

# FINAL REPORT

## DRI #273

### Wingate Creek Mine Substantial Deviation

### Manatee County



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REPORT ADOPTED: April 9, 2012

**DRI #273 - WINGATE CREEK MINE SUBSTANTIAL DEVIATION  
MANATEE COUNTY**

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**SECTION I - INTRODUCTION**  
**DRI #273 - WINGATE CREEK MINE SUBSTANTIAL DEVIATION**  
**MANATEE COUNTY**

This report is prepared in accordance with the Florida Land and Water Management Act, Chapter 380, Florida Statutes (F.S.), and in compliance with this legislation addresses the development's efficient use or undue burdening of public facilities in the region, as well as the positive and negative impacts of the development on economics and natural resources. The report presents the findings and recommendations of the Tampa Bay Regional Planning Council (TBRPC) based upon data presented in the Development of Regional Impact (DRI) application (ADA and all Sufficiency Responses) as well as upon information obtained through on-site inspