does not meet the overall purpose of the Project or analyze the environmental consequences of upland only mining. The Corps should consider other alternatives that would satisfy the project need, like importing the phosphate ore, or mining only upland areas.	Section 1.7 of the decision document describes the purpose and need for the project. Section 5 of the decision document explains how the Corps considered the purpose and need in its alternatives analysis. Section 5.4.1 of the decision document describes the Corps' evaluation of the No Action–Upland Only Mining alternative. Section 2.2.6 of the Final AEIS discusses functional alternatives, including the importation of phosphate.
Jaclyn Lopez Center for Biological Diversity	It's also possible that the Project purpose was too narrowly drawn. There is consensus that the world's phosphate rock supply is finite and that in order to meet global demand for the agricultural sector, greater recycling of and sustainable use of phosphorus will be necessary (Cordell 2013). Proposals that look at non-phosphate rock supply could be examined if the purpose of the Project were more broadly drawn.	Section 1.2.1.1 of the Final AEIS describes the need for phosphate rock minerals as a source of phosphorus. Section 2.2.6 of the Final AEIS discusses functional alternatives.
Jaclyn Lopez Center for Biological Diversity	2. The Proposed Mitigation Does Not Compensate for the Project's Impacts.	Section 8 of the decision document and the approved compensatory mitigation plan explain how the applicant will compensate for unavoidable impacts to aquatic resources. The compensatory mitigation plan complies with the 2008 Compensatory Mitigation Rule, which considers much of the earlier research on unsuccessful mitigation cited in the comments.
Jaclyn Lopez Center for Biological Diversity	The Clean Water Act requires applicants to first avoid wetlands through a practicable alternative. If all efforts have been made to avoid impacts, the Act requires the applicant to minimize impacts through project modifications. If and only if all efforts have been made to avoid and minimize impacts, may the applicant compensate for the loss through mitigation.41	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	As we explained above there are numerous practicable alternatives to the proposed project would avoid significantly impacting these important resources. Further, there is no evidence that the applicant has minimized impacting these resources through project modifications.	Section 5 of the decision document explains how the permittee avoided and minimized impacts to waters of the United States.
Jaclyn Lopez Center for Biological Diversity	Minkin and Ladd conducted a study of the effectiveness of compensatory mitigation projects (creation and restoration) required for permitted impacts in New England and to determine what programmatic improvements might be necessary. Their study found "Forty of the mitigation projects (67%) were determined to meet permit conditions and would be considered successful by that standard. However, only 10 (17%) were considered to be adequate functional replacements for the impacted wetlands." They attribute the failure of mitigation projects to compensate for wetlands losses in part to "...inadequate mitigation amounts for permitted impacts and also for inappropriate functional replacements, e.g., replacing forested wetlands with open water, emergent, and/or scrub-shrub systems." They also raised the issue of whether created or restored wetlands could replace those of natural systems and concluded that 1:1 mitigation ratios were inadequate.	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	The study also seems to indicate that insufficient compensatory mitigation has been required to offset project impacts. With impacts to 352.31 acres of wetlands and proposed compensatory mitigation of 324.12, of which no more than 317.65 became wetland, there would be an overall net loss in acreage of wetlands. Since there was considerable out-of-kind mitigation, there were increased losses in the more complex wetland types. The general replacement of forested wetlands with open water and emergent systems has resulted in considerable loss of function, particularly forested wildlife habitat and water quality functions such as denitrification, which occur best in seasonally saturated wetlands. They also considered the results of other studies in reaching a conclusion that greater mitigation ratios are required:	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	He [Whigham] questioned whether there is any scientific justification for the underlying assumption of mitigation, that restored and created wetlands function similarly to natural wetlands with regard to biodiversity and nutrient cycling. He also noted that concentrating on replacing lost acreage amounts fails to account for the wetland degradation and functional loss resulting from creation and restoration of mitigation wetlands of lower functional value. In this regard, <i>greater compensatory mitigation acreage is required to replace the lost functions of impacted systems, i.e., mitigation to impact ratio must be greater than 1:1</i> .	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	Minkin and Ladd concluded that there is a need for higher mitigation ratios if preservation and enhancement are proposed as compensatory mitigation: An examination of enhancement and preservation, included in the overall mitigation proposals for several of the study projects was not reviewed in this study. Although preservation and enhancement can be important parts of a mitigation proposal, they do not prevent a net loss in wetland acreage and may not prevent a net loss in wetland function.	Comment acknowledged.

Jaclyn Lopez Center for Biological Diversity	Mitigation banks might fair no better in providing compensation for lost wetland functions and values. Kihlsinger reported that: A recent more comprehensive review of 12 mitigation bank sites in Ohio found that 25% of the bank areas studied did not meet the definition of wetlands (Mack and Micacchion 2006). Of the actual wetland acreage, 25% was considered in poor condition, 58% was fair, and 18% was good quality in terms of vegetation as compared to natural reference wetlands. The study also found that amphibian community composition and quality was significantly lower at banks than at natural forest, shrub, or emergent wetlands and that pond- breeding salamanders and forest-dependent frogs were virtually absent from the bank sites. A recent study from Florida found that of the 29 banks evaluated, 70% fell within the moderate to optimal range of function. Although the baseline conditions of most sites were in the high functional range, most of the projects relied upon enhancement, rather than restoration, as the mitigation method (Reiss et al 2007). It must be noted that while the findings of the Florida study are more encouraging, these banks employed enhancement, rather than restoration, and that raises the concern that wetlands functions and values continue to be lost.	As described in the approved compensatory mitigation plan, the functional analysis shows that the proposed mitigation replaces the lost aquatic resource functions, with consideration of time lag and risk.
Jaclyn Lopez Center for Biological Diversity	Brown and Lant conducted a survey of 68 mitigation banks within the United States as of January 1996 were achieving no-net-loss of wetland acreage nationally and regionally. Their review revealed that: Although 74% of the individual banks achieve no-net-loss by acreage, overall, wetland mitigation banks are projected to result in a net loss of 21,328 acres of wetlands nationally, 52% of the acreage in banks, as already credited wetland acreages are converted to other uses. While most wetland mitigation banks are using appropriate compensation methods and ratios, several of the largest banks use preservation or enhancement, instead of restoration or creation. Most of these preservation/enhancement banks use minimum mitigation ratios of 1:1, which is much lower than ratios given in current guidelines. Assuming that mitigation occurs in these banks as preservation at the minimum allowable ratio, ten of these banks, concentrated in the western Gulf Coast region, will account for over 99% of projected net wetland acreage loss associated with banks.	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	Sufficient evidence exists to demonstrate the general failure of compensatory mitigation in replacing lost wetlands functions and values. For this reason, an emphasis should be placed upon avoidance and minimization of impacts to waters of the state.	Section 5 of the decision document explains how the permittee avoided and minimized impacts to waters of the United States.
Jaclyn Lopez Center for Biological Diversity	The SEA presents no information that past reclamation has produced adequate compensation.	The approved compensatory mitigation plan complies with the 2008 Compensatory Mitigation Rule, which considers much of the earlier research on unsuccessful mitigation cited in the comments.
Jaclyn Lopez Center for Biological Diversity	In fact, USGS critiques the DAEIS for not basing its assumptions about surface and groundwater impacts in logic or science.	Section 4.2 of the Final AEIS describes the direct and indirect effects of phosphate mining on surface water hydrology. Section 4.3 of the Final AEIS describes the direct and indirect effects of phosphate mining on groundwater. Section 4.12.2 of the Final AEIS describes the cumulative effects of phosphate mining on surface water hydrology. Section 4.12.3 of the Final AEIS describes the cumulative effects of phosphate mining on groundwater.
Jaclyn Lopez Center for Biological Diversity	Furthermore, while the SEA states that the applicant will implement a monitoring program, it does not provide details about that program, other than that the applicant itself will monitor and periodically report to the Corps, allowing the fox to guard the henhouse.	The DA permit for South Pasture includes conditions requiring monitoring and reporting on the status of the compensatory mitigation and the overall project status, including details on timing, duration, and report content.
Jaclyn Lopez Center for Biological Diversity	III. The Corps must complete a site-specific EIS before rendering a final permit decision for the South Pasture Extension Mine.	The decision document for South Pasture Extension is the Record of Decision for South Pasture Extension, in compliance with NEPA.
Jaclyn Lopez Center for Biological Diversity	Congress provided a broad environmental purpose in the National Environmental Policy Act:42 [t]o declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation.... [I]t is the continuing policy of the Federal Government, in cooperation with State and local governments, and other concerned public and private organizations, to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans.	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	In that regard, NEPA is America's "basic national charter for protection of the environment."43 NEPA ensures that federal agencies "will have available, and will carefully consider, detailed information concerning significant environmental impacts" and that such information "will be made available to the larger [public] audience."44	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	To this end, NEPA requires federal agencies to prepare a detailed EIS for any "major Federal actions significantly affecting the quality of the human environment."45 The issuance of a Section 404 by the Corps is a "federal action" to which NEPA applies.46 To determine whether the environmental impact of a proposed project is significant enough to warrant the preparation of an Environmental Impact Statement ("EIS"), the agency may prepare an Environmental Assessment ("EA"). An EA is "a concise public document that briefly provides evidence and analysis for determining whether to prepare an EIS or a finding of no significant impact."47	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	When an EA is performed on a project, the Corps must take a "hard look" and "must make a convincing case" for a Finding of No Significant Impact ("FONSI") and decision not to perform an EIS.48 The fundamental objective of NEPA is to ensure that an "agency will not act on incomplete information only to regret its decision after it is too late to correct."49 Therefore, if "substantial questions as to whether a project...may cause significant degradation of some human environmental factor," an EIS must be prepared.50	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	The Council on Environmental Quality ("CEQ") has promulgated regulations to guide agencies in determining whether a proposed project will have "significant" impacts to the environment.51 Whether an action will have a "significant" impact on the environment, thus warranting the preparation of an EIS, requires considerations of both "context" and "intensity." "Context" means that the significance of an action must be analyzed in several different contexts (i.e. national, regional, and local significance of the action). "Intensity" refers to the severity of the impact.	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	The CEQ regulations set forth several factors for the Corps to consider when evaluating intensity, including, but not limited to: The degree to which the proposed action affects public health or safety. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas. The degree to which the effects on the quality of the human environment are likely to be highly controversial. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act.	Comment acknowledged.

Jaclyn Lopez Center for Biological Diversity	Courts have held that a plaintiff need not show that significant effects will in fact occur, but if a plaintiff raises substantial questions whether a project may have a significant effect, an EIS must be prepared.	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	Completing an EIS is important as in it, the Corps must go beyond the analysis of an EA and describe (1) the "environmental impact of the proposed action," (2) any "adverse environmental effects which cannot be avoided should the proposal be implemented," (3) alternatives to the proposed action, (4) "the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity," and (5) any "irreversible or irretrievable commitment of resources which would be involved in the proposed action should it be implemented."53	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	As part of the EIS, each federal agency must "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources."54 An agency must "rigorously explore and objectively evaluate all reasonable alternatives."55 In addition, an agency "shall state how alternatives . . . will or will not achieve the requirements of section 101 and 102(1) of the Act" which requires agencies to "use all practicable means" to "assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings" and to "preserve important historic, cultural, and natural aspects of national heritage" as well as how alternatives "will or will not achieve the requirements of . . . other environmental laws and policies."56 Until an agency issues a Record of Decision pursuant to NEPA, no action concerning a proposal may be taken that would have an adverse environmental impact, or limit the choice of reasonable alternatives.57	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	NEPA requires the consideration of reasonably foreseeable, direct, indirect, and cumulative impacts to the natural and physical environment.58 Cumulative impacts are impacts that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.59	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	Federal agencies have a continuing obligation to gather and evaluate new information relevant to the environmental impact of its actions. "An agency that has prepared an EIS cannot simply rest on the original document. The agency must be alert to new information that may alter the results of its original environmental analysis, and continue to take a 'hard look' at the environmental effects of [its] planned action, even after a proposal has received initial approval.60	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	The Corps must complete a site-specific evaluation of the Project and in doing so cannot issue a FONSI as the Project will have significant impacts warranting an environmental impact statement to evaluate the significance of those impacts.	As stated in Section 12.3 of the decision document, the Final AEIS considered the direct, indirect, and cumulative effects of the South Pasture Extension project. The decision document is the Record of Decision for South Pasture Extension, in compliance with NEPA.
Jaclyn Lopez Center for Biological Diversity	A. The Corps must complete a site-specific analysis.	As stated in Section 12.3 of the decision document, the Final AEIS considered the direct, indirect, and cumulative effects of the South Pasture Extension project. The decision document is the Record of Decision for South Pasture Extension, in compliance with NEPA.
Jaclyn Lopez Center for Biological Diversity	A FAEIS does not alone satisfy NEPA requirements for individual projects within its scope. CEQ regulations indicate when tiering from a broader environmental impact statement to a subsequent narrower statement is appropriate, and specifically give the example of a regional or basinwide program statement and the ultimate site-specific statements.61	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	Manifesting this intent, the SEA incorporates by reference the FAEIS and provides no further discussion of the South Pasture Extension's impacts. For example, in its factual determinations under the CWA 404(b)(1) Guidelines for secondary impacts, the SEA simply states: "the evaluations of impacts described in the FEIS included both direct and indirect, or secondary, impacts. Therefore, Chapter 4 of the FEIS describes the secondary effects of the South Pasture Extension project." However, neither Chapter 4 of the FEIS, nor the SEA by incorporating the FEIS, specifically discuss site-specific secondary effects caused by the South Pasture Extension. The purpose of an areawide impact statement is to facilitate the evaluation of cumulative impacts, and should not be a shortcut designed to eliminate in-depth, site-specific scientific evaluation of direct and secondary impacts for each permitted project.	Sections 4.2 through 4.10 of the Final AEIS contain descriptions of the direct and secondary/indirect effects of each alternative considered, including South Pasture Extension. The decision document for South Pasture Extension specifically references the sections of the Final AEIS that address direct, secondary/indirect, and cumulative effects associated with South Pasture Extension. For example, Section 7(d) of the decision document states "Section 4.9.5 of the Final AEIS describes the specific evaluation of cultural resource and historic property impacts associated with the South Pasture Extension project conducted for the Final AEIS."
Jaclyn Lopez Center for Biological Diversity	B. The Corps cannot issue a Finding of No Significant Impact.	Chapter 4 of the Final AEIS includes determinations of significance, without and with mitigation, for the direct, secondary/indirect, and cumulative effects considered.
Jaclyn Lopez Center for Biological Diversity	The Project meets several of the significance factors warranting an EIS.	As described in Section 1.1.1 of the Final AEIS, the Corps already determined that South Pasture Extension, along with the other three phosphate mines then and currently proposed, should be evaluated in an EIS. The Corps prepared the Final AEIS in compliance with NEPA.
Jaclyn Lopez Center for Biological Diversity	1. The proposed action may affect public health or safety. Phosphate rock mining leads to reallocation and exposure of several heavy metals and radionuclides that become airborne or enter waterbodies. Some of this information is described above in the public interest section regarding phosphogypsum stacks which has grave health effects; however, in addition, several studies have indicated that phosphate mining poses human health risks. Yang (2014) found elevated levels of lead, manganese, and mercury in house dust, attributable to nearby phosphate mines. Abdalla (2011) found wells downstream of phosphate mining activities had high concentrations of heavy metals, such as lead, cadmium, zinc, and nickel, when compared with upstream wells. In general, the release of these heavy metals can have serious health implications (Al-Hwaiti 2013).	As explained in Section 1.3.1 of the Final AEIS, phosphogypsum stacks are associated with fertilizer production. The Corps considered the four phosphate mines reviewed under the AEIS to have independent utility from the fertilizer plants. The cited study by Yang et al. involves mining in China, the cited study by Abdalla et al. involves mining in Egypt, and the cited study by Al-Hwaiti et al. involves phosphate deposits in Jordan. Section 4.1.8 of the Final AEIS addresses several of the issues related to community health, safety, and quality of life, with consideration of federal, state and local requirements..
Jaclyn Lopez Center for Biological Diversity	2. The land has unique characteristics such as proximity to wetlands. The land has characteristics that are unique, including wetlands, particularly riparian forests. The proposed alternative will impact over 1,500 acres of Corps' wetland forests.	The South Pasture Extension project involves 420.67 acres of Corps-jurisdictional forested wetland impact, and 1198.17 acres of impact to Corps-jurisdictional wetlands overall.
Jaclyn Lopez Center for Biological Diversity	Riparian forests have been found to reduce delivery of nonpoint-source pollution to streams and lakes in many types of watersheds (Vellidis 2002, Vellidis 2003, Lowrance 1984, Lowrance 1985). Riparian forest ecosystems are excellent nutrient and herbicide sinks that reduce the pollutant discharge from surrounding agroecosystems (Peterjohn 1984). For example, studies from coastal plain agricultural watersheds reveal that riparian forest ecosystems are excellent nutrient sinks and buffer the discharge from surrounding agroecosystems.62 Riparian buffers are especially important on small streams where intense interaction between terrestrial and aquatic ecosystems occurs,63 because first- and second-order streams comprise nearly three-quarters of the total stream length in the U.S. (Leopold 1964). Much opportunity remains to implement riparian buffers systems in forests and deserts as well as in agricultural areas or in urban or suburban settings.	Comment acknowledged.

Jaclyn Lopez Center for Biological Diversity	While wetlands provide numerous services to human society, perhaps one of the easiest to quantify is flood protection. A Washington State Department of Ecology evaluation of the economic worth of this single function produced values ranging from \$8,000 to \$51,000 per acre (Leschine 1997). The study points out that "policies which permit wetlands to disappear that are presently contributing little to stem flood protection, but which have the potential to do so in the future, could lead to rapidly rising values for the remaining wetlands for flood protection, as increasingly marginal wetlands are called into service. At some point the 'next best' alternatives to enhanced flood protection will not involve wetlands at all, and the purely engineered systems that might have to be built could prove very expensive indeed." ⁶⁴ Of course any analysis that included economic values of the full range of wetland functions including pollutant removal, flood protection, recreation, species protection, groundwater recharge, and others would obviously derive much higher values.	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	3. The effects on the quality of the human environment are likely to be highly controversial. The Corps has already received thousands of comment letters from concerned and impacted citizens of Florida. Furthermore, the byproduct of the process the Corps is considering permitting is radioactive, with no real solution for permanent storage. These two factors alone warrant an Environmental Impact Statement and make a FONSI a factual and legal impossibility.	The Corps has addressed comments received during scoping and on the Draft AEIS in accordance with NEPA requirements. The Corps has also addressed comments on South Pasture Extension and additional AEIS comments in accordance with NEPA requirements. As explained in Section 1.3.1 of the Final AEIS, phosphogypsum stacks are associated with fertilizer production. The Corps considered the four phosphate mines reviewed under the AEIS to have independent utility from the fertilizer plants. As described in Section 1.1.1 of the Final AEIS, the Corps already determined that South Pasture Extension, along with the other three phosphate mines then and currently proposed, should be evaluated in an EIS. The Corps prepared the Final AEIS in compliance with NEPA.
Jaclyn Lopez Center for Biological Diversity	4. The possible effects on the human environment are highly uncertain or involve unique or unknown risks. This topic is covered in the public interest and public health and safety sections above.	Chapter 4 of the Final AEIS describes the direct, secondary/indirect, and cumulative effects of phosphate mining, including South Pasture Extension. Sections 6 and 7 of the decision document address the 404(b)(1) Guidelines and public interest review, respectively.
Jaclyn Lopez Center for Biological Diversity	5. The action is related to other actions with individually insignificant but cumulatively significant impacts. The AEIS details, and the Corps is currently considering, associated projects that cumulatively have significant impacts.	As described in Section 1.1.1 of the Final AEIS, the Corps already determined that South Pasture Extension, along with the other three phosphate mines then and currently proposed, should be evaluated in an EIS. The Corps prepared the Final AEIS in compliance with NEPA.
Jaclyn Lopez Center for Biological Diversity	6. The action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act. This topic is covered in the following section.	Section 10.1 of the decision document describes the Corps' final determinations for South Pasture Extension pursuant to Section 7 of the Endangered Species Act.
Jaclyn Lopez Center for Biological Diversity	IV. The Corps must reinstitute consultation with the U.S. Fish and Wildlife Service before rendering a final permit decision for the South Pasture Extension Mine. The 2014 biological opinion is legally deficient as it fails to address several relevant factors. The Corps and the U.S. Fish and Wildlife Service ("Service") must reinstitute consultation and the Service must publish a new biological opinion before a permit is issued.	Section 10.1 of the decision document describes the Corps' final determinations for South Pasture Extension pursuant to Section 7 of the Endangered Species Act.
Jaclyn Lopez Center for Biological Diversity	Congress enacted the ESA to provide a "means whereby the ecosystems upon which endangered species and threatened species depend may be conserved...[and to implement] a program for the conservation of such endangered species and threatened species." ⁶⁵ At its core, the ESA prohibits any person from taking any species listed as endangered, and empowers the Service to promulgate regulations prohibiting the taking of any species listed as threatened. ⁶⁶ "Take" is defined broadly to include all manner of harm or harassment to protected species, including both direct injury or mortality and also acts and omissions which disrupt or impair significant behavioral patterns. ⁶⁷ Similarly, federal agencies are required to "carry[] out programs for the conservation of endangered species and threatened species," ⁶⁸ and to "insure that any action authorized, funded, or carried out by such agency...is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the adverse modification of [the critical] habitat of such species." ⁶⁹	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	Section 7 consultation is required for "any action [that] may affect listed species or critical habitat." ⁷⁰ If the action agency determines its action "may affect" a listed species, the agency must initiate formal consultation with an expert agency (in this case, the Service). ⁷¹ Once the action agency has initiated formal consultation, the Service is required to complete a biological opinion ("BiOp") for that proposed action. ⁷² The BiOp summarizes the Service's findings and determines whether the proposed agency action will jeopardize the continued existence of any species or result in adverse modification of critical habitat. ⁷³ If the Service determines the agency action is likely to jeopardize the continued existence of a listed species or result in adverse modification, the BiOp impacts such that the agency action may avoid jeopardizing listed species. ⁷⁴	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	Pervading the Section 7 consultation process is the mandate for "each agency [to] use the best scientific and commercial data available." ⁷⁵ Importantly, each federal agency has an independent duty to "use the best scientific and commercial data available" to ensure any action it authorizes "is not likely to jeopardize the continued existence...or result in the destruction or adverse modification of [the critical] habitat" of any listed species. ⁷⁶ Section 7(a)(1) of the ESA requires the Corps, in consultation with and with the assistance of the Service, to utilize its authorities in furtherance of the purposes of the ESA by carrying out programs for the conservation of endangered and threatened species. ⁷⁷ Federal agencies have an independent and substantive obligation to insure that their actions are not likely to jeopardize the continued existence of endangered or threatened species or adversely modify critical habitat. ⁷⁸ Indeed, a "no jeopardy" biological opinion from the Fisheries Service does not absolve the action agency of its duty to insure that its actions comply with the ESA. ⁷⁹	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	Consultation must be reinitiated if, among other reasons, "new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered," or "[i]f a new species is listed or critical habitat designated that may be affected by the identified action." ⁸⁰	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	The 2014 BiOp is legally and scientifically deficient because it does not evaluate the loss of habitat the project will cause; it does not evaluate human population growth and other regional development; and it does not adequately evaluate climate change. Furthermore, the 2014 BiOp fails to provide enough information to truly evaluate the effects of the project on listed species or their habitat. If the Service fully evaluated these impacts, it would not be able to authorize take of the listed species without determining that the take, in light of existing and planned projects, will jeopardize some of those species. Therefore, the existing 2014 BiOp is legally deficient and reinitiation of consultation is required.	Section 10.1 of the decision document describes the Corps' final determinations for South Pasture Extension pursuant to Section 7 of the Endangered Species Act.
Jaclyn Lopez Center for Biological Diversity	A. The Biological Opinion does not Adequately Address the Loss of Habitat The 2014 BiOp does not satisfy the requirements of the ESA. There is no guarantee that lands will be set aside for conservation purposes or whether this has indeed been done. The Corps should update the Service as to whether this has been done. Notably, such an easement is not listed as a term or condition of the 2014 BiOp.	As described in the approved compensatory mitigation plan and the DA permit, prior to initiation of the authorized work the permittee will preserve 1095 acres of wetlands, uplands, and streams, including 10.5 miles of streams and riparian buffers. The permittee will will preserve additional wetland and stream mitigation areas, with associated upland buffers, after they achieve their required performance standards. The permittee will preserve approximately 3300 acres of habitat following completion of the mitigation.

Jaclyn Lopez Center for Biological Diversity	This project will impact at least 7,500 acres of prime habitat for listed species.	Most of the property is in an agricultural land use such as cattle pasture. The permittee will preserve 1095 onsite acres of wetlands, uplands and streams prior to mining.
Jaclyn Lopez Center for Biological Diversity	The leading cause of extinction is habitat loss (Harris 1984, Meffe 1997), and native habitats in Florida are rapidly disappearing (Kautz 2001 at 56). This has resulted in the extirpation or extinction of 13 vertebrates over the last 150 years (Kautz 2001 at 56). Habitat loss and fragmentation, coupled with human encroachment, have resulted in populations of species that are increasingly isolated from each other (Dobey 2002 at 68). Large mammalian carnivores, like the Florida panther, are particularly vulnerable to habitat loss and fragmentation because of their relatively low numbers, large home ranges, and interactions with humans (Noss 1996 entire, Woodroffe 1998 entire). Their low fecundity and long generation times result in reduced levels of genetic variation (Roekle 1993 entire, Lu 2001 entire). Habitat loss and fragmentation can lead to increased mortality (Jules 1998 entire); reduced abundance (Flather 2002 at 40-56); disruption of the social structure of populations (Ims 1999 at 839-849, Cale 2003 entire); reduced population viability (Harrison 1999 at 225-230, Srikwan 2000 entire, Cale 2003 entire, Lindenmayer 2006); isolated populations with reduced population sizes and decreased genetic variation (Frankham 1996 entire). Loss of genetic variation may reduce the ability of individuals to adapt to a changing environment; cause inbreeding depression (Ebert 2002 entire); reduce survival and reproduction (Frankham 1995 entire, Reed 2003 entire); and increase the probability of extinction (Saacheri 1998 entire, Westmeier 1998, Kramer-Schadt 2004 entire, Letcher 2007 entire, Ruiz-Gutierrez 2008 entire, Sherwin 2000).	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	A 2009 study concluded the anthropogenic influences—primarily road density and vehicular traffic—can substantially affect the population dynamics of large carnivores with large home ranges, like the Florida panther (Hostetler 2009 entire). Habitat fragmentation and anthropogenic barriers to movement have limited the dispersal capability of species, reducing gene flow among populations and resulting in genetically distinct populations (Dixon 2007 at 455-464). Large carnivores may be much more susceptible to losses in genetic variation due to habitat fragmentation because of their large home ranges, low population densities, and long generation times (Paetkau 1994 entire, Johnson 2001). Isolation is reinforced when travel between subpopulations is limited due to significant barriers, such as high-volume roads (Paetkau 1997 entire, Mader 1984 entire, Brody 1989, Proctor 2002 entire, Voss 2001 entire, Keller 2003 entire, Gerlach 2000 entire, Trombulak 2000 entire, Coffin 2007 at 396-403). Thus roads and other anthropogenic obstacles can substantially reduce gene flow among populations (Dixon 2007 at 455-464, Kyle 2001 at 343-346, Walker 2001 entire, Ernest 2004).	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	The 2014 BiOp does not provide sufficient information to evaluate the effect of the loss of habitat on the species. It does not detail with sufficient specificity what the effect of the permanent loss of the original habitat will have, or the effect the modified (so-called “reclaimed”) land will have after it is finally “reclaimed” 20 years after it is destroyed. B. Population Growth and Other Nearby Development A leading cause of habitat loss is human population growth and corresponding land uses. A 2000 analysis of potential ecological connectivity in Florida found that only about half the land identified for habitat connectivity was publically owned and managed (Hocctor 2000 at 984- 999). Meanwhile, Florida 2060: A Population Distribution Scenario for the State of Florida predicts Florida’s population will grow by 49 percent by 2060. The FWC’s Wildlife 2060: What’s at stake for Florida? estimates that such population increases could result in the conversion of 7 million acres from rural and natural to urban uses (Cerulean 2008 at 2). It predicts that nearly 3 million acres of existing agricultural lands and 2.7 million acres of native habitat will be claimed by roads, shopping malls and subdivisions; 1.6 million acres of woodland habitat may be lost; wetland habitat may become more isolated and degraded; 2 million acres of lands bears depend on may disappear; and gopher tortises may lose a fifth of their existing range (Cerulean 2008 at 4). While Florida is projected to increase its population statewide by 50% by 2060, Hardee County is projected to grow from 31,242 residents in 2015 to 43,922 in 2060. Hardee is projected to have at least 14 times more urban development in 2060 than it does presently, making it one of the fastest growing counties. The Service must consider the synergistic and cumulative effects of these planned nearby projects, along with all past land use projects.	Section 10.1 of the decision document describes the Corps’ final determinations for South Pasture Extension pursuant to Section 7 of the Endangered Species Act.
Jaclyn Lopez Center for Biological Diversity	C. Climate Change While the 2014 BiOp acknowledges that climate change in south Florida could exacerbate current land management challenges involving habitat fragmentation and other threats, it refuses to attempt to analyze the specific impact it will have on the species and habitat impacted by this Project. The Service must consider all available climate change science in evaluating the effects of the Project.	Section 10.1 of the decision document describes the Corps’ final determinations for South Pasture Extension pursuant to Section 7 of the Endangered Species Act. Section 4.1.8.3 of the Final AEIS describes the Corps’ evaluation of the effects of phosphate mining on climate and sea level rise.
Jaclyn Lopez Center for Biological Diversity	Climate models project continued warming in all seasons across the southeast United States and an increase in the rate of warming (Karl 2009 at 111-113). The warming of air and water temperatures projected for the southeast will create heat-related stress for fish and wildlife. Climate change will alter the distribution of native plants and animals and will lead to the local loss of imperiled species and the displacement of native species by invasive species (Karl 2009 at 113). Concerning the effects climate change is expected to have on southeastern environments, Karl (2009 at 115) states, “[e]cological thresholds are expected to be crossed throughout the region, causing major disruptions to ecosystems and to the benefits they provide to people.”	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	Climate change will increase the incidence and severity of both drought and major storm events in the southeast (Karl 2009 at 111-116). The percentage of the southeast region experiencing moderate to severe drought has already increased over the past three decades. Since the mid- 1970s, the area of moderate to severe spring and summer drought has increased by 12 percent and 14 percent, respectively. Fall precipitation tended to increase in most of the southeast, but the extent of region-wide drought still increased by nine percent (Karl 2009 at 111). Both drought and severe storms could threaten the Florida black bear with habitat alteration, altered vegetation, and altered prey base and food availability (Seager 2009 entire).	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	The warming climate will likely cause ecological zones to shift upward in latitude and altitude and species’ persistence will depend upon, among other factors, their ability to disperse to suitable habitat (Peters 1985 entire). Because of some of the species’ already limited range and the high degree of development in the surrounding area, there is likely no suitable habitat where the species could disperse, making climate change a dire threat to its survival.	Section 10.1 of the decision document describes the Corps’ final determinations for South Pasture Extension pursuant to Section 7 of the Endangered Species Act. Section 4.1.8.3 of the Final AEIS describes the Corps’ evaluation of the effects of phosphate mining on climate and sea level rise.
Jaclyn Lopez Center for Biological Diversity	Global average sea level rose by roughly eight inches over the past century, and sea level rise is accelerating in pace (Melillo 2014 at 373). As summarized by the Third National Climate Assessment, “Since the late 1800s, tide gauges throughout the world have shown that global sea level has risen by about 8 inches. A new data set shows that this recent rise is much greater than at any time in at least the past 2000 years. Since 1992, the rate of global sea level rise measured by satellites has been roughly twice the rate observed over the last century, providing evidence of additional acceleration” (Melillo 2014 at 44). Many areas of the Southeast Atlantic and Gulf of Mexico coasts have experienced significantly higher rates of relative sea-level rise than the global average during the past 50 years (Karl 2009 at 37). Large regions of Florida have elevations at or below 3 to 6 feet, making these areas particularly vulnerable to sea-level rise and flooding (Weiss 2011 entire, Strauss 2012 at 3-4).	Comment acknowledged.

Jaclyn Lopez Center for Biological Diversity	According to the Third National Climate Assessment, global sea level is projected to rise another 1 to 4 feet by 2100, with sea-level rise of 6.6 feet possible (Melillo 2014 at 589). Sea level rise could increase by another 6 inches in just the next decade (Melillo 2014 at 400). In its 2012 sea-level rise assessment, the National Research Council similarly estimated global sea-level rise at 8 to 23 cm by 2030, 18 to 48 cm by 2050, and 0.5 m to 1.4 m by 2100 (NRCNA 2012 at 4). The effects of sea-level rise will be long-lived. Scientists estimate that we lock in 8 feet of sea-level rise over the long term for every degree Celsius (1.8 degrees Fahrenheit) of warming (Levermann 2013 at 13746). Regional projections for Florida also indicate that sea level rise of three to four feet or more is highly likely within this century. The Southeast Florida Regional Climate Change Compact Counties—Monroe, Miami-Dade, Broward, and Palm Beach counties—released the Southeast Florida Regional Climate Change Action Plan in October 2012, which included a detailed “Unified Sea Level Rise Projection” for south Florida. The sea level rise projections for south Florida are similar what has been estimated globally by the National Research Council: 8 to 18 cm (3 to 7 inches) by 2030, 23 to 61 cm (9 to 24 inches) by 2060, and 48 cm to 1.45 m (19 to 57 inches) by 2100 (SFRCCC 2011 at 9-10).	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	Increasingly intense storms and storm surge pose additional climate threats to coastal wildlife species in Florida. Studies have found that the frequency of high-severity hurricanes is increasing in the Atlantic (Elsner 2008 at 92-94, Bender 2010 at 454-458, Kishtawal 2012 at 1- 6), along with an increased frequency of hurricane-generated large surge events and wave heights (Grinsted 2012 at 19601-19604, Komar 2008 entire). The risk of extreme storm surges has already doubled as the planet warms, and these events could become 10 times more frequent in the coming decades (Grinsted 2012 entire). High winds, waves, and surge from storms can cause significant damage to coastal habitat. When storm surges coincide with high tides, the chances for damage are greatly heightened (Cayan 2008 at 557). As sea levels rise, storm surge will be riding on a higher sea surface, which will push water further inland and create more flooding of coastal habitats (Tebaldi 2012 entire). For example, one study estimated that hurricane flood elevations along the Texas coast will rise by an average of 0.3 meters by the 2030s and 0.8 meters by the 2080s, with severe flood events reaching 0.5 meters and 1.8 meters by the 2030s and 2080s, respectively (Mousavi 2011 entire).	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	Coastal species face significant risks from coastal squeeze that occurs when habitat is pressed between rising sea levels and coastal development that prevents landward movement (Scavia 2002 at 17-18, Fitzgerald 2008 at 601-634, Defeo 2009 at 6-7, LeDee 2010 entire, Menon 2010 entire, Noss 2011 entire). Human responses to sea-level rise including coastal armoring and landward migration pose significant risks to the ability of species threatened by sea-level rise to move landward, if other suitable habitats were even available (Defeo 2009 at 1-9). Projected human population growth and development in Florida may thus threaten the species with coastal squeeze (Zwick 2006 entire).	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	The Service must consider the loss of habitat sea-level rise and climate change will cause and the pressure that will place on human and non-human populations and habitat, and how that will be effected by the Project.	Section 10.1 of the decision document describes the Corps' final determinations for South Pasture Extension pursuant to Section 7 of the Endangered Species Act. Section 4.1.8.3 of the Final AEIS describes the Corps' evaluation of the effects of phosphate mining on climate and sea level rise.
Jaclyn Lopez Center for Biological Diversity	D. The Service and Corps Must Evaluate Impacts of the Project on Listed Species	Section 10.1 of the decision document describes the Corps' final determinations for South Pasture Extension pursuant to Section 7 of the Endangered Species Act.
Jaclyn Lopez Center for Biological Diversity	Florida Panther The Service originally listed the Florida panther as an endangered species in 1967.81 To this day the panther remains, “the most endangered mammal in the eastern [United States] . . . [with] only 120-180 left, all in South Florida.”82 While the Project does not currently support a Florida panther population, Florida panthers have been observed in the area and it could serve as important dispersal habitat and wildlife corridor connecting habitat farther north (Pinnell 2015).	Section 10.1 of the decision document describes the Corps' final determinations for South Pasture Extension pursuant to Section 7 of the Endangered Species Act.
Jaclyn Lopez Center for Biological Diversity	Panthers have faced an uphill battle after their numbers declined to as few as 20-30 individuals.83 Despite the relative success of a genetic restoration project, only “a single wild population in south Florida” exists and it is “all that remains of [the] species.”84 Development in south Florida has significantly increased in the area of suitable panther habitat and has led to increased panther mortalities from vehicle collisions, inbreeding, increased competition for food, and territorial disputes (Staletovich 2014).85 For example, it is estimated that male panthers travel and patrol a territory of several hundred square miles (Tingley 2015). The panther's large territory-needs and limited habitat has led to intraspecific aggression, which was responsible for approximately 42% of panther mortalities between 1990 and 2004.86	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	The biggest threat to the panther's existence is habitat destruction, thus any proposed conservation plan must be consistent with the panther's recovery plan to ensure that the action undertaken does not undermine the species' chances of recovery. The recovery plan sets forth a goal to “maintain, restore, and expand the panther population and its habitat in south Florida and expand the breeding . . . population in south Florida . . . ”87 The Project will negatively impact the recovery of the panther, whose greatest threats are habitat destruction and fragmentation.88	Section 10.1 of the decision document describes the Corps' final determinations for South Pasture Extension pursuant to Section 7 of the Endangered Species Act.
Jaclyn Lopez Center for Biological Diversity	Environmental baseline The Service's analysis of the environmental baseline will need to: 1) take into account the fact that there is currently not enough habitat available to support the existing panther population; and 2) analyze the impact of other projects in the area. When analyzing the impacts of a proposed project on listed species, the Service must consider the direct and indirect impacts added to the environmental baseline.89 The environmental baseline includes “past and present impacts of all proposed Federal projects in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal consultation, and the impact of State or private actions which are contemporaneous with the consultation in process.”90 “Action area” means “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.”91 The panther is dependent on hardwood and hammock type uplands largely because those habitats are suitable for its prey. For a species as imperiled as the panther, whose greatest threat is habitat destruction, the Service must survey the area to determine whether panthers indeed use the habitat.	Section 10.1 of the decision document describes the Corps' final determinations for South Pasture Extension pursuant to Section 7 of the Endangered Species Act.
Jaclyn Lopez Center for Biological Diversity	Florida Scrub Jay The Service listed the Florida scrub jay as a threatened species under the ESA in 1987.92 The species is endemic to Florida and requires specific habitat features with “well drained to excessively well-drained sandy soils... [and] oak-dominated scrub, or xeric oak scrub . . . [that is] adapted to nutrient poor soils, periodic drought, high seasonal rainfall and frequent fires.”93 Due to the scrub jay's particular habitat needs, the primary threats to its survival are habitat destruction, including both loss and fragmentation, and habitat degradation.94 Given these threats the Corps and Service must better explain why the Project is not likely to adversely affect the Florida scrub jay.	As stated in the June 1, 2012, public notice for South Pasture Extension, the project has a small area of potentially suitable habitat for the Florida scrub jay however no scrub jays have been observed during listed species surveys. The June 9, 2014, BO further states that the 28.3-acre scrub area onsite is overgrown and therefore is actually not suitable habitat, and not proposed for impact.
Jaclyn Lopez Center for Biological Diversity	Wood Stork The Service listed the wood stork under the ESA as an endangered species in 1984, and it is the only species of stork “regularly occurring in the United States.”95 In 2014, the Service upgraded the status of the species to “threatened” largely due to successful recovery efforts in Georgia.96 Although wood storks have seen some improvements in their numbers overall, the species is still in decline, as evidenced by its numbers in Corkscrew Swamp, which until recently was considered “the most productive colony in the nation.”97 Wood storks are found primarily in Florida, Georgia, and parts of South Carolina; however, there have been occasional sightings in North Carolina and as far west as Mississippi.98 It is suspected that the species migrates and spends its winters in south Florida, as there is an influx of storks during winter months.99 Wood storks can be observed in south Florida all year. Historically, the central and northern Everglades are among the areas where this population surge is most evident. Some years, the Everglades system has been documented to support approximately 55% of the entire U.S. population of the species.100 Unfortunately, south Florida colonies have been plagued with multi-year nest failures in recent years.	Comment acknowledged.

Jaclyn Lopez Center for Biological Diversity	The wetlands and flow-way located on the project site support downstream regional wetland systems. In Southwest Florida, Lauritsen (2010) examined the importance of seasonal, short- hydroperiod wetlands to foraging federally threatened wood storks, which supply most of the food energy for initiating reproduction and suggested that the loss of these wetlands are not being appropriately mitigated for under State wetlands permitting law. The impacts of the loss of these wetlands may result in no nesting or abandonment of nesting attempts by wood storks at sites such as Corkscrew Swamp Sanctuary. The Service will need to calculate the loss of wetlands and other surface waters (jurisdictional and non-jurisdictional) that will result from the project and the effect that will have on the wood stork.	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	Both freshwater and estuarine wetland ecosystems may serve as suitable wood stork habitat. ¹⁰¹ Storks tend to nest in a variety of different trees depending on what is available within the habitat, including: cypress, black gum, southern willow, red mangroves, prickly pear cactus, Brazilian pepper, and Australian pine. ¹⁰² Wood storks require nesting sites located in standing water throughout the nesting season to protect the nest from predators. ¹⁰³ For foraging, it is critical that the storks have access to shallow, open water. ¹⁰⁴ The species forages using tactilocation, a process where it wades through the water with its beak submerged and clamps down on prey, usually small fish, when they come in contact with its beak. ¹⁰⁵ Storks require shallow waters to wade in and fairly dense stocks of fish to support a colony's feeding habits. ¹⁰⁶ Storks' needs are somewhat less specific when it comes to roosting trees; although they look for similar sites as those used for nesting, they will roost in a greater variety of trees depending on the availability of food. ¹⁰⁷ The greatest threats to the wood stork's existence are the loss of adequate habitat for feeding, changes in water levels and hydrology (habitat modification), lack of nesting habitat, "human disturbance," and loss resulting from the adverse effects of pesticide and chemical contamination. ¹⁰⁸ As wetlands are drained and filled—primarily for development and agriculture—the stork's habitat is irreversibly destroyed. Because of the stork's specific foraging and nesting needs, changes in hydrology resulting from developmental impacts, both direct and indirect, can have a major effect on the species' ability to survive in a given area.	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	The 2014 BiOp does not contain sufficient information to address the needs of the wood stork, and it fails to identify with any specificity the impacts that are likely to result from the Project. The 2014 BiOp lacks sufficient information to identify the potential impacts to the wood stork and the anticipated take that will occur. Additionally, it does not specify any specific measures that will be taken to conserve wood stork habitat. The species' recovery plan provides specific, affirmative actions that should be taken, such as restoring and enhancing habitat and providing protection for nesting sites, among other affirmative and proactive measures. ¹⁰⁹ Despite this wide variety of actions the Corps could take to enhance existing wood stork habitat in accordance with the species' recovery plan to offset negative impacts, it has failed to do include these kinds of actions in the plan.	The June 9, 2014, BO describes the wood stork foraging prey analysis as applied to the aquatic resources proposed for impact and proposed as compensation. That analysis showed that the compensation was more than adequate. Section 10.1 of the decision document describes the Corps' final determinations for South Pasture Extension pursuant to Section 7 of the Endangered Species Act.
Jaclyn Lopez Center for Biological Diversity	The 2014 BiOp estimates the take of one wood stork from vehicle collision over the course of the Project, but no take from the loss or reduction of foraging habitat. The Project would impact 1,472 acres of Corps jurisdictional wetlands that likely provide foraging habitat for the wood stork. Nothing in the 2014 BiOp indicates that a temporary loss is not a take under the ESA. Furthermore, nothing in the 2014 BiOp demonstrates that the land will be reclaimed adequately and prey base restored, by for example, comparing to other reclaimed lands. In fact, the 2014 BiOp, in its Terms and Conditions indicate that a reclamation plan will be provided. Such a reclamation plan should be evaluated in the 2014 BiOp itself. ¹¹⁰ The Service cannot assume, without actually evaluating, the effectiveness of such a plan.	The June 9, 2014, BO describes the wood stork foraging prey analysis as applied to the aquatic resources proposed for impact and proposed as compensation. That analysis showed that the compensation was more than adequate. Section 10.1 of the decision document describes the Corps' final determinations for South Pasture Extension pursuant to Section 7 of the Endangered Species Act.
Jaclyn Lopez Center for Biological Diversity	<i>Audubon's Crested Caracara</i> The Service listed the Audubon (or Northern) crested caracara as a threatened species under the ESA in 1987. ¹¹¹ The species historically was found throughout peninsular south Florida in wet and dry prairie habitats featuring interspersed cabbage palm trees. ¹¹² Now, the caracara has somewhat adapted to land use changes, using pasturelands and in some cases citrus and other agricultural lands in place of its natural habitat. ¹¹³ Still, caracaras nest almost exclusively in cabbage palms, and ideal habitat conditions for the species consists of these palms "surrounded by open habitats with low ground cover and low density of tall or shrubby vegetation." ¹¹⁴ The species is an opportunistic hunter, seeking out prey "on the wing, from perches, and on the ground." ¹¹⁵ The primary threat to the species is habitat loss. ¹¹⁶ The majority of the caracara's habitat loss is attributable to agricultural and residential development. ¹¹⁷ In addition to habitat destruction, the species has suffered from direct human impacts, including mortalities from vehicular collisions, traps, and intentional killings resulting from misplaced fear that the species preys on livestock. ¹¹⁸ The Service's recovery plan for the northern crested caracara outlines specific measures that should be taken to protect the caracara including, efforts to "create, restore, or expand occupied habitat wherever possible." ¹¹⁹ The plan further states that conservation goals may be met through the expansion of habitat in areas with individuals present, as well as restoration of habitat in vacant areas.	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	The 2014 BiOp states that the direct effects from the Project include mortality from vehicular traffic, harassment, and missed foraging and breeding opportunities; and that the indirect effects include post-construction maintenance. ¹²⁰ The 2014 BiOp speculates that future reclaimed land to the north will provide alternate habitat for caracaras displaced during the mining activities. ¹²¹ It also opines that the loss of habitat may be offset if prey becomes available in ditches and mine pits. ¹²² It concedes that it does not know if the loss of habitat will cause temporary or permanent abandonment of nesting territory in the Project area, or result in intraspecific aggression with adjacent pairs of caracaras. It also concedes that it is difficult to estimate how many caracaras will use the site following construction and reclamation. ¹²³	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	Despite all the acknowledged unknowns, the 2014 BiOp posits that only two caracara pairs could be impacted, and that long term effects will be minor. ¹²⁴ Nothing in the 2014 BiOp explains whether the Corps or the Service have analyzed other reclaimed lands to determine whether such lands provide suitable habitat. Moreover, nothing in the 2014 BiOp supports the conclusion that the effects of take will be temporary, i.e. that after 14 years of no habitat, that caracaras will recover from that loss. At the very least, the Corps should indicate whether the aforementioned lands to the north are indeed now currently available as suitable alternate habitat. The Service and Corps should also require up-to-date surveys to determine how many caracaras use the Project area, otherwise the Service will have no way to determine whether more than two pairs, or four individuals have been taken, as the 2014 BiOp does not require any monitoring.	Section 10.1 of the decision document describes the Corps' final determinations for South Pasture Extension pursuant to Section 7 of the Endangered Species Act.
Jaclyn Lopez Center for Biological Diversity	Under the Service's cumulative effects analysis, the Service concludes that 3.2 percent of the 5,328.8 acres of non-phosphate-owned lands (170.5 acres) may be subject to cumulative impacts and that that level of cumulative effects is unlikely to appreciably affect caracaras in the area. This analysis, however, ignores the threat of a death by a thousand cuts where the Service, in future analyses, or indeed, in the current analysis, does not take into account past habitat loss, however segmented and individually minor at the time. This familiar to analyze the cumulative effects of habitat loss on the caracara, either at the environmental baseline or cumulative effects analysis belies the purpose of the ESA in protecting the ecosystem upon which imperiled species depend.	Section 10.1 of the decision document describes the Corps' final determinations for South Pasture Extension pursuant to Section 7 of the Endangered Species Act.
Jaclyn Lopez Center for Biological Diversity	American Alligator The Service listed the American alligator as an endangered species in 1967. ¹²⁵ The alligator gained status as an endangered species in response to a massive decline in individuals, most of which was attributed to hunting and habitat destruction. ¹²⁶ In 1987, the Service determined that the species was recovered and removed it from the endangered species list; however, the alligator is still protected under the ESA as "threatened due to similarity of appearance," to the American crocodile. ¹²⁷ Due to its status as a threatened species, the Service continues to regulate the hunting, trade, and any goods made from the species. ¹²⁸ Within its ecosystem, alligators are greatly valuable to other animals that share its ecosystem. They create "gator holes," depressions in the marsh that retain water in the dry season. ¹²⁹ Other species, including snakes, birds, and fish, use the gator holes as a source of water during the dry season or times of drought. ¹³⁰ American alligators also play an important role in the native food webs as both predators and prey, linking aquatic and terrestrial food webs. Adult alligators are opportunistic feeders that prey on a wide range of species throughout their lives, including insects, mollusks, crustaceans, fish, amphibians, reptiles, birds, and mammals. ¹³¹ Small alligators serve as prey for many species, including the northern crested caracara and the eastern indigo snake. ¹³²	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	The Service must evaluate the effect the clay pits and will have on alligators.	The Corps' consultation requirements under Section 7 of the ESA do not apply to the alligator.

Jaclyn Lopez Center for Biological Diversity	<p>Eastern Indigo Snake</p> <p>The Service listed the Eastern indigo snake as threatened under the ESA in 1978.¹³³ Historically, the species was found throughout Florida, Alabama, Mississippi, and portions of Florida; however, the species is now only found within Georgia and Florida.¹³⁴ Eastern indigo snakes are more often "found in pinelands, tropical hardwood hammocks, and mangrove forests," as they are more inclined to upland habitats and ecosystems.¹³⁵ The most frequent types of habitat where the indigo is found includes "pine flatwoods, scrubby flatwoods, dry prairie, tropical hardwood hammocks, edges of freshwater marshes, agricultural fields, coastal dunes, and human-altered habitat"; however, the species needs a variety of these habitats to complete its life cycle.¹³⁶ The eastern indigo snake shares a special relationship with the gopher tortoise, which is critical in northern portions of the snake's range because it will take refuge in the tortoise's burrows to weather the cold.¹³⁷ This relationship is somewhat less critical in the milder south Florida climate where indigo snakes have been documented using manmade refugia and disturbed habitats.¹³⁸ The snakes are still known to use the underground burrows of these tortoises and other species in the region of the Project.¹³⁹ Thus, the survival of the indigo snake is essentially tied to the health and survival of the gopher tortoise. The Service estimates that the Project land might support 40-65 indigo snakes, and 159-257 in the action area. It estimates that the Project will represent a temporary change to 4,928 acres/140</p>	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	<p>The eastern indigo snake was initially listed as threatened as the result of several activities including, habitat destruction and fragmentation, "over-collecting for the pet trade, and mortality from gassing gopher tortoise burrows to collect rattlesnakes."¹⁴¹ Presently, the species is vulnerable to habitat destruction and fragmentation associated with "residential and commercial construction, agriculture, and timbering."¹⁴² Development will continue to impact the eastern indigo snake because it permits increasing human populations in indigo snake habitat, which leads to an increased risk of snake mortality resulting from vehicular collisions and contact with property owners and domestic animals.¹⁴³ The indigo snake is also subject to harm from the bioaccumulation of pesticides in its prey, which results from the use of pesticides in agricultural and silvicultural activities, and from contact with rodenticide used to control rat populations within its range.¹⁴⁴</p>	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	<p>Although the 2014 BiOp provides general information about threats to the eastern indigo snake, it fails to provide sufficient information regarding the specific impact the proposed activities will have on indigo snakes. The 2014 BiOp fails to include sufficient measures to avoid, minimize, or mitigate negative effects on the species. First, the plan fails to employ sufficient avoidance measures. Second, the minimization and mitigation measures are weak, if not entirely ineffective. The Service's recovery plan for the eastern indigo snake highlights monitoring as an essential tool for attaining the snake's recovery.¹⁴⁵ The Project area should be resurveyed to determine the relevant locations and habitat use of eastern indigo snakes. The Project should also impose a monitoring plan for the life of the permit, which would allow the Service to identify severe population declines and take action.</p>	Section 10.1 of the decision document describes the Corps' final determinations for South Pasture Extension pursuant to Section 7 of the Endangered Species Act.
Jaclyn Lopez Center for Biological Diversity	<p>Breining et al. (2012) have concluded that habitat fragmentation is likely a critical factor for the eastern indigo snake's persistence and that eastern indigo snakes are vulnerable to extinction in conservation areas bordered by roads and developed areas. Though the snake's chances of survival can be quite high in conservation core areas, its survival rates significantly decline in conservation areas along highways and in suburbs.¹⁴⁶ More than half of known snake mortalities documented in the study were caused by humans, directly or indirectly, along roads.¹⁴⁷ Additionally, the Service should consider whether "corridors" between protected areas are wide enough to provide adequate protection for eastern indigo snakes.</p> <p>When assessing the Project's impacts on eastern indigo snake habitat, the Service should not only consider broad habitat types used by the eastern indigo snake (e.g., upland habitat) but also availability of essential microhabitat required by the species. For example, Hyslop et al. (2009) found that "[r]eduction in suitable underground shelters caused by habitat degradation and loss, which reduces or eliminates populations of [gopher tortoise], is likely an important factor in extirpation of the species from areas otherwise perceived as suitable habitat."</p> <p>The take statement indicates that six eastern indigo snakes may be taken, but also states that there are no practical methods of survey. The 2014 BiOp does not explain how the Corps, the Service or the Public will know when 6 snakes have been taken.</p>	Section 10.1 of the decision document describes the Corps' final determinations for South Pasture Extension pursuant to Section 7 of the Endangered Species Act.
Jaclyn Lopez Center for Biological Diversity	<p>Gopher Tortoise</p> <p>The gopher tortoise is a federal candidate species under the ESA and a highly valuable "keystone species" that benefits and ensures the survival of other species in its ecosystem.¹⁴⁹ This tortoise is known to benefit over 300 different species, including eastern indigo snakes, foxes, skunks, and lizards, which use gopher tortoise burrows for shelter and for various parts of their lifecycles.¹⁵⁰ The gopher tortoise is generally found in longleaf pine or oak sandhill ecosystems, but it may also be found in other dry, upland habitats within its historic range.¹⁵¹</p> <p>The greatest threat to the gopher tortoise is habitat destruction, including habitat fragmentation and degradation, caused by urban development, agricultural conversion, forestry, and mining.¹⁵² Habitat fragmentation can lead to reproductive isolation, increased predation due to exposed habitat edges, and mortality resulting from vehicular collisions.¹⁵³</p>	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	<p>The Service should provide some evaluation of the impact of the Project on the species.</p>	Section 10.1 of the decision document describes the Corps' final determinations for South Pasture Extension pursuant to Section 7 of the Endangered Species Act.
Jaclyn Lopez Center for Biological Diversity	<p>Eastern Diamondback Rattlesnake</p> <p>The eastern diamondback rattlesnake is currently under consideration for federal ESA listing after receiving a positive 90-day finding on May 10, 2012.¹⁵⁴ Though the eastern diamondback rattlesnake's range once encompassed the Coastal Plain of the southeastern United States from North Carolina to south Florida, and west to Mississippi and the Florida parishes of Louisiana; its area of occupancy, number of subpopulations, and population sizes are declining throughout its range.¹⁵⁵ This contraction in the snake's range is largely attributable to loss of its native longleaf pine ecosystems to agriculture, silviculture, urbanization, and plant succession resulting from fire suppression (Timmerman 2003). Florida encompasses half of the eastern diamondback rattlesnake's current range,¹⁵⁶ which makes habitat preservation in this state critical to the species' survival. The eastern diamondback rattlesnake's survival is also crucially linked to the presence and welfare of the gopher tortoise, whose burrows provide essential microhabitat for the snake to use for shelter.¹⁵⁷</p> <p>Today the most significant threats to the eastern diamondback rattlesnake are habitat destruction and human exploitation. The species has sustained a 97% reduction in its native, longleaf-pine forest habitat, on which it relies for feeding, breeding, and sheltering (Van Lear 2005). This loss of longleaf pine ecosystems is the single most important factor affecting the survival of the eastern diamondback rattlesnake. Fragmentation of remaining suitable habitat also leads to road mortality, population isolation, and reduced genetic diversity, which is detrimental to the species' long-term viability (Andrews and Gibbons 2005 at 779).</p> <p>Rattlesnakes are particularly vulnerable to vehicle strikes because of their morphology and behavior. A study conducted by Andrews and Gibbons (2005) shows that venomous, heavy-bodied snakes like the eastern diamondback rattlesnake experience detrimentally high mortality levels even at medium traffic densities because, unlike other species of snake, they move at slow speeds and immobilize when confronted with vehicles.</p>	Comment acknowledged.
Jaclyn Lopez Center for Biological Diversity	<p>Eastern diamondback rattlesnakes are also threatened by human exploitation. Thousands of snakes are killed each year for meat, skin, and venom, with no limits on annual harvest (Means 2009). "Rattlesnake roundups," annual events that offer hunters prizes for capturing snakes, which are displayed and then killed, boost snake kills and foster negative attitudes that venomous reptiles like the rattlesnake are repugnant and must be removed from nature (Andrews and Gibbons 2005). Means (2009) collected data from these roundups, analyzed trends, and concluded that declining maximum size of snakes collected during roundups reflects possible age-class truncation.¹⁵⁸ This troubling trend could lead to negative impacts on annual recruitment of young rattlesnakes, which in turn undermines the snake's ability to maintain viable populations (Means 2009). Because of negative attitudes toward rattlesnakes, the eastern diamondback is also at risk from isolated killings, independent of roundups, when snakes enter urban or suburban areas. Existing regulations are inadequate to address these significant threats to the eastern diamondback rattlesnake, so they are constantly at risk of human-caused mortality and may be taken in unlimited numbers.</p>	Comment acknowledged.

Jaclyn Lopez Center for Biological Diversity	The Service should closely study the Project's potential impacts on the eastern diamondback rattlesnake, precisely estimate take associated with the project, and carefully consider more robust conservation measures than currently proposed in the plan, favoring use of avoidance measures over minimization or mitigation.	Section 10.1 of the decision document describes the Corps' final determinations for South Pasture Extension pursuant to Section 7 of the Endangered Species Act.
Jaclyn Lopez Center for Biological Diversity	Conclusion We request an extension to the comment period, given the largescale impacts of the Project.	The Corps determined that the comment period for the second public notice was sufficient.
Jaclyn Lopez Center for Biological Diversity	We also request a public hearing to present public comments that further demonstrate that this Project is not in the public interest.	The Corps has provided a response to the request for a public hearing.
Jaclyn Lopez Center for Biological Diversity	Thank you for the opportunity to comment on the June 16, 2016 Public Notice. We respectfully request that the Corps deny the permit application for the South Pasture Expansion. Please keep us informed about the progress of these permit applications, including any future notices, announcements, EAs, EISs, or decision notices, and do not hesitate to contact us with any questions about this letter.	Comment acknowledged.
Linda Jones	I respectfully submit the following comments to the U.S. Army Corps of Engineers for the above-referenced permit for the South Pasture Extension.	Comment acknowledged.
Linda Jones	1. <u>NEPA/Alternatives/Strip Mining in Florida Not in Public Interest</u> . This project and all proposed strip mines are, by their nature, contrary to the purpose and goals of the National Educational Policy Act...to declare a national policy which will encourage productive harmony between man and his environment, to promote efforts which will prevent or eliminate damage to the environment...to enrich understanding of the ecological systems and natural resources...and serve as trustee of the environment for succeeding generations.	The Corps' review of South Pasture Extension, including the Final AEIS, complies with NEPA.
Linda Jones	Establishing a project need and purpose that has as its only objective strip mining phosphate does not take into consideration the impacts on the environment in which the mining will take place and seems inconsistent with the purpose of NEPA.	Section 1.2 of the Final AEIS discusses how the Corps considers purpose and need under NEPA and the 404(b)(1) Guidelines.
Linda Jones	Further, then, the alternatives are limited to the other sites the applicant proposes to mine in the future so they are not alternatives at all.	Chapter 2 of the Final AEIS describes the alternatives considered under NEPA, including the screening process used to identify those alternatives. Section 5 of the decision document describes the site-specific alternatives screening and analysis for South Pasture Extension.
Linda Jones	Mosaic already has enough acreage to mine. "No action" would prevent additional damage to the water resources and land from strip mining.	Section 5.2.1 of the decision document describes the No Action Alternative as an avoidance alternative. Section 5.4.1 describes the No Action Alternative as a minimization alternative.
Linda Jones	Alternatives such as no action and importation should be serious considerations. We don't need to mine phosphate rock in Florida at all. Mosaic imports from its mine in Peru (not mentioned in AEIS), owns an interest in a mine in Saudi Arabia, and has imported from Morocco in the past. The world is awash in phosphate and the latest USGS report indicates 39 countries with significant reserves. AEIS incorrectly lumps them together as unstable. Morocco alone, a friendly country, has 50 times the phosphate Florida has and is expanding its mining and production. AEIS cites a Jack Lifton article, but misuses it. He urges readers to invest in Canadian companies sitting on huge, high-grade deposits of igneous phosphates (easier to process) and to compete with middle East phosphate suppliers. He concludes that the US should get its rock from these independently owned Canadian mines and not from Florida mines whose resources face depletion (Weiskoff report submitted for AEIS). Mining is cyclical and the markets change rapidly, consequently phosphate mining is risky--the business could go bad as it has in the past in Florida with similar devastating consequences.	Section 2.2.6 of the Final AEIS discusses functional alternatives, including the importation of phosphate.
Linda Jones	Mosaic has not presented any need other than its own business plan and profits.	Section 1.2 of the Final AEIS discusses how the Corps considers purpose and need under NEPA and the 404(b)(1) Guidelines.
Linda Jones	Shipping to 40 other countries, which is mentioned, is at the expense of massive groundwater withdrawals, destruction of valuable wetlands and water resources in Florida. This is not a sufficient justification and is not in the public interest.	Chapter 4 of the Final AEIS describes the direct, indirect and cumulative effects of phosphate mining, including South Pasture Extension, on groundwater, surface water, wetlands, and other issues. Section 7 of the decision document describes the public interest review for South Pasture Extension.
Linda Jones	2. The Reality of Phosphate Strip Mining Shown in Aerial photographs. Close-up aerials and videos of current and past mines depict the landscapes which have been strip mined.	Comment acknowledged.
Linda Jones	The AEIS consists of words, mostly from the mining industry's point of view and the consultants the contractor chose to convey minimal significance.	The Final AEIS was prepared by a third-party contractor selected in accordance with CEQ and Corps regulations and guidance. The Corps regularly participated in the preparation of the document, independently evaluated the information in the document to ensure that it was technically adequate and not biased, and made the final determinations on whether the data provided was adequate and accurate.
Linda Jones	The truth is on the ground and clearly visible from the air and Google maps. There appears to be little reclamation, mostly just scarred, often whitish landscapes, infestations of cogon grass and other invasive weeds, and slime ponds that are there for many years because so much earth was dug up and taken away and clays left in CSAs. There isn't enough soil or even sand to reclaim the land. Instead, deep pits (aka lakes) are created instead to fill the holes.	Section 5.7 of the Final AEIS describes reclamation as required by FDEP.
Linda Jones	A recent article in the Ledger, "What's Next for Bone Valley," inadvertently pointed out yet another long-term burden of phosphate mining in the southern part of Polk county--an astronomical 250,000 acres of old mining land that is not being used, much of it in long-term ownership by Mosaic.	Section 4.12.1.4 of the Final AEIS describes past, present, and reasonably foreseeable future actions considered in the cumulative effects analysis, including past mining actions and reclamation and reclaimed land re-use on prior mined lands.
Linda Jones	3. <u>Problems with "Reclamation"</u> . Mosaic doesn't keep the promises they make about reclamation. Their mine reclamation plans and timelines may have little meaning. They have been granted, according to a study by Norma Demers, 100 variances, for example for 10-year delays, by DEP. Lack of enough sand is often cited as a reason. They should not be granted any permits for mining based on plans that have not been implemented according to schedule. The AEIS assumes that 8 years after mining completion the land is available for farming. This assumption is unsupported. The DEP state reports suggest a range of 15 or 20 years. The 2014 DEP report indicates that the percentage of mandatory acres of Mosaic mines reclaimed and released since 1975 is only 39%. Some say the areas will never be the same again, and others say it will take hundreds of years, if ever, for strip-mined areas to recover	Section 4.12.1.4 of the Final AEIS describes past, present, and reasonably foreseeable future actions considered in the cumulative effects analysis, including past mining actions and reclamation and reclaimed land re-use on prior mined lands.
Linda Jones	4. <u>Avoidance of Impacts to Wetlands</u> . Avoidance of impacts, the desired goal, is minimal in this proposal. The percentage of avoidance is far too low and shows no change from prior mines. It is as if we are continuing on the same path that has not worked in the past. The priority wetland scheme in the AEIS Chapter 5 doesn't change anything that Mosaic does, as the plans I have seen list the percentage of priority wetlands but the minimal avoidance plan that is proposed may not include them	Section 5 of the decision document describes how the Corps evaluated avoidance (offsite) and minimization (onsite) alternatives for South Pasture Extension, including how the Corps applied the Mitigation Framework described in Section 5.4 of the Final AEIS.
Linda Jones	5. <u>Clay Setting Areas</u> . The waste clay disposal areas on approximately 40% of land are not temporary and constitute a significant impact which is ignored. There must be one in this mine, but it is not noted on the plan unless it is the far east side which is mostly blank. The CSAs interfere with groundwater flow, ruin the land, are not readily reclaimed, and have little to no use after mining.	The Corps considered the effects of clay settling areas in the analyses of the effects of all alternatives in Chapter 4 of the Final AEIS, including South Pasture Extension.

Linda Jones	<p>6. <u>Losses of water resources through strip mining are significant impacts and contrary to the public interest.</u> Ecosystems are completely destroyed down to a depth of 40-60 feet, including the surficial aquifer, the volume and timing of flows, that cannot be reclaimed.</p> <p>The water level is lowered by mining without even considering groundwater pumping. As mining occurs, groundwater moves into the mined area, permanently lowering the water in the surrounding areas.</p> <p>The mining excavations and pits also result in a greater loss of water through evaporation.</p> <p>We are in a water use caution area, yet millions of gallons of groundwater are used in the mining process that Mosaic obtains for free through a mega permit that allows for more water withdrawal than most municipalities use. Groundwater is being pumped from hundreds of wells. An unnecessary and destructive business is being subsidized; the water is a public resource.</p> <p>SWFWMD asserts lower water use by agriculture in the future, but that is only supposition.</p> <p>SWFWMD also cannot predict droughts: Southwest Florida Still in a Drought (Water Usage Report Card-2008-2009; Deepening Drought is On the Way--Forecast raises specter of strained supply and rising fire risks (Herald Tribune, March 16, 2012), Little Rain, Low Rivers--with Dry Spell Seen Ahead, Fears of a Drought Return (Herald Tribune, March 7, 2013)</p>	Section 4.3 of the Final AEIS describes the direct and indirect effects of phosphate mining on groundwater. Section 4.12.3 of the Final AEIS describes the cumulative effects of phosphate mining on groundwater.
Linda Jones	<p>7. <u>Wetlands.</u> Valuable wetland functions are lost for many years during mining. Some types of wetlands are difficult to re-create or cannot be re-created according to experts who have testified. There was no field research in the AEIS in Chapter 5 to determine the success of reclamation or mitigation. For example, what is the actual time it takes for different wetland and habitat types and what is the actual fertility and performance of the "reclaimed" wetlands and land? Scientific evidence that reclamation or mitigation works and to what extent is lacking, yet mines will include written plans as if it does.</p>	Chapter 5 of the Final AEIS provides information on compensatory mitigation. Section 8 of the decision document, and the attached approved compensatory mitigation plan, describe how Mosaic will provide compensatory mitigation for unavoidable impacts to aquatic resources.
Linda Jones	<p>8. <u>Environmental Injustice.</u> Short-term mining jobs will replace long-term agricultural jobs and change the economy. The Mexican/Hispanic residents are the main victims of environmental injustice. They live and work in Hardee county, but seasonal jobs in agriculture are not included in the AEIS. The mines will eliminate the major source of work for the minority workers in the lower working class, which is almost a majority in Hardee county. The reduction or elimination of jobs for this ethnic group may result in extreme poverty for these families.</p>	Section 4.6 of the Final AEIS evaluates the economic effects of phosphate mining. Section 4.7 of the Final AEIS evaluates the impacts of phosphate mining on minority or economically disadvantaged communities.
Linda Jones	<p>9. <u>Economic Analysis Undervalues Ecosystem Services and Agriculture.</u> The AEIS overestimates the value of mining, compared to the value of ecosystem services for forests and wetlands (AEIS treats them as though they have no value but research does indicate their value to society) and income to agriculture. Professor Weisskoff (see report submitted previously for AEIS) states that the income/revenue attributed to agriculture in Hardee County is grossly understated and that the methodology used by AEIS invalidates the agricultural contributions of all counties. The reason this is brought up is that it affects the outcome of the entire AEIS program, i.e., if the No action alternative is multiplied by the US Ag census factor, then the No action alternative actually gives a higher value than the With Mine alternative. The undervaluation of agriculture lands materially impacts the AEIS economic calculation, giving a higher value to the No action alternative. This failing is due to the company the applicant used to provide the AEIS economic analysis. Further, the product sold by the mining companies benefits the company and its shareholders, not the local economies, citizens or the local environment.</p>	Section 4.6 of the Final AEIS evaluates the economic effects of phosphate mining.
Linda Jones	<p>10. <u>Chemical Fertilizer Runoff Contributes to Blue-Green Algae.</u> Finally, since the product fertilizer was mentioned in the USACE public interest documents for South Pasture Extension, it can be said that chemical fertilizer is one of contributors to the nutrient load and runoff of phosphorus and nitrogen that is causing the poisoning of the water and blue-green algae in South Florida.</p>	The use and effects of chemical fertilizers is outside the scope of analysis for the AEIS and the individual project reviews.
Linda Jones	I respectfully request you deny this application. Thank you for your consideration.	Comment acknowledged.
Donald Rice	The Army Corps of Engineers is processing a permit application from Mosaic for South Pasture Mine Extension, for 7,500 acres of new mine in the Peace River watershed.	Comment acknowledged.
Donald Rice	Mosaic will withdraw a significant quantity of groundwater for South Fort Meade mining operations. The withdrawal threatens to irreversibly harm the ecosystem in the adjacent mine area by impacting the quantity and duration of the streamflow needed by plants and animals, including endangered species, to survive.	Section 4.3 of the Final AEIS describes the direct and indirect effects of phosphate mining on groundwater. Section 4.12.3 of the Final AEIS describes the cumulative effects of phosphate mining on groundwater. Section 10.1 of the decision document describes the Corps' final determinations for South Pasture Extension pursuant to Section 7 of the Endangered Species Act. Those determination consider the effects on water resources.
Donald Rice	Mine groundwater withdrawals will reduce the potentiometric surface of the surficial, intermediate, and Upper Floridan aquifers in the adjacent mine area, impacting potable supply for the mine neighbors. Additionally, the mining will impact the hydrologic properties of these aquifers by permanently reducing: recharge, conductance (surficial), transmissivity (intermediate and Upper Floridan), confining unit leakage (between the surficial and intermediate), and porosity. The reduction in these properties will further lower the potentiometric surfaces of the aquifers, reduce groundwater discharge to streams, and dry up wetlands in the mine area.	Section 4.2 of the Final AEIS describes the direct and indirect effects of phosphate mining on surface water hydrology. Section 4.3 of the Final AEIS describes the direct and indirect effects of phosphate mining on groundwater. Section 4.12.2 of the Final AEIS describes the cumulative effects of phosphate mining on surface water hydrology. Section 4.12.3 of the Final AEIS describes the cumulative effects of phosphate mining on groundwater.
Donald Rice	Understanding the localized effects on groundwater flow and levels is critical in evaluating the environmental impact of the proposed phosphate mines. The use of a regional groundwater-flow model is inappropriate because it cannot accurately simulate local-scale mining withdrawals, aquifer excavation, and changes in hydrologic properties. There have been 2 groundwater flow models submitted by Mosaic in support of their mining operations. The first (Mosaic Company, 2006) was a marginally local-scale mine-pit-dewatering model to support their integrated water use permit application with the Southwest Florida Water Management District (SWFWMD). The purpose of the model was to determine the amount and extent of groundwater level decline during mining operations as well as the yield of groundwater from the mine pit. This model is fatally flawed because it is impossible to evaluate. Input parameters such as leakage are not provided, boundary conditions are not given, and there is no discussion on how dewatered cells are simulated.	Appendix F of the Final AEIS describes the development and application of a groundwater flow model to evaluate direct, indirect, and cumulative effects on surficial, intermediate (2), and Floridan aquifer levels associated with phosphate mining. This was on a regional level. Additionally, the Corps considered local-scale modeling that compares pre-mining and post-mining hydrologic conditions, especially in relation to surface water flows and levels. Finally, the water use permit issued by SWFWMD includes permit conditions that protect adjacent water users, the affected aquifers, and onsite and adjacent aquatic resources.
Donald Rice	<p>The other groundwater flow simulation is one done by CH2M Hill for this AEIS; it used the SWFWMD regional model DWRM2.1. SWFWMD developed the DWRM2.1 model (Environmental Simulations, Inc., 2007) to assist them in evaluating water-use-permit applications. The modeled area includes their regulatory extent, which does include all of Mosaic's proposed mines in the AEIS. The model appears to be well constructed, documented and has been peer reviewed. The model does incorporate an option for local-scale modeling, the "telescopic mesh refinement" (TMR) (CH2M Hill, 2013). Mosaic used the DWRM2.1 for the AEIS to evaluate only the regional effects of phosphate mining-related groundwater withdrawals. Their simulation resulted in the obvious conclusion that in general, regional groundwater levels will increase after mining withdrawals cease. The TMR option was not able to be used. CH2M Hill (2013, p. F-1) stated, with no additional explanation:</p> <p>"The modeling done for the draft AEIS used a TMR extraction; however, during the review process it was found that the model boundaries were influencing the drawdown contour lines (boundary effects), primarily along the east side of the model. For the final AEIS and this TM, the entire model domain was used; not a TMR extraction."</p>	Appendix F of the Final AEIS describes the development and application of a groundwater flow model to evaluate direct, indirect, and cumulative effects on surficial, intermediate (2), and Floridan aquifer levels associated with phosphate mining. This was on a regional level. Additionally, the Corps considered local-scale modeling that compares pre-mining and post-mining hydrologic conditions, especially in relation to surface water flows and levels. Finally, the water use permit issued by SWFWMD includes permit conditions that protect adjacent water users, the affected aquifers, and onsite and adjacent aquatic resources.

Donald Rice	<p>1. Measurement of field conditions prior to mining. This should include: transducer measurements of aquifer water levels for several years; continuously cored monitoring wells through the mine-impacted aquifers; stream hydrographs and periodic discharge measurements for a 5 year period; slug testing of all monitoring wells to measure conductance/transmissivity; aquifer tests; and continuous precipitation records. Additionally all neighboring well locations and depths should be determined.</p> <p>2. Given that this is an Environmental Impact Statement, mining and post-mining conditions cannot be measured for the proposed mines. However there are active and reclaimed mines available to establish how mining changes the measured field conditions. Peer-reviewed research needs to be required to accurately determine the impact of phosphate mining on the aquifers.</p> <p>3. Local-scale impact of phosphate mining on groundwater flow can be evaluated with model inputs that incorporate existing premining conditions and transient mining changes to those conditions. A sensitivity analysis can be done to understand which, if any, of the model-input parameters are sensitive to mining related changes. Then and only then can a conclusion be reached on whether there is a significant environmental impact on groundwater flow caused by mining.</p>	Appendix F of the Final AEIS describes the development and application of a groundwater flow model to evaluate direct, indirect, and cumulative effects on surficial, intermediate (2), and Floridan aquifer levels associated with phosphate mining. This was on a regional level. Additionally, the Corps considered local-scale modeling that compares pre-mining and post-mining hydrologic conditions, especially in relation to surface water flows and levels. Finally, the water use permit issued by SWFWMD includes permit conditions that protect adjacent water users, the affected aquifers, and onsite and adjacent aquatic resources.
Donald Rice	At this time there is no valid information in the AEIS that describes the local scale environmental impact of phosphate mining. The regional-scale DWRM2.1 model should not be used for local-scale predictions, that is why the telescopic mesh refinement was included. James Rumbaugh, the president of Environmental Solutions, Inc., the consulting firm that developed the DWRM2.1 model stated in sworn testimony (Nuclear Regulatory Commission, 2012): <i>"An important part of my efforts in developing the DWRM2 from the beginning was the creation of software incorporating a technique (called Focus Telescopic Mesh Refinement) for creating localized groundwater models from the DWRM2 regional model."</i> A regional-groundwater-flow model cannot predict: if mining will cause adjacent wetlands to dry up; or how streamflow will change – and it is important to remember it is the quantity, timing, and duration of streamflow that impacts the aquatic environment; or if mining will cause the neighbors well will to dry up; or the duration of mining impacts on groundwater flow.	Appendix F of the Final AEIS describes the development and application of a groundwater flow model to evaluate direct, indirect, and cumulative effects on surficial, intermediate (2), and Floridan aquifer levels associated with phosphate mining. This was on a regional level. Additionally, the Corps considered local-scale modeling that compares pre-mining and post-mining hydrologic conditions, especially in relation to surface water flows and levels. Finally, the water use permit issued by SWFWMD includes permit conditions that protect adjacent water users, the affected aquifers, and onsite and adjacent aquatic resources.
Donald Rice	The analysis of mining impacts on groundwater flow in the AEIS is inadequate – all local scale effects are ignored. The environmental impact on groundwater flow in and around the proposed mined areas has not been evaluated, and therefore the permit for South Pasture Extension, requested through the Areawide Environmental Impact Statement of Mosaic Inc., SHOULD BE DENIED.	Appendix F of the Final AEIS describes the development and application of a groundwater flow model to evaluate direct, indirect, and cumulative effects on surficial, intermediate (2), and Floridan aquifer levels associated with phosphate mining. This was on a regional level. Additionally, the Corps considered local-scale modeling that compares pre-mining and post-mining hydrologic conditions, especially in relation to surface water flows and levels. Finally, the water use permit issued by SWFWMD includes permit conditions that protect adjacent water users, the affected aquifers, and onsite and adjacent aquatic resources.
Nancy Armstrong	I gratefully acknowledge the Army Corps of Engineers for soliciting additional public comment while considering a proposed permit for Mosaic's proposed South Pasture Extension. I know permitting is not assumed but carefully scrutinized for each proposed application.	Comment acknowledged.
Nancy Armstrong	The upheaval mining creates disrupts the hydrology of thousands of acres of land. That should be foremost in consideration as water quality and availability will be affecting everyone's future, personally, soon. We cannot live without clean water. We cannot grow food without clean water.	Section 4.2 of the Final AEIS describes the direct and indirect effects of phosphate mining on surface water hydrology. Section 4.4 of the Final AEIS describes the direct and indirect effects of phosphate mining on water quality. Section 4.12.2 of the Final AEIS describes the cumulative effects of phosphate mining on surface water hydrology. 4.12.4 of the Final AEIS describes the cumulative effects of phosphate mining on surface water quality.
Nancy Armstrong	In 2011, Army Corps was sent some excellent scoping comments for the EIS from Nora E. Demers, Ph.D. She addressed the fact that mined fertilizers will not solve our food crisis but will accelerate it. Water is the most important issue. Over-pumping of water for agribusiness, mining and increased production of biofuels (up from 20% to 40%, mainly corn) ultimately destroys the soils and pollutes our WOUS with runoff. This negates the whole premise of the NEED for phosphate! Sustainable farming is the future.	Section 2.2.6.2 of the Final AEIS discusses functional alternatives, including avoiding the use of phosphate fertilizers.
Nancy Armstrong	Mosaic is a corporation selling a product for profit - phosphoric acid. The processing is part of the mine plan and creates enormous amounts of toxic waste.	As explained in Section 1.3.1 of the Final AEIS, phosphogypsum stacks are associated with fertilizer production. The Corps considered the four phosphate mines reviewed under the AEIS to have independent utility from the fertilizer plants.
Nancy Armstrong	The public's interest is not served by permitting a corporate project specific need which renders Central Florida land forever changed, surficial aquifers forever destroyed and natural recharge ecosystems forever lost.	Section 7 of the decision document addresses the public interest review for South Pasture Extension.
Nancy Armstrong	I urge the Army Corps of Engineers to choose the no mining alternative for this application. Thank you for this opportunity for input into this important issue which will affect Florida residents FOREVER.	Comment acknowledged.
Carter Lord	My name is Carter Lord. My father was the owner of Wellman-Lord Engineering Company of Lakeland. He was directly involved in building almost ALL of the phosphate- related processing plants in Florida and other parts of the world in the 1960s, 70s and early 80s. I was raised in the phosphate world. I know a lot about it. It is in my blood. I knew the president and other leaders of Mosaic when it was still called International Minerals and Chemicals Corporation. I knew the people from CF, Mobil, and many of the other companies working the Bone Valley phosphate sector of Polk and now Hardee County. I am a phosphate person. I am friends with many of them still to this day. I am in fact one of them myself. I am also a Republican businessman and have voted Republican across the board in every election since the mid 1970s and I will continue to do so. I am conservative, pro-business, I have worked in business most of my life and I am committed to right action as regards what is going on in this country today, business and economics in general and the horrendous governmental overregulation that is choking the lifeblood out of us. I hate regulations and the regulator mentality. As far as I am concerned, regulations are killing us. But I also have spent many years observing and thinking about phosphate and the ramifications continued mining has for the overall health and economic well being of Florida. I have come to the conclusion that phosphate mining is NOT in the best interests of ANYONE in Florida anymore, even those in the industry who think it is good for them, and that it should be stopped immediately.	Comment acknowledged.
Carter Lord	The main reason for this is that it does not make sense economically. Aside from the environmental horror that it leaves in its wake, if you consider a 200 year time frame, or even a 100 year time frame, the overall economic viability of what is left behind does not work out positively for the ability of the land to produce profitably.	Section 4.12.6 of the Final AEIS describes the cumulative economic effects of phosphate mining. Section 4.12.1.3 of the Final AEIS explains the basis for the temporal scope of the cumulative effects analyses.

Carter Lord	<p>ALL of the studies I have seen done by the DEP and other concerned governmental and private entities are 50 year studies. THe only consider the reality of a 50 year period. They show all the higher wages paid for 30 or 40 years, the ancillary businesses, the increase in business activity over a 50 year period and then the studies STOP. All the numbers of course are higher over a 50 year period than if the land was used for cattle ranching or farming. But that is only for 50 years!!!!. What about year 51, year 52, year 75, year 90? What kind of income is that land producing in those years? How much is the land south of Hwy 60 to State Road 640W between Bartow and Mulberry producing this year? Can you take a guess? I would offer that it is ZERO. And next year it will also be ZERO. And the next year after that. It is going to be Zero for many many years to come. WHere are those zeros figured into ANY equation about productivity? They are nowhere. THat land has been barren and bleak for as long as I can remember and I am 70 years old now. Nothing will grow there. THere are hardly even any deer in there.</p> <p>Or hogs. That land wont even sustain a hog population. Can you imagine how poor that land is if it wont even sustain a bunch of hogs? That is astounding, it is hard even to believe it unless you go there and see for yourself.</p>	Section 4.12.6 of the Final AEIS describes the cumulative economic effects of phosphate mining. Section 4.12.1.3 of the Final AEIS explains the basis for the temporal scope of the cumulative effects analyses.
Carter Lord	I have been going there all my life. I know what that land is throwing off now and I can tell you it is zero. And it has been zero for years, except for the salaries of the few mining company guards who have now closed most of it to even car traffic. But it doesn't even matter because it is past the 50 year time frame and so it doesn't even show up in any of the studies anymore. Plus that particular land is privately owned by the phosphate companies so they are not beholden to anybody for anything on that land.	Section 4.12.6 of the Final AEIS describes the cumulative economic effects of phosphate mining. Section 4.12.1.3 of the Final AEIS explains the basis for the temporal scope of the cumulative effects analyses.
Carter Lord	We here in this country are today people. We only think about today, this week, this year, next year. 50 years? Who cares about 50 years from now? I will be DEAD 50 years from now, we will ALL be dead, what do we care about 50 years? Even YOU will be dead.	Comment acknowledged.
Carter Lord	But if you are a REAL businessman, and if you REALLY want to study the economic viability of what the land can produce over time, 50 years is NOTHING in the scheme of things. And if you don't study it over real time, then your study is worthless. You can't just ignore it all after a certain point. The Chinese don't think in terms of 50 years. They think in terms of 300 years. Go to Mulberry, drive down those back roads south of route 60 and look at what is there, look at the moonscape and devastation and look at how productive that land is. Today it is producing nothing. NOTHING!. BUT again, that wont be in any study because it is after 50 years.	Section 4.12.6 of the Final AEIS describes the cumulative economic effects of phosphate mining. Section 4.12.1.3 of the Final AEIS explains the basis for the temporal scope of the cumulative effects analyses.
Carter Lord	<p>So you might say, well, what about Streamsong, what about that beautiful golf course and hotel out there just north of Fort Green? Isn't that a great development? With all due respect - and I am not trying to be snide - it is a joke. An unmitigated hoax. It is a public relations gambit and an environmental nightmare out there. I went out there to play golf recently with some of my phosphate friends and the starter cautioned me to be careful not to step on the grass so as not to "hurt the environment". I just about fell out of the cart. I said, "What, you mean don't step on the Cogan grass? That blight on the earth that is a menace to the whole state of Florida? Or don't get too close to those Brazilian peppers over there that are a plague to Florida and choking out anything native that might have a remote chance to survive if there was any topsoil left so it could grow? You should be demanding that I STEP on the Cogan grass, you should request me at every chance I get I should try to stomp that stuff into oblivion and try my best to wipe it out every time I step out of the cart!"</p> <p>He looked at me like I was a subversive and a troublemaker. Even my phosphate buddies were laughing about it, the starter was from Pennsylvania, I think, and had no clue what he was even talking about, just repeating something someone told him for public relations. He didn't even know what Cogan grass was.</p> <p>Make no mistake about this. Streamsong is a public relations gambit that is costing Mosaic a small fortune to keep open so that they can show they are trying - they are trying ANYTHING - that might smack of goodwill and financial productivity of land that is so desolate and so inert that it will be hundreds of years - IF EVER - before anything can be done out there that will bear any semblance to productivity.</p> <p>But it is beautiful to look at. I will give them that. And I actually like to go out there because it is such a mind boggling visual and moonscape place to go. I am a filmmaker and it is uniquely beautiful out there. Actually, even the Cogan grass is beautiful to</p>	Comment acknowledged.
Carter Lord	<p>I was talking two years ago to one of the most powerful phosphate people on earth at the Lakeland Yacht Club, who had just retired and I asked him if he thought they shouldn't just quit and stop as he knew they were wrecking the land and once they dug it up, there was no way they could bring it back. I have known this guy for 40 years, he is a fine person. And he means well, he is kind and hard working and he believes he is doing good in the world. I love him, he is my friend. He was resolute about the need to continue and I said,</p> <p>"But the topsoil, what about the topsoil? It takes hundreds of years, maybe even a THOUSAND years to make topsoil, what about the topsoil? I know they are trying harder these days to put it off to the side and then put it back after they fill the holes back in. But the fact is you and I know that no matter how good the heavy equipment operators are and no matter how well meaning and how hard they try, they simply honestly just cannot put it back in any way that is worthwhile. WHat about that?"</p> <p>You know what he said? "The topsoil in Florida is no good anyway. We need to get in there, get that phosphate and get the hell out of there as fast as we can."</p> <p>Can you believe that? THe Florida topsoil is so thin, theres no sense in bothering with it anyway. I was dumbfounded. DUMBFOUNDED.</p>	Section 5.7 of the Final AEIS describes reclamation as required by FDEP.
Carter Lord	So there it is. This is a long discussion and it is full of emotion. THere are huge environmental organizations attacking the issue but they mostly just rant and wring their hands, they never approach the situation from a business point of view so they engender sneering disrespect from a lot of quarters and we are now in a dogfight with no common ground between the players.	Comment acknowledged.
Carter Lord	And there is money involved. BIG money. Unfortunately the only people who are going to get most of it will be the Mosaic stockholders and higher ups. And for 30 years or so, some of the 200 old boys and women who will be lucky enough to get a job with Mosaic and make that big dollar wage before the phosphate peters out and of course the side businesses that will be paying local workers, they will increase their standard of living too. For a while.	Comment acknowledged.
Carter Lord	But then it will be over. And the phosphate people will pack up and go home. And they will leave behind their gypsum stacks, along with a moonscape of impermeable clay that will reflect rainwater off it like an asphalt parking lot so that the streams of water will rush down to the Gulf of Mexico and not feed and nurture the land. And the radon will be stirred up and drifting around, radiation that we don't even know if it is very harmful yet or not. Soil that wont have enough topsoil in it to grow crops or hardly even grass. And lastly a depleted water aquifer that will not sustain anywhere near enough life that 100 years from now we will desperately need.	Section 5.7 of the Final AEIS describes reclamation as required by FDEP. Section 4.12 of the Final AEIS describes the cumulative effects of phosphate mining.
Carter Lord	Farms? Fuhgeddabouttiittt. The land wont be able to grow anything. Only the Piney Points will be left and the poisonous runoff that our kids and grandkids will have to pay to keep somehow under control so they don't run off into Tampa Bay and completely destroy whatever fish, crabs or shrimp that might be left out there.	Section 5.7 of the Final AEIS describes reclamation as required by FDEP.
Carter Lord	So I just wanted to make sure you understand that this situation is not just about a bunch of crybaby environmentalists and Sierra Club tree hugger types that want to see the cardinals and the egrets flying around and protect the oak trees. THeese well meaning people are hollering and yelling at the miners and citizenry to wake up and not destroy our beautiful land and they have their advocates and their strengths. But they are mostly just citizens that are emotionally upset about the destruction of our wild places. THeey are not equipped really to fight a long battle against an organized group of business people on the other side that are willing to fight for the money, business people who are strong and powerful, that have deep pockets, who can hire expensive lawyers. They have time on their side and they are fighting hard. They ridicule the environmentalists, and support studies that don't really show the facts.	Comment acknowledged.
Carter Lord	So everyone is squared off and making their stand. Much of the "factual" stuff decisions are being based on are not the real truth, largely because the timeline is too short on which the facts are based. This fight is not just about trees and birds and saving a home for some nice gophers and panthers and bears. THis is not at ALL just about them. THis is about economics, too. And as far as I can see, no one has spoken about this the entire time I have been watching this discussion the last 25 years.	Section 4.12.6 of the Final AEIS describes the cumulative economic effects of phosphate mining.

Carter Lord	It is clear to me , that, until we change the conversation and the business people realize everything they are saying is way too shortsighted and if you extrapolate the numbers out 100, 200 and 300 years, all of their important "facts" as to economic productivity of the land are not true. And that in fact the numbers DONT work, and the mining is NOT worth the destruction and inability of the land to produce after it is all said and done. Then - and ONLY then - will the business people begin to grasp just what it is they are doing out there and maybe, just maybe, they will come to their senses, leave what is left of Florida alone and let us all get together and try to figure out how to nurture this land instead of destroying it and spending our life resources trying to justify how it is OK to wreck something and lie and mislead ourselves about how we can fix it and make it right when in truth we cannot. The phosphate people cannot reclaim the land. Why they continue to try to justify their actions and not realize they are destroying something that cannot be undestroyed and that in the end it is themselves and their own children they are hurting, I just do not understand.	Section 4.12.6 of the Final AEIS describes the cumulative economic effects of phosphate mining. Section 4.12.1.3 of the Final AEIS explains the basis for the temporal scope of the cumulative effects analyses.
Carter Lord	We need to stop letting them dig up Florida. Please vote no for any more mining. Lets make them do some 200 year studies and then see what the numbers look like. I think the business people will change their tune once they see those numbers. And then they can make a REAL choice. Do they want to take the money for a short term gain and that be the end of it for millennia? Or do they want to choose to not take that short term money but instead nurture something that is precious and will sustain us forever, as long as we take care of it?	Section 4.12.6 of the Final AEIS describes the cumulative economic effects of phosphate mining.
Percy Angelo/Sierra Club Florida Phosphate Committee	We are writing on behalf of the Florida Sierra Club to provide comments on the Supplemental Environmental Assessment regarding the South Pasture Extension mine (SPE). We previously provided extensive comments and submissions throughout the Areawide Environmental Impact Statement (AEIS) process for phosphate mining and we incorporate those comments and submissions by reference. We write here in order to point out some key concerns raised by the Supplemental EA which illustrate issues we identified regarding the AEIS.	Comment acknowledged.
Percy Angelo/Sierra Club Florida Phosphate Committee	Flawed statement of project purpose and need. At several points in the AEIS process we pointed out the error in identifying the project specific purpose and need as simply what the applicant wants to mine. Such a definition of purpose and need results in a rejection of any alternative other than that proposed by the applicant. In fact, that is exactly what has happened here. The specific need is for a project which will mine whatever the applicant has mined in the past. As simply one example of the circuitous nature of the analysis, the Applicant's Preferred Plus Additional Avoidance (of high quality wetlands) alternative is rejected, even though it is environmentally preferable, because it provides 32.2 MMT rather than 33.7 MMT, which the Applicant decided it would settle for. Thus an environmentally preferable alternative is rejected for the sake of 1.5 MMT. The project need and purpose should be based on a request to mine in an environmentally responsible way, not whatever the applicant wants or can get away with.	Section 1.2 of the Final AEIS discusses how the Corps considers purpose and need under NEPA and the 404(b)(1) Guidelines. Section 1.7 of the decision document references the public and applicant's need discussion in the Final AEIS, and describes the project-specific basic and overall project purpose, and the applicant's need, for South Pasture Extension.
Percy Angelo/Sierra Club Florida Phosphate Committee	A further illustration of the flaw in the purpose/need statement is the fact that the alternatives examined are the other mines which the applicant also proposes. Not surprisingly they are rejected as alternatives because the applicant wants them too, in addition to not instead of, SPE. As identified above and in our prior AEIS comments, the purpose/need/alternative analysis is entirely insufficient under the National Environmental Policy Act.	Section 1.7 of the decision document describes the purpose and need for the project. Section 5 of the decision document explains how the Corps considered the purpose and need in its alternatives analysis.
Percy Angelo/Sierra Club Florida Phosphate Committee	Definitions of impact are manufactured to avoid or minimize findings of impact. In our prior comments on the AEIS we noted that the definitions of impact to various systems, e.g. minimal, moderate, were defined so generously that very serious impacts could be defined as moderate or even minor. That is exactly what has happened in the Supplemental EA. Thus surface water impacts which may be relatively serious are dismissed simply because they have been defined as "moderate." Serious impacts to Horse Creek, a relatively pristine system, are also dismissed as "moderate." The fact that mitigation is eventually applied to wetlands, as indeed it must be, is the basis of a claim that the 20 year mine will have only a minor impact on wetlands, a pretense which is clearly contrary to reality. The Supplemental EA and the underlying AEIS improperly twists vocabulary to avoid addressing serious impacts.	Section 4.1.5 of the Final AEIS explains how the Corps described the degree of direct and indirect effects, in general terms, and how mitigation can reduce the intensity of effects. Additionally, each resource category examined in Chapter 4 had issue-specific criteria for determining degree of effects, indications of determinations considered mitigation or not, and descriptions of mitigative measures as applicable.
Percy Angelo/Sierra Club Florida Phosphate Committee	Monitoring and financial assurance provisions and assumptions are insufficient. The Corps is embarking on a program to consider permits for at least six mines. As noted above, its analyses have made assumptions about the impacts of the mining to be permitted. The AEIS, EA and permit documents should assume and create obligations for monitoring systems to test and confirm the assumptions made so that improved decisionmaking and adaptive management can be implemented. Upstream and downstream monitoring of contaminants, biological communities and flows should be required and implemented so that we don't have to guess at whether an impact is minor or moderate and what in fact that means.	The DA permit for South Pasture includes conditions requiring monitoring and reporting on the status of the compensatory mitigation and the overall project status, including details on timing, duration, and report content. As described in Chapter 4 of the Final AEIS, agencies with direct regulatory authority over other issue categories will be responsible for monitoring and enforcement of their applicable regulations.
Percy Angelo/Sierra Club Florida Phosphate Committee	It appears that financial guarantees will be in place to cover only 3 years of mitigation. Many wetland systems, such as hardwood systems, may not be reliably established in 3 years time. A more protective financial guarantee should be required.	As described in the approved compensatory mitigation plan for South Pasture Extension, implementation financial assurance covers all compensatory mitigation areas that have not yet achieved their performance standards for as long as it may take to do so. The financial assurance is updated on a yearly basis to include new mitigation areas and 'release' successful areas.
Percy Angelo/Sierra Club Florida Phosphate Committee	We ask you to consider these comments and those previously provided in connection with the AEIS and included by reference. Thank you for this opportunity to comment.	Comment acknowledged.
Henry Kuhlman	Please accept my comments in opposition to the proposed extension of the South Pasture Phosphate Mine. I submit the following short video which I made from aerial views last month of the existing South Pasture Mine and the proposed extension (click on this link -- Blockedhttps://youtu.be/dNopbusDWXs).	Comment acknowledged.
Henry Kuhlman	The Hardee County Economic Development Director was recently featured in an article that said, "..... Mosaic, which owns about 40% of the land in Hardee, recognizes the land is nearly useless after it's mined. That includes future agriculture use." (click on this link to read -- Blockedhttp://www.businessobserverfl.com/section/detail/hardy-hunter/).	Comment acknowledged.
	Mr. Fellows, look no further than the North Pasture Mine, the West Pasture Mine and the South Pasture Mine. That land has been depopulated, deconstructed, and turned upside down. They removed the roads, utilities, history and any remnants of humanity ever being there, not to mention wildlife, natural plants, hydrology, drainage, and a future. It is useless indeed. The only way to get a stomach-full is from the air during the wet season. The mined land is low. Very low. It is impossible to ship 25% of the land (dug down 60 - 70 feet) in rail cars to Plant City; put another 20% in clay settling areas covering 40 to 60% of the land; and have enough left in powdery sand to fill in the holes they made. Do the math. We don't need anymore parks donated by Mosaic. That's why they don't close and reclaim their mines. They just keep extending them. It is like a Ponzi scheme.	Section 5.7 of the Final AEIS describes reclamation as required by FDEP.
Henry Kuhlman	Hardee County (with three active mines) has a one man mining department (without a college degree). He is paid by the Phosphate Industry. There is Minimal Outside Regulation in what is arguably the most corrupt county in Florida. Mosaic employees sit on both the Industrial Development Authority and the Economic Development Authority Boards. They hand out millions each year from Mosaic (mostly to insiders) in trade for unfettered mining. A recent Grand Jury which was highly flawed, still showed what they get away if it keeps the 6-8 draglines digging in their three mines -- (click here for the Presentment Blockedhttp://goo.gl/xZ7GVE) Mosaic Corporation is buying up more of Hardee County monthly. They got approval to close three more roads last week after buying the land on both sides.	Compliance with Hardee County's regulations are issues that are outside the Corps' regulatory authority.
Henry Kuhlman	Those that can leave, get out. The only good jobs are County jobs and the few mining jobs. One in three live below the poverty level. Population has been declining steadily along with the tax base. They are destroying our productive land base and agricultural economies.	Section 4.12.6 of the Final AEIS describes the cumulative economic effects of phosphate mining.
Henry Kuhlman	The permits now being requested by Mosaic in central Florida total 52,000 acres of which South Pasture Extension is 7,500. Think about that. Polk County Planners recently held meetings looking for ideas on what to do with 250,000 acres of essentially useless mined out land. How much of that is Mosaic's? Think about that. Now would be a good time to Stop Digging until these questions are answered.	Section 4.12 of the Final AEIS describes the cumulative effects of phosphate mining.
Henry Kuhlman	Watch the Video. Mosaic is Eating Hardee County Alive.	Comment acknowledged.

Barbara Angelucci	My comments are in opposition to the South Pasture Mine Extension and here is the reason why. This year Governor Scott signed a new Water Policy Bill which, according to the Huffington Post writer Alan Farago, will point this State in the same direction as Flint, Michigan. Voters in the 1970's thought that protecting the environment was so important they approved the bipartisan consensus in Congress that created the most important laws protecting the nation's air and water and the US EPA. Ever since, organized opposition from polluters and exploiters, such as Mosaic, has aimed to undermine those laws, and especially regulations related to enforcement by EPA. Look at the billion dollar suit against Mosaic. Can we trust what they say????	Comment acknowledged.
Barbara Angelucci	One of the toxic strands of Florida's new water policy bill is abandoning enforceable regulations against polluters. For decades, environmentalists have struggled unsuccessfully to hold the Florida Department of Environmental Protection accountable to tough, numeric standards on pollutants but they are ignoring the EPA Numeric Nutrients Standards. The bill has another toxic strand: allowing big water users to shift water around the state at will. What Mr. Farago points out is that "what replaces environmental regulations once they are eviscerated is the ethic of smash-and-grab robbery. Americans learned this lesson decades ago: when water quality and quantity is not nailed down, it disappears."	Comment acknowledged.
Barbara Angelucci	In Manatee County in February of this year, an organic strawberry farm was added to Mosaic's Four Corners Mine Operating Permit in February 2016. Water Quantity Augmentation is part of that permit the purpose being to offset the reduction in flow in the Manatee River during mining. It reads..."Mosaic shall, at its own expense augment the Manatee County water supply system by 1.96 million gallons per day (mgd). This augmentation shall be obtained from the Florida Aquifer and the obligation to offset the reduction in flow in the Manatee River resulting from the operation of the mine shall continue until such time that Mosaic has completed reclamation of all mining Activities constituting a part of the Four Corners Mine in the watershed of Lake Manatee" – OUR DRINKING SOURCE. This could go on for decades.	Section 4.12.3 of the Final AEIS describes the cumulative effects of phosphate mining on groundwater.
Barbara Angelucci	When Mosaic gets to Wingate East, Mosaic has stated that they will re-configure the Myakka Watershed! Our water here and throughout mining areas in Florida is under attack.	Section 4.12.2 of the Final AEIS describes the cumulative effects of phosphate mining on surface water hydrology.
Barbara Angelucci	People cannot afford to pay for water from a desalinization plant because Mosaic needs to exercise their business plan. Why should citizens have to pay for Mosaic's needs. Hillsborough County is suffering from and paying for the effects of phosphate strip mining with their desal plant. The ACOE issues the permits which cause depletion of our water, desalination plants, and unnecessary costs to citizens, financial and loss of agricultural jobs which greatly out number those of mining.	Section 4.12.3 of the Final AEIS describes the cumulative effects of phosphate mining on groundwater.
Barbara Angelucci	The South Pasture Extension is NOT in the Public Interest. Please do not issue this permit.	Section 7 of the decision document addresses the public interest review for South Pasture Extension.
Julia Mader	Since 1994 I have lived full time in Hardee County and established a business based on the peace and beauty of this area of Old Florida. We run a massage establishment and welcome people from the area as well as tourists seeking the beauty of Florida's nature. Our clients may be from Florida but have never seen the wildness of nature here or heard the sound of a bard owl in the woods. Northern folk seek the warmth and quiet that is here and Europeans tell me their visit to the nature of Hardee County made their trip to Florida. They return again and again.	Comment acknowledged.
Julia Mader	I implore you to do all that you can to preserve this delicate environment and curtail the destructive methods of Mosaic phosphate mining. They do not preserve 500 year old trees or natural habitat that has been in existence for centuries.	As described in the approved compensatory mitigation plan, the permittee will preserve 1095 acres of wetlands and uplands not proposed for mining.
Julia Mader	When I arrived here in 1994 Horse Creek erupted with the sounds of frogs during the rainy season. I hear little of that wild sound these days and wonder how life can continue if the water is not safe for frogs.	Section 4.12.2 of the Final AEIS describes the cumulative effects of phosphate mining on surface water hydrology. Section 4.12.4 of the Final AEIS describes the cumulative effects of phosphate mining on surface water quality.
Julia Mader	Are there any studies to ascertain the changes of the frog population in the waters effected by the mines in Florida?	Section 3.3.6.1 of the Final AEIS cites studies that looked at the habitat value of reclaimed vs. unmined lands for a variety of species.
Julia Mader	Just one hour north of our retreat in Lily is the ghastly sight of the remains of the phosphate industry. It is shocking to see how the land in Polk County has suffered. The sweet woods and streams are gone and Cogon grass fills the fields. This grass is spreading quickly and the USACE must do what is needed to prevent its continuing spread. It is a "bone valley" drive from here to Lakeland.	Section 5.7 of the Final AEIS describes reclamation as required by FDEP. Section 12.2.4 of the decision document describes how the DA permit for South Pasture Extension complies with Executive Order 13112 on invasive species.
Julia Mader	The USACE has the power to take steps to keep this area of Florida an environmentally protected area. Future generations will certainly appreciate the care and attention given to keep the nature of Florida available for their families. There certainly are opportunities to see income producing methods in showing the world the precious natural environment of this part of Old Florida.	Comment acknowledged.
Julia Mader	Hardee County is an agricultural community and I ask that the EPA do what is needed to prevent the destruction of this land by the mining practices.	Comment acknowledged.
Sarah Hollenhurst	Please accept my comments in opposition to the proposed extension of the South Pasture Phosphate Mine:	Comment acknowledged.
Sarah Hollenhurst	I've heard from a number of people since Mosaic has mined in Manatee and Hardee counties that Mosaic has consistently failed to control airborne particles, and failed to safely dispose of mined materials. I have heard complaints of respiratory and other health issues related to airborne particular matter and of groundwater contamination near the Riverview gypsum stacks leading to numerous and significant health effects to nearby residents including Progress Village and the Villages, lower income developments. Complaints include contamination of private wells, a creek, and water supplies adjacent to and downstream of both mining operations and gypsum stacks, and clouds of dust affecting air quality. I was in the mine region several times and the dust and blowing sand was visible.	Section 4.1.8 of the Final AEIS addresses several of the issues related to community health, safety, and quality of life. As explained in Section 1.3.1 of the Final AEIS, phosphogypsum stacks are associated with fertilizer production. The Corps considered the four phosphate mines reviewed under the AEIS to have independent utility from the fertilizer plants.
Sarah Hollenhurst	The health complaints I have heard include COPD, cancer, tumors, skin lesions, severe anemia, tooth erosion due to fluoridation, leukemia, and premature death. I saw the tumors and teeth issues in person, and pictures of the other issues also, along with conversations with affected people. I have seen photos of dead wild animals with severely eroded teeth found in the area of the developments. I was shown cemeteries in the mining region where the people tended to the young side rather than expected old age. The person who showed the cemeteries to me implied the disproportionate amount of early deaths was due to mining. One cemetery was not an old one and the graves were within recent years. Given the severity of these health complaints, I see the need for a thorough epidemiology study by the US Dept. Of Health and Human Services and the EPA, beginning from when phosphate mining started in the Florida Phosphate region, and which should utilize health statistics from that time period up to the present, including statistics dating from when Mosaic began mining in the region.	Section 4.1.8 of the Final AEIS addresses several of the issues related to community health, safety, and quality of life. The determination of whether or not a public health study is necessary in any area is beyond the regulatory authority of the Corps.
Sarah Hollenhurst	I feel that special attention should be given to the regions surrounding the gypsum stacks in order to see if Mosaic is able to safely store mining waste, as the complainants said the stacks had gaps and were leaking into a creek and surrounding land.	As explained in Section 1.3.1 of the Final AEIS, phosphogypsum stacks are associated with fertilizer production. The Corps considered the four phosphate mines reviewed under the AEIS to have independent utility from the fertilizer plants.
Sarah Hollenhurst	A thorough analysis and review of these statistics, along with an investigation as to any adverse impacts to the health, safety, and welfare of those residing within the regions impacted by the mining operations and gypsum stacks should be done by the US Dept. Of Health and Human Services and the EPA.	The determination of whether or not a public health study is necessary in any area is beyond the regulatory authority of the Corps.
Sarah Hollenhurst	Until the analysis is completed, and the health, safety and welfare of the affected populations are assured, I urge the Army Corps of Engineers to withhold all phosphate mining permits. I ask them to put the health, safety, and welfare of private citizens above the corporate interests of Mosaic.	Section 4.1.8 of the Final AEIS addresses several of the issues related to community health, safety, and quality of life. The determination of whether or not a public health study is necessary in any area is beyond the regulatory authority of the Corps.

Robert Navin	I find it quite frankly dishonest for the Mosaic Company to make the argument in their permit application that they need to mine all of the wetlands/streams and waterways on their lands which contain phosphate rock. The following quote is taken from the Mosaic permit application: <i>"Thus, phosphate miners must achieve an appropriate balance between protection of the ecological resources on the land surface and the proper stewardship of the finite, subsurface, geological resources, in this case a mineral of strategic national importance".</i> <i>"In the absence of an adequate supply of reserves to maintain production, domestic phosphate production will dwindle and food supply dependence on foreign rock supply will increase".</i>	Comment acknowledged.
Robert Navin	A mineral of strategic national importance will dwindle and food supply dependence on foreign rock supply will increase This coming from Mosaic who currently sells the majority of this "mineral of strategic national importance" to International customers. The Facts of the matter, according to the Mosaic Annual Report for the year ended December 31, 2015, is that 61.5% of the total tonnes of phosphate mined by Mosaic are sold outside of North America (Not the United States but NORTH AMERICA). In other words, only 38.5% of the phosphate mined in Florida stays in the combined area of the United States, Canada and Mexico. And here I thought they said this was a mineral of strategic importance. In fact the same Annual Report, shows that based on Net Sales, 63.1% of sales are to International customers, based on the location of the customer. Let's be honest, they are making a false argument. No court of law in the United States would ever allow this line of reasoning.	Comment acknowledged.
Robert Navin	This Permit should be rejected based on misleading and outright false statements, in other words, LIES. Sincerely, Robert G. Navin	The decision document explains the criteria that the Corps used to evaluate the South Pasture Extension DA permit application.
Brooks Armstrong	I appreciate the opportunity you are providing for the public to comment on the South Pasture Extension mine application in Hardee County, Florida. I am a resident in that county. I also appreciate the tremendous amount of detail that the Army Corps of Engineers must consider in processing this application.	Comment acknowledged.
Brooks Armstrong	As the general and project specific needs of the industry are considered in the various alternatives of this assessment, there is one thing that occurs most strongly to me. Mosaic is a private industry that is requesting to be able to do a large amount of damage to Florida's aquifers and ecosystems, including waters of the United States. The degree can be argued, but it is notable that almost every alternative for this mine will do environmental damage, as acknowledged by the Corps.	Comment acknowledged.
Brooks Armstrong	Strip mining for the element of phosphate, to be made into fertilizer, is not necessary, especially in the wetlands and upland recharge areas for those wetlands, in Florida. The premise that Mosaic has put forth to the public is that their industry is necessary to "feed the world". In fact, this industry is profiting from an unsustainable, destructive and unnecessary practice. For centuries, farming was done without the need of mining the fertilizer components. Now, a growing world population has created a demand and an opportunity for corporate farming to do just that. Growing food faster and in larger quantities is profitable. However, surely there are more sustainable answers to world food production than mining. Strip mining phosphate and shipping it off, two thirds going out of the U.S. is simply robbing soil of the United States to provide for foreign lands. The aquifers, streams, tributaries and waters of the U.S. will be compromised and jeopardized in the process. Eventually the phosphate supply will run out and new solutions to fertilizer will have to be found anyway. In fact, new methods combined with old methods are being used already.	Section 2.2.6.2 of the Final AEIS explains why avoiding the use of phosphate fertilizers is not a feasible alternative.
Brooks Armstrong	The destructive and irreparable practice of phosphate strip mining should and must be stopped now. I strongly urge the Army Corps of Engineers to decide on the no action-no mining alternative for the South Pasture Extension and for all future phosphate mining applications.	Section 5.2.1 of the decision document describes the No Action Alternative as an avoidance alternative. Section 5.4.1 describes the No Action Alternative as a minimization alternative.
Nina E. Perry	I am opposed to the proposed extension of the South pasture Mine. Although I do not live in Hardee County, I am a Florida resident who is concerned about the pattern that phosphate mining has established of leaving behind vast expanses of destroyed land behind for the residents and taxpayers to have to deal with. This is the worst kind of "corporate welfare" because it destroys habitats and renders the land barren for the foreseeable future. It's about time that somebody stands up to this special interest that is lining its pockets by plundering Florida's natural resources.	Section 5.7 of the Final AEIS describes reclamation as required by FDEP.
Florida State Historic Preservation Office	The Florida State Historic Preservation Officer reviewed the referenced project for possible effects on historic properties listed, or eligible for listing, on the <i>National Register of Historic Places</i> . The review was conducted in accordance with Section 106 of the <i>National Historic Preservation Act of 1966</i> , as amended and its implementing regulations in <i>36 CFR Part 800: Protection of Historic Properties</i> .	Section 10.3 of the decision document explains how the Corps considered the SHPO's letter in making its determination. The DA permit for this project includes a special condition requiring protection of previously unidentified archaeological/cultural materials and notification of appropriate authorities including the SHPO and THPO.
Florida State Historic Preservation Office	It is the opinion of this office that the proposed project will have no effect on historic properties listed, or eligible for listing, on the <i>National Register of Historic Places</i> . However, the permit, if issued, should include the following special condition regarding unexpected discoveries: • If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The applicant shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section at (850)-245-6333. Project activities shall not resume without verbal and/or written authorization. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, Florida Statutes.	Section 10.3 of the decision document explains how the Corps considered the SHPO's letter in making its determination. The DA permit for this project includes a special condition requiring protection of previously unidentified archaeological/cultural materials and notification of appropriate authorities including the SHPO and THPO.

Commenters from Center for Biological Diversity Website

Standard Language

Richard Spotts	Pam Wright	Cydney Lesniak	Bonnie Sleeper
Jim Aldrich	James S. Mulcare	Robert Hensman	Lois Swoboda
Kim Sellon	Dr. Elizabeth Hegeman	Lisa Sfeir	Richard Beaulieu
Wendy H.	Gary Joffe	Louis Costantine	Amanda Wilkerson
Thomas Edwards	R. A. Szumal	Sandy Zelasko	Milt Weisman
Vickie Gonsoulin	Jamie Fillmore	Wendy Denby-Pascale	Lynette Angell
James Meehan	Jacqueline Johnson	Nancy Berman	Ciana DeSimone
Martin B. B. Friedman	Kelly King	Cynthia Elia, RN	Ana Coro
Michael Brown	Jerome Sheitelman	Michale Michel	Lauren Devine
Guy Graham	Rose Marie Leather	Stephanie Christoff	Cheli Bremmer
Cristina Amarillas	Drucilla Mothley	Amanda Martines	Linda Medeiros
Jennifer Smith	Lois Dunn	Jim Carmean	Beverly Eadie
Elizabeth Myrin Shore	Deborah James	Otto Salm	Sandy Gadzia
Robert Thomson	Perry Gx	Richard Parish	William Carbley
Sharon & Richard Tamm	Dave Mills	Fred Fall	Aimee Jordan
Stephanie Smith	Patricia Soteropoulos	Chris Kulczak	Donald Shaw
Robert Thomson	Danielle Bower	Drfue Chatfield	Dottie Miller
Ame Emerson	Sandra Boylston	Glen Venezio	Elaine Lauricella
Ron Engelhardt	Pat Churchman	Cindy Sprecher	Esther Garvett
Iris Chynoweth	Larry Lambeth	Constantina Economou	Mary Gutierrez
Ronald Stage	Dianne Miller	Venice Rembold	Lillian McWilliams
Alexandra Pappano	Richard Shipps	Nicole Loh	Michael Payne
Yogesh Sharma	Reem Haddad	Marguerite Donnay	Dr. Brett Wolfson
Leah Huddleston	Lewis Sternberg	Kerry C. Kelso	Mari Mennel-Bell
AniMae Chi	Amina Sidky	M. Marcus	Kerry Drake
David Councilman	Christina Lemberg	Jenise Salido	Todd Jensen
Barbara Vieira	Domenico Mastrototaro	Alice Naegele	Elizabeth Major
Ed Vieira	Erika Howards	Kim Godwin	Taylor Brown
Lisa Neste	Toni Hamilton	Ruth E. Lawler	Lani Calbi
Sheila D.	Carrie Darling	Stephen Burmeister	Lincoln P. Cole, 3rd
Robert Krone	Lindsey Caudill	Marjorie J. Williams	Tracey Wilson
Janice Banks	Shelly Jones	Elizabeth Cherubin	Ms. Charles Guaintance
Lawren Rudley	Gianfranco Frelli	Sean Sellers	Eleanor Kaye
Ann Kelly	Lori Walker	Dick Evans	Tom Tennesen
Eric Haskell	Rae Cohn	Lourdes Acevedo	Vanessa Carbia
Jeanne Rogers	Fred Schloessinger	Colonel Meyer	Zachary Kerr
Joan Walker	Fran Ransom	Geo Turner	David Iannotti
Giana Peranio-Paz	Marilue Funkhouser	Karen Wade	Chris Danne
Nyack Clancy	Michele Halligan	Donald Dugger	Mary Nichols
Michele Rosenbaum	Claudia Reed	Claudia Harris	Andrew McPherson
Marco Baracca	Christopher Dowling	Summer Devlin	Michael Bittner
Barbara Tomlinson	Edward Underwood	Debra Cosentino	David Johnson
Lisa Mazzola	Robert Gerosa	Patricia DeLuca	Crystal Alcairo
Tiana Brachel	Susan Janke	Richard Wilkins	Rosemary Colson

Robert Greenboam	Cathy Deptula	Dianne Sacchetti	Linda Lynch
Donna Alger	Linda Tanner	Robert McFarland	Joanne McMillan
Jennifer Bowman	Ramara Garrett	Catherine Green	Bill Ward
John Grossenbacher	Ann W. Wiley	Mark Crook	Thomas Cleary
Sallie Dixon	Frank Garcia	Jill Lefkowitz	Kahla Gentry
Julia Pim	Betsy Farmer	M. Rasmussen	Patty A. Pooock
Nicholas Udall	Ken Swanson	David Shumway, MD	Kevin Chapman
Edward Rowell	Mike Shasky	Patsy Shafchuk	R. Kelly
Virginia Ross	Linda Helvie	William Canavan	Louise Pinson
Gaston Nichols	Lillian Martinez	Sharon Lloyd	Chris Wadelton
Katherine Lindley	Peter Miller	Sandra Britton	Carmen Rodriguez
Nancy Sabat	Paul Lewis	John Sweeney	Michael Chase
Norman Fox	Carolyn J. Warner	James Whitelock	Cynthia Schuler
Michael Stella	Susan Armistead, M.D.	Carolanne Crook	Maynard J. Hirshon
Lorraine Zimmerman	Yvonne LeBris	Kristina Fazio	Pat Holloway
Betty and Jim Gorman	Flora McQueen	Barbara Schwartz	Barbara Bacom
Shari O'Connor	Diane Nye	Pamela Buchanan	Meaghann Fisher
Gary Madole	Barbara Schuman	Cheryl Bateman	Judy Stapleton
Deborah Long	Mark Lebel	Martha Burton	Paul Kripli
Ashley Brookman	Sharon Moyer	Stephen Howard	Lynn Forsht
Marianne Verhagen	Irene Lloyd	Melinda Dascotte	Christine Reilly
Julie Miro	Dewey Jackson	Mary Watson	Roger Vaughan
Larry Mikolashek	Patricia Link	Blake Coglianese	James Norgrove
Myra Hefner	Harry Russell	Michael Siegrist	John Mercer
Ann Bitterman	Ben Arnold	Yuko Lauritano	George Craciun
Sally Eadie	Arlette Casellas	Vaughan Greene	Guy Hancock
Barbara Hughes	Elaine Heathcoat	Angel Strong	Sandra Webb
Ingrid Bergman	William Rowe	Theresa H. Deery	Mark Edward Hendricks
Eric West	Ann Wagler	Bob Langford	Teresa Woods
Victoria Carpenter	James Stalls	Winnie Leshner	Jacqueline Zimmerman
Linda Horkitz	Robert Hensman	Randy Brehne	Elsy Shallman
Melody Fiore	Laina Shockley	George Novak	Dr. Sheldon Zane
Linda Kay	Samantha Rosa-Re	Linda Headley	Jane Schnee
Margaret Silver	R. Elizabeth Fleming	Judith Peter	Joyce Smith
Robyn Clark	Mary Rowell	Jocelyn Stowell	Arkady Vyatchanin
Stephanie Lewis	Phyllis Bernard	Patrica Dalton	RM Boggy
Ron Silver	Hadi Yaziji	Rachel DeFauw	Joe Balsamo
Joel Klayman	Renata Pelc	Betty Eastham	Nancy Roessel
Sarah Hundemer	Mary Shabbott	Esther Prexl	J. Leslie
Maryann Piccione	Jeffrey Bains	Rochelle Sullivan	Cherise McEnerney
Luis Tirado	Valerie Pflug	Linda Harsin	Andrew Simek
Nick Robinson	Linda Rucci	Amanda Fenick	Sandy Walters
Lisa Koehl	Anita Wooton	Jennifer Tarling	Michelle Cristantiello
Catherine Anderson	Summer Ankiel	Patricia Thompson	Joan Ennis
Pauline Watson	Matt Wallace	Laura Remington	Mark Davenport
Norry Lynch	Val Rosado	Kellie Pilgreen	David Yoder

William Fisk	Suzanne Joseph	Diane Eisenhower	Janna Kepley
Shirley Bryant	Lori Bacon	Phillip Roberts	Lisa Fernandes
Dr. Tony DeLia	Esther Johnson	Wendy Wish-Bogue	Gail Flanders
Robin Rutledge	Una Quan	Gregory Esteve	Gavi Stevens
Ray Brien	Ms. Angela Porsch	Marianne Irwin	Alessa Zaias
Carolyn Kiss	Jeanine Wiernik	Cindy Bushway	Taryn Vogt
Barb Morrison	Rusty Rollings	Marc Engel	Jonathan Bishop
Jose Rosario	Elizabeth M. Denning	Valerie Sebring	Lynn Richardson
Paola Rojas	Cindy Dorsey	Suzann McAlister	Marsha Elston
Alan Michels	Antonia Gary	Kimberly Huff	John Deddy
Kelly Gilbert	Ramsay MacLeod	Robert Scobee	Christianah Oyenuga
Gerton Westerop	J. Reynolds	Ken Bowman	Rob Williams
Serena Nyikes	Lora Macho	Anton Mcinerney	James Hickman
Adrienne MacFarlane	Barbara Hauck	Betty Holcomb	Donna Slowik
Kathleen Heckler	Janet Thompson	Virgilio Ciullo	G. G.
Rachel Scandarion	Joyce Schwartz	Leah Stables	Meaghan Leavitt
Lisa Dean	Rik Albani	Douglas McMillan	Linda Allan
Larry Turville	William Hartinger	Cricket Blanton	Dennis Peterson
Patricia Keelean	Mirella Chimeri	Dennis Balgemann	Jason Akrami
Diane Holeman	Mary Hrenda	Mary Hedges	Louise Preston
Susan McDonough	Debbie Lynch	Ivonne Carlson	Melissa Abreu
Aida Sheets	Linda Shirey	Karen Roland	Mayra Luria
Sankaran Srinivas	Cynthia Payne	Mariana Serrano	Susn Canada
Richard Prier	L. W.	David Leithauser	Lawrence Cromwell
Harvey Metzger	Paula Morgan	Bev Hansen	William Claiborn
Gail Rich	Stephen Sleeper	Dena Leavengood	Donna Pope
Robin Peterson	Zulma Clark	Esther Kirk	Bonnie McCune
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Jay Billings	Dianna Hamilton	Mark Lainer	Ellen Porter
JoAnn Webb	Cynthia Butler	David Bailey	Raymur Rachels
Vernon Weaver	Denise Dixon	Donna Gellman-Rodriguez	Kenneth Laprade
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Steven Boyce	Mary Beth Alexander	J. Mason	Roman Talkowski
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Jon Richardson	Laura Turkington	Janice Ross	Debra Carter
Marcy Cain	Kathy Lee	Michael McGuire	Pat Pickren
Melissa Mouldin	Mark Jaeger	Michael Flowers	James Bateman
Barbara Tucker	Joanna Ford	Alyson Hill	Brenda Beatty
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Katlyn Moore	Janet Fletcher	Cladia Cairns	John Pono
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Shane Shah	Maria Cedeno	Sheila Mandell	Debra Cook
Terri Halle	Suzanne Burkhard	Tanya Pierce	Letty Perez
Curtis Hughes	Sandra Cooper	Carol Birkenstock	Jimmy Carrell
Robert Heyden	Ray Franklin	Jennifer Biermaier	M. Walters

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Kirk Butler
Donna Banks
Carol Ohlendorf
M. Port
Melissa O'Rourke
Michael DeLoye
Diane Cote
Anne Gowens
Neil Dorian
Eileen M. Snitzer
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Mamie Holst
Tessa Pou
Susan Winnette
Monique Guggino
Leo Souto
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Amina Sidky
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Alaina Reed
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N. Paquette
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Virginia Mendez
Ofelia Lam
Mary Young
Loren Evans
Jaime Pabon
Andy Lynn
Julie Wieliczko
Bethany Hunsinger
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Randy Raspotnik
Barbara Gideon
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Ramona Blankinship
John Byrd
Linda Baker
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Babette Bruton

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Mark Youd
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Barbara Delgado
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Maureen Swanson
Robyn Taylor
Alison Walker
Joanne Manel
Dietlinde Wolf
Amanda Osborne
Clair Jackson
Patricia Sonchaiwanich
Mary Lou Minerva
Kathryn Andrews
Laura Kuzma
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Robin Martin
Dr. Landis Crockett
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Ellen Roffman
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Su Jacob
Winton Wirt
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Shane Troutman
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Leigh Flury
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Michele Artascos
Roger Williams
Bethany Thompson
Michael Kuhman
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Commenters from Center for Biological Diversity Website

Standard Language plus Public Interest Language

A W	Celeste Capasso	Eileen Belcolle	Jason Vardzel
Aaron Moore	Charlotte Martin	Elizabeth Cori-Jones	Jean Naples
Abbey Sokol	Cheryl Dyck	Elizabeth Myrin Shore	Jennifer Clemente
Aixa Fielder	Cheryl White	Emilie Joyce	Jennifer Sams
Akila Mosier	Cheryl Witt	Eric Dallin	Jessica Fielden
Alan Freed	Christopher Burson	Erica Himes	Jessica Martinson
Alex Vollmer	Christopher Vela	Evan Kelley	Jill Mossor
Alexandra Gordon	Christy Nakama	Evgeniya Vyatchanin	Joanne Britton
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Allen Dixson	Colleen Williams	Frank Dipento	John W. Davis
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Ana Rodriguez	Cora Kostka	Gail Meredith	Judith Hankins
Andrea Laderosa	Cory Dunaway	Gary Graham	Judith S Anderson
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Anna Serena	Dale Turnipseed	Gianfranco Frelli	Kara Gallant
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Bonnie Bross	Debra Skandera	Horst Witschonke	Kathy Ridgway
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Lorna Davison	Michelle Palladine	Robert Spencer	Vince I
Louanna King	Michelle Sebree	Roberto Canzoniero	Vince I.
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Luciano Graniello	Mit Patel	Russell Davis	Wade and Betty Matthews
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Melanie Sullivan	Rachel Nostrom	Sydney Smith	
Melinda Weisser-Lee	Rachel Thomas	Sylvana Arguello	



3PR REVIEW COMMENTS:

**Draft Public Interest Review for Department of the Army (DA)
Permit Application
SAJ-1993-01395
US Army Corps of Engineers, Jacksonville District, July 2016**

Re: Environmental Assessment
404 Dredge and Fill Permit South Pasture Mine Extension
Submitted By: People for Protecting Peace River, Inc.
4224 Solomon Rd
Ona, FL 33865

To: John Fellows, AEIS Project Manager
US Army Corps of Engineers
10117 Princess Palm Ave, Suite 120
Tampa, FL 33610-8302
Phone: 813.769.7067

Date Submitted: 18-July-2016

Dear Mr. Fellows,

I am responding to your invitation to submit public comment on the proposed permit SAJ-1993-01395 (IP-JPF) or the South Pasture Mine Extension. Although your notice purports that "... comments made in response to this notice will be considered in making ... final determinations," based on the manner by which the USACE ignominiously abdicated its pledge to consider the comments 3PR assiduously provided for the AEIS, then it is difficult for us to trust that you will in good faith honor your commitment during this round of permitting....

Objection

Allow me to remind you, Mr. Fellows, that 3PR's 92 pages of comments were not even included in the final version of the AEIS. So no one would have been able to consider our point of view upon reading the Final AEIS and it seems obvious that no one on your staff read our comments before development of the Final AEIS – since you had apparently conveniently “misplaced” them. Your remedy to that untenable situation was to publish our comments and your so-called responses as an “addendum.” It is worthwhile noting, even at that, that the USACE responded directly to less than 30% of the roughly 370 comments cited in the 3PR submission. Although we specifically asked for “... forthright, sober evaluations and replies (to our comments,)” the vast majority of our comments were acknowledged only perfunctorily with the following response: “Included in summary above.”

USACE Environmental Assessment SAJ-1993-01395 Conclusions Based on a Deeply Flawed AEIS:

Since almost all of your analysis of SAJ-1993-01395 is predicated on various parts of the AEIS, and given that 3PR's comments on review of the AEIS were all but ignored, it will be necessary to reiterate our rejection of the AEIS as a valid document by which to evaluate the adequacy of CESAJ-RD-W SAJ-1993-01395 (IP-JPF). 3PR found with strong and reasonable basis that the AEIS was inconsistent with the NEPA purpose of “Protection of the Environment”. The USACE failed to provide an area-wide impact study that actually assessed the obvious excessive environmental destruction associated with phosphate strip mining.

The failure of the AEIS, as we reiterated time and time again in our comments, can be traced back to its origins, including the scoping process, when the USACE, whom the public relies upon to uphold the spirit of the NEPA (“Protection of the Environment”), allowed the entire project to be commandeered by the Applicant, resulting in, but not limited to, the following fatal flaws:

1. Adhering to a time frame for the whole project that only benefited the interests of the Applicant. Not only was the entire project hurried through, but insufficient time (only 60 days) was allowed for the public to properly review a document that exceeded 3000 pages, much of it highly technical data.
2. As per the request of the Applicant, not allowing any new studies to be commissioned for the purpose of evaluating such complex scientific issues as, for instance, contamination of ground water due to the accumulated presence of roughly 160,000 acres of industrial waste disposal sites (CSA's)
3. Appointing an ally of the applicant (CH2M Hill) to administer the study
4. Abundantly and indiscriminately using data and information provided by paid consultants of the industry while avoiding vital information developed by independent scientific institutions.
5. Failing to consider the accumulation of more than twenty mountains of contaminated, radioactive and highly dangerous wastes from fertilizer production in Polk, Hillsborough and Manatee Counties (phospho-gypsum stacks) and their obvious relationship to the extraction phase of the Applicant's operations – phosphate strip mining.

It was our recommendation that the AEIS should have been rejected in its entirety and replaced by a much more concise and complete document based entirely on objective, rational, and complete scientific analyses. A review and comment period of at least 12 months should have been provided to evaluate such a leviathan – not 60 days. (3359 – 33613 PR Review Comments. July 2013).

3PR also recommended: “In order for “fair” review to take place, it is also essential that interested parties and potential reviewers be provided: (1) access to the four proposed phosphate strip mine properties so that the information and assertions of the Applicants may be verified; (2) all referenced and related documents, communications, and resources consulted or relied upon (in digital formats); that interactions between the USCOE and the Applicants take place only in a public forum, or that complete records of such communications be recorded and immediately made available for public viewing. (3361 – 3368_3PR Review Comments. July 2013)

“It appears that the DAEIS allows, even with ‘no permit,’ that the most significant and devastating of all aspects of phosphate strip mining will still be allowed to take place. The direct impacts include, but are not limited to: near total topographic alteration of the landscapes of entire regions, regional wide destruction of aquifers, vast and extensive alteration of recharge systems, area-wide reconfiguration of the surface-water runoff patterns of rivers, creeks, and seepage regimes, and area-wide changes to the average evapotranspiration rate.” (176 – 181 3PR Review Comments. July 2013)

The USAC has failed abysmally “... to fulfill the NEPA purpose of “Protection of the Environment” in preparing and administering ‘Environmental Impact Statements’” (172 – 173 3PR Review Comments July 2013)

Initial indications of this failure began during the scoping process: “3PR vehemently objects to the scoping process as providing any legitimate bases for the development of the AEIS under NEPA, because the data and analyses, recommendations, and opinions of independent scientists and environmental professionals were not properly considered or incorporated.” (310 – 312 3PR Review Comments July 2013)

3PR provided the results of qualified site specific environmental studies, which were summarily rejected without comment or explanation. 3PR provided these environmental analyses through its professional consultants, Winchester Environmental Associates, Inc. Several important primary concerns relating to phosphate strip mining were evaluated through on-site and offsite environmental analyses, including wetlands mitigation, wetland reclamation, endangered species, cumulative impacts, and downstream estuarine concerns. The lead scientist for this exercise is one the most experienced professional consultants in the region, and has qualified as an expert witness and testified in legal proceedings many times. (313 -319 3PR Review Comments July 2013)

If important site-specific relevant research and information provided directly by the highly experienced and reputable representative of a prominent local professional consulting firm is not welcomed by the USACE, then it is clear that no independent voices were to be considered in the scoping process. This single example is emblematic of the dreadful deficiencies of the scoping process and insincere efforts to claim public involvement and objectivity. This incident solidifies the appearance evident throughout the scoping process of near total reliance on information and representations provided by the Applicants and pro-mining interests. (327 – 333 3PR Review Comments July 2013)

Resistance to independent scientific information appears to be endemic to phosphate strip mine permitting procedures. However, such rejection of public involvement is diametrically inconsistent with the spirit and intent of NEPA and the public participation and involvement requirements guaranteed under the Act. Moreover, NEPA stresses that public scrutiny is essential to its fair implementation and sole mission of "Protection of the Environment". NEPA requires that agencies encourage participation at all levels and requests involvement and comments from the public, affirmatively soliciting comments from those persons or organizations which may be interested or affected. (320 – 326 3PR Review Comments July 2013)

3PR questions the adequacy of the scoping process for the DAEIS, because it did not sufficiently include involvement of well-known research institutions, regional ecologists, and sources of credible research, especially Archbold Biological Station (preeminent research center for conservation biology, plant ecology and restoration biology in central Florida), the Natural Resources Flight of the Avon Park Air Force Range (conducting federal research for large-scale ecosystem conservation land management involving many listed plants and animals native to central Florida), Center for Plant Conservation Network at Bok Tower Gardens (conducting extensive research relating to listed/endemic native plant relocations, reintroduction strategies, and endemic plant ecology), Tall Timbers (ecological, botanical, management, and forests research) and other central Florida biologists who have conducted independent ecosystems studies. Neither has their relevant published research been cited or considered. (283 – 292 3PR Review Comments July 2013)

3PR questions and contends that the DAEIS promotes many positions for which there is intense and adamant disagreement among scientists and researchers who are "independent" of the phosphate industry, its related agencies, consultants, attorneys and public relations personnel. Many of these disagreements have to do with the tremendous extent of wetlands, upland native ecosystems, and native biota historically destroyed by phosphate strip mining, and the fact that many of these systems can never, and have not, been replicated, replaced, or effectively restored to any reasonably viable or functional ecological systems, and that the native assets involved are essential to protect in trust for the future of humanity (225 – 231 3PR Review Comments July 2013)

The DAEIS almost completely omits and avoids the tremendous body of scientific literature and research data and analyses which show the negative impacts which phosphate strip mining and its related industries have imparted to native upland and wetlands ecosystems and biota, rivers, streams, estuaries and other aquatic resources, groundwater resources, surface water resources, aquifers, water quality, availability, and distribution, climate, community planning, and public health and safety, and many other areas of concern to the environment and the human population which depends upon it. (232 – 237 Review Comments July 2013)

The DAEIS is insufficient and/or unsupported by independently developed, regionally relevant data and proper site-specific evaluations and research. Most sections are highly deficient and preclude meaningful review and comment. The content of the DAEIS appears to rely disproportionately on representations, data, and analyses obtained from the Applicants and/or other sources directly or indirectly related to the phosphate strip mining industry, such as The Phosphate Council. (211 – 213 Review Comments July 2013)

The totality of upland transfiguration and ecosystem destruction will also have profound negative impacts to water quality and quantity. In fact, the DAEIS cites that phosphate strip mining in uplands will result in excavation of pits and pumping, potential reductions in water table elevations of "20 feet", and direct impacts to the surficial aquifer system (SAS), hydrology and sensitive habitats, groundwater dewatering, impacts to shallow wells, lowering of local water tables, and further extensive alterations to surface water management systems by ditching and construction of clay waste disposal (CSAs) sites including dams and berms. Acknowledgement or analysis of the relationship of the specialized vegetative communities which occur in the Southwestern Florida Flatwoods Ecoregion (Figure 4) and their high degree of correlation to regionally specific and unique soils is conspicuously absent throughout the DAEIS. Possibly it is inconvenient to discuss the destruction of ecological resources which can never be restored or replaced. NEPA requires coordination with state and local agencies and consistency with their laws, regulations, and planning. "The AEIS study area is located within a water supply planning area that SWFWMD has defined as the Southern Water Use Caution Area (SWUCA) on the basis of concerns that cumulative reliance on withdrawals from the upper FAS through well systems to meet potable, agricultural, and industrial water supply demands has resulted in an unsustainable lowering of the potentiometric surface of the Floridan aquifer." The DAEIS acknowledges SWUCA, discusses SWUCA, then fails to appropriately consider the, tremendous magnitude of the negative water resource impacts potentially threatening the "Water Use Caution Area" by area-wide phosphate strip mining, most of which takes place in uplands, yet the impacts of which absolutely and profoundly affect river flows, aquifers, and wetlands. Natural systems are composed of the interrelated and inseparable factors of physical/geologic, hydrologic, atmospheric/climatic, and biotic. Damage to one creates damage to the others. Phosphate strip mining has a long history of obliterating these life-giving assets and precluding their natural recovery. (201 – 203 Review Comments July 2013)

USACE: a facilitator and advocate for the Applicant to meet its production goals:

Furthermore 3PR contends that not only has the USACE failed in its responsibility to produce a valid document by which to evaluate SAJ-1993-01395 (IP-JPF) but it has actually become a facilitator and advocate for the Applicant to meet its production goals:

Obviously if the USACE intended to fulfill its commitment to the public and uphold the NEPA purpose of "Protection of the Environment" it would see that Alternative 1 (No-Action) would be the point where a stand would take place. The No Action Alternative – "the least environmentally damaging alternative of all the avoidance alternatives, including the Applicant's Preferred Alternative." The USACE rejects the No Action Alternative because it is deemed "impracticable" because it does not fulfill the "Applicants Basic Need" to "extract phosphate ore" and obtain an "uninterrupted phosphate rock supply to meet projected demands"

"In order to continue to produce the phosphate rock currently being supplied by the South Pasture Mine to meet demand uninterrupted, the applicant needs to expand mining operations into the South Pasture Extension as soon as possible to optimize rock blending opportunities and rock recovery between the two parcels. Therefore, mining activities on the South Pasture Extension are scheduled to begin in 2016 and continue for approximately 20 years, to 2035 to allow for rock extraction and beneficiation to be integrated and to optimize rock blending, materials backfill, and reserve recovery at both sites. With this in

mind, the applicant needs a minimum life for a mine extension of at least ten years of mining on the South Pasture Extension, which, when integrated with mining on the South Pasture Mine (with mining occurring on both sites at times simultaneously and at times sequentially, as needed to optimize rock blending, reserve recovery, and materials backfill), would supplement and ultimately allow operation of the South Pasture Plant until at least 2035.” P. 4 CESAJ-RD-W Environmental Assessment, Draft Clean Water Act Section 404(b)(1) Guidelines Analysis, and Draft Public Interest Review for Department of the Army (DA) Permit Application SAJ-1993-01395 (IP-JPF)

The role of the USACE is to implement the NEPA purpose of “Protection of the Environment” from the predations of the phosphate industry, not to devise a permit that meets the production goals of the Applicant. The “No-action Alternative” is summarily rejected because it does not meet the “Basic and Overall Purpose” of the Applicant: To extract phosphate ore.

3PR objects to the "purpose and need" as stated in the DAEIS. "The Applicant's purpose and need forms the basis for the alternatives analysis. The purpose and need for an Environmental Impact Statement is "Protection of the Environment" in federal actions. Nowhere is this NEPA directive found in the DAEIS. The position taken by the USACE is inconsistent with federal law, and has the effect not only of promoting phosphate strip mining, but to virtually assure and predetermine that alternatives proposed by the Applicants are approved (permitted). This position taken by the USCOE effectively excludes Alternative-1 ("No Action" / "no permit"). It is clear that all of the other alternatives are merely additional scenarios acceptable to the Applicants. In actuality, NEPA requires that "the agency" propose the "alternatives, including the proposed action," not the Applicant's.

40 CFR 1502.13 Purpose and need. The statement shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.

The "Purpose and Need" for the AEIS should be changed to: "The purpose of the proposed action is 'Protection of the Environment' via comprehensive analysis of the direct and cumulative environmental impacts of phosphate strip mining in the CFPD, and assuring the protection the natural environmental, public health safety, and the conservation of water and air resources in considering federal permit applications." (813 -830 3PR Review Comments July 2013)

“Questions regarding whether phosphate strip mining should take place must be decided in an academic environment, while seeking out and acknowledging the difficult problems which must be overcome in order to find methods of phosphate mining which impart only acceptable impacts. Phosphate mining is an industry in business for profit. From the industry's perspective its mission is no doubt to increase efficiency and make more money. Profit must in no way be the basis of decision-making where the NEPA mission of "Protection of the Environment" is concerned.” (851 – 856 3PR Review Comments July 2013)

USACE Fails to Consider Cumulative Impacts of Regional Phosphate Strip Mining

“Phosphate mining has often been presented by the mining industry as a ‘temporary’ disturbance of land. However, it is unrealistic and inaccurate to assert that a 30-plus year mining project is a ‘temporary’ disturbance, or that large-scale removal, disturbance, mixing of native soils, and construction of CSAs and phosphogypsum stacks, maintenance corridors, ditches, berms, pipelines, and processing facilities, will result in anything other than ‘major,’ ‘long-term,’ and complete destruction to native ecosystems, as it has with phosphate strip mining in the past. Mined land, whether in the process of being mined, whether reclaimed or not, is an impediment to wildlife and ecosystem function through habitat fragmentation, the creation of physical barriers, altered hydrology, soil changes, and many other problems. Mined land fragments habitats and prohibits wildlife from moving within their home ranges and thus restricts them from the resources needed for their survival and reproduction. In addition, the disturbed, physically altered, often chemically different soils, promotes the spread of nuisance and/or exotic opportunistic plant species that, under these conditions, invade, exclude, and/or preclude native species and habitats on-site and, through dispersal mechanisms, jeopardize the integrity of adjacent native habitats, and well beyond. Recommendation: A brief tour by air and ground through the phosphate mining district will dispel any myths concerning the level of impacts and destruction created by this industry. Seeing is knowing and believing.” (834 – 850 3PR Review Comments July 2013)

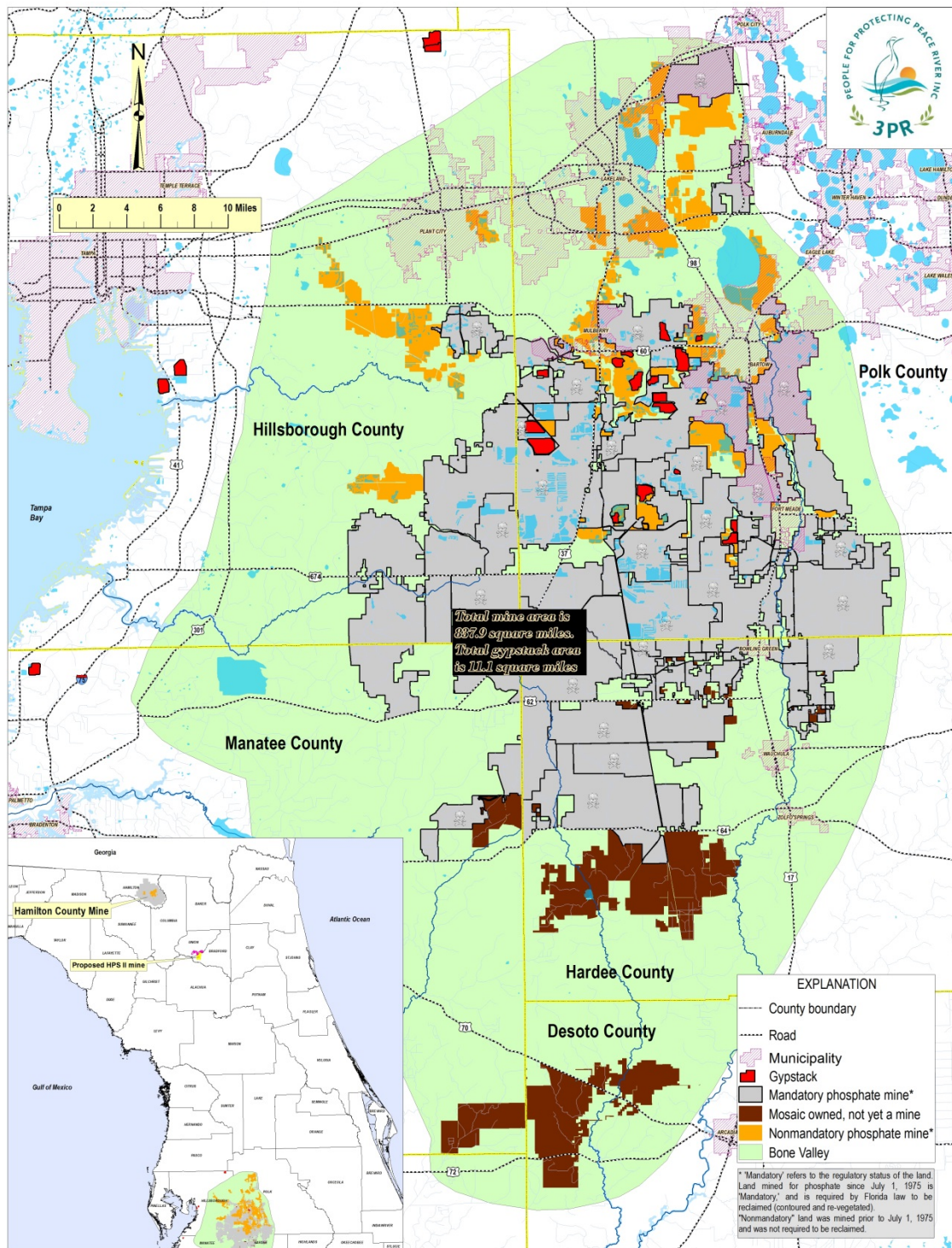
Excerpts from the article, “What’s Next for Bone Valley,” by journalist Tom Palmer, published Thursday, July 23, 2015, in The Lakeland Ledger, describes the dilemma faced by Polk County, after decades of phosphate strip mining has left 250,000 acres ravaged and undeveloped:

“In 1990, the Central Florida Regional Planning Council met with mining company officials and other interest groups to try to understand the issues ahead for mined land. The phosphate industry had maintained for decades that its mining operations were only a temporary use.

“That raised the question of what would be the subsequent uses for the land. That study, which occurred only 15 years after state law required phosphate companies to reclaim mined land, made no recommendations. Instead, it was the first attempt by local planners to persuade phosphate company officials to begin thinking about what their land could be used for after mining and reclamation were completed. In the meantime, Bone Valley was sometimes seen as a "sacrifice zone," a place where activities ranging from power plants to hazardous waste incinerators opposed in other parts of the state could find a home....

“The next attempt to look at the area's future came in 1999 in an effort launched by Polk County's planning staff. However, that study hit a dead end after phosphate company representatives declined to participate, arguing they weren't ready to discuss the issue....

“Bone Valley contains tributaries of the Peace, Alafia and Little Manatee rivers, all of which have been affected in some way by mining activities. Mosaic has announced plans to restore some of the streams and to improve wildlife habitat as part of its reclamation plans. The concern is what happens after Mosaic, or any other company required to complete reclamation projects, finishes, sells the land and moves on. “



Phosphate mines and phosphogypsum stacks of Florida.

Hence, there is no credible evidence that 250,000 acres of “reclaimed” phosphate land will ever be developed in a way that could benefit local economies. According to the article above the phosphate industry in 10 decades of mining has not produced a beneficial outcome for their post-mined property. History proves that reclamation (returning old lands to a useful purpose) is a marketing myth. The record of the phosphate industry is dismal in this respect.

The following article summarizes the USF search for a construction site for a new campus near Lakeland addresses construction issues on “reclaimed” phosphate land and some the health issues associated with these lands. Based on most evidence “reclaimed mines” is an oxymoron. Old phosphate lands are severely compromised for any development.

All of central Florida is in a reclamation crisis. Even those mine sites which are supposedly “reclaimed” are found by the US EPA to be dangerously radioactive and contaminated with heavy metals. How can we ignore the implications of the Teneroc study which expresses concern for the city of Auburndale’s drinking water? It seems that every time we pick up a central Florida newspaper these days we read of environmental health problems related to phosphate mining and processing. The Tampa Tribune of July 13th 2003, reports cancer in epidemic proportions in certain Plant City neighborhoods located near old mines and active phosphate plants (“What Lies Beneath Affects Rising Homes”)

As far as building development is concerned The July 15th 2003 Lakeland Ledger report on a land acquisition committee for a new USF college campus makes it sound as though you can’t even give away reclaimed phosphate lands:

- “At the Williams Acquisition Holding Co. site, experts found that nearly 70 percent of the property couldn't be developed because of poor soil composition... the land had been mined, leaving it unstable for development.”
- “The Hacklake Forests site near Fort Meade posed the greatest challenges. The property, once mined for phosphate, is laden with clay settling areas that would require additional supports for any structures that are built there. There also are elevated radon levels on the property because it was once mined. Radon is a colorless, odorless gas linked with mining that has been known to cause illness in those who inhale it.”
- ” At Old Florida Plantation, radon posed a problem, one of the engineers estimate would cost \$375,000 to \$750,000 to mitigate. Because part of that site had been mined for phosphate, additional supports would be needed at an estimated cost of \$2.8 million to \$3.7 million.”

3PR Strenuously Disagrees with USACE's "Water Dependency Determination"

Water Dependency Determination: Because the project's basic purpose, extracting phosphate ore, does not require siting within a water of the U.S., the proposed discharge is not water dependent. Environmental Assessment SAJ-1993-01395 p. 6



Phosphate Dredge at Wingate Mine, Manatee County



“The direct impacts include, but are not limited to: near total topographic alteration of the landscapes of entire regions, regional wide destruction of aquifers, vast and extensive alteration of recharge systems, area-wide reconfiguration of the surface-water runoff patterns of rivers, creeks, and seepage regimes, and area-wide changes to the average evapotranspiration rate.” (176 - 181 3PR Review Comments. July 2013)



Impacts to Water Resources

Perhaps the most controversial topic regarding mining is its potential impact on water resources. There are two primary categories of concern regarding water resources: impacts on hydrology by phosphate industry water usage and land use changes and impacts on water quality by discharges of industry water into the waterways.

There is no question that mining has impact on the hydrogeology of the shallow aquifer system and watershed hydraulic characteristics (Erwin et al., 1997).

- Structural changes in the superficial aquifer occur due to removal of material and refilling with alternate materials, possessing different hydraulic properties.
- Reclaimed areas have more silt and clay-sized particles, causing basins to show a slower response to rainfall recharge.
- Permeability decreases and bulk density increases, reducing infiltration and increasing above-ground storage.
- Hydraulic conductivities become much more variable. Overburden basins have slower conductivity than clay settling basins or sand/clay mix basins, presumably due to cracks in the clay containing basins. Sand tailings basins have the highest conductivities.
- Water-table tests indicate a reduction in confinement between the surficial and intermediate layers. Overburden-capped sand tailings basins most closely match unmined basins in fluctuations to the surficial aquifer levels.
- Sand/clay mix and clay basins are elevated above the natural grade, and show little connection with hydraulic groundwater systems in the area. Ongoing differential settling of clay-containing basins will create regularly changing equilibrium conditions.

These factors create a complex hydraulic system that is difficult to accurately model. Sand containing trenches may increase groundwater flow and mine-trench orientation will have a large impact on ground water outcomes (Erwin et al., 1997).

An Overview of Phosphate Mining and Reclamation in Florida. Casey Beavers. April 2013

Phosphate giant Mosaic pumps from Florida's aquifer to dilute its pollution

Craig Pittman, Times Staff Writer

Saturday, July 20, 2013 8:21pm

A Mosaic mine operates in 2010 in Hillsborough County, where a permit allows Mosaic to withdraw water from wells for mining and production facilities. Mosaic also uses freshwater to dilute pollution from plants, a process the industry calls "blending."

Last year, a state water agency granted the world's largest phosphate mining company a permit to pump up to 70 million gallons of water a day out of the ground for the next 20 years.

Some of those millions of gallons of water — no one can say how much — is being used by the phosphate giant known as Mosaic to dilute polluted waste so it can be dumped into creeks without violating state regulations.

The permit allows Mosaic to withdraw water from more than 250 wells in Hillsborough, Manatee, Polk, Hardee and DeSoto counties, an area that since 1992 has been under tight restrictions for any new residential and commercial water use.

"The water use is crazy," said John Thomas, a St. Petersburg attorney who challenged the Mosaic permit on behalf of a client who ended up settling. "They're pulling an awful lot of water out to discharge with their waste."

Odd though it may sound, that's a standard practice for the phosphate industry, according to Santino Provenzano, Mosaic's environmental superintendent.

It's allowed under the state Department of Environmental Protection's rules, said Brian Starford of the Southwest Florida Water Management District, the agency commonly known as Swiftmud. Without that freshwater to dilute it, what Mosaic is discharging would violate the DEP's limits on a type of pollution called "conductivity," he explained. That term refers to the solids that are left in the waste after it's processed.

"If they were exceeding the standards, the DEP would not allow the discharge," explained Starford, whose agency issued the Mosaic permit.

DEP press secretary Patrick Gillespie said using freshwater to dilute a phosphate plant's discharge "is permissible and used only in closure activities or in storm-related activities in order to meet department water quality standards."

Mosaic spokesman David Townsend said the company is only using freshwater for dilution with waste from inactive processing plants, which he said complies with DEP rules. He could not provide a list of where those were located or how many there were.

The diluted waste is discharged "usually into a creek or smaller water body that feeds into a larger one at some point," he said.

The issue of how much water Mosaic pumps out of the ground was explored by a recent environmental impact study on phosphate mining that was commissioned by the U.S. Army Corps of Engineers. The report found that the miners' water use in some areas could lower the aquifer by up to 10 feet, but contended the aquifer would eventually recover when the pumping stopped.

The same agency that issued Mosaic's water permit, Swiftmud, declared a 5,100-square-mile area covering all or part of eight counties south of Interstate 4 to be the Southern Water Use Caution Area in 1992. The reason: so much water had been pumped out of the aquifer in that region that the water table had fallen 50 feet.

Mosaic previously had a permit that allowed it to take up to 99 million gallons a day from underground, so the permit issued last year is a reduction. As of last month, the mining giant was pulling only 30 of its allotted 70 million gallons a day out of the ground, Provenzano said.

Half of that was being used in the mining process and the other half was being used at production facilities, he said. He said he could not specify how much was being used to dilute the pollution from some plants, a process the industry prefers to call "blending."

In approving the Mosaic permit, Swiftmud officials had to rule that the company had offered "reasonable assurances" that its use of the water isn't wasteful and won't adversely affect downstream users and the environment.

But Thomas questioned whether Swiftmud or Mosaic have ever considered coming up with a different way to deal with the pollution. By repeatedly pumping millions of gallons of water from underground just for blending, he said, the company will leave behind "a swiss cheese aquifer with pools of groundwater contamination and cascades of diluted gyp stack waste for decades."

Craig Pittman, St. Petersburg Times Staff Writer, July 20, 2013



High pressure water jets used to create a slurry for transportation of phosphate matrix from field to separation plant

3PR Strenuously Disagrees with USACE's "Water Dependency Determination"

Water Dependency Determination: Because the project's basic purpose, extracting phosphate ore, does not require siting within a water of the U.S., the proposed discharge is not water dependent. Environmental Assessment SAJ-1993-01395 p. 6

It is seriously disingenuous and a dereliction of public trust to classify this project as "not water dependent" simply because the project's basic purpose does not "require siting within a water of the U.S." As shown in the articles above the Applicant uses enormous volumes of water at many stages of mining and production, most of which is drawn from the subterranean aquifers of Florida, and it is known that many of Florida's waterways and water bodies, including the Peace River and others, depend on recharge from these aquifers for their existence. For example

Kissengen's springwater rose from the Floridan Aquifer at the rate of 20 million gallons a day. Kissengen Spring was once a second magnitude spring. Increased groundwater withdrawal,

beginning in the late 1930s, lowered the potentiometric surface of the aquifers. Kissengen Spring gradually ceased flowing. The spring was publicly declared inactive in 1950 as the result of overpumpage. Until 1950, tourists used the area for picnicking, boating, and swimming. There was a pavilion for parties and dancing. The waters were thought medically beneficial to those with various ailments. In 1962 a sinkhole filled in the spring vent with clay. (Wikipedia)

By your reasoning because the phosphate mine was not located in the spring itself there was no “water dependency” relationship between the phosphate industry and the demise of the spring. Again the USACE has failed the public in its role of fulfilling the NEPA purpose of “Protection of the Environment” by assuming a complicit arrangement with the very industry whose duty it is to regulate. Obviously there is an advantage to the industry in being exempt from the water-dependency classification which the USACE is willing to abet at a price to the public.

Summary

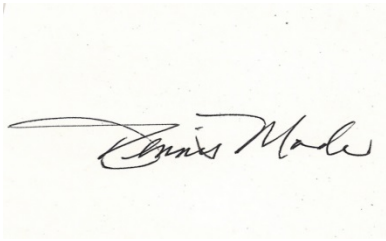
Back to the Drawing Board

This proposal (Environmental Assessment SAJ-1993-01395) is characterized by the same fatal flaws as the AEIS. The entire document in its assumptions and its very basis smacks of the same accommodating relationship between the Applicant and the USACE. Instead of standing up and doing the right thing, the USACE has turned a blind eye to the flagrant destruction of the environment which is so conspicuously obvious to anyone who is willing to look even superficially at the outcome of a century of phosphate strip mining in this region. It is in fact equally derelict of the USACE’s mandated responsibility which 3PR roundly condemned in its comments on the AEIS, and which the USACE ultimately ignored by a sleight of hand. If the USACE has any intention of fulfilling the NEPA purpose of “Protection of the Environment” which is in the interest of the public (not the Applicant) then it must begin with the No-Action Alternative which affords total preservation of our existing and struggling water resources, and which, based on all the sources that we have cited in this document and our 134 pp review of the AEIS, is the only means of preventing the kind of environmental degradation which is the legacy of the phosphate strip mining industry in west central Florida and elsewhere.

The USACE has a long history of failure in Florida. You are responsible for the environmental problems that currently plague The Everglades, the dire condition of the Kissimmee River, the degradation of the oyster beds of Apalachicola, the algae blooms that are currently the bane of the St. Lucie estuary and at the mouth of the Caloosahatchee River, and, by your reckless permitting of developers, the loss of countless acres of wetlands across the state. At the rate you going you will be adding yet another black eye to this pathetic legacy.

It is our intention to make sure that all our national representatives get a copy of this 3PR review of Environmental Assessment SAJ-1993-01395 so that they can be full apprised of the shoddy manner by which you continue to betray public interest and our trust in your regulatory capacity to act in a manner which actually protects the environment, as opposed to tucking your tail between your legs and bending over backwards to serve the interest of a ruthless industry which has plundered the environmental and aquatic resources of Florida virtually unimpeded for nearly a century.

Yours Truly,

A handwritten signature in black ink on a light-colored rectangular background. The signature is cursive and appears to read "Dennis Mader".

Dennis Mader
Executive Director
3PR (People for Protecting Peace River Inc)

Cc:
US President Barack Obama
US Senator Bill Nelson
US Senator Marco Rubio
US Representative 17th District Thomas J. Rooney
Administrator of the U.S. Environmental Protection Agency Gina McCarthy

**District Engineer, West Branch mining team,
10117 Princess Palm Avenue, Suite 120,
Tampa, FL 33610**

Att: John. P. Fellows

7/18/2016

Reference: Project #SAJ 1993-01395 (South Pasture Extension, Hardee County).

As the Army Corps of Engineers requests to a Public Interest Review and Response. I must wonder by where standards for deciding to allow permit's for MOSAIC's operations are deemed from.

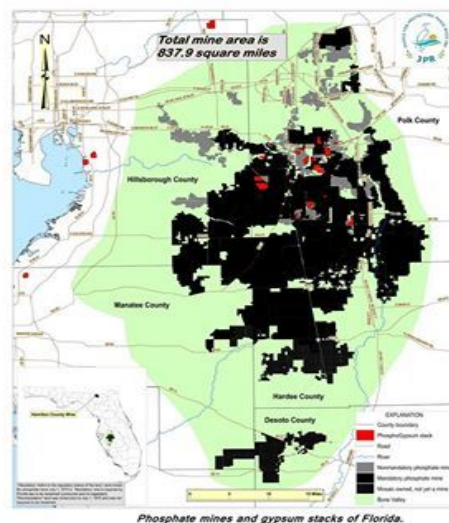
Over the past 100 years, phosphate mining has irreversibly harmed countless acres of Florida habitat -- Conservation:

"7,500 Additional Acres"

Understand that the amount of mined land permitted fast forwards the continuous sea level rise, High nutrient levels, Over-consumption/use via groundwater wells, adding into the mix fertilizer and gypsum stacks. The totals in all of this exceed any normal capacity for common survival in any environment. This base of environmental factors and clear total of acres being:

52,000

Additional acres north south center of the state.



The mapped photo showing the area of mined, dredged, torn up acreage that much of is also being filled with toxic acid.

The marked areas mapped out are displaying the size of an area that would be well beyond capable Conservation:

- The action of conserving something, in particular. preservation, protection, or restoration of the natural environment, natural ecosystems, vegetation

Synonyms: preservation, protection, safeguarding, safekeeping;

- preservation, repair, and prevention of deterioration of archaeological, historical, and cultural sites and artifacts.

This weighs with clear perspective. In that allowing this land to be destroyed based upon the essence and influence MOSAIC presents to the county's development boards.

The facts presented by MOSAIC are a fabrication.

The time now becomes, I ask The Army Corps of Engineers to regress based on fundamental truth. The destruction to Florida's layers brings detrimental change on the land's DNA.

"Destructing the land's ability to repair"

This is where the focus must now lie

The hydrologic regime (management and storage of surface water) laws must be amended to bring Florida's environment back into balance.

Ensuring MOSAIC's Practices would have no more standing to drill Florida lands or fill them with radioactive toxic waste.

Included and also recognized:

- **Aesthetics**
- **General environmental concerns**
- **Wetlands**

Fish and wildlife values

- **Flood hazards**
- **Floodplain values**
- **Land use**
- **Shore erosion and accretion**
- **Water supply and conservation**
- **Water quality**



The Recent requirements presented the EPA with a 2 billion dollar settlement leaving MOSAIC in control of funds which are set aside to address the radioactive waste piles.

The Army Corps of Engineers, placing a light on economic reality, focusing attention on the practices ventured. The damages caused by this company are multiplied above and beyond any safe reclamation values. Leaving little chance that their claimed beneficiation process is in compliance, leaving a question is this actual truth. So before any more permits are even considered The Army Corps of Engineers should instead bring in outside Plight Assessment Teams to review the claims and actual effects influenced by the Phosphate Industry.

In doing so this will heed to all 21 Public Interest concerns and give a fairly rounded outcome.

- **Historic properties**
- **Navigation**
- **Recreation**
- **Energy needs**
- **Safety**
- **Food and fiber production**
- **Mineral needs**
- **Considerations of property ownership**
- **The needs and welfare of the people**

4 1/2yrs The people I have met, the land I view, here is documented insight and first hand knowledge towards what is actually happening to land and Florida citizens.

<https://www.facebook.com/savingthefaceofflorida/?ref=bookmarks>

With Merit, Sincerely,
Gina LaBruno
813-531-5137
fairygrl30@gmail.com



District Engineer, West Branch mining team,
10117 Princess Palm Avenue, Suite 120,
Tampa, FL 33610

Att: John. P. Fellows

Reference: Project #SAJ 1993-01395 (South Pasture Extension, Hardee County).

The Army Corps of Engineers is processing a permit application from Mosaic for South Pasture Mine Extension, 7,500 acres of new mine in the Peace River watershed.

This is part of a 52,000 acre onslaught of new and expanded mines in Manatee, Hardee, DeSoto and Polk Counties that will destroy the headwaters of two major regional rivers, endanger a major source of drinking water for Sarasota County and threaten the County's potable water wellfield.

Phosphate mining has already permanently altered or ruined more than 600 square miles of Florida native habitat, natural wetlands of the United States, aquifers and agricultural land. Mosaic's wetland mitigation has been wholly insufficient, and the most cursory field examination will confirm this statement. Nothing remains on the Florida landscape after phosphate mining but toxic waste "settling areas," Disney-esque artificial landscapes that die off within a few years, and lifeless, stagnant pools where groundwater has filled in around the distinctively barren fingerlike landforms left by the draglines pre-1975.

The federally-permitted wetlands dredge-and-fill operations conducted by Mosaic have resulted in a permanent loss of natural wetlands function to the State of Florida and the United States, and to a massive impairment of the region's

hydrology from aquifer interruption and excavation, excessive water usage, and the dilution of toxic wastes to bring them within regulatory guidelines so that they can be released into surface or ground waters.

Phosphate mining is one of the most brutal and destructive practices on Earth. It completely ruins the natural and economic potential of native Florida habitat and former agricultural lands, leaving behind ruined economies, half-abandoned towns and creates impenetrable obstacles to wildlife migration – and survival.

It leaves behind mountains of radioactive waste in phosphogypsum “stacks” – creating the largest repository of toxic and hazardous waste in the nation. In the photo below, a stack is breaching, and draining millions of gallons of water with an average pH of 2 – like battery acid – into nearby waterways, killing millions of fish.



Half of the land in Polk County looks like this (below, in Hillsborough), mined and destroyed lands as far as the eye can see:





Hardee, DeSoto and Manatee Counties aren't far behind in this race to the bottom.

Mosaic is concealing the truth about its impact on the environment and communities of Florida through misleading and outright untruthful statements.

- Land mined for phosphate will never be the same again.
- It will never have any significant economic role to play.
- It cannot sustain native ecosystems, or anything remotely close.
- Thousands of jobs will be lost forever.
- Many Florida towns and counties have become dependent on phosphate mining.
- When the mines are exhausted, the local economies are left impoverished.
- The wealth is stripped from the ground forever, the sustainable jobs that have employed tens of thousands and anchored whole communities are gone forever, and the profits leave the state to go to shareholders.
- The state's groundwater is part of the wealth that is being taken by Mosaic. Since state law regards water as public property, Mosaic pays nothing for its

70 million gallons per day of permitted withdrawals, even though, according to SWFWMF, the water table in the Floridan aquifer has been lowered, in some areas, as much as 50 feet. 10% of that water is used for “blending,” Mosaic’s term for the process by which toxic and hazardous wastewater discharges are diluted to the point where they meet state regulatory standards.

- Phosphate mining is a net loss to the state of Florida.
- Local governments, also dependent, are corrupted.
- There are dozens of diseases associated with chronic exposure to acid aerosols evaporating off the stacks, corrosive gases released from the Mosaic chemical plants, and radioactive dust blowing off the land and stacks, as well as sustained leaks and breaches spreading contaminants throughout nearby (poor and minority) communities and into groundwater. According to a DOI study, as much as half the radioactive sediment deposited on and in phosphogypsum stacks is pm 4.5 and smaller, easily suspended in the air, easily inhaled, and easily absorbed by the body.
- The mining process concentrates background radioactivity up to 60 times (radium). These airborne and waterborne sediments are harmful to humans and wildlife.
- The stacks and toxic waste settling areas have breached, and will breach again, leaching toxic and acidic water into the ground and killing millions of fish in nearby rivers.
- Mosaic’s promises to make the land better than it was are fallacies. Reclamation (required by law) is NOT restoration. True restoration would bankrupt Mosaic.
- There are alternatives to harsh, destructive chemical fertilizers made from phosphate products and nitrates. Regenerative Agriculture is the future. Phosphate is the past, and it is on the wrong side of history.
- There are other sources of phosphate, if it must be used. While awaiting permits, Mosaic has imported phosphate feedstocks from Morocco, Saudi Arabia and Peru. The trade networks are well-established, and economically feasible for the corporation.
- Chemical fertilizers strip nutrients from the soil, cause massive losses of precious topsoil, and wash downstream to form enormous “dead zones,” larger than some states.

- Mosaic claims Florida phosphate is a “mineral of strategic importance,” wrapping itself in the flag as it sells the vast majority of the rock and its end products to foreign customers. 61.5% is sold off the North American continent, and much of the remaining 38.5% goes to Canada and Mexico. If in fact phosphate is a mineral of strategic importance, it would be in the public interest to leave it as a strategic reserve in the ground for some future time of need, instead of squandering it permanently for short-term profits.

Therefore, there is no public benefit whatsoever to phosphate strip mining, chemical fertilizer manufacturing, or the permanent unmanaged storage of radioactive, toxic and hazardous waste in mountains that are the highest points in the Florida landscape.

The Corps must evaluate any mining permits from Mosaic on their merits and deficiencies, and not be limited, as is so often the case in Section 404 permitting, by an artful, narrowly-crafted statement of purpose and need that creates a spurious precision in the mine’s purpose, and falsely eliminates any possible alternatives, e.g. for wetlands avoidance and preservation beyond the typical 15-16%. This is classic manipulation of the permitting process, and one would hope that Corps permit reviewers would see past the self-serving statement of need and purpose, and make determinations based on the overall public interest.

By any measure you care to employ, phosphate mining is a net loss to our economy, our health, and our environment. To suggest otherwise, given the preponderance of evidence, is arbitrary and capricious.

Mosaic has made billions from the destruction of west-central Florida and its economy. It has reaped the fullest possible benefits from its properties. The state and the nation owe Mosaic nothing. When it acquires properties with the intent to mine, it has not received any *a priori* guarantees or contracts with towns, counties, state or the federal government, and is counting on winning the needed re-zonings (up-zonings, not down-zonings, at the company’s behest) and permits based solely on past results. Therefore a cessation of permitting cannot and does not constitute a “taking.” Mosaic took the risk of acquiring its properties, and bears the sole responsibility for that risk.

Sierra Club and Suncoast Waterkeeper respectfully request that you deny the federal Section 404 permit for South Pasture Extension, and deny any further permits to strip-mine phosphate in the state of Florida.

Sincerely,
Andy Mele

Chair, Manatee/Sarasota Sierra Club Group Conservation Committee
Suncoast Waterkeeper



July 18, 2016

John Fellows
West Branch Mining Team
Jacksonville District Corps of Engineers 10117 Princess Palm Avenue, Suite 120
Tampa, Florida 33610
John.P.Fellows@usace.army.mil

Re: Public Comments on Mosaic Fertilizer, LLC Permit Application SAJ-1993-01395 (IP-JPF), South Pasture Extension Phosphate Mine

Dear Mr. Fellows:

On behalf of the staff and members of the Center for Biological Diversity, we respectfully submit the following comments to the U.S. Army Corps of Engineers (“Corps”) regarding the June 16, 2016 Public Notice for the above referenced permit application for the proposed mine called South Pasture Extension in Hardee County, Florida (“Project”). We submit these comments on behalf of our members, including our thousands of members and supporters who recreate and live in Hardee, and nearby counties. We have reviewed the Public Notice and conclude the project is not in the public interest, will have significant environmental impacts on wetlands, and will likely harm endangered species and their habitats. For these reasons, we respectfully request the Corps deny the permit application. Also, given the size of the project and permanent impacts, we request both an extension to the public comment period and a public meeting to present additional public comments demonstrating that this Project.

I. South Pasture Extension Application Background

The Corps is currently considering four permit applications from Mosaic: the Desoto, Ona, Wingate East Expansion, and South Pasture Extension phosphate mines.¹ On February 18, 2011, the Corps published a Notice of Intent to Prepare a Draft Area-wide Environmental Impact Statement for Phosphate Mining Affecting Waters of the United States in the Central Florida Phosphate District (“DAEIS”), which included the South Pasture Extension in its scope. In its Notice of Intent, the Corps stated the “DAEIS is intended to be sufficient in scope to address Federal, State, and local requirements and environmental issues” and that based on the potential environmental impacts of the proposed activities, “both individually and cumulatively,” the Corps will prepare an AEIS to fulfill its National Environmental Policy Act (“NEPA”)

¹ SAJ-2011-01968 – Desoto Mine; SAJ-2011-01869 – Ona Mine; SAJ-2009-03221- Wingate East Mine Expansion; SAJ-1993-01395 – South Pasture Mine Extension.

obligations and “render a final decision on the permit applications.”²

The Corps issued a Public Notice for the South Pasture Extension application on June 1, 2012.³ Also on June 1, 2012, the Corps published a notice of availability for the DAEIS, evaluating environmental impacts for the four proposed phosphate mines, including the South Pasture Expansion. The Corps received over four thousand public comments during the 60-day comment period.

On May 3, 2013, the Corps published a notice of availability for the Final Areawide Environmental Impact Statement on Phosphate Mining in the Central Florida Phosphate District (“FAEIS”). On July 13, 2013, the Corps released an Addendum to the FAEIS that corrected its surface water hydrology analysis, included public comments received during the comment period for the DAEIS but not responded to in the FAEIS, and included a Spanish language translation of the Executive Summary.

On June 16, 2016, the Corps released a Supplemental Environmental Assessment, draft public interest review, and draft Clean Water Act (“CWA”) 404(b)(1) Guidelines analysis for the South Pasture Extension (collectively Supplemental Environmental Assessment or “SEA”).

II. The Corps Must Deny the CWA Permit Application for the South Pasture Extension Phosphate Mine

In enacting the Clean Water Act in 1972, Congress sought “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”⁴ The statute provides that “the discharge of any pollutant by any person shall be unlawful” absent a permit.⁵ A section 404 permit must satisfy regulations promulgated by the Corps and the Environmental Protection Agency (“EPA”).⁶ The regulations under section 404(b)(1) of the CWA provide that adverse impacts to wetlands must be avoided to the extent that practicable alternatives are available which will result in less adverse impacts.⁷ A “practicable” alternative is one that is “available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.”⁸ The 404(b)(1) Guidelines establish a presumption that all practicable alternatives that do not involve a discharge into wetlands have less adverse impact on the environment “unless clearly demonstrated otherwise.”⁹

² Notice of Intent to Prepare a Draft Areawide Impact Statement for the Central Florida Phosphate District (Feb. 8, 2011) <https://www.federalregister.gov/articles/2011/02/18/2011-3738/notice-of-intent-to-prepare-a-draft-areawide-environmental-impact-statement-for-phosphate-mining>.

³ At the time CF Industries, Inc. was the project applicant. Mosaic acquired CF Industries’ Florida phosphate operations on March 17, 2014, including the proposed South Pasture Extension. Applicant Press Release, “The Mosaic Company Completes Acquisition of CF Industries’ Phosphate Business” (Mar. 17, 2014) <http://mosaicinharder.com/2014/03/17/the-mosaic-company-completes-acquisition-of-cf-industries-phosphate-business/>.

⁴ 33 U.S.C. 1251(a).

⁵ 40 C.F.R. 230.10(a).

⁶ *Friends of the Earth v. Hintz*, 800 F.2d 822, 831 (9th Cir. 1986).

⁷ 40 C.F.R. 230.10(a).

⁸ 40 C.F.R. 230.10(a)(2).

⁹ *Id.*; 40 C.F.R. 230.2(q-1), 230.41.

To determine whether a practicable alternative exists, the Corps must undertake a multi-step analysis.¹⁰ The Corps must first determine whether the project is water dependent. A water-dependent project is one that “requires access or proximity to or siting within the special aquatic site in question to fulfill its basic purpose.”¹¹ If the Corps determines that the project is not water-dependent, it then must presume that practicable alternatives not involving wetlands exist.¹² The Corps may not grant a permit unless the presumption is rebutted by a clear contrary demonstration by the Project applicant.¹³ Where no practicable alternative sites exist that would avoid filling or have a less adverse impact on wetlands, the Corps must consider whether “appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem.”¹⁴

Corps regulations require the Corps to evaluate the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest weighing foreseeable benefits against foreseeable detriments using all factors that may be relevant.¹⁵ Relevant factors are numerous and include wetlands impacts, fish and wildlife habitat values, and recreational, aesthetic, and economic values.¹⁶ Further, a permit will not be granted if contrary to public interest.¹⁷ These public interest considerations comprise what is commonly referred to as the “public interest test.”¹⁸

A. The South Pasture Extension Project is Contrary to the Public Interest

When evaluating a permit application, the Corps shall evaluate the probable impacts of the proposed activity on the public interest.¹⁹ This public interest review requires weighing all relevant factors in a general balancing process. These factors include conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, energy needs, safety, and the broader “needs and welfare of the people.”²⁰ The Corps must deny a permit application if it is “contrary to the public interest.”²¹ In order to perform this public interest review, the permit application must contain a complete description of the proposed activity, including information on the location, purpose, and need for the activity.²² This description must be thorough enough to provide public notice.²³

¹⁰ 40 C.F.R. 230.5.

¹¹ *Id.*

¹² *Id.* at 230.10(a)(3); 230.5.

¹³ *Id.*

¹⁴ *Id.* at 230.10(d); *see also Find for Animals, Inc. v. Rice*, 85 F.3d 535, 544 (11th Cir. 1996) (indicating that where “filling of wetlands cannot be avoided, the ‘appropriate and practicable steps’ must be taken to minimize the potential adverse impacts of the discharge on wetlands.”).

¹⁵ 33 C.F.R. 320.4; 320.4(a)(1).

¹⁶ *Id.*; 40 C.F.R. 230.10(c).

¹⁷ 33 C.F.R. 320.4.

¹⁸ 33 C.F.R. § 320.4.

¹⁹ 33 C.F.R. 325.1(f).

²⁰ 33 C.F.R. 325.1(d)(1).

²¹ *Id.*

²² 33 C.F.R. 325.2(a).

²³ 42 U.S.C. 4321.

An agency must exercise independent judgment in defining the purpose and need of a project and cannot rely exclusively on the statements and opinions of the applicant.²⁴ Additionally, the Corps may not put forward a purpose and need statement that is so narrow as to “define competing ‘reasonable alternatives’ out of consideration.”²⁵

The Corps’ regulations state “the unnecessary alteration or destruction of [wetlands] should be discouraged as contrary to the public interest.”²⁶ Wetlands considered to perform functions important to the public interest include:²⁷

- Wetlands which serve significant natural biological functions, including food chain production, general habitat and nesting, spawning, rearing and resting sites for aquatic or land species;
- Wetlands set aside for study of the aquatic environment or as sanctuaries or refuges;
- Wetlands the destruction of alteration of which would affect detrimentally natural drainage characteristics, sedimentation patterns, salinity distribution, flushing characteristics, current patterns, or other environmental characteristics;
- Wetlands which are significant in shielding other areas from wave action, erosion, or storm damage. Such wetlands are often associated with barrier beaches, islands, reefs and bars;
- Wetlands which serve as valuable storage areas for storm and flood waters;
- Wetlands which are ground water discharge areas that maintain minimum baseflows important to aquatic resources and those which are prime natural recharge areas;
- Wetlands which serve significant water purification functions; and
- Wetlands which are unique in nature or scarce in quantity to the region or local area.²⁸

The regulations further provide that “[n]o permit will be granted which involves the alteration of wetlands identified as important by paragraph (b)(2) of this section...unless the district engineer concludes, on the basis of the analysis required in paragraph (a) of this section, that the benefits of the proposed alteration outweigh the damage to the wetlands resource.”²⁹ Courts have upheld permit denials based on findings that wetlands were important within the meaning of 33 C.F.R. § 320.4(b)(2).³⁰

²⁴ *Simmons v. United States Army Corps of Eng’rs*, 120 F.3d 664, 669 n. 1 (7th Cir. 1997); *Baltimore Gas & Elec. Co. Natural Res. Def. Council Inc.*, 462 U.S. 87, 106-07 (1983).

²⁵ *Id.* at 669; *Citizens for Smart Growth v. Sec’y of Dep’t of Transp.*, 669 F.3d 1203 (11th Cir. 2012); *Davis v. Latschar*, 202 F.3d 359, 367-68 (D.C. Cir. 2000).

²⁶ 33 C.F.R. 320.4(b)(1).

²⁷ 33 C.F.R. § 320.4(b)(2).

²⁸ *Id.* 320.4(b)(2)(i)-(viii).

²⁹ 33 C.F.R. 320.4(b)(4).

³⁰ *See, e.g., Shoreline Assoc. v. Marsh*, 555 F.Supp. 169, 179 (4th Cir. 1984).

Haag (2010) found wetlands are a dominant feature in Florida's landscape and represent a greater percentage of the land surface in Florida than in any other state in the conterminous United States. There are an estimated 11.4 million acres of wetlands, occupying 29% of the area of the State.³¹ Indeed this Project will destroy 7,513 acres, comprised of 1,472.5 acres of Corps wetlands and 2,663.5 acres of Southwest Florida Water Management District wetlands.

As Semlitsch and Bodie (1999) argue, small wetlands are crucial for maintaining regional biodiversity in a number of plant, invertebrate, and vertebrate taxa (e.g. amphibians). A consequence of losing these wetlands lies in potential changes to the metapopulation dynamics of the remaining wetlands.³² The consequences could be a reduction in the number or density of individuals dispersing and an increase in dispersal distances among wetlands.³³ A reduction in wetland density can decrease the probability that a population can be "rescued" from extinction by a neighboring source population because of lower numbers of available recruits and greater distances between wetlands.³⁴ Remaining wetlands could face increased probabilities of population extinctions.³⁵

The particular wetlands impacted support a host of imperiled species, including foraging and breeding opportunities for the wood stork and caracara. Anecdotal information provided to the Corps during the AEIS process indicates that past mining efforts have altered drainage, flushing, cleaning, and other ecosystem benefits of wetlands.

Moreover, neither the SEA nor the FEIS state a public need. The FEIS states that the overall purpose of the four mines is to mine phosphate ore, and the SEA details historic production capacity, historic production, and the need for the applicant to meet its production capacity. However, the Corps does not discuss the public's need to mine phosphate ore or the public's need for Mosaic to have a mine in close proximity to its existing beneficiation plant infrastructure, nor does it explain the public's interest in the applicant meeting its desired production output. Since the purpose of the proposed action informs the alternatives analysis, and since the purpose and need statement are not in the public's interest, proper consideration has not been given to alternatives that were not the applicant's preferred alternative, especially the No Action Alternative. The Corps should independently address the purpose and need of the proposed project in its site-specific EIS to better inform its alternatives analysis.

Neither the SEA nor the FAEIS evaluate the impacts of additional phosphogypsum stacks and management system dikes and impoundments that would result from approval of the South Pasture Expansion, reasoning that stacks and impacts are addressed through a separate permitting mechanism. Aside from the Corps' failure to evaluate this cumulative impact, it is difficult to believe the applicant would invest in a mine expansion for the stated purpose of obtaining phosphate ore for phosphate fertilizer production if it could not also rely on its ability to expand its phosphogypsum management system. The dredge and fill activities of the South Pasture Extension Mine are inextricably related to any future phosphogypsum stack

³¹ *Id.*

³² *Id.* at 1131.

³³ *Id.*

³⁴ *Id.* at 1131-32.

³⁵ *Id.* at 1132.

management expansion, and any related phosphogypsum permit should be applied for and evaluated at the same time as a 404 permit to facilitate a comprehensive impact analysis.

The stacks are not in the public interest as they are radioactive and there's no long term solution for what will be done with the 1 billion tons (and growing) radioactive waste generated by the process. Indeed, the EPA's recent settlement agreement with Mosaic, calling for \$2 billion to remedy violations with respect to existing phosphogypsum stacks. The consent decree also calls a Resource Conservation and Recovery Act ("RCRA") hazardous waste determination for eight phosphogypsum stacks. If any of the Project would contribute to one of those stacks, operations must not begin until a RCRA plan is in place.

Also submitted to the Corps via public comments on its AEIS, members of the public adjacent to mine sites cite loss of springs and ecosystem benefits of wetlands that were destroyed and/or moved by mining practices. Likewise, neighboring property owners have complained of fugitive dust. This anecdotal information must be taken seriously and addressed by the Corps before it allows further indirect damage to adjacent lands. Such serious health and environmental concerns must be addressed prior to issuing permits for additional mining activities.

B. The Corps Must Comply with its Mandate to Avoid, Minimize, and Select the Least Environmentally Damaging Alternative Practicable

Under the Clean Water Act the Corps has the responsibility of evaluating permit applications for the discharge of fill into waters of the U. S. The CWA gave the EPA the task of developing the 404 (b)(1) Guidelines (Guidelines) with the specific goal of providing the environmental criteria and framework by which the Corps evaluates dredge and fill applications.

40 CFR Part 230 - Section 404 (b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material, Subpart A - General, Section 230.1 Purpose and policy states:

- (a) The purpose of these Guidelines is to restore and maintain the chemical, physical, and biological integrity of waters of the United States through the control of discharges of dredged or fill material.
- (c) Fundamental to these Guidelines is the precept that dredged or fill material should not be discharged into the aquatic ecosystem, unless it can be demonstrated that such a discharge will not have an unacceptable adverse impact either individually or in combination with known and/or probable impacts of other activities affecting the ecosystems of concern.
- (d) From a national perspective, the degradation or destruction of special aquatic sites, such as filling operations in wetlands, is considered to be among the most severe environmental impacts covered by these Guidelines. The guiding principle should be that degradation or destruction of special sites may represent an irreversible loss of valuable aquatic resources.

