



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

January 15, 2010

Colonel Alfred A. Pantano, Jr.  
District Engineer  
Jacksonville District Corps of Engineers  
Attn: Ms. Mindy Hogan  
10117 Princess Palm Drive, Suite 120  
Tampa, Florida 33610

Subject: Mosaic Fertilizer, LLC; SAJ-1997-4099-IP-MGH

Dear Colonel Pantano:

This letter serves to follow-up to a conference call held between the U.S. Environmental Protection Agency (EPA), the U.S. Army Corps of Engineers (COE), and Mosaic concerning the phosphate mine assigned permit number SAJ-1997-4099-IP-MGH. The objective of the discussions were to clarify EPA's concerns regarding the avoidance and minimization of, and general mitigation issues for, waters of the U.S. as required by the Clean Water Act (CWA) Section 404(b)(1) Guidelines (Guidelines). EPA has received a response from the applicant regarding remaining concerns in correspondence dated December 15, 2009; however, the reply has not completely answered EPA's concerns. In order to be clear, we are documenting our concerns below. Lastly, EPA will provide under separate cover, specific comments for the mitigation plan dated January 4, 2010, stringent language for special conditions should a permit be issued, and additional comments for information received in the future.

As background, the State of Florida and EPA have designated the Peace River Watershed a priority watershed, for which EPA and the State of Florida have agreed to focus mutual resources in order to restore impaired waters and protect those waters that are currently meeting their designated uses. The Peace River and its wetlands and tributaries provide freshwater inputs to and are located directly upstream of the Charlotte Harbor National Estuary (CHNE) that has been designated by Congress to be an estuary of national significance. EPA has provided millions of dollars in funding towards the protection and restoration of the CHNE and continues to be actively involved with this nationally important aquatic resource. EPA has a vested interest in ensuring that federally permitted activities located upstream meet the requirements of the CWA including the protection and restoration of the chemical, physical, and biological characteristics of those waters. Additionally, more than 700,000 people rely on the Peace River watershed for their drinking water supply presenting important human health issues. For these reasons, EPA considers the wetland and riverine resources within the proposed project area to be aquatic resources of national importance. As EPA has stated in our previous documents regarding this mine expansion project, as well as any proposed mining projects within the Peace River phosphate region, a current, area-wide Environmental Impact Statement is most needed in order to address the extensive cumulative impacts and changes to these watersheds due to the phosphate mining industry.

The proposed permit for the South Fort Meade Mine Extension submitted by Mosaic Fertilizer, LLC was public noticed by the COE on May 29, 2007. Mosaic is requesting a 21 year permit to mine phosphate and then reclaim land that includes impacts to 511.3 acres of wetlands and 60,430 linear feet of stream channels. The project is located in wetlands and streams associated with the Peace River, Little Charlie Creek, Max Branch, Lake Dale Branch, and Parker Branch. The site is located along County Line Road, Boyd Coward Road, and County Roads 664A and B, east of the town of Bowling Green in Hardee County, Florida.

EPA recommended denial of the proposed project in letters dated July 26, 2007, and August 23, 2007, because the proposed project did not comply with various requirements of the Guidelines. Since that time, Mosaic's focus has been on processing the Florida Department of Environmental Protection (FDEP) permit, while no coordination with EPA had occurred to address issues raised in our comment letter to the COE. Once the FDEP permit was issued on February 27, 2009, coordination with EPA was initiated with receipt of additional information dated August 10, 2009; October 14, 2009; November 5, 2009; December 15, 2009; and January 4, 2010. EPA Wetlands Regulatory Program staff participated in a site visit on September 2 and 3, 2009, and attended subsequent meetings with Mosaic Fertilizer, LLC in order to come up to date with the details of the project. EPA will continue to review the newly submitted mitigation plan; however, we wish to first resolve issues related to avoidance and minimization requirements of the Guidelines. EPA's continued concerns and proposed resolutions are outlined below:

**State vs. Federal Permitting Requirements** - While the recently promulgated state mining regulations contained in Florida Administrative Code (F.A.C.) Chapter 62C-16, Bureau of Mine Reclamation – Mandatory Phosphate Mine Reclamation are an improvement from the historic requirements, they should not supplant the Federal Permitting process. This is especially important, because the State and Federal Permitting requirements are not the same, and the State mining rule contains a provision that allows "variances" (F.A.C. 62C-16.0045) to the underlying State requirements. There are no provisions in the Guidelines that allow permittees to seek relief through variances; so it is important that the Federal permit stand on its' own merit. EPA recommends that future individual mining permits required by various agencies, be processed concurrently and in partnership to ensure that the regulatory requirements at all levels are addressed early in the individual permitting process and to avoid applicant commitments that may need to be modified as a result of federal requirements. Concurrent processing could also avoid delays in permit processing which could impact the applicant's business plans, as well as reduce undue pressure on federal agencies to expedite application reviews.

**Project Purpose** – The applicant has stated the basic project purpose as "To mine phosphate and land reclamation," EPA has noted discrepancies contained in the August 10, 2009, information. Language on page 1-28 states that "Directly, about 52 percent of the phosphate industry's 2008 production was sold for use by farmers in other countries" in contrast, language on page 1-31 states "Because the United States is a net importer of phosphate rock, the development of new domestic reserves of phosphate rock is crucial to prevent further reliance on foreign imports." These statements should be rectified and consistently stated in the record, and a "no action alternative" that includes importing all phosphate for domestic use should be considered.

**Avoidance/Minimization (40CFR Section 230.10)/Reduce Bayhead Impacts - Mosaic** proposes to impact approximately 511.3 acres of wetlands and 60,430 linear feet of stream channels as stated in the public notice dated May 29, 2007. Mosaic evaluated five impact minimization alternatives including Mosaic's currently proposed project (preferred alternative negotiated with FDEP); an alternative labeled "EPA's alternative" (titled by Mosaic) "that all wetlands adjacent to and tributaries contributing to the Peace River should be avoided . . ." that provides a reduction of 49 acres of wetland impacts; "no action" alternative; a modified no action alternative; and an alternative mining methods project. Although, the State permitting process did yield some reduction in impacts, no minimization of impacts to wetlands or streams has been incorporated into the proposed project since EPA provided objection letters in 2007. The basis for not further minimizing impacts was that Mosaic's field assessments revealed little evidence of wildlife utilization, hydrologic impacts due to ditching, and a sub-optimal species composition to the resources in question, and that the proposed reclamation would yield higher functioning wetlands and streams. More recently, Mosaic has cited economic reasons for not avoiding these systems because of a reduction in recoverable phosphate. EPA does not consider that the low functional value of waters of the U.S. is a justification for impact nor have we received a defensible justification for why the applicant could not still meet their project purpose without mining through bayheads. Additionally, EPA believes an independent economic analysis should be completed to validate this claim and verify whether or not Mosaic's project purpose could be met.

EPA requests that impacts to the bayhead swamp that is directly connected to the mainstem of the Peace River's floodplain and where mining occurs closest to the floodplain be avoided. This bayhead is located in Sections 10 and 11 and is labeled as wetland number 7. EPA requests that the ditch and berm line be modified to remove cells scheduled for mining in years 2012 and 2014 on Map C-16 (see enclosed map) and that wetland number 7 is restored and protected as mitigation. EPA believes these bayhead systems are unique resources that should remain intact. Ecosystems of Florida states that "Removal of peat from a still water swamp . . . indicate that centuries are required for replacement" and "even more devastating is the removal of the geologic substrate beneath" and "one of the major reasons for protecting and restoring swamps is their importance to downstream water bodies." It is EPA's understanding that the applicant has no prior history to demonstrate that these swamps can be re-created. The risk and time lag associated with the reclamation for these systems is great and the likelihood of success is low. Information contained in the December 15, 2009, submittal, states that Mosaic negotiated with FDEP to mine through Wetland 7; however, no Federal agencies were part of that agreement and EPA has not received information to justify this agreement from the state or Mosaic.