Nichols et. al. (2008) succinctly describe the role of the Guidelines in framing the Corps' review of permit applications for discharges of fill in wetlands:

Central to the Guidelines is the fundamental requirement for an alternatives analysis. "...[N]o discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the environment, so long as the alternative does not have other significant adverse environmental consequences.... [T]he application is required in every case (irrespective of whether the discharge site is a special aquatic site or whether the activity associated with the discharge is water dependent) to evaluate opportunities for the use of non-aquatic areas and other aquatic sites that would result in less adverse impact on the aquatic ecosystem." Thus, applicants must demonstrate that for any discharge or fill activity there is no practicable alternative site for the proposed activity that will have less adverse environmental impacts.

For special aquatic sites such as wetlands, however, the Guidelines propose a more difficult test for avoidance with two presumptions. For proposed discharges to special aquatic sites there is a presumption that an alternative site that is not a special aquatic site exists and a presumption that such a site will result in less adverse environmental impacts on the aquatic ecosystem. These rebuttable presumptions clarify how to determine if discharges proposed for special aquatic sites meet the requirement that the practicable alternatives have less significant adverse impact on the environment and do not have other significant environmental impacts.

Furthermore, the Clean Water Act and EPA's Guidelines make mitigation a requirement of the Section 404 program through standards set at 40 CFR §§ 230.10 (a)-(d). The Memorandum of Agreement between EPA and the Corps concerning mitigation under the CWA 404 (b)(1) Guidelines (Mitigation MOA) defines the three steps of mitigation - the first two being avoidance and minimization of impacts:

1. Section 230.10(a) allows permit issuance for only the least environmentally damaging practicable alternative. The thrust of this section on alternatives is *avoidance of impacts*. Section 230.10(a)(1) requires that to be permittable, an alternative must be the least environmentally damaging practicable alternative (*LEDPA*). In addition, Section 230.10(a)(3) sets forth rebuttable presumptions that 1) alternatives for non-water dependent activities that do not involve special aquatic sites are available...

2. Minimization. Section 230.10(d) states that appropriate and practicable steps to *minimize* the adverse impacts will be required through project modifications and permit conditions.

Sequencing requires the applicant must first demonstrate impacts to wetlands have been *avoided*. Next the applicant must demonstrate any remaining unavoidable impacts have been *minimized*. Lastly, and only after avoidance and minimization of impacts has occurred, the applicant must compensate for any remaining impacts [i.e. compensatory mitigation].

Nichols et. al. provide an excellent description of the avoidance requirement:³⁶

Avoidance is the first step in the sequencing process by which the Corps determines whether or not the proposed project is the least environmentally damaging practicable alternative (LEDPA). The LEDPA is identified by an evaluation of the direct, secondary, and cumulative impacts on the aquatic ecosystem¹⁹ and “other ecosystems”²⁰ of each alternative under consideration.

The Guidelines state:

...no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem so long as the alternative does not have other significant adverse environmental consequences.

The universality of the requirement to evaluate opportunities for use of non-aquatic areas and other aquatic sites that would result in less adverse impact on the aquatic ecosystem was reiterated in a EPA and Army guidance memo in 1993.³⁷

The Corps formalized the requirement for sequencing in its regulations regarding Compensatory Mitigation for Losses of Aquatic Resources, 33 CFR §332.1:

(2) Pursuant to these requirements, the district engineer will issue an individual section 404 permit only upon a determination that the proposed discharge complies with applicable provisions of 40 CFR part 230, including those which require the permit applicant to take all appropriate and practicable steps to avoid and minimize adverse impacts to waters of the United States. Practicable means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. Compensatory mitigation for unavoidable impacts may be required to ensure that an activity requiring a section 404 permit complies with the Section 404(b)(1) Guidelines.

(3) Compensatory mitigation for unavoidable impacts may be required to ensure that an activity requiring a section 404 permit complies with the Section 404(b)(1) Guidelines. During the 404(b)(1) Guidelines compliance analysis, the district engineer may determine that a DA permit for the proposed activity cannot be issued because of the lack of appropriate and practicable compensatory mitigation options.

Therefore, based on the detailed description of the CWA’s requirements, the 404 (b)(1) Guidelines, the mitigation sequencing requirement, and the least environmentally damaging practicable alternative are fundamental to the federal review of permit applications for the

³⁶ *Id.* at 6.

³⁷ Regulatory Guidance Letter 93-02.

discharge of fill into wetlands.

1. Practicable Alternatives Exist and All Reasonably Related Activities Have Not Been Included in the Permit Application

The Clean Water Act (as well as the National Environmental Policy Act) require the Corps to analyze the alternatives to the proposed project. The regulations provide that adverse impacts to wetlands must be avoided to the extent that practicable alternatives are available which will result in less adverse impacts.³⁸ A “practicable” alternative is one that is “available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.” If it is otherwise a practicable alternative, an area not presently owned by the applicant which could reasonably be obtained, utilized, expanded or managed in order to fulfill the basic purpose of the proposed activity may be considered.”³⁹ Guidelines establish a presumption that all practicable alternatives that do not involve a discharge into wetlands have less adverse impact on the environment “unless clearly demonstrated otherwise.”⁴⁰ The applicant has failed to demonstrate that the proposed project is in fact needed, much less that there are no practicable alternatives.

Alternatives explore other ways of meeting the purpose and need. Proposing alternatives that are actually projects slated for another time circumvents the purpose of an alternatives analysis which is to consider other actions. The SEA does not adequately explain how the No Action alternative, which conflates a second alternative, an uplands only alternative, does not meet the overall purpose of the Project or analyze the environmental consequences of upland only mining. The Corps should consider other alternatives that would satisfy the project need, like importing the phosphate ore, or mining only upland areas.

It’s also possible that the Project purpose was too narrowly drawn. There is consensus that the world’s phosphate rock supply is finite and that in order to meet global demand for the agricultural sector, greater recycling of and sustainable use of phosphorus will be necessary (Cordell 2013). Proposals that look at non-phosphate rock supply could be examined if the purpose of the Project were more broadly drawn.

2. The Proposed Mitigation Does Not Compensate for the Project’s Impacts.

The Clean Water Act requires applicants to first avoid wetlands through a practicable alternative. If all efforts have been made to avoid impacts, the Act requires the applicant to minimize impacts through project modifications. If and only if all efforts have been made to avoid and minimize impacts, may the applicant compensate for the loss through mitigation.⁴¹ As we explained above there are numerous practicable alternatives to the proposed project that

³⁸ 40 C.F.R. 230.10(a).

³⁹ 40 C.F.R. 230.10(a)(2).

⁴⁰ *Id.*; 40 C.F.R. 230.2(q-1), 230.41.

⁴¹ 33 C.F.R. 332.1(c) codifies a 1989 Memorandum of Agreement between the Corps and the EPA that sets forth the multi-step sequencing scheme of addressing wetland impacts. Memorandum of Agreement Between the U.S. Environmental Protection Agency and U.S. Department of the Army, Determination of Mitigation Under the Clean Water Act 404(b)(1) Guidelines. See Margaret N. Strand, Wetlands Deskbook, 93 (3rd Ed. 1997).

would avoid significantly impacting these important resources. Further, there is no evidence that the applicant has minimized impacting these resources through project modifications.

Minkin and Ladd conducted a study of the effectiveness of compensatory mitigation projects (creation and restoration) required for permitted impacts in New England and to determine what programmatic improvements might be necessary. Their study found “Forty of the mitigation projects (67%) were determined to meet permit conditions and would be considered successful by that standard. However, only 10 (17%) were considered to be adequate functional replacements for the impacted wetlands.” They attribute the failure of mitigation projects to compensate for wetlands losses in part to “...inadequate mitigation amounts for permitted impacts and also for inappropriate functional replacements, e.g., replacing forested wetlands with open water, emergent, and/or scrub-shrub systems.” They also raised the issue of whether created or restored wetlands could replace those of natural systems and concluded that 1:1 mitigation ratios were inadequate.

The study also seems to indicate that insufficient compensatory mitigation has been required to offset project impacts. With impacts to 352.31 acres of wetlands and proposed compensatory mitigation of 324.12, of which no more than 317.65 became wetland, there would be an overall net loss in acreage of wetlands. Since there was considerable out-of-kind mitigation, there were increased losses in the more complex wetland types. The general replacement of forested wetlands with open water and emergent systems has resulted in considerable loss of function, particularly forested wildlife habitat and water quality functions such as denitrification, which occur best in seasonally saturated wetlands.

They also considered the results of other studies in reaching a conclusion that greater mitigation ratios are required:

He [Whigham] questioned whether there is any scientific justification for the underlying assumption of mitigation, that restored and created wetlands function similarly to natural wetlands with regard to biodiversity and nutrient cycling. He also noted that concentrating on replacing lost acreage amounts fails to account for the wetland degradation and functional loss resulting from creation and restoration of mitigation wetlands of lower functional value. In this regard, *greater compensatory mitigation acreage is required to replace the lost functions of impacted systems, i.e., mitigation to impact ratio must be greater than 1:1.*

Minkin and Ladd concluded that there is a need for higher mitigation ratios if preservation and enhancement are proposed as compensatory mitigation:

An examination of enhancement and preservation, included in the overall mitigation proposals for several of the study projects was not reviewed in this study. Although preservation and enhancement can be important parts of a mitigation proposal, they do not prevent a net loss in wetland acreage and may not prevent a net loss in wetland function.

Mitigation banks might fair no better in providing compensation for lost wetland functions and

values. Kihlslinger¹⁰ reported that:

A recent more comprehensive review of 12 mitigation bank sites in Ohio found that *25% of the bank areas studied did not meet the definition of wetlands* (Mack and Micacchion 2006). *Of the actual wetland acreage, 25% was considered in poor condition, 58% was fair, and 18% was good quality in terms of vegetation as compared to natural reference wetlands. The study also found that amphibian community composition and quality was significantly lower at banks than at natural forest, shrub, or emergent wetlands and that pond-breeding salamanders and forest-dependent frogs were virtually absent from the bank sites.* A recent study from Florida found that of the 29 banks evaluated, 70% fell within the moderate to optimal range of function. Although the baseline conditions of most sites were in the high functional range, most of the projects relied upon enhancement, rather than restoration, as the mitigation method (Reiss et al 2007).

It must be noted that while the findings of the Florida study are more encouraging, these banks employed enhancement, rather than restoration, and that raises the concern that wetlands functions and values continue to be lost.

Brown and Lant conducted a survey of 68 mitigation banks within the United States as of January 1996 were achieving no-net-loss of wetland acreage nationally and regionally. Their review revealed that:

Although 74% of the individual banks achieve no-net-loss by acreage, *overall, wetland mitigation banks are projected to result in a net loss of 21,328 acres of wetlands nationally, 52% of the acreage in banks, as already credited wetland acreages are converted to other uses.* While most wetland mitigation banks are using appropriate compensation methods and ratios, *several of the largest banks use preservation or enhancement, instead of restoration or creation. Most of these preservation/enhancement banks use minimum mitigation ratios of 1:1, which is much lower than ratios given in current guidelines.* Assuming that mitigation occurs in these banks as preservation at the minimum allowable ratio, ten of these banks, concentrated in the western Gulf Coast region, will account for over 99% of projected net wetland acreage loss associated with banks.

Sufficient evidence exists to demonstrate the general failure of compensatory mitigation in replacing lost wetlands functions and values. For this reason, an emphasis should be placed upon avoidance and minimization of impacts to waters of the state. The SEA presents no information that past reclamation has produced adequate compensation. In fact, USGS critiques the DAEIS for not basing its assumptions about surface and groundwater impacts in logic or science. Furthermore, while the SEA states that the applicant will implement a monitoring program, it does not provide details about that program, other than that the applicant itself will monitor and periodically report to the Corps, allowing the fox to guard the henhouse.

III. The Corps must complete a site-specific EIS before rendering a final permit decision for the South Pasture Extension Mine.

Congress provided a broad environmental purpose in the National Environmental Policy Act:⁴²

[t]o declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation.... [I]t is the continuing policy of the Federal Government, in cooperation with State and local governments, and other concerned public and private organizations, to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans.

In that regard, NEPA is America's "basic national charter for protection of the environment."⁴³ NEPA ensures that federal agencies "will have available, and will carefully consider, detailed information concerning significant environmental impacts" and that such information "will be made available to the larger [public] audience."⁴⁴

To this end, NEPA requires federal agencies to prepare a detailed EIS for any "major Federal actions significantly affecting the quality of the human environment."⁴⁵ The issuance of a Section 404 by the Corps is a "federal action" to which NEPA applies.⁴⁶ To determine whether the environmental impact of a proposed project is significant enough to warrant the preparation of an Environmental Impact Statement ("EIS"), the agency may prepare an Environmental Assessment ("EA"). An EA is "a concise public document that briefly provides evidence and analysis for determining whether to prepare an EIS or a finding of no significant impact."⁴⁷

When an EA is performed on a project, the Corps must take a "hard look" and "must make a convincing case" for a Finding of No Significant Impact ("FONSI") and decision not to perform an EIS.⁴⁸ The fundamental objective of NEPA is to ensure that an "agency will not act on incomplete information only to regret its decision after it is too late to correct."⁴⁹ Therefore, if "substantial questions as to whether a project...may cause significant degradation of some

⁴² 42 U.S.C. 4321; 42 U.S.C. 4331(a).

⁴³ 40 C.F.R. 1500.1(a).

⁴⁴ *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989).

⁴⁵ 42 U.S.C. 4332(2)(C).

⁴⁶ *United States v. South Florida Water Management District*, 28 F.3d 1563 (11th Cir. 1994); *Sierra Club v. Sigler*, 695 F.2d 957, 964 (5th Cir. 1983); *Fla. Wildlife Fed'n v. Army Corps of Eng'rs*, 401 F.Supp.2d 1298 (S.D. Fla. 2005).

⁴⁷ 40 C.F.R. 1508.9; 33 C.F.R. 230.10.

⁴⁸ *Hill v. Boy*, 144 F.3d 1446, 1450 (11th Cir. 1990).

⁴⁹ *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 371 (1990).

human environmental factor,” an EIS must be prepared.⁵⁰

The Council on Environmental Quality (“CEQ”) has promulgated regulations to guide agencies in determining whether a proposed project will have “significant” impacts to the environment.⁵¹ Whether an action will have a “significant” impact on the environment, thus warranting the preparation of an EIS, requires considerations of both “context” and “intensity.” “Context” means that the significance of an action must be analyzed in several different contexts (i.e. national, regional, and local significance of the action). “Intensity” refers to the severity of the impact. The CEQ regulations set forth several factors for the Corps to consider when evaluating intensity, including, but not limited to:

The degree to which the proposed action affects public health or safety.

Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

The degree to which the effects on the quality of the human environment are likely to be highly controversial.

The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.

The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act.

Courts have held that a plaintiff need not show that significant effects will in fact occur, but if a plaintiff raises substantial questions whether a project *may* have a significant effect, an EIS must be prepared.⁵²

Completing an EIS is important as in it, the Corps must go beyond the analysis of an EA and describe (1) the “environmental impact of the proposed action,” (2) any “adverse environmental effects which cannot be avoided should the proposal be implemented,” (3) alternatives to the proposed action, (4) “the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity,” and (5) any “irreversible or irretrievable commitment of resources which would be involved in the proposed action should

⁵⁰ *Idaho Sporting Congress v. Thomas*, 137 F.3d 1146, 1149 (9th Cir. 1998); *Greenpeace Action v. Franklin*, 14 F.3d 1324, 1332 (9th Cir. 1992); *Sierra Club v. United States Forest Serv.*, 843 F.2d 1190, 1193 (9th Cir. 1988).

⁵¹ See 40 C.F.R. 1508.27.

⁵² *Idaho Sporting Congress v. Thomas*, 137 F.3d 1146, 1150; *Klamath Siskiyou Ctr. v. Boody*, 468 F.3d 549, 562 (9th Cir. 2006) (holding the standard for preparing an EIS is low).

it be implemented.”⁵³

As part of the EIS, each federal agency must “study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources.”⁵⁴ An agency must “rigorously explore and objectively evaluate all reasonable alternatives.”⁵⁵ In addition, an agency “shall state how alternatives . . . will or will not achieve the requirements of section 101 and 102(1) of the Act” which requires agencies to “use all practicable means” to “assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings” and to “preserve important historic, cultural, and natural aspects of national heritage” as well as how alternatives “will or will not achieve the requirements of . . . other environmental laws and policies.”⁵⁶ Until an agency issues a Record of Decision pursuant to NEPA, no action concerning a proposal may be taken that would have an adverse environmental impact, or limit the choice of reasonable alternatives.⁵⁷

NEPA requires the consideration of reasonably foreseeable, direct, indirect, and cumulative impacts to the natural and physical environment.⁵⁸ Cumulative impacts are impacts that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.⁵⁹ Federal agencies have a continuing obligation to gather and evaluate new information relevant to the environmental impact of its actions. “An agency that has prepared an EIS cannot simply rest on the original document. The agency must be alert to new information that may alter the results of its original environmental analysis, and continue to take a ‘hard look’ at the environmental effects of [its] planned action, even after a proposal has received initial approval.”⁶⁰

The Corps must complete a site-specific evaluation of the Project and in doing so cannot issue a FONSI as the Project will have significant impacts warranting an environmental impact statement to evaluate the significance of those impacts.

A. The Corps must complete a site-specific analysis.

A FAEIS does not alone satisfy NEPA requirements for individual projects within its scope. CEQ regulations indicate when tiering from a broader environmental impact statement to a subsequent narrower statement is appropriate, and specifically give the example of a regional or basinwide program statement and the ultimate site-specific statements.⁶¹

⁵³ 40 C.F.R. 4332.

⁵⁴ 42 U.S.C. 4332(2)(E).

⁵⁵ 40 C.F.R. 1502.14(a)-(c).

⁵⁶ 40 C.F.R. 1502.2(d).

⁵⁷ 40 C.F.R. 1506.1(a).

⁵⁸ See 40 C.F.R. 1508.7, 1508.8.

⁵⁹ 40 C.F.R. 1508.7.

⁶⁰ *Marsh v. Oregon Natural Res. Council*, 490 U.S. 360, 373-74 (1989).

⁶¹ 40 C.F.R. 1508.28

Manifesting this intent, the SEA incorporates by reference the FAEIS and provides no further discussion of the South Pasture Extension's impacts. For example, in its factual determinations under the CWA 404(b)(1) Guidelines for secondary impacts, the SEA simply states: "the evaluations of impacts described in the FEIS included both direct and indirect, or secondary, impacts. Therefore, Chapter 4 of the FEIS describes the secondary effects of the South Pasture Extension project." However, neither Chapter 4 of the FEIS, nor the SEA by incorporating the FEIS, specifically discuss site-specific secondary effects caused by the South Pasture Extension. The purpose of an areawide impact statement is to facilitate the evaluation of cumulative impacts, and should not be a shortcut designed to eliminate in-depth, site-specific scientific evaluation of direct and secondary impacts for each permitted project.

B. The Corps cannot issue a Finding of No Significant Impact.

The Project meets several of the significance factors warranting an EIS.

1. The proposed action may affect public health or safety.

Phosphate rock mining leads to reallocation and exposure of several heavy metals and radionuclides that become airborne or enter waterbodies. Some of this information is described above in the public interest section regarding phosphogypsum stacks which has grave health effects; however, in addition, several studies have indicated that phosphate mining poses human health risks.

Yang (2014) found elevated levels of lead, manganese, and mercury in house dust, attributable to nearby phosphate mines. Abdalla (2011) found wells downstream of phosphate mining activities had high concentrations of heavy metals, such as lead, cadmium, zinc, and nickel, when compared with upstream wells. In general, the release of these heavy metals can have serious health implications (Al-Hwaiti 2013).

2. The land has unique characteristics such as proximity to wetlands.

The land has characteristics that are unique, including wetlands, particularly riparian forests. The proposed alternative will impact over 1,500 acres of Corps' wetland forests.

Riparian forests have been found to reduce delivery of nonpoint-source pollution to streams and lakes in many types of watersheds (Vellidis 2002, Vellidis 2003, Lowrance 1984, Lowrance 1985). Riparian forest ecosystems are excellent nutrient and herbicide sinks that reduce the pollutant discharge from surrounding agroecosystems (Peterjohn 1984). For example, studies from coastal plain agricultural watersheds reveal that riparian forest ecosystems are excellent nutrient sinks and buffer the discharge from surrounding agroecosystems.⁶² Riparian buffers are especially important on small streams where intense interaction between terrestrial and aquatic ecosystems occurs,⁶³ because first- and second-order streams comprise nearly three-quarters of

⁶² Lowrance 1984

⁶³ Vellidis et al. 2003.

the total stream length in the U.S. (Leopold 1964). Much opportunity remains to implement riparian buffers systems in forests and deserts as well as in agricultural areas or in urban or suburban settings.

While wetlands provide numerous services to human society, perhaps one of the easiest to quantify is flood protection. A Washington State Department of Ecology evaluation of the economic worth of this single function produced values ranging from \$8,000 to \$51,000 per acre (Leschine 1997). The study points out that “policies which permit wetlands to disappear that are presently contributing little to stem flood protection, but which have the potential to do so in the future, could lead to rapidly rising values for the remaining wetlands for flood protection, as increasingly marginal wetlands are called into service. At some point the ‘next best’ alternatives to enhanced flood protection will not involve wetlands at all, and the purely engineered systems that might have to be built could prove very expensive indeed.”⁶⁴ Of course any analysis that included economic values of the full range of wetland functions including pollutant removal, flood protection, recreation, species protection, groundwater recharge, and others would obviously derive much higher values.

3. The effects on the quality of the human environment are likely to be highly controversial.

The Corps has already received thousands of comment letters from concerned and impacted citizens of Florida. Furthermore, the byproduct of the process the Corps is considering permitting is radioactive, with no real solution for permanent storage. These two factors alone warrant an Environmental Impact Statement and make a FONSI a factual and legal impossibility.

4. The possible effects on the human environment are highly uncertain or involve unique or unknown risks.

This topic is covered in the public interest and public health and safety sections above.

5. The action is related to other actions with individually insignificant but cumulatively significant impacts.

The AEIS details, and the Corps is currently considering, associated projects that cumulatively have significant impacts.

6. The action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act.

This topic is covered in the following section.

IV. The Corps must reinitiate consultation with the U.S. Fish and Wildlife Service

⁶⁴ *Id.*

before rendering a final permit decision for the South Pasture Extension Mine.

The 2014 biological opinion is legally deficient as it fails to address several relevant factors. The Corps and the U.S. Fish and Wildlife Service (“Service”) must reinitiate consultation and the Service must publish a new biological opinion before a permit is issued.

Congress enacted the ESA to provide a “means whereby the ecosystems upon which endangered species and threatened species depend may be conserved...[and to implement] a program for the conservation of such endangered species and threatened species.”⁶⁵ At its core, the ESA prohibits any person from taking any species listed as endangered, and empowers the Service to promulgate regulations prohibiting the taking of any species listed as threatened.⁶⁶ “Take” is defined broadly to include all manner of harm or harassment to protected species, including both direct injury or mortality and also acts and omissions which disrupt or impair significant behavioral patterns.⁶⁷ Similarly, federal agencies are required to “carry[] out programs for the conservation of endangered species and threatened species,”⁶⁸ and to “insure that any action authorized, funded, or carried out by such agency...is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the adverse modification of [the critical] habitat of such species.”⁶⁹

Section 7 consultation is required for “any action [that] may affect listed species or critical habitat.”⁷⁰ If the action agency determines its action “may affect” a listed species, the agency must initiate formal consultation with an expert agency (in this case, the Service).⁷¹ Once the action agency has initiated formal consultation, the Service is required to complete a biological opinion (“BiOp”) for that proposed action.⁷² The BiOp summarizes the Service’s findings and determines whether the proposed agency action will jeopardize the continued existence of any species or result in adverse modification of critical habitat.⁷³ If the Service determines the agency action is likely to jeopardize the continued existence of a listed species or result in adverse modification, the BiOp impacts such that the agency action may avoid jeopardizing listed species.⁷⁴

Pervading the Section 7 consultation process is the mandate for “each agency [to] use the best scientific and commercial data available.”⁷⁵ Importantly, each federal agency has an independent duty to “use the best scientific and commercial data available” to ensure any action it authorizes “is not likely to jeopardize the continued existence...or result in the destruction or

⁶⁵ 16 U.S.C. § 1531(b).

⁶⁶ 16 U.S.C. §§ 1538(a)(1); 1533(d); 50 C.F.R. § 222.101.

⁶⁷ “Take” is defined by the ESA as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” 16 U.S.C. § 1532(19); 50 C.F.R. § 222.102.

⁶⁸ 16 U.S.C. § 1536(a)(2).

⁶⁹ 16 U.S.C. § 1536(a)(2).

⁷⁰ 50 C.F.R. § 402.14(a).

⁷¹ 50 C.F.R. § 402.14(a); JOINT CONSULTATION HANDBOOK at 2-6.

⁷² 16 U.S.C. § 1536(b)(3)(A).

⁷³ 50 C.F.R. § 402.14(h).

⁷⁴ 16 U.S.C. § 1536(b)(3)(A).

⁷⁵ *Id.*

adverse modification of [the critical] habitat” of any listed species.⁷⁶ Section 7(a)(1) of the ESA requires the Corps, in consultation with and with the assistance of the Service, to utilize its authorities in furtherance of the purposes of the ESA by carrying out programs for the conservation of endangered and threatened species.⁷⁷ Federal agencies have an independent and substantive obligation to insure that their actions are not likely to jeopardize the continued existence of endangered or threatened species or adversely modify critical habitat.⁷⁸ Indeed, a “no jeopardy” biological opinion from the Fisheries Service does not absolve the action agency of its duty to insure that its actions comply with the ESA.⁷⁹

Consultation must be reinitiated if, among other reasons, “new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered,” or “[i]f a new species is listed or critical habitat designated that may be affected by the identified action.”⁸⁰

The 2014 BiOp is legally and scientifically deficient because it does not evaluate the loss of habitat the project will cause; it does not evaluate human population growth and other regional development; and it does not adequately evaluate climate change. Furthermore, the 2014 BiOp fails to provide enough information to truly evaluate the effects of the project on listed species or their habitat. If the Service fully evaluated these impacts, it would not be able to authorize take of the listed species without determining that the take, in light of existing and planned projects, will jeopardize some of those species. Therefore, the existing 2014 BiOp is legally deficient and reinitiation of consultation is required.

A. The Biological Opinion does not Adequately Address the Loss of Habitat

The 2014 BiOp does not satisfy the requirements of the ESA. There is no guarantee that lands will be set aside for conservation purposes or whether this has indeed been done. The Corps should update the Service as to whether this has been done. Notably, such an easement is not listed as a term or condition of the 2014 BiOp.

This project will impact at least 7,500 acres of prime habitat for listed species. The leading cause of extinction is habitat loss (Harris 1984, Meffe 1997), and native habitats in Florida are rapidly disappearing (Kautz 2001 at 56). This has resulted in the extirpation or extinction of 13 vertebrates over the last 150 years (Kautz 2001 at 56). Habitat loss and fragmentation, coupled with human encroachment, have resulted in populations of species that are increasingly isolated from each other (Dobey 2002 at 68). Large mammalian carnivores, like the Florida panther, are particularly vulnerable to habitat loss and fragmentation because of their relatively low numbers, large home ranges, and interactions with humans (Noss 1996 entire, Woodroffe 1998 entire). Their low fecundity and long generation times result in reduced levels of genetic variation (Roekle 1993 entire, Lu 2001 entire). Habitat loss and fragmentation can lead to

⁷⁶ 16 U.S.C. § 1536(a)(2).

⁷⁷ 16 U.S.C. § 1536(a)(1).

⁷⁸ 16 U.S.C. § 1536(a)(2); *See Pyramid Lake Paiute Tribe of Indians v. United States Dep’t of the Navy*, 898 F.2d 1410, 1415 (9th Cir. 1990).

⁷⁹ *Res. Ltd., Inc. v. Robertson*, 35 F.3d 1300, 1304 (9th Cir. 1994).

⁸⁰ 50 C.F.R. § 402.16.

increased mortality (Jules 1998 entire); reduced abundance (Flather 2002 at 40-56); disruption of the social structure of populations (Ims 1999 at 839-849, Cale 2003 entire); reduced population viability (Harrison 1999 at 225-230, Srikwan 2000 entire, Cale 2003 entire, Lindenmayer 2006); isolated populations with reduced population sizes and decreased genetic variation (Frankham 1996 entire). Loss of genetic variation may reduce the ability of individuals to adapt to a changing environment; cause inbreeding depression (Ebert 2002 entire); reduce survival and reproduction (Frankham 1995 entire, Reed 2003 entire); and increase the probability of extinction (Saacheri 1998 entire, Westmeier 1998, Kramer-Schadt 2004 entire, Letcher 2007 entire, Ruiz-Gutierrez 2008 entire, Sherwin 2000).

A 2009 study concluded the anthropogenic influences—primarily road density and vehicular traffic—can substantially affect the population dynamics of large carnivores with large home ranges, like the Florida panther (Hostetler 2009 entire). Habitat fragmentation and anthropogenic barriers to movement have limited the dispersal capability of species, reducing gene flow among populations and resulting in genetically distinct populations (Dixon 2007 at 455-464). Large carnivores may be much more susceptible to losses in genetic variation due to habitat fragmentation because of their large home ranges, low population densities, and long generation times (Paetkau 1994 entire, Johnson 2001). Isolation is reinforced when travel between subpopulations is limited due to significant barriers, such as high-volume roads (Paetkau 1997 entire, Mader 1984 entire, Brody 1989, Proctor 2002 entire, Voss 2001 entire, Keller 2003 entire, Gerlach 2000 entire, Trombulak 2000 entire, Coffin 2007 at 396-403). Thus roads and other anthropogenic obstacles can substantially reduce gene flow among populations (Dixon 2007 at 455-464, Kyle 2001 at 343-346, Walker 2001 entire, Ernest 2004).

The 2014 BiOp does not provide sufficient information to evaluate the effect of the loss of habitat on the species. It does not detail with sufficient specificity what the effect of the permanent loss of the original habitat will have, or the effect the modified (so-called “reclaimed”) land will have after it is finally “reclaimed” 20 years after it is destroyed.

B. Population Growth and Other Nearby Development

A leading cause of habitat loss is human population growth and corresponding land uses. A 2000 analysis of potential ecological connectivity in Florida found that only about half the land identified for habitat connectivity was publically owned and managed (Hector 2000 at 984-999). Meanwhile, *Florida 2060: A Population Distribution Scenario for the State of Florida* predicts Florida’s population will grow by 49 percent by 2060. The FWC’s *Wildlife 2060: What’s at stake for Florida?* estimates that such population increases could result in the conversion of 7 million acres from rural and natural to urban uses (Cerulean 2008 at 2). It predicts that nearly 3 million acres of existing agricultural lands and 2.7 million acres of native habitat will be claimed by roads, shopping malls and subdivisions; 1.6 million acres of woodland habitat may be lost; wetland habitat may become more isolated and degraded; 2 million acres of lands bears depend on may disappear; and gopher tortoises may lose a fifth of their existing range (Cerulean 2008 at 4). While Florida is projected to increase its population statewide by 50% by 2060, Hardee County is projected to grow from 31,242 residents in 2015 to 43,922 in 2060. Hardee is projected to have at least 14 times more urban development in 2060 than it does presently, making it one of the fastest growing counties.

The Service must consider the synergistic and cumulative effects of these planned nearby projects, along with all past land use projects.

C. Climate Change

While the 2014 BiOp acknowledges that climate change in south Florida could exacerbate current land management challenges involving habitat fragmentation and other threats, it refuses to attempt to analyze the specific impact it will have on the species and habitat impacted by this Project. The Service must consider all available climate change science in evaluating the effects of the Project.

Climate models project continued warming in all seasons across the southeast United States and an increase in the rate of warming (Karl 2009 at 111-113). The warming of air and water temperatures projected for the southeast will create heat-related stress for fish and wildlife. Climate change will alter the distribution of native plants and animals and will lead to the local loss of imperiled species and the displacement of native species by invasive species (Karl 2009 at 113). Concerning the effects climate change is expected to have on southeastern environments, Karl (2009 at 115) states, “[e]cological thresholds are expected to be crossed throughout the region, causing major disruptions to ecosystems and to the benefits they provide to people.”

Climate change will increase the incidence and severity of both drought and major storm events in the southeast (Karl 2009 at 111-116). The percentage of the southeast region experiencing moderate to severe drought has already increased over the past three decades. Since the mid-1970s, the area of moderate to severe spring and summer drought has increased by 12 percent and 14 percent, respectively. Fall precipitation tended to increase in most of the southeast, but the extent of region-wide drought still increased by nine percent (Karl 2009 at 111). Both drought and severe storms could threaten the Florida black bear with habitat alteration, altered vegetation, and altered prey base and food availability (Seager 2009 entire).

The warming climate will likely cause ecological zones to shift upward in latitude and altitude and species’ persistence will depend upon, among other factors, their ability to disperse to suitable habitat (Peters 1985 entire). Because of some of the species’ already limited range and the high degree of development in the surrounding area, there is likely no suitable habitat where the species could disperse, making climate change a dire threat to its survival.

Global average sea level rose by roughly eight inches over the past century, and sea level rise is accelerating in pace (Melillo 2014 at 373). As summarized by the Third National Climate Assessment, “Since the late 1800s, tide gauges throughout the world have shown that global sea level has risen by about 8 inches. A new data set shows that this recent rise is much greater than at any time in at least the past 2000 years. Since 1992, the rate of global sea level rise measured by satellites has been roughly twice the rate observed over the last century, providing evidence of additional acceleration” (Melillo 2014 at 44). Many areas of the Southeast Atlantic and Gulf of Mexico coasts have experienced significantly higher rates of relative sea-level rise than the global average during the past 50 years (Karl 2009 at 37). Large regions of Florida have

elevations at or below 3 to 6 feet, making these areas particularly vulnerable to sea-level rise and flooding (Weiss 2011 entire, Strauss 2012 at 3-4).

According to the Third National Climate Assessment, global sea level is projected to rise another 1 to 4 feet by 2100, with sea-level rise of 6.6 feet possible (Melillo 2014 at 589). Sea level rise could increase by another 6 inches in just the next decade (Melillo 2014 at 400). In its 2012 sea-level rise assessment, the National Research Council similarly estimated global sea-level rise at 8 to 23 cm by 2030, 18 to 48 cm by 2050, and 0.5 m to 1.4 m by 2100 (NRCNA 2012 at 4). The effects of sea-level rise will be long-lived. Scientists estimate that we lock in 8 feet of sea-level rise over the long term for every degree Celsius (1.8 degrees Fahrenheit) of warming (Levermann 2013 at 13746).

Regional projections for Florida also indicate that sea level rise of three to four feet or more is highly likely within this century. The Southeast Florida Regional Climate Change Compact Counties—Monroe, Miami-Dade, Broward, and Palm Beach counties—released the Southeast Florida Regional Climate Change Action Plan in October 2012, which included a detailed “Unified Sea Level Rise Projection” for south Florida. The sea level rise projections for south Florida are similar what has been estimated globally by the National Research Council: 8 to 18 cm (3 to 7 inches) by 2030, 23 to 61 cm (9 to 24 inches) by 2060, and 48 cm to 1.45 m (19 to 57 inches) by 2100 (SFRCCC 2011 at 9-10).

Increasingly intense storms and storm surge pose additional climate threats to coastal wildlife species in Florida. Studies have found that the frequency of high-severity hurricanes is increasing in the Atlantic (Elsner 2008 at 92-94, Bender 2010 at 454-458, Kishtawal 2012 at 1-6), along with an increased frequency of hurricane-generated large surge events and wave heights (Grinsted 2012 at 19601-19604, Komar 2008 entire). The risk of extreme storm surges has already doubled as the planet warms, and these events could become 10 times more frequent in the coming decades (Grinsted 2012 entire). High winds, waves, and surge from storms can cause significant damage to coastal habitat. When storm surges coincide with high tides, the chances for damage are greatly heightened (Cayan 2008 at 557). As sea levels rise, storm surge will be riding on a higher sea surface, which will push water further inland and create more flooding of coastal habitats (Tebaldi 2012 entire). For example, one study estimated that hurricane flood elevations along the Texas coast will rise by an average of 0.3 meters by the 2030s and 0.8 meters by the 2080s, with severe flood events reaching 0.5 meters and 1.8 meters by the 2030s and 2080s, respectively (Mousavi 2011 entire).

Coastal species face significant risks from coastal squeeze that occurs when habitat is pressed between rising sea levels and coastal development that prevents landward movement (Scavia 2002 at 17-18, Fitzgerald 2008 at 601-634, Defeo 2009 at 6-7, LeDee 2010 entire, Menon 2010 entire, Noss 2011 entire). Human responses to sea-level rise including coastal armoring and landward migration pose significant risks to the ability of species threatened by sea-level rise to move landward, if other suitable habitats were even available (Defeo 2009 at 1-9). Projected human population growth and development in Florida may thus threaten the species with coastal squeeze (Zwick 2006 entire).

The Service must consider the loss of habitat sea-level rise and climate change will cause and

the pressure that will place on human and non-human populations and habitat, and how that will be effected by the Project.

D. The Service and Corps Must Evaluate Impacts of the Project on Listed Species

Florida Panther

The Service originally listed the Florida panther as an endangered species in 1967.⁸¹ To this day the panther remains, “the most endangered mammal in the eastern [United States] . . . [with] only 120-180 left, all in South Florida.”⁸² While the Project does not currently support a Florida panther population, Florida panthers have been observed in the area and it could serve as important dispersal habitat and wildlife corridor connecting habitat farther north (Pinnell 2015).