**Actions to Minimize Adverse Effects (Subpart H)/Reduce Footprint of the Clay Settling Ponds -** Possible actions to consider include but are not limited to: alternatives to the project configuration or size; avoidance of impacts to more valuable wetlands/streams on-site; alternative construction methods; and timing of discharge activity. The configurations presented by the applicant include a "preferred alternative" that requires six stream crossings and a "no action alternative" (two ends of the spectrum); however, the applicant does not present iterative combinations of a reduced number of stream crossings. In addition, according to information contained in the October 14, 2009, submission, on page 7, the clay settling ponds have been sized to accept clay from outparcels within the proposed mine footprint that have not yet been acquired. This statement implies that the ponds have been oversized to ensure room for clay associated with outparcels not yet secured for mining and possibly future mines outside the

footprint of the subject mine. The applicant responded in a document dated December 15, 2009, stating that this language was intended to clarify the difference between the Environmental Resource Permit conditions, as compared to Conceptual Reclamation Plan conditions, and that no additional capacity has been designed into the clay settling areas.

EPA considers the 1,514 acre clay settling areas to be permanent impacts to the watershed. Because of the secondary effects associated with large clay settling ponds, such as interruption in groundwater flows, EPA believes a substantial amount of mitigation should be required for the permanent footprint of the ponds and for the complete elimination of one of the highest functioning streams on the site.

If the COE determines that the applicant is not able to reduce the footprint of the clay settling ponds, EPA requests, in order to meet the Guidelines, that stream crossing number five be eliminated and all impacts to the Lake Dale stream be avoided, since it is also one of the higher functioning streams on-site. In addition, EPA requests that the chemical, physical, and biological components of Lake Dale stream be restored and protected in perpetuity as part of the mitigation. As stated above, the rationale for this request relates to the minimization of impacts from the site configuration as required by the Guidelines. The applicant should show different combinations and/or a reduced number of stream crossings, the resulting deliverable product from each scenario, and the ability to meet or not meet their project purpose under each scenario. Mosaic has not completed this analysis to date, and EPA therefore finds the alternatives analysis incomplete.

**General Mitigation (add restoration/enhancement components to preservation areas, place conservation easements on all mitigation areas, fence all areas accepted as mitigation to provide protection from future land use impacts) -** Mosaic is proposing straight preservation of 2,101.9 acres of unmined areas through a conservation easement to the State of Florida. The preservation includes the 100 year floodplain for the mainstem Peace River and the 25 year floodplain for Little Charlie Creek, Parker Branch, Lake Dale Branch, and Max Branch. In addition, the applicant is proposing that their reclamation serve as their mitigation with the creation of 797.1 acres of wetlands and approximately 60,000 linear feet of stream channels in mined areas. No conservation easement that provides permanent protection was proposed for these reclaimed creation areas.

Regulatory Guidance Letters No. 02-2 and 05-1 should be applied to the proposed project, as well as the Mitigation Memorandum of Agreement (Mitigation MOA) between the COE and EPA. Although EPA does not believe that the applicant has fully minimized their impacts, we are concerned that the two forms of mitigation being offered are the least desirable. Preservation does not replace functional units or contribute to no net loss of waters. The Mitigation MOA states that simple purchase or "preservation" of existing wetland resources may, in only exceptional circumstances, be accepted as compensatory mitigation. Regarding mitigation in the form of creation, the Mitigation MOA states that there is continued uncertainty regarding the success of wetland creation or other habitat development. Therefore, careful consideration should be given to the likelihood of success, and that restoration should be the first option considered. The level of risk and the time lag factor are especially high and long for streams. While EPA does see the value of preserving the Peace River 100 year floodplain, we believe that extensive restoration components should be included to ensure that functional units are replaced. In addition, all mitigation should be placed under permanent protection through conservation easement or an equivalent mechanism to ensure its management and protection into

perpetuity. The mitigation plan should also include components such as fencing and signage to ensure permanent protection and exclusion of any activity that would degrade the mitigation areas in the future. Lastly, for future projects, applicants should be clearly advised early in the permitting process, that all projects considered complete after June 9, 2008, must comply with the Compensatory Mitigation for Losses of Aquatic Resources; Final Rule.