Panthers have faced an uphill battle after their numbers declined to as few as 20-30 individuals.⁸³ Despite the relative success of a genetic restoration project, only “a single wild population in south Florida” exists and it is “all that remains of [the] species.”⁸⁴ Development in south Florida has significantly increased in the area of suitable panther habitat and has led to increased panther mortalities from vehicle collisions, inbreeding, increased competition for food, and territorial disputes (Staletovich 2014).⁸⁵ For example, it is estimated that male panthers travel and patrol a territory of several hundred square miles (Tingley 2015). The panther’s large territory-needs and limited habitat has led to intraspecific aggression, which was responsible for approximately 42% of panther mortalities between 1990 and 2004.⁸⁶

The biggest threat to the panther’s existence is habitat destruction, thus any proposed conservation plan must be consistent with the panther’s recovery plan to ensure that the action undertaken does not undermine the species’ chances of recovery. The recovery plan sets forth a goal to “maintain, restore, and expand the panther population and its habitat in south Florida and expand the breeding . . . population in south Florida”⁸⁷ The Project will negatively impact the recovery of the panther, whose greatest threats are habitat destruction and fragmentation.⁸⁸

Environmental baseline

⁸¹ U.S. Fish & Wildlife Service, *ECOS: Environmental Conservation online System, Florida panther* (Puma(=felis) concolor coryi), <http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A008>.

⁸² *Florida Panther: National Wildlife Refuge, Florida*, U.S. FISH & WILDLIFE SERV., http://www.fws.gov/refuge/florida_panther/.

⁸³ *Florida Panther: National Wildlife Refuge, Florida*, U.S. FISH & WILDLIFE SERV., http://www.fws.gov/refuge/florida_panther/wah/panther.html.

⁸⁴ *Id.*

⁸⁵ *Id.* In 2014, thirty panthers were killed, and the majority of these deaths resulted from vehicle collisions. *Id.*

⁸⁶ The Florida Panther Recovery Team & South Florida Ecological Services Office, U.S. Fish & Wildlife Serv., *Panther recovery plan* (Puma concolor coryi), U.S. FISH & WILDLIFE SERV., at 17 [hereinafter *Panther Recovery Plan*]; Tingley at 26.

⁸⁷ *Id.* at (IV)(1), 101.

⁸⁸ *Everglades, Florida Panther: Species Profile*, NAT. PARK SERV., U.S. DEPT. OF INTERIOR, <http://www.nps.gov/ever/learn/nature/floridapanther.htm>.

The Service's analysis of the environmental baseline will need to: 1) take into account the fact that there is currently not enough habitat available to support the existing panther population; and 2) analyze the impact of other projects in the area. When analyzing the impacts of a proposed project on listed species, the Service must consider the direct and indirect impacts added to the environmental baseline.⁸⁹ The environmental baseline includes "past and present impacts of all proposed Federal projects in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal consultation, and the impact of State or private actions which are contemporaneous with the consultation in process."⁹⁰ "Action area" means "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action."⁹¹

The panther is dependent on hardwood and hammock type uplands largely because those habitats are suitable for its prey. For a species as imperiled as the panther, whose greatest threat is habitat destruction, the Service must survey the area to determine whether panthers indeed use the habitat.

Florida Scrub Jay

The Service listed the Florida scrub jay as a threatened species under the ESA in 1987.⁹² The species is endemic to Florida and requires specific habitat features with "well drained to excessively well-drained sandy soils... [and] oak-dominated scrub, or xeric oak scrub . . . [that is] adapted to nutrient poor soils, periodic drought, high seasonal rainfall and frequent fires."⁹³ Due to the scrub jay's particular habitat needs, the primary threats to its survival are habitat destruction, including both loss and fragmentation, and habitat degradation.⁹⁴ Given these threats the Corps and Service must better explain why the Project is not likely to adversely affect the Florida scrub jay.

Wood Stork

The Service listed the wood stork under the ESA as an endangered species in 1984, and it is the only species of stork "regularly occurring in the United States."⁹⁵ In 2014, the Service upgraded the status of the species to "threatened" largely due to successful recovery efforts in Georgia.⁹⁶

⁸⁹ 50 C.F.R. § 402.14(g)(3).

⁹⁰ *Id.* § 402.04.

⁹¹ *Id.*

⁹² U.S. Fish & Wildlife Service, *ECOS: Environmental Conservation Online System, Florida scrub-jay* (*Aphelocoma coerulescens*), U.S. DEPT. OF INTERIOR, <http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B082>.

⁹³ U.S. Fish & Wildlife Service, *Florida Scrub-jay*, U.S. DEPT. OF INTERIOR, 2-264, <https://www.fws.gov/verobeach/MSRPPDFs/FloridaScrubJay.pdf>.

⁹⁴ *Id.* at 4-270. Approximately 70–80% of the scrub jay's habitat has been destroyed when compared to estimates of existing habitat prior to major settlement in Florida. *Id.*

⁹⁵ U.S. Fish & Wildlife Service, *Wood Stork Recovery Plan: Revised Recovery Plan for the U.S. Breeding Population of the Wood Stork*, http://ecos.fws.gov/docs/recovery_plan/970127.pdf, at 1 (Jan. 27, 1997) [hereinafter *Wood Stork Recovery Plan*].

⁹⁶ *Endangered and Threatened Wildlife and Plants; Reclassification of the U.S. Breeding Population of the Wood*

Although wood storks have seen some improvements in their numbers overall, the species is still in decline, as evidenced by its numbers in Corkscrew Swamp, which until recently was considered “the most productive colony in the nation.”⁹⁷ Wood storks are found primarily in Florida, Georgia, and parts of South Carolina; however, there have been occasional sightings in North Carolina and as far west as Mississippi.⁹⁸ It is suspected that the species migrates and spends its winters in south Florida, as there is an influx of storks during winter months.⁹⁹ Wood storks can be observed in south Florida all year. Historically, the central and northern Everglades are among the areas where this population surge is most evident. Some years, the Everglades system has been documented to support approximately 55% of the entire U.S. population of the species.¹⁰⁰ Unfortunately, south Florida colonies have been plagued with multi-year nest failures in recent years.

The wetlands and flow-way located on the project site support downstream regional wetland systems. In Southwest Florida, Lauritsen (2010) examined the importance of seasonal, short-hydroperiod wetlands to foraging federally threatened wood storks, which supply most of the food energy for initiating reproduction and suggested that the loss of these wetlands are not being appropriately mitigated for under State wetlands permitting law. The impacts of the loss of these wetlands may result in no nesting or abandonment of nesting attempts by wood storks at sites such as Corkscrew Swamp Sanctuary. The Service will need to calculate the loss of wetlands and other surface waters (jurisdictional and non-jurisdictional) that will result from the project and the effect that will have on the wood stork.

Both freshwater and estuarine wetland ecosystems may serve as suitable wood stork habitat.¹⁰¹ Storks tend to nest in a variety of different trees depending on what is available within the habitat, including: cypress, black gum, southern willow, red mangroves, prickly pear cactus, Brazilian pepper, and Australian pine.¹⁰² Wood storks require nesting sites located in standing water throughout the nesting season to protect the nest from predators.¹⁰³

For foraging, it is critical that the storks have access to shallow, open water.¹⁰⁴ The species forages using tactilocation, a process where it wades through the water with its beak submerged and clamps down on prey, usually small fish, when they come in contact with its beak.¹⁰⁵ Storks require shallow waters to wade in and fairly dense stocks of fish to support a colony’s feeding habits.¹⁰⁶ Storks’ needs are somewhat less specific when it comes to roosting trees; although

Stork From Endangered to Threatened, 79 Fed. Reg. 37078 (June 30, 2014).

⁹⁷ National Audubon Society, Inc., *Audubon: Corkscrew Swamp Sanctuary, Wood Storks (Mycteria americana)* [hereinafter, *Audubon: Corkscrew Swamp*]. In the first decade of monitoring at Corkscrew Swamp, from 1958–1967, there was an average of 5,450 wood stork chicks a year, compared to the years 2003–2012, which experienced an average of 540 chicks. *Id.*

⁹⁸ *Wood Stork Recovery Plan* at 2.

⁹⁹ *Id.*

¹⁰⁰ *Id.*

¹⁰¹ *Id.* at 3.

¹⁰² *Id.*

¹⁰³ *Id.*

¹⁰⁴ *Id.* at 4.

¹⁰⁵ *Id.*

¹⁰⁶ *Id.*

they look for similar sites as those used for nesting, they will roost in a greater variety of trees depending on the availability of food.¹⁰⁷

The greatest threats to the wood stork's existence are the loss of adequate habitat for feeding, changes in water levels and hydrology (habitat modification), lack of nesting habitat, "human disturbance," and loss resulting from the adverse effects of pesticide and chemical contamination.¹⁰⁸ As wetlands are drained and filled—primarily for development and agriculture—the stork's habitat is irreversibly destroyed. Because of the stork's specific foraging and nesting needs, changes in hydrology resulting from developmental impacts, both direct and indirect, can have a major effect on the species' ability to survive in a given area.

The 2014 BiOp does not contain sufficient information to address the needs of the wood stork, and it fails to identify with any specificity the impacts that are likely to result from the Project. The 2014 BiOp lacks sufficient information to identify the potential impacts to the wood stork and the anticipated take that will occur. Additionally, it does not specify any specific measures that will be taken to conserve wood stork habitat. The species' recovery plan provides specific, affirmative actions that should be taken, such as restoring and enhancing habitat and providing protection for nesting sites, among other affirmative and proactive measures.¹⁰⁹ Despite this wide variety of actions the Corps could take to enhance existing wood stork habitat in accordance with the species' recovery plan to offset negative impacts, it has failed to do include these kinds of actions in the plan.

The 2014 BiOp estimates the take of one wood stork from vehicle collision over the course of the Project, but no take from the loss or reduction of foraging habitat. The Project would impact 1,472 acres of Corps jurisdictional wetlands that likely provide foraging habitat for the wood stork. Nothing in the 2014 BiOp indicates that a temporary loss is not a take under the ESA. Furthermore, nothing in the 2014 BiOp demonstrates that the land will be reclaimed adequately and prey base restored, by for example, comparing to other reclaimed lands.

In fact, the 2014 BiOp, in its Terms and Conditions indicate that a reclamation plan will be provided. Such a reclamation plan should be evaluated in the 2014 BiOp itself.¹¹⁰ The Service cannot assume, without actually evaluating, the effectiveness of such a plan.

Audubon's Crested Caracara

The Service listed the Audubon (or Northern) crested caracara as a threatened species under the ESA in 1987.¹¹¹ The species historically was found throughout peninsular south Florida in wet and dry prairie habitats featuring interspersed cabbage palm trees.¹¹² Now, the caracara has

¹⁰⁷ *Id.*

¹⁰⁸ *Id.* at 10–12.

¹⁰⁹ Wood Stork Recovery Plan at 19–22.

¹¹⁰ 2014 BiOp at 44.

¹¹¹ U.S. Fish & Wildlife Service, *Multiple Species Recovery Plan for South Florida: Audubon's Crested Caracara: Polyborus plancus audubonii*, U.S. DEPT. OF INTERIOR, 4-219, <http://www.fws.gov/southeast/vbpdfs/species/birds/acca.pdf>.

¹¹² *Id.* at 4-221–4-222.

somewhat adapted to land use changes, using pasturelands and in some cases citrus and other agricultural lands in place of its natural habitat.¹¹³ Still, caracaras nest almost exclusively in cabbage palms, and ideal habitat conditions for the species consists of these palms “surrounded by open habitats with low ground cover and low density of tall or shrubby vegetation.”¹¹⁴ The species is an opportunistic hunter, seeking out prey “on the wing, from perches, and on the ground.”¹¹⁵

The primary threat to the species is habitat loss.¹¹⁶ The majority of the caracara’s habitat loss is attributable to agricultural and residential development.¹¹⁷ In addition to habitat destruction, the species has suffered from direct human impacts, including mortalities from vehicular collisions, traps, and intentional killings resulting from misplaced fear that the species preys on livestock.¹¹⁸ The Service’s recovery plan for the northern crested caracara outlines specific measures that should be taken to protect the caracara including, efforts to “create, restore, or expand occupied habitat wherever possible.”¹¹⁹ The plan further states that conservation goals may be met through the expansion of habitat in areas with individuals present, as well as restoration of habitat in vacant areas.

The 2014 BiOp states that the direct effects from the Project include mortality from vehicular traffic, harassment, and missed foraging and breeding opportunities; and that the indirect effects include post-construction maintenance.¹²⁰

The 2014 BiOp speculates that future reclaimed land to the north will provide alternate habitat for caracaras displaced during the mining activities.¹²¹ It also opines that the loss of habitat may be offset if prey becomes available in ditches and mine pits.¹²² It concedes that it does not know if the loss of habitat will cause temporary or permanent abandonment of nesting territory in the Project area, or result in intraspecific aggression with adjacent pairs of caracaras. It also concedes that it is difficult to estimate how many caracaras will use the site following construction and reclamation.¹²³

Despite all the acknowledged unknowns, the 2014 BiOp posits that only two caracara pairs could be impacted, and that long term effects will be minor.¹²⁴ Nothing in the 2014 BiOp explains whether the Corps or the Service have analyzed other reclaimed lands to determine whether such lands provide suitable habitat. Moreover, nothing in the 2014 BiOp supports the conclusion that the effects of take will be temporary, i.e. that after 14 years of no habitat, that caracaras will recover from that loss. At the very least, the Corps should indicate whether the

¹¹³ *Id.* at 4-222.

¹¹⁴ *Id.*

¹¹⁵ *Id.* at 4-223.

¹¹⁶ *Id.* at 4-225.

¹¹⁷ *Id.*

¹¹⁸ *Id.*

¹¹⁹ *Id.* at 4-234.

¹²⁰ 2014 BiOp at 28.

¹²¹ 2014 BiOp at 29.

¹²² 2014 BiOp at 30.

¹²³ 2014 BiOp at 30.

¹²⁴ 2014 BiOp at 29.

aforementioned lands to the north are indeed now currently available as suitable alternate habitat. The Service and Corps should also require up-to-date surveys to determine how many caracaras use the Project area, otherwise the Service will have no way to determine whether more than two pairs, or four individuals have been taken, as the 2014 BiOp does not require any monitoring.

Under the Service's cumulative effects analysis, the Service concludes that 3.2 percent of the 5,328.8 acres of non-phosphate-owned lands (170.5 acres) may be subject to cumulative impacts and that that level of cumulative effects is unlikely to appreciably affect caracaras in the area. This analysis, however, ignores the threat of a death by a thousand cuts where the Service, in future analyses, or indeed, in the current analysis, does not take into account past habitat loss, however segmented and individually minor at the time. This is familiar to analyze the cumulative effects of habitat loss on the caracara, either at the environmental baseline or cumulative effects analysis belies the purpose of the ESA in protecting the ecosystem upon which imperiled species depend.

American Alligator

The Service listed the American alligator as an endangered species in 1967.¹²⁵ The alligator gained status as an endangered species in response to a massive decline in individuals, most of which was attributed to hunting and habitat destruction.¹²⁶ In 1987, the Service determined that the species was recovered and removed it from the endangered species list; however, the alligator is still protected under the ESA as "threatened due to similarity of appearance," to the American crocodile.¹²⁷ Due to its status as a threatened species, the Service continues to regulate the hunting, trade, and any goods made from the species.¹²⁸

Within its ecosystem, alligators are greatly valuable to other animals that share its ecosystem. They create "gator holes," depressions in the marsh that retain water in the dry season.¹²⁹ Other species, including snakes, birds, and fish, use the gator holes as a source of water during the dry season or times of drought.¹³⁰ American alligators also play an important role in the native food webs as both predators and prey, linking aquatic and terrestrial food webs. Adult alligators are opportunistic feeders that prey on a wide range of species throughout their lives, including insects, mollusks, crustaceans, fish, amphibians, reptiles, birds, and mammals.¹³¹ Small alligators serve as prey for many species, including the northern crested caracara and the eastern indigo snake.¹³²

¹²⁵ U.S. Fish & Wildlife Service, *American Alligator: alligator mississippiensis*, DEPT. OF INTERIOR, <https://www.fws.gov/endangered/esa-library/pdf/alligator.pdf> (Feb., 2008).

¹²⁶ *Id.*

¹²⁷ *Id.*

¹²⁸ *Id.*

¹²⁹ *Id.*

¹³⁰ *Id.*

¹³¹ NatureServe. 2015. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia, <http://www.natureserve.org/explorer>.

¹³² National Park Service, *Everglades National Park, Eastern Indigo Snake: Species Profile*, U.S. DEPT. OF INTERIOR, <http://www.nps.gov/ever/learn/nature/easternindigosnake.htm> [hereinafter *Everglades Eastern Indigo Snake*]; U.S. Fish & Wildlife Service at 4-223.

The Service must evaluate the effect the clay pits and will have on alligators.

Eastern Indigo Snake

The Service listed the Eastern indigo snake as threatened under the ESA in 1978.¹³³ Historically, the species was found throughout Florida, Alabama, Mississippi, and portions of Florida; however, the species is now only found within Georgia and Florida.¹³⁴ Eastern indigo snakes are more often “found in pinelands, tropical hardwood hammocks, and mangrove forests,” as they are more inclined to upland habitats and ecosystems.¹³⁵ The most frequent types of habitat where the indigo is found includes “pine flatwoods, scrubby flatwoods, dry prairie, tropical hardwood hammocks, edges of freshwater marshes, agricultural fields, coastal dunes, and human-altered habitat”; however, the species needs a variety of these habitats to complete its life cycle.¹³⁶ The eastern indigo snake shares a special relationship with the gopher tortoise, which is critical in northern portions of the snake’s range because it will take refuge in the tortoise’s burrows to weather the cold.¹³⁷ This relationship is somewhat less critical in the milder south Florida climate where indigo snakes have been documented using manmade refugia and disturbed habitats.¹³⁸ The snakes are still known to use the underground burrows of these tortoises and other species in the region of the Project.¹³⁹ Thus, the survival of the indigo snake is essentially tied to the health and survival of the gopher tortoise.

The Service estimates that the Project land might support 40-65 indigo snakes, and 159-257 in the action area. It estimates that the Project will represent a temporary change to 4,928 acres/
140

The eastern indigo snake was initially listed as threatened as the result of several activities including, habitat destruction and fragmentation, “over-collecting for the pet trade, and mortality from gassing gopher tortoise burrows to collect rattlesnakes.”¹⁴¹ Presently, the species is vulnerable to habitat destruction and fragmentation associated with “residential and commercial construction, agriculture, and timbering.”¹⁴² Development will continue to impact the eastern indigo snake because it permits increasing human populations in indigo snake habitat, which leads to an increased risk of snake mortality resulting from vehicular collisions and contact with property owners and domestic animals.¹⁴³ The indigo snake is also subject to harm from the bioaccumulation of pesticides in its prey, which results from the use of pesticides

¹³³ U.S. Fish & Wildlife Service, *Multiple Species Recovery Plan for South Florida: Eastern Indigo Snake*, *Drymarchon corasi couperi*, U.S. DEPARTMENT OF INTERIOR, 4-567, <http://www.fws.gov/verobeach/msrppdfs/easternindigosnake.pdf> [hereinafter *Eastern Indigo Snake*].

¹³⁴ *Id.* at 4-568.

¹³⁵ *Id.*

¹³⁶ *Id.* at 4-568–4-569.

¹³⁷ *Everglades Eastern Indigo Snake*.

¹³⁸ *Id.*

¹³⁹ *Id.* The use of gopher tortoise and other species’ burrows by indigos is often considered taking “refuge.” *Eastern Indigo Snake* at 4-572.

¹⁴⁰ 2014 BiOp at 34.

¹⁴¹ *Eastern Indigo Snake* at 4-572.

¹⁴² *Id.*

¹⁴³ *Id.*

in agricultural and silvicultural activities, and from contact with rodenticide used to control rat populations within its range.¹⁴⁴

Although the 2014 BiOp provides general information about threats to the eastern indigo snake, it fails to provide sufficient information regarding the specific impact the proposed activities will have on indigo snakes.

The 2014 BiOp fails to include sufficient measures to avoid, minimize, or mitigate negative effects on the species. First, the plan fails to employ sufficient avoidance measures. Second, the minimization and mitigation measures are weak, if not entirely ineffective.

The Service's recovery plan for the eastern indigo snake highlights monitoring as an essential tool for attaining the snake's recovery.¹⁴⁵ The Project area should be resurveyed to determine the relevant locations and habitat use of eastern indigo snakes. The Project should also impose a monitoring plan for the life of the permit, which would allow the Service to identify severe population declines and take action.

Breining et al. (2012) have concluded that habitat fragmentation is likely a critical factor for the eastern indigo snake's persistence and that eastern indigo snakes are vulnerable to extinction in conservation areas bordered by roads and developed areas. Though the snake's chances of survival can be quite high in conservation core areas, its survival rates significantly decline in conservation areas along highways and in suburbs.¹⁴⁶ More than half of known snake mortalities documented in the study were caused by humans, directly or indirectly, along roads.¹⁴⁷ Additionally, the Service should consider whether "corridors" between protected areas are wide enough to provide adequate protection for eastern indigo snakes.¹⁴⁸

When assessing the Project's impacts on eastern indigo snake habitat, the Service should not only consider broad habitat types used by the eastern indigo snake (e.g., upland habitat) but also availability of essential microhabitat required by the species. For example, Hyslop et al. (2009) found that "[r]eduction in suitable underground shelters caused by habitat degradation and loss, which reduces or eliminates populations of [gopher tortoise], is likely an important factor in extirpation of the species from areas *otherwise perceived as suitable habitat*."

The take statement indicates that six eastern indigo snakes may be taken, but also states that there are no practical methods of survey. The 2014 BiOp does not explain how the Corps, the Service or the Public will know when 6 snakes have been taken.

Gopher Tortoise

The gopher tortoise is a federal candidate species under the ESA and a highly valuable

¹⁴⁴ *Id.*

¹⁴⁵ *Eastern Indigo Snake* at 4-579, 4-581.

¹⁴⁶ *Id.*

¹⁴⁷ *Id.*

¹⁴⁸ *See Id.*

“keystone species” that benefits and ensures the survival of other species in its ecosystem.¹⁴⁹ This tortoise is known to benefit over 300 different species, including eastern indigo snakes, foxes, skunks, and lizards, which use gopher tortoise burrows for shelter and for various parts of their lifecycles.¹⁵⁰ The gopher tortoise is generally found in longleaf pine or oak sandhill ecosystems, but it may also be found in other dry, upland habitats within its historic range.¹⁵¹

The greatest threat to the gopher tortoise is habitat destruction, including habitat fragmentation and degradation, caused by urban development, agricultural conversion, forestry, and mining.¹⁵² Habitat fragmentation can lead to reproductive isolation, increased predation due to exposed habitat edges, and mortality resulting from vehicular collisions.¹⁵³

The Service should provide some evaluation of the impact of the Project on the species.

Eastern Diamondback Rattlesnake

The eastern diamondback rattlesnake is currently under consideration for federal ESA listing after receiving a positive 90-day finding on May 10, 2012.¹⁵⁴ Though the eastern diamondback rattlesnake’s range once encompassed the Coastal Plain of the southeastern United States from North Carolina to south Florida, and west to Mississippi and the Florida parishes of Louisiana; its area of occupancy, number of subpopulations, and population sizes are declining throughout its range.¹⁵⁵ This contraction in the snake’s range is largely attributable to loss of its native longleaf pine ecosystems to agriculture, silviculture, urbanization, and plant succession resulting from fire suppression (Timmerman 2003). Florida encompasses half of the eastern diamondback rattlesnake’s current range,¹⁵⁶ which makes habitat preservation in this state critical to the species’ survival. The eastern diamondback rattlesnake’s survival is also crucially linked to the presence and welfare of the gopher tortoise, whose burrows provide essential microhabitat for the snake to use for shelter.¹⁵⁷

Today the most significant threats to the eastern diamondback rattlesnake are habitat destruction and human exploitation. The species has sustained a 97% reduction in its native, longleaf-pine forest habitat, on which it relies for feeding, breeding, and sheltering (Van Lear 2005). This loss of longleaf pine ecosystems is the single most important factor affecting the

¹⁴⁹ U.S. Fish & Wildlife Service, *Range-Wide Conservation Strategy for the Gopher Tortoise*, U.S. DEPT. OF INTERIOR, 4, <http://www.fws.gov/southeast/candidateconservation/pdf/FinalGopherTortoiseStrategy.pdf> [hereinafter *Conservation Strategy for Gopher Tortoise*].

¹⁵⁰ *Id.*

¹⁵¹ U.S. Fish & Wildlife Service: North Florida Ecological Services Office, *Gopher Tortoise (Gopherus polyphemus)*, U.S. FISH & WILDLIFE SERVICE, http://www.fws.gov/northflorida/gophertortoise/gopher_tortoise_fact_sheet.html.

¹⁵² *Conservation Strategy for Gopher Tortoise* at 9; NatureServe. 2015. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia, <http://www.natureserve.org/explorer>.

¹⁵³ *Conservation Strategy for Gopher Tortoise* at 9.

¹⁵⁴ 77 Fed. Reg. 27403–27411 (May 10, 2012).

¹⁵⁵ Natureserve.

¹⁵⁶ *Id.*

¹⁵⁷ *Id.*

survival of the eastern diamondback rattlesnake. Fragmentation of remaining suitable habitat also leads to road mortality, population isolation, and reduced genetic diversity, which is detrimental to the species' long-term viability (Andrews and Gibbons 2005 at 779).

Rattlesnakes are particularly vulnerable to vehicle strikes because of their morphology and behavior. A study conducted by Andrews and Gibbons (2005) shows that venomous, heavy-bodied snakes like the eastern diamondback rattlesnake experience detrimentally high mortality levels even at medium traffic densities because, unlike other species of snake, they move at slow speeds and immobilize when confronted with vehicles.

Eastern diamondback rattlesnakes are also threatened by human exploitation. Thousands of snakes are killed each year for meat, skin, and venom, with no limits on annual harvest (Means 2009). "Rattlesnake roundups," annual events that offer hunters prizes for capturing snakes, which are displayed and then killed, boost snake kills and foster negative attitudes that venomous reptiles like the rattlesnake are repugnant and must be removed from nature (Andrews and Gibbons 2005). Means (2009) collected data from these roundups, analyzed trends, and concluded that declining maximum size of snakes collected during roundups reflects possible age-class truncation.¹⁵⁸ This troubling trend could lead to negative impacts on annual recruitment of young rattlesnakes, which in turn undermines the snake's ability to maintain viable populations (Means 2009). Because of negative attitudes toward rattlesnakes, the eastern diamondback is also at risk from isolated killings, independent of roundups, when snakes enter urban or suburban areas. Existing regulations are inadequate to address these significant threats to the eastern diamondback rattlesnake, so they are constantly at risk of human-caused mortality and may be taken in unlimited numbers.

The Service should closely study the Project's potential impacts on the eastern diamondback rattlesnake, precisely estimate take associated with the project, and carefully consider more robust conservation measures than currently proposed in the plan, favoring use of avoidance measures over minimization or mitigation.

Conclusion

We request an extension to the comment period, given the largescale impacts of the Project. We also request a public hearing to present public comments that further demonstrate that this Project is not in the public interest. Thank you for the opportunity to comment on the June 16, 2016 Public Notice. We respectfully request that the Corps deny the permit application for the South Pasture Expansion. Please keep us informed about the progress of these permit applications, including any future notices, announcements, EAs, EISs, or decision notices, and do not hesitate to contact us with any questions about this letter.

Sincerely,

¹⁵⁸ *Id.*

A handwritten signature in black ink, appearing to read 'JLopez', with a long, sweeping horizontal line extending from the top of the 'L'.

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To: John P. Fellows

West Branch Mining Team, Jacksonville District Corps of Engineers, 10107 Princess Palm Avenue, Tampa, Florida 22610

Re: Public Comments on Mosaic Fertilizer, Permit Application SAJ-1993-01395 (IP-JPF), South Pasture Extension Phosphate Mine

Dear Mr. Fellows:

I respectfully submit the following comments to the U.S. Army Corps of Engineers for the above-referenced permit for the South Pasture Extension.

1. NEPA/Alternatives/Strip Mining in Florida Not in Public Interest. This project and all proposed strip mines are, by their nature, contrary to the purpose and goals of the National Educational Policy Act..."to declare a national policy which will encourage productive harmony between man and his environment, to promote efforts which will prevent or eliminate damage to the environment...to enrich understanding of the ecological systems and natural resources...and serve as trustee of the environment for succeeding generations. Establishing a project need and purpose that has as its only objective strip mining phosphate does not take into consideration the impacts on the environment in which the mining will take place and seems inconsistent with the purpose of NEPA. Further, then, the alternatives are limited to the other sites the applicant proposes to mine in the future so they are not alternatives at all.

Mosaic already has enough acreage to mine. "No action" would prevent additional damage to the water resources and land from strip mining.

Alternatives such as no action and importation should be serious considerations. We don't need to mine phosphate rock in Florida at all. Mosaic imports from its mine in Peru (not mentioned in AEIS), owns an interest in a mine in Saudi Arabia, and has imported from Morocco in the past. The world is awash in phosphate and the latest USGS report indicates 39 countries with significant reserves. AEIS incorrectly lumps them together as unstable. Morocco alone, a friendly country, has 50 times the phosphate Florida has and is expanding its mining and production. AEIS cites a Jack Lifton article, but misuses it. He urges readers to invest in Canadian companies sitting on huge, high-grade deposits of igneous phosphates (easier to process) and to compete with middle East phosphate suppliers. He concludes that the US should get its rock from these independently owned Canadian mines and not from Florida mines whose resources face depletion (Weiskoff report submitted for AEIS). Mining is cyclical and the markets change rapidly, consequently phosphate mining is risky--the business could go bad as it has in the past in Florida with similar devastating consequences.

Mosaic has not presented any need other than its own business plan and profits. Shipping to 40 other countries, which is mentioned, is at the expense of massive groundwater withdrawals, destruction of valuable wetlands and water resources in Florida. This is not a sufficient justification and is not in the public interest.

2. The Reality of Phosphate Strip Mining Shown in Aerial photographs. Close-up aerials and videos of current and past mines depict the landscapes which have been strip mined. The AEIS consists of words, mostly from the mining industry's point of view and the consultants the contractor chose to convey minimal significance. The truth is on the ground and clearly visible from the air and Google maps.

There appears to be little reclamation, mostly just scarred, often whitish landscapes, infestations of cogon grass and other invasive weeds, and slime ponds that are there for many years because so much earth was dug up and taken away and clays left in CSAs. There isn't enough soil or even sand to reclaim the land. Instead, deep pits (aka lakes) are created instead to fill the holes. A recent article in the Ledger, "What's Next for Bone Valley," inadvertently pointed out yet another long-term burden of phosphate mining in the southern part of Polk county--an astronomical 250,000 acres of old mining land that is not being used, much of it in long-term ownership by Mosaic.

3. Problems with "Reclamation". Mosaic doesn't keep the promises they make about reclamation. Their mine reclamation plans and timelines may have little meaning. They have been granted, according to a study by Norma Demers, 100 variances, for example for 10-year delays, by DEP. Lack of enough sand is often cited as a reason. They should not be granted any permits for mining based on plans that have not been implemented according to schedule. The AEIS assumes that 8 years after mining completion the land is available for farming. This assumption is unsupported. The DEP state reports suggest a range of 15 or 20 years. The 2014 DEP report indicates that the percentage of mandatory acres of Mosaic mines reclaimed and released since 1975 is only 39%. Some say the areas will never be the same again, and others say it will take hundreds of years, if ever, for strip-mined areas to recover.

4. Avoidance of Impacts to Wetlands. Avoidance of impacts, the desired goal, is minimal in this proposal. The percentage of avoidance is far too low and shows no change from prior mines. It is as if we are continuing on the same path that has not worked in the past. The priority wetland scheme in the AEIS Chapter 5 doesn't change anything that Mosaic does, as the plans I have seen list the percentage of priority wetlands but the minimal avoidance plan that is proposed may not include them.

5. Clay Setting Areas. The waste clay disposal areas on approximately 40% of land are not temporary and constitute a significant impact which is ignored. There must be one in this mine, but it is not noted on the plan unless it is the far east side which is mostly blank. The CSAs interfere with groundwater flow, ruin the land, are not readily reclaimed, and have little to no use after mining.

6. Losses of water resources through strip mining are significant impacts and contrary to the public interest.

Ecosystems are completely destroyed down to a depth of 40-60 feet, including the surficial aquifer, the volume and timing of flows, that cannot be reclaimed.

The water level is lowered by mining without even considering groundwater pumping. As mining occurs, groundwater moves into the mined area, permanently lowering the water in the surrounding areas.

The mining excavations and pits also result in a greater loss of water through evaporation.

We are in a water use caution area, yet millions of gallons of groundwater are used in the mining process that Mosaic obtains for free through a mega permit that allows for more water withdrawal than most municipalities use. Groundwater is being pumped from hundreds of wells. An unnecessary and destructive business is being subsidized; the water is a public resource.

SWFWMD asserts lower water use by agriculture in the future, but that is only supposition.

SWFWMD also cannot predict droughts: Southwest Florida Still in a Drought (Water Usage Report Card-2008-2009; Deepening Drought is On the Way--Forecast raises specter of strained supply and rising fire risks (Herald Tribune, March 16, 2012), Little Rain, Low Rivers--with Dry Spell Seen Ahead, Fears of a Drought Return (Herald Tribune, March 7, 2013)

7. Wetlands. Valuable wetland functions are lost for many years during mining. Some types of wetlands are difficult to re-create or cannot be re-created according to experts who have testified. There was no field research in the AEIS in Chapter 5 to determine the success of reclamation or mitigation. For example, what is the actual time it takes for different wetland and habitat types and what is the actual fertility and performance of the "reclaimed" wetlands and land? Scientific evidence that reclamation or mitigation works and to what extent is lacking, yet mines will include written plans as if it does.

8. Environmental Injustice. Short-term mining jobs will replace long-term agricultural jobs and change the economy. The Mexican/Hispanic residents are the main victims of environmental injustice. They live and work in Hardee county, but seasonal jobs in agriculture are not included in the AEIS. The mines will eliminate the major source of work for the minority workers in the

lower working class, which is almost a majority in Hardee county. The reduction or elimination of jobs for this ethnic group may result in extreme poverty for these families.

9. Economic Analysis Undervalues Ecosystem Services and Agriculture. The AEIS overestimates the value of mining, compared to the value of ecosystem services for forests and wetlands (AEIS treats them as though they have no value but research does indicate their value to society) and income to agriculture. Professor Weisskoff (see report submitted previously for AEIS) states that the income/revenue attributed to agriculture in Hardee County is grossly understated and that the methodology used by AEIS invalidates the agricultural contributions of all counties. The reason this is brought up is that it affects the outcome of the entire AEIS program, i.e., if the No action alternative is multiplied by the US Ag census factor, then the No action alternative actually gives a higher value than the With Mine alternative. The undervaluation of agriculture lands materially impacts the AEIS economic calculation, giving a higher value to the No action alternative. This failing is due to the company the applicant used to provide the AEIS economic analysis. Further, the product sold by the mining companies benefits the company and its shareholders, not the local economies, citizens or the local environment.

10. Chemical Fertilizer Runoff Contributes to Blue-Green Algae. Finally, since the product fertilizer was mentioned in the USACE public interest documents for South Pasture Extension, it can be said that chemical fertilizer is one of contributors to the nutrient load and runoff of phosphorus and nitrogen that is causing the poisoning of the water and blue-green algae in South Florida.

I respectfully request you deny this application. Thank you for your consideration.

Sincerely,

(Dr.) Linda T. Jones

District Engineer,
West Branch mining team,
10117 Princess Palm Avenue, Suite 120,
Tampa, FL 33610
Att: John. P. Fellows

Reference: Project #SAJ 1993-01395 (South Pasture Extension, Hardee County).

The Army Corps of Engineers is processing a permit application from Mosaic for South Pasture Mine Extension, for 7,500 acres of new mine in the Peace River watershed. Mosaic will withdraw a significant quantity of groundwater for South Fort Meade mining operations. The withdrawal threatens to irreversibly harm the ecosystem in the adjacent mine area by impacting the quantity and duration of the streamflow needed by plants and animals, including endangered species, to survive. Mine groundwater withdrawals will reduce the potentiometric surface of the surficial, intermediate, and Upper Floridan aquifers in the adjacent mine area, impacting potable supply for the mine neighbors. Additionally, the mining will impact the hydrologic properties of these aquifers by permanently reducing: recharge, conductance (surficial), transmissivity (intermediate and Upper Floridan), confining unit leakance (between the surficial and intermediate), and porosity. The reduction in these properties will further lower the potentiometric surfaces of the aquifers, reduce groundwater discharge to streams, and dry up wetlands in the mine area.

Understanding the localized effects on groundwater flow and levels is critical in evaluating the environmental impact of the proposed phosphate mines. The use of a regional groundwater-flow model is inappropriate because it cannot accurately simulate local-scale mining withdrawals, aquifer excavation, and changes in hydrologic properties. There have been 2 groundwater flow models submitted by Mosaic in support of their mining operations. The first (Mosaic Company, 2006) was a marginally local-scale mine-pit-dewatering model to support their integrated water use permit application with the Southwest Florida Water Management District (SWFWMD). The purpose of the model was to determine the amount and extent of groundwater level decline during mining operations as well as the yield of groundwater from the mine pit. This model is fatally flawed because it is impossible to evaluate. Input parameters such as leakance are not provided, boundary conditions are not given, and there is no discussion on how dewatered cells are simulated.

The other groundwater flow simulation is one done by CH2M Hill for this AEIS; it used the SWFWMD regional model DWRM2.1. SWFWMD developed the DWRM2.1 model (Environmental Simulations, Inc., 2007) to assist them in evaluating water-use-permit applications. The modeled area includes their regulatory extent, which does include all of Mosaic's proposed mines in the AEIS. The model appears to be well constructed, documented and has been peer reviewed. The model does incorporate an option for local-scale modeling, the "telescopic mesh refinement" (TMR) (CH2M Hill, 2013). Mosaic used the DWRM2.1 for the AEIS to evaluate only the regional effects of phosphate mining-related groundwater withdrawals. Their simulation resulted in the obvious conclusion that in general, regional groundwater levels will increase after mining withdrawals cease. The TMR option was not able to be used. CH2M Hill (2013, p. F-1) stated, with no additional explanation:

“The modeling done for the draft AEIS used a TMR extraction; however, during the review process it was found that the model boundaries were influencing the drawdown contour lines (boundary effects), primarily along the east side of the model. For the final AEIS and this TM, the entire model domain was used; not a TMR extraction.”

If the TMR extraction showed boundary effects on potentiometric-surface contours, it is probable that the model was sensitive to the simulated-mining effects. This is significant, and is all the more reason to develop a local-scale model to understand what local-scale parameters made the model simulate an unrealistic potentiometric surface. It is not acceptable just to say it didn't work and move on to a regional-scale model.

It is imperative that a well-calibrated local-scale model be developed so that the local-scale effects of phosphate mining can be understood. Phosphate mining has an extreme impact on an aquifer – the aquifer is excavated, dewatered, and some of it is redeposited (necessarily with different hydrologic properties than the original, in-situ aquifer material) and some permanently removed. Accurate simulation of groundwater flow within impacted and vertically adjacent aquifers requires:

1. Measurement of field conditions prior to mining. This should include: transducer measurements of aquifer water levels for several years; continuously cored monitoring wells through the mine-impacted aquifers; stream hydrographs and periodic discharge measurements for a 5 year period; slug testing of all monitoring wells to measure conductance/transmissivity; aquifer tests; and continuous precipitation records. Additionally all neighboring well locations and depths should be determined.
2. Given that this is an Environmental Impact Statement, mining and post-mining conditions cannot be measured for the proposed mines. However there are active and reclaimed mines available to establish how mining changes the measured field conditions. Peer-reviewed research needs to be required to accurately determine the impact of phosphate mining on the aquifers.
3. Local-scale impact of phosphate mining on groundwater flow can be evaluated with model inputs that incorporate existing premining conditions and transient mining changes to those conditions. A sensitivity analysis can be done to understand which, if any, of the model-input parameters are sensitive to mining related changes. Then and only then can a conclusion be reached on whether there is a significant environmental impact on groundwater flow caused by mining.

At this time there is no valid information in the AEIS that describes the local scale environmental impact of phosphate mining. The regional-scale DWRM2.1 model should not be used for local-scale predictions, that is why the telescopic mesh refinement was included. James Rumbaugh, the president of Environmental Solutions, Inc., the consulting firm that developed the DWRM2.1 model stated in sworn testimony (Nuclear Regulatory Commission, 2012): *“An important part of my efforts in developing the DWRM2 from the beginning was the creation of software incorporating a technique (called Focus Telescopic Mesh Refinement) for creating localized groundwater models from the DWRM2 regional model.”* A regional-groundwater-flow model cannot predict: if mining will cause adjacent wetlands to dry up; or how streamflow will change – and it is important to remember it is the quantity, timing, and duration of streamflow that impacts the aquatic environment; or if mining will cause the neighbors well will to dry up; or the duration of mining impacts on groundwater flow.

The analysis of mining impacts on groundwater flow in the AEIS is inadequate – all local scale effects are ignored. The environmental impact on groundwater flow in and around the proposed mined areas has not been evaluated, and therefore the permit for South Pasture Extension, requested through the Areawide Environmental Impact Statement of Mosaic Inc., SHOULD BE DENIED.

Donald E. Rice
9212 31st Street Ct E
Parrish, FL 34219

References

CH2M Hill, 2013. Appendix F: Groundwater Impact Analysis for the Final AEIS on Phosphate Mining in the CFPD. Submission to the U.S. Army Corps of Engineers, Jacksonville District.

Environmental Simulations, Inc., 2007. Refinement of the District Wide Regulation Model for Southwest Florida Water Management District. submission to Southwest Florida Water Management District.

Mosaic Company, 2006. Integrated Water Use Permit Nos. 2011400, 2000029, 2001539, 2002224, Permit Renewal and Consolidation Summary, Attachment 11: Mine Pit Dewatering Models. Submission to Southwest Florida Water Management District.

Nuclear Regulatory Commission, 2012. Pre-filed Rebuttal Testimony of James O. Rumbaugh III, P.G. Downloaded 7/13/2016 at: <http://www.nrc.gov/docs/ML1232/ML12325A535.pdf>

Attn: John P. Fellows

July 18, 2016

Reference Permit # SAJ 1993-01395 (South Pasture Extension, Hardee)

I gratefully acknowledge the Army Corps of Engineers for soliciting additional public comment while considering a proposed permit for Mosaic's proposed South Pasture Extension. I know permitting is not assumed but carefully scrutinized for each proposed application.

The upheaval mining creates disrupts the hydrology of thousands of acres of land. That should be foremost in consideration as water quality and availability will be affecting everyone's future, personally, soon. We cannot live without clean water. We cannot grow food without clean water.

In 2011, Army Corps was sent some excellent scoping comments for the EIS from Nora E. Demers, Ph.D. She addressed the fact that mined fertilizers will not solve our food crisis but will accelerate it. Water is the most important issue. Over-pumping of water for agribusiness, mining and increased production of biofuels (up from 20% to 40%, mainly corn) ultimately destroys the soils and pollutes our WOUS with runoff. This negates the whole premise of the NEED for phosphate! Sustainable farming is the future.

Mosaic is a corporation selling a product for profit - phosphoric acid. The processing is part of the mine plan and creates enormous amounts of toxic waste.

The public's interest is not served by permitting a corporate project specific need which renders Central Florida land forever changed, surficial aquifers forever destroyed and natural recharge ecosystems forever lost.

I urge the Army Corps of Engineers to choose the no mining alternative for this application. Thank you for this opportunity for input into this important issue which will affect Florida residents FOREVER.

Nancy Armstrong
Hardee County Resident
Ona, Florida

From: [CARTER LORD](#)
To: [Fellows, John P SAJ](#)
Subject: [EXTERNAL] South Pasture Permit Proposal
Date: Friday, July 15, 2016 9:29:35 PM

Dear Sir

My name is Carter Lord. My father was the owner of Wellman-Lord Engineering Company of Lakeland. He was directly involved in building almost ALL of the phosphate- related processing plants in Florida and other parts of the world in the 1960s, 70s and early 80s. I was raised in the phosphate world. I know a lot about it. It is in my blood. I knew the president and other leaders of Mosaic when it was still called International Minerals and Chemicals Corporation. I knew the people from CF, Mobil, and many of the other companies working the Bone Valley phosphate sector of Polk and now Hardee County. I am a phosphate person. I am friends with many of them still to this day. I am in fact one of them myself.

I am also a Republican businessman and have voted Republican across the board in every election since the mid 1970s and I will continue to do so. I am conservative, pro-business, I have worked in business most of my life and I am committed to right action as regards what is going on in this country today, business and economics in general and the horrendous governmental overregulation that is choking the lifeblood out of us. I hate regulations and the regulator mentality. As far as I am concerned, regulations are killing us.

But I also have spent many years observing and thinking about phosphate and the ramifications continued mining has for the overall health and economic well being of Florida. I have come to the conclusion that phosphate mining is NOT in the best interests of ANYONE in Florida anymore, even those in the industry who think it is good for them, and that it should be stopped immediately.

The main reason for this is that it does not make sense economically. Aside from the environmental horror that it leaves in its wake, if you consider a 200 year time frame, or even a 100 year time frame, the overall economic viability of what is left behind does not work out positively for the ability of the land to produce profitably.

ALL of the studies I have seen done by the DEP and other concerned governmental and private entities are 50 year studies. They only consider the reality of a 50 year period. They show all the higher wages paid for 30 or 40 years, the ancillary businesses, the increase in business activity over a 50 year period and then the studies STOP. All the numbers of course are higher over a 50 year period than if the land was used for cattle ranching or farming. But that is only for 50 years!!!!. What about year 51, year 52, year 75, year 90? What kind of income is that land producing in those years? How much is the land south of Hwy 60 to State Road 640W between Bartow and Mulberry producing this year? Can you take a guess? I would offer that it is ZERO. And next year it will also be ZERO. And the next year after that. It is going to be Zero for many many years to come. Where are those zeros figured into ANY equation about productivity? They are nowhere. That land has been barren and bleak for as long as I can remember and I am 70 years old now. Nothing will grow there. There are hardly even any deer in there. Or hogs. That land wont even sustain a hog population. Can you imagine how poor that land is if it wont even sustain a bunch of hogs? That is astounding, it is hard even to believe it unless you go there and see for yourself.

I have been going there all my life. I know what that land is throwing off now and I can tell you it is zero. And it has been zero for years, except for the salaries of the few mining company guards who have now closed most of it to even car traffic. But it doesn't even matter because it is past the 50 year time frame and so it doesn't even show up in any of the studies anymore. Plus that particular land is privately owned by the phosphate companies so they are not beholden to anybody for anything on that land.

We here in this country are today people. We only think about today, this week, this year, next year. 50 years? Who cares about 50 years from now? I will be DEAD 50 years from now, we will ALL be dead, what do we care about 50 years? Even YOU will be dead.

But if you are a REAL businessman, and if you REALLY want to study the economic viability of what the land can produce over time, 50 years is NOTHING in the scheme of things. And if you don't study it over real time, then

your study is worthless. You can't just ignore it all after a certain point. The Chinese don't think in terms of 50 years. They think in terms of 300 years. Go to Mulberry, drive down those back roads south of route 60 and look at what is there, look at the moonscape and devastation and look at how productive that land is. Today it is producing nothing. NOTHING!. BUT again, that won't be in any study because it is after 50 years.

So you might say, well, what about Streamsong, what about that beautiful golf course and hotel out there just north of Fort Green? Isn't that a great development? With all due respect - and I am not trying to be snide - it is a joke. An unmitigated hoax. It is a public relations gambit and an environmental nightmare out there. I went out there to play golf recently with some of my phosphate friends and the starter cautioned me to be careful not to step on the grass so as not to "hurt the environment". I just about fell out of the cart. I said, "What, you mean don't step on the Cogan grass? That blight on the earth that is a menace to the whole state of Florida? Or don't get too close to those Brazilian peppers over there that are a plague to Florida and choking out anything native that might have a remote chance to survive if there was any topsoil left so it could grow? You should be demanding that I STEP on the Cogan grass, you should request me at every chance I get I should try to stomp that stuff into oblivion and try my best to wipe it out every time I step out of the cart!"

He looked at me like I was a subversive and a troublemaker. Even my phosphate buddies were laughing about it, the starter was from Pennsylvania, I think, and had no clue what he was even talking about, just repeating something someone told him for public relations. He didn't even know what Cogan grass was.

Make no mistake about this. Streamsong is a public relations gambit that is costing Mosaic a small fortune to keep open so that they can show they are trying - they are trying ANYTHING - that might smack of goodwill and financial productivity of land that is so desolate and so inert that it will be hundreds of years - IF EVER - before anything can be done out there that will bear any semblance to productivity.

But it is beautiful to look at. I will give them that. And I actually like to go out there because it is such a mind boggling visual and moonscape place to go. I am a filmmaker and it is uniquely beautiful out there. Actually, even the Cogan grass is beautiful to LOOK at. Its pretty, the breeze blows it on those hills, a photographer came out there and took some spectacular shots at sunset, it is gorgeous. At least there is that. But to think it is anything other than a public relations gambit is foolish. Don't be fooled by that stuff.

I was talking two years ago to one of the most powerful phosphate people on earth at the Lakeland Yacht Club, who had just retired and I asked him if he thought they shouldn't just quit and stop as he knew they were wrecking the land and once they dug it up, there was no way they could bring it back. I have known this guy for 40 years, he is a fine person. And he means well, he is kind and hard working and he believes he is doing good in the world. I love him, he is my friend. He was resolute about the need to continue and I said,

"But the topsoil, what about the topsoil? It takes hundreds of years, maybe even a THOUSAND years to make topsoil, what about the topsoil? I know they are trying harder these days to put it off to the side and then put it back after they fill the holes back in. But the fact is you and I know that no matter how good the heavy equipment operators are and no matter how well meaning and how hard they try, they simply honestly just cannot put it back in any way that is worthwhile. WHAT about that?"

You know what he said? "The topsoil in Florida is no good anyway. We need to get in there, get that phosphate and get the hell out of there as fast as we can."

Can you believe that? THE Florida topsoil is so thin, there's no sense in bothering with it anyway. I was dumbfounded. DUMBFOUNDED.

So there it is. This is a long discussion and it is full of emotion. There are huge environmental organizations attacking the issue but they mostly just rant and wring their hands, they never approach the situation from a business point of view so they engender sneering disrespect from a lot of quarters and we are now in a dogfight with no common ground between the players.

And there is money involved. BIG money. Unfortunately the only people who are going to get most of it will be the Mosaic stockholders and higher ups. And for 30 years or so, some of the 200 old boys and women who will be lucky enough to get a job with Mosaic and make that big dollar wage before the phosphate peters out and of course

the side businesses that will be paying local workers, they will increase their standard of living too. For a while.

But then it will be over. And the phosphate people will pack up and go home. And they will leave behind their gypsum stacks, along with a moonscape of impermeable clay that will reflect rainwater off it like an asphalt parking lot so that the streams of water will rush down to the Gulf of Mexico and not feed and nurture the land. And the radon will be stirred up and drifting around, radiation that we don't even know if it is very harmful yet or not. Soil that won't have enough topsoil in it to grow crops or hardly even grass. And lastly a depleted water aquifer that will not sustain anywhere near enough life that 100 years from now we will desperately need.

Farms? Fuhgeddabouttiittt. The land won't be able to grow anything. Only the Piney Points will be left and the poisonous runoff that our kids and grandkids will have to pay to keep somehow under control so they don't run off into Tampa Bay and completely destroy whatever fish, crabs or shrimp that might be left out there.

So I just wanted to make sure you understand that this situation is not just about a bunch of crybaby environmentalists and Sierra Club tree hugger types that want to see the cardinals and the egrets flying around and protect the oak trees. These well meaning people are hollering and yelling at the miners and citizenry to wake up and not destroy our beautiful land and they have their advocates and their strengths. But they are mostly just citizens that are emotionally upset about the destruction of our wild places. They are not equipped really to fight a long battle against an organized group of business people on the other side that are willing to fight for the money, business people who are strong and powerful, that have deep pockets, who can hire expensive lawyers. They have time on their side and they are fighting hard. They ridicule the environmentalists, and support studies that don't really show the facts.

So everyone is squared off and making their stand. Much of the "factual" stuff decisions are being based on are not the real truth, largely because the timeline is too short on which the facts are based. This fight is not just about trees and birds and saving a home for some nice gophers and panthers and bears. This is not at ALL just about them. This is about economics, too. And as far as I can see, no one has spoken about this the entire time I have been watching this discussion the last 25 years.

It is clear to me, that, until we change the conversation and the business people realize everything they are saying is way too shortsighted and if you extrapolate the numbers out 100, 200 and 300 years, all of their important "facts" as to economic productivity of the land are not true. And that in fact the numbers DON'T work, and the mining is NOT worth the destruction and inability of the land to produce after it is all said and done. Then - and ONLY then - will the business people begin to grasp just what it is they are doing out there and maybe, just maybe, they will come to their senses, leave what is left of FLorida alone and let us all get together and try to figure out how to nurture this land instead of destroying it and spending our life resources trying to justify how it is OK to wreck something and lie and mislead ourselves about how we can fix it and make it right when in truth we cannot. The phosphate people cannot reclaim the land. Why they continue to try to justify their actions and not realize they are destroying something that cannot be undestroyed and that in the end it is themselves and their own children they are hurting, I just do not understand.

We need to stop letting them dig up Florida. Please vote no for any more mining. Let's make them do some 200 year studies and then see what the numbers look like. I think the business people will change their tune once they see those numbers. And then they can make a REAL choice. Do they want to take the money for a short term gain and that be the end of it for millennia? Or do they want to choose to not take that short term money but instead nurture something that is precious and will sustain us forever, as long as we take care of it?

Best Regards
Carter Lord

Carter Lord
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From: [Marvin Medintz](#)
To: [Fellows, John P SAJ](#)
Cc: [Beverly Griffiths](#); [Marian Ryan](#); [Andre Mele](#); [Andre Mele](#); [Whitey Markle](#)
Subject: [EXTERNAL] Fw: Comment on South Pasture Extension EA, SAJ-19930195 (IP-JPF)
Date: Thursday, July 07, 2016 1:09:35 PM

Dear Mr. Fellows. We are writing on behalf of the Florida Sierra Club to provide comments on the Supplemental Environmental Assessment regarding the South Pasture Extension mine (SPE).

We previously provided extensive comments and submissions throughout the Areawide Environmental Impact Statement (AEIS) process for phosphate mining and we incorporate those comments and submissions by reference. We write here in order to point out some key concerns raised by the Supplemental EA which illustrate issues we identified regarding the AEIS.

Flawed statement of project purpose and need. At several points in the AEIS process we pointed out the error in identifying the project specific purpose and need as simply what the applicant wants to mine. Such a definition of purpose and need results in a rejection of any alternative other than that proposed by the applicant.

In fact, that is exactly what has happened here. The specific need is for a project which will mine whatever the applicant has mined in the past. As simply one example of the circuitous nature of the analysis, the Applicant's Preferred Plus Additional Avoidance (of high quality wetlands) alternative is rejected, even though it is environmentally preferable, because it provides 32.2 MMT rather than 33.7 MMT, which the Applicant decided it would settle for. Thus an environmentally preferable alternative is rejected for the sake of 1.5 MMT. The project need and purpose should be based on a request to mine in an environmentally responsible way, not whatever the applicant wants or can get away with.

A further illustration of the flaw in the purpose/need statement is the fact that the alternatives examined are the other mines which the applicant also proposes. Not surprisingly they are rejected as alternatives because the applicant wants them too, in addition to not instead of, SPE. As identified above and in our prior AEIS comments, the purpose/need/alternative analysis is entirely insufficient under the National Environmental Policy Act.

Definitions of impact are manufactured to avoid or minimize findings of impact. In our prior comments on the AEIS we noted that the definitions of impact to various systems, e.g. minimal, moderate, were defined so generously that very serious impacts could be defined as moderate or even minor. That is exactly what has happened in the Supplemental EA. Thus surface water impacts which may be relatively serious are dismissed simply because they have been defined as "moderate."

Serious impacts to Horse Creek, a relatively pristine system, are also dismissed as "moderate."

The fact that mitigation is eventually applied to wetlands, as indeed it must be, is the basis of a claim that the 20 year mine will have only a minor impact on wetlands, a pretense which is clearly contrary to reality.

The Supplemental EA and the underlying AEIS improperly twists vocabulary to avoid addressing serious impacts.

Monitoring and financial assurance provisions and assumptions are insufficient. The Corps is embarking on a program to consider permits for at least six mines. As noted above, its analyses have made assumptions about the impacts of the mining to be permitted. The AEIS, EA and permit documents should assume and create obligations for monitoring systems to test and confirm the assumptions made so that improved decisionmaking and adaptive

management can be implemented. Upstream and downstream monitoring of contaminants, biological communities and flows should be required and implemented so that we don't have to guess at whether an impact is minor or moderate and what in fact that means.

It appears that financial guarantees will be in place to cover only 3 years of mitigation. Many wetland systems, such as hardwood systems, may not be reliably established in 3 years time. A more protective financial guarantee should be required.

We ask you to consider these comments and those previously provided in connection with the AEIS and included by reference. Thank you for this opportunity to comment.

Percy Angelo, on behalf of the Sierra Club Florida Phosphate Committee

From: [Henry Kuhlman](#)
To: [Fellows, John P SAJ](#)
Subject: [EXTERNAL] Public Comment:: Project Name: Mosaic, South Pasture Extension Phosphate Mine
Date: Monday, July 11, 2016 9:16:14 PM

County: Hardee

Comment Due Date: July 18, 2016

File Name: SAJ-199301395 (IP-JPF)

Proposed Work: Supplemental Environmental Assessment, Draft Clean Water Act Section 404(b)(1) Guidelines Analysis, and Draft Public Interest Review for Department of the Army (DA) Permit Application SAJ-1993-01395; Mosaic - South Pasture Extension Phosphate Mine

CLASSIFICATION: UNCLASSIFIED

Mr. John Fellows,

Please accept my comments in opposition to the proposed extension of the South Pasture Phosphate Mine.

I submit the following short video which I made from aerial views last month of the existing South Pasture Mine and the proposed extension (click on this link -- Blocked<https://youtu.be/dNopbusDWXs>).

The Hardee County Economic Development Director was recently featured in an article that said, "..... Mosaic, which owns about 40% of the land in Hardee, recognizes the land is nearly useless after it's mined. That includes future agriculture use." (click on this link to read -- Blocked<http://www.businessobserverfl.com/section/detail/hardy-hunter/>).

Mr. Fellows, look no further than the North Pasture Mine, the West Pasture Mine and the South Pasture Mine. That land has been depopulated, deconstructed, and turned upside down. They removed the roads, utilities, history and any remnants of humanity ever being there, not to mention wildlife, natural plants, hydrology, drainage, and a future. It is useless indeed.

The only way to get a stomach-full is from the air during the wet season. The mined land is low. Very low. It is impossible to ship 25% of the land (dug down 60 - 70 feet) in rail cars to Plant City; put another 20% in clay settling areas covering 40 to 60% of the land; and have enough left in powdery sand to fill in the holes they made. Do the math. We don't need anymore parks donated by Mosaic. That's why they don't close and reclaim their mines. They just keep extending them. It is like a Ponzi scheme.

Hardee County (with three active mines) has a one man mining department (without a college degree). He is paid by the Phosphate Industry. There is Minimal Outside Regulation in what is arguably the most corrupt county in Florida. Mosaic employees sit on both the Industrial Development Authority and the Economic Development Authority Boards. They hand out millions each year from Mosaic (mostly to insiders) in trade for unfettered mining. A recent Grand Jury which was highly flawed, still showed what they get away if it keeps the 6-8 draglines digging in their three mines -- (click here for the Presentment Blocked<http://goo.gl/xZ7GVE>, <Blocked<http://goo.gl/xZ7GVE>>).

Mosaic Corporation is buying up more of Hardee County monthly. They got approval to close three more roads last week after buying the land on both sides.

Those that can leave, get out. The only good jobs are County jobs and the few mining jobs. One in three live below the poverty level. Population has been declining steadily along with the tax base. They are destroying our productive land base and agricultural economies.

The permits now being requested by Mosaic in central Florida total 52,000 acres of which South Pasture Extension is 7,500. Think about that. Polk County Planners recently held meetings looking for ideas on what to do with 250,000 acres of essentially useless mined out land. How much of that is Mosaic's? Think about that. Now would be a good time to Stop Digging until these questions are answered.

Watch the Video. Mosaic is Eating Hardee County Alive.

Thank You,

Henry Kuhlman
5186 Ollie Roberts Road,
Bowling Green, FL 33834

From: [Barbara Angelucci](#)
To: [Fellows, John P SAJ](#)
Subject: [EXTERNAL] South Fort Meade Extension - Public Interest Review
Date: Friday, July 15, 2016 4:53:04 PM

Comment Due Date: July 18, 2016

File Name: SAJ-199301395 (IP-JPF)

Proposed Work: Supplemental Environmental Assessment, Draft Clean Water Act Section 404(b)(1) Guidelines Analysis, and Draft Public Interest Review for Department of the Army (DA) Permit Application SAJ-1993-01395; Mosaic - South Pasture Extension Phosphate Mine
CLASSIFICATION: UNCLASSIFIED

Dear Mr. Fellows:

My comments are in opposition to the South Pasture Mine Extension and here is the reason why. WATER. SWFWMD permits the water, but the ACOE approves permits which drives SWFWMD to issue those water permits.

This year Governor Scott signed a new Water Policy Bill which, according to the Huffington Post writer Alan Farago, will point this State in the same direction as Flint, Michigan. Voters in the 1970's thought that protecting the environment was so important they approved the bipartisan consensus in Congress that created the most important laws protecting the nation's air and water and the US EPA. Ever since, organized opposition from polluters and exploiters, such as Mosaic, has aimed to undermine those laws, and especially regulations related to enforcement by EPA. Look at the billion dollar suit against Mosaic. Can we trust what they say????

One of the toxic strands of Florida's new water policy bill is abandoning enforceable regulations against polluters. For decades, environmentalists have struggled unsuccessfully to hold the Florida Department of Environmental Protection accountable to tough, numeric standards on pollutants but they are ignoring the EPA Numeric Nutrients Standards.

The bill has another toxic strand: allowing big water users to shift water around the state at will. What Mr. Farago points out is that "what replaces environmental regulations once they are eviscerated is the ethic of smash-and-grab robbery. Americans learned this lesson decades ago: when water quality and quantity is not nailed down, it disappears."

In Manatee County in February of this year, an organic strawberry farm was added to Mosaic's Four Corners Mine Operating Permit in February 2016. Water Quantity Augmentation is part of that permit the purpose being to offset the reduction in flow in the Manatee River during mining. It reads..."Mosaic shall, at its own expense augment the Manatee County water supply system by 1.96 million gallons per day (mgd). This augmentation shall be obtained from the Florida Aquifer and the obligation to offset the reduction in flow in the Manatee River resulting from the operation of the mine shall continue until such time that Mosaic has completed reclamation of all mining Activities constituting a part of the Four Corners Mine in the watershed of Lake Manatee" – OUR DRINKING SOURCE. This could go on for decades.

When Mosaic gets to Wingate East, Mosaic has stated that they will re-configure the Myakka Watershed! Our water here and throughout mining areas in Florida is

under attack. People cannot afford to pay for water from a desalinization plant because Mosaic needs to exercise their business plan. Why should citizens

have to pay for Mosaic's needs.

Hillsborough County is suffering from and paying for the effects of phosphate strip mining with their desal plant. The ACOE issues the permits which cause depletion of our water, desalination plants, and unnecessary costs to citizens, financial and loss of agricultural jobs which greatly out number those of mining.

The South Pasture Extension is NOT in the Public Interest. Please do not issue this permit.

Barbara A. Angelucci

Julia Mader
4224 Solomon Road
Ona, FL 33865

District Engineer,
West Branch mining team,
10117 Princess Palm Avenue, Suite 120,
Tampa, FL 33610
Att: John. P. Fellows

Reference: Project #SAJ 1993-01395 (South Pasture Extension, Hardee County).

July 18, 2016

Mr. Fellows,

Since 1994 I have lived full time in Hardee County and established a business based on the peace and beauty of this area of Old Florida. We run a massage establishment and welcome people from the area as well as tourists seeking the beauty of Florida's nature. Our clients may be from Florida but have never seen the wildness of nature here or heard the sound of a bard owl in the woods. Northern folk seek the warmth and quiet that is here and Europeans tell me their visit to the nature of Hardee County made their trip to Florida. They return again and again.

I implore you to do all that you can to preserve this delicate environment and curtail the destructive methods of Mosaic phosphate mining. They do not preserve 500 year old trees or natural habitat that has been in existence for centuries. When I arrived here in 1994 Horse Creek erupted with the sounds of frogs during the rainy season. I hear little of that wild sound these days and wonder how life can continue if the water is not safe for frogs. Are there any studies to ascertain the changes of the frog population in the waters effected by the mines in Florida?

Just one hour north of our retreat in Lily is the ghastly sight of the remains of the phosphate industry. It is shocking to see how the land in Polk County has suffered. The sweet woods and streams are gone and Cogon grass fills the fields. This grass is spreading quickly and the USACE must do what is needed to prevent its continuing spread. It is a "bone valley" drive from here to Lakeland.

The USACE has the power to take steps to keep this area of Florida an environmentally protected area. Future generations will certainly appreciate the care and attention given to keep the nature of Florida available for their families. There certainly are opportunities to see income producing methods in showing the world the precious natural environment of this part of Old Florida.

Hardee County is an agricultural community and I ask that the EPA do what is needed to prevent the destruction of this land by the mining practices.

Julia Mader

From: [Sarah Hollenhorst](#)
To: [Fellows, John P SAJ](#)
Subject: [EXTERNAL] Public Comment: Mosaic South Pasture Extension Phosphate Mine
Date: Saturday, July 16, 2016 9:58:12 PM

Subject: Public Comment
Project Name: Mosaic South Pasture Extension Phosphate Mine
County: Hardee County Florida
Comment Due Date: July 18, 2016
CESAJ-RD-W
File Name: SAJ-199301395 (IP-JPF)
Proposed Work: Supplemental Environmental Assessment, Draft Clean Water Act Section 404 (b)(1)
Guidelines Analysis and Draft Public Interest Review for Department of the Army (DA) Permit Application SAJ-1993-01395;
Mosaic - South Pasture Extension Phosphate Mine
CLASSIFICATION: UNCLASSIFIED

Dear Mr. Fellows,

Please accept my comments in opposition to the proposed extension of the South Pasture Phosphate Mine: I've heard from a number of people since Mosaic has mined in Manatee and Hardee counties that Mosaic has consistently failed to control airborne particles, and failed to safely dispose of mined materials. I have heard complaints of respiratory and other health issues related to airborne particular matter and of groundwater contamination near the Riverview gypsum stacks leading to numerous and significant health effects to nearby residents including Progress Village and the Villages, lower income developments. Complaints include contamination of private wells, a creek, and water supplies adjacent to and downstream of both mining operations and gypsum stacks, and clouds of dust affecting air quality. I was in the mine region several times and the dust and blowing sand was visible.

The health complaints I have heard include COPD, cancer, tumors, skin lesions, severe anemia, tooth erosion due to fluoridation, leukemia, and premature death. I saw the tumors and teeth issues in person, and pictures of the other issues also, along with conversations with affected people. I have seen photos of dead wild animals with severely eroded teeth found in the area of the developments. I was shown cemeteries in the mining region where the people tended to the young side rather than expected old age. The person who showed the cemeteries to me implied the disproportionate amount of early deaths was due to mining. One cemetery was not an old one and the graves were within recent years.

Given the severity of these health complaints, I see the need for a thorough epidemiology study by the US Dept. Of Health and Human Services and the EPA, beginning from when phosphate mining started in the Florida Phosphate region, and which should utilize health statistics from that time period up to the present, including statistics dating from when Mosaic began mining in the region.

I feel that special attention should be given to the regions surrounding the gypsum stacks in order to see if Mosaic is able to safely store mining waste, as the complainants said the stacks had gaps and were leaking into a creek and surrounding land.

A thorough analysis and review of these statistics, along with an investigation as to any adverse impacts to the health, safety, and welfare of those residing within the regions impacted by the mining operations and gypsum stacks should be done by the US Dept. Of Health and Human Services and the EPA.

Until the analysis is completed, and the health, safety and welfare of the affected populations are assured, I urge the Army Corps of Engineers to withhold all phosphate mining permits. I ask them to put the health, safety, and welfare of private citizens above the corporate interests of Mosaic.

Sarah Hollenhorst
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Robert G. Navin
3720 SW Armadillo Trail
Arcadia, Fl 34266

July 17, 2016

Mr. John Fellows, District Engineer
U.S. Army Corps of Engineers
Tampa Regulatory Office
10117 Princess Palm Avenue, Suite 120,
Tampa, Fl 33610

Reference: Project #SAJ 1993-01395 (South Pasture Extension, Hardee County).

Dear Mr. Fellows:

I find it quite frankly dishonest for the Mosaic Company to make the argument in their permit application that they need to mine all of the wetlands/streams and waterways on their lands which contain phosphate rock. The following quote is taken from the Mosaic permit application:

“Thus, phosphate miners must achieve an appropriate balance between protection of the ecological resources on the land surface and the proper stewardship of the finite, subsurface, geological resources, in this case a mineral of strategic national importance”.

“In the absence of an adequate supply of reserves to maintain production, domestic phosphate production will dwindle and food supply dependence on foreign rock supply will increase”.

A mineral of strategic national importance will dwindle and food supply dependence on foreign rock supply will increase

This coming from Mosaic who currently sells the majority of this “mineral of strategic national importance” to International customers.

The Facts of the matter, according to the Mosaic Annual Report for the year ended December 31, 2015, is that 61.5% of the total tonnes of phosphate mined by Mosaic are sold outside of North America (Not the United States but NORTH AMERICA). In other words, only 38.5% of the phosphate mined in Florida stays in the combined area of the United States, Canada and Mexico. And here I thought they said this was a mineral of strategic importance. In fact the same Annual Report, shows that based on Net Sales, 63.1% of sales are to International customers, based on the location of the customer.

Let's be honest, they are making a false argument. No court of law in the United States would ever allow this line of reasoning.

This Permit should be rejected based on misleading and outright false statements, in other words, LIES.

Sincerely,

Robert G. Navin

July 18, 2016

Attention: Mr. John P. Fellows, US Army Corp of Engineers

Reference: Permit Application SAJ-1993-01395

Mr. Fellows,

I appreciate the opportunity you are providing for the public to comment on the South Pasture Extension mine application in Hardee County, Florida. I am a resident in that county. I also appreciate the tremendous amount of detail that the Army Corps of Engineers must consider in processing this application.

As the general and project specific needs of the industry are considered in the various alternatives of this assessment, there is one thing that occurs most strongly to me. Mosaic is a private industry that is requesting to be able to do a large amount of damage to Florida's aquifers and ecosystems, including waters of the United States. The degree can be argued, but it is notable that almost every alternative for this mine will do environmental damage, as acknowledged by the Corps.

Strip mining for the element of phosphate, to be made into fertilizer, is not necessary, especially in the wetlands and upland recharge areas for those wetlands, in Florida. The premise that Mosaic has put forth to the public is that their industry is necessary to "feed the world". In fact, this industry is profiting from an unsustainable, destructive and unnecessary practice.

For centuries, farming was done without the need of mining the fertilizer components. Now, a growing world population has created a demand and an opportunity for corporate farming to do just that. Growing food faster and in larger quantities is profitable. However, surely there are more sustainable answers to world food production than mining. Strip mining phosphate and shipping it off, two thirds going out of the U.S. is simply robbing soil of the United States to provide for foreign lands. The aquifers, streams, tributaries and waters of the U.S. will be compromised and jeopardized in the process. Eventually the phosphate supply will run out and new solutions to fertilizer will have to be found anyway. In fact, new methods combined with old methods are being used already.

The destructive and irreparable practice of phosphate strip mining should and must be stopped now. I strongly urge the Army Corps of Engineers to decide on the no action-no mining alternative for the South Pasture Extension and for all future phosphate mining applications.

Thank you.

Respectfully,

Citizen of the phosphate district,

Brooks Armstrong

From: [nina.perry](#)
To: [Fellows, John P SAJ](#)
Subject: [EXTERNAL] Project Name: Mosaic, South Pasture Extension Phosphate Mine (File Name: SAJ-199301395 (IP-JPF))
Date: Wednesday, July 13, 2016 8:40:20 AM

Dear Mr. Fellows:

I am opposed to the proposed extension of the South pasture Mine. Although I do not live in Hardee County, I am a Florida resident who is concerned about the pattern that phosphate mining has established of leaving behind vast expanses of destroyed land behind for the residents and taxpayers to have to deal with. This is the worst kind of "corporate welfare" because it destroys habitats and renders the land barren for the foreseeable future. It's about time that somebody stands up to this special interest that is lining its pockets by plundering Florida's natural resources.

Thank you.

Nina E. Perry

P.O. Box 64

Sarasota, Fl 34230



FLORIDA DEPARTMENT of STATE

RICK SCOTT
Governor

KEN DETZNER
Secretary of State

Department of the Army
Jacksonville District Corps of Engineers
Attn: District Engineer
West Branch Mining Team
10117 Princess Palm Avenue, Suite 120
Tampa, Florida 33610

July 15, 2016

RE: DHR Project File No.: 2016-2612, Received by DHR: June 16, 2016
Application No.: SAJ-1993-01395 (IP-JPF)
Project: *Mosaic-South Pasture Extension Phosphate Mine*
County: Hardee

To Whom It May Concern:

The Florida State Historic Preservation Officer reviewed the referenced project for possible effects on historic properties listed, or eligible for listing, on the *National Register of Historic Places*. The review was conducted in accordance with Section 106 of the *National Historic Preservation Act of 1966*, as amended, and its implementing regulations in *36 CFR Part 800: Protection of Historic Properties*.

It is the opinion of this office that the proposed project will have no effect on historic properties listed, or eligible for listing, on the *National Register of Historic Places*. However, the permit, if issued, should include the following special condition regarding unexpected discoveries:

- If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The applicant shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section at (850)-245-6333. Project activities shall not resume without verbal and/or written authorization. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, *Florida Statutes*.

If you have any questions, please contact Christopher Hunt, RPA, Historic Sites Specialist, by email at Christopher.Hunt@dos.myflorida.com, or by telephone at 850.245.6333 or 800.847.7278.

Sincerely,

A handwritten signature in blue ink, appearing to read "Timothy A. Parsons".

Timothy A Parsons, Ph.D., RPA

Director, Division of Historical Resources & State Historic Preservation Officer

Division of Historical Resources
R.A. Gray Building • 500 South Bronough Street • Tallahassee, Florida 32399
850.245.6300 • 850.245.6436 (Fax) FLHeritage.com