In the submittal dated December 15, 2009, Mosaic stated that they are willing to discuss similar enhancement activities in the conservation easement area like the activities agreed upon with FDEP as part of the agreement to impact wetland 7. EPA believes this subject requires more discussion with all permitting entities at the table in order to ensure the most appropriate areas are restored. These restoration components must be finalized as part of the mitigation plan prior to any issuance of a 404 permit.

Lastly, Mosaic also responded regarding the fencing of preservation by providing language from the conservation easement. The term "reasonable efforts" relating to fencing and the control of invasive and exotic species needs to be further defined and strengthened to ensure protection into the future, eliminating possible loopholes. The requirements of paragraph 8 and 9 should be equivalent to ensure that the functional units remain the same into the future. A percent cover requirement should replace the "reasonable efforts" requirement for the limit or control of invasive exotic species. For mitigation areas, Mosaic responded by stating that legal protection will be provided through the use of deed restrictions. Deed restrictions should be placed upfront in the mitigation plan, not as a final step. The requirement to fully enclose upland areas used to pasture cattle with fencing and to excavate cattle water ponds in uplands within the fenced pastures appears to be sufficient, producing the same end result of providing protection to the mitigation areas from negative effects associated with some land uses. The deed restriction document needs to be reviewed by Agency attorneys to ensure they are legally restrictive and meet the requirements of federal mitigation. Further discussions need to be held regarding the statement that reclaimed areas (creation) that will be protected by restrictive covenant could potentially be disturbed in the future but only with the approved permits. EPA does not agree with an upfront premise that mitigation areas will be impacted in the future through the 404 permitting process. This is contrary to the intent of federal mitigation and under this scenario any mitigation lands that are impacted in the future would require double mitigation credits. Finally, EPA believes that the habitat value of the Peace River, its principal tributaries floodplains, wetlands and headwater streams are all equally important to the health of the watershed.

**Recommended additional mitigation** - As stated in recent discussions, EPA recommends the following options for additional mitigation especially considering the form of mitigation that is being proposed, and the time lag and risk associated with the proposed mitigation. As Mosaic is a large land owner in Hardee County, EPA recommends that additional 100 year floodplain parcels of the Peace River be incorporated into the plan to expand the floodplain corridor. More specifically, EPA recommends those areas within the 100 year floodplain of the Peace River located in Sections 22, 27, 34, and 35 (see attached map) that are properties owned by Mosaic or can be acquired by Mosaic, should be added to the mitigation and protected into perpetuity. EPA further recommends that Florida Forever Act Priority List parcels located within the same watershed be acquired. Additionally, the portion of the South Fort Meade Extension mine project footprint located to the west of the Peace River (northwest corner) could be incorporated into the mitigation, and the bayhead could be restored and protected into

perpetuity. These options would expand the boundaries of the adjacent State park and provide a key piece of floodplain protection on both the east and west side of the Peace River.

**Phased Permit** - because of the risk and time lag associated with this proposed project, EPA recommends a phased permit that requires interagency review and approval at all governmental levels prior to the next permit phase being issued.

**Bureau of Land Management (BLM) Mineral Lease Outparcels** – There are approximately 550 acres of BLM mineral lease out parcels within the proposed project site with a current land use of livestock grazing. The BLM's overall objective in managing livestock grazing on public rangelands is to ensure the long-term health and productivity of these lands and to create multiple environmental benefits that result from healthy watersheds. EPA has reviewed leases ES 24598 and ES 24599 dated April 20, 1982, and other documents for leases ES 24696 and 24597. It appears that these documents apply to the existing Polk County South Fort Meade Mine lease out parcels and not those contained in the proposed project area. In addition, BLM's Administrative Determination that includes the National Environmental Policy Act and Endangered Species Act reviews are not relevant and appear to be out-of-date as they were completed more than eight years ago. In order to ensure that all Federal regulatory requirements are met, these documents should be revised and an updated Administrative Determination should be completed by BLM. Coordination among the Federal agencies would be beneficial to the Federal permitting process. According to the December 15, 2009, submittal, this issue is working towards resolution.

Thank you for the opportunity to further comment on this request for authorization. If you have any question regarding EPA's comments, please contact me at 404-562-9354, or Cecelia Harper at 404-562-9418 or by e-mail at harper.cecelia@epa.gov.

Sincerely,



Thomas C. Welborn

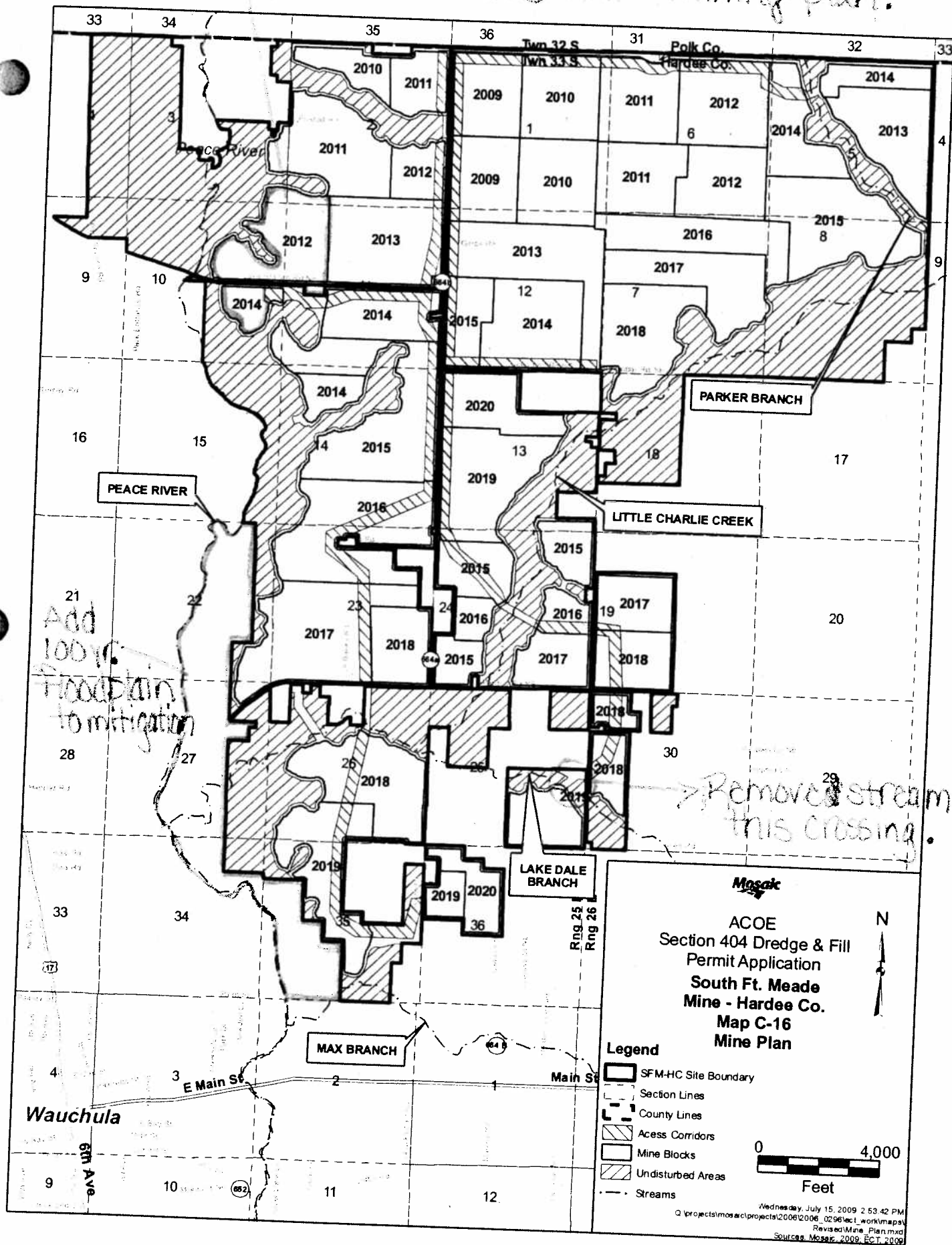
Chief

Wetlands, Coastal and Oceans Branch

Enclosure

cc: FWS, Vero Beach, FL (Begazio)  
NMFS, (Shremek)

Remove these blocks from mining plan.



Add 100% Floodplain to mitigation

Removed stream this crossing.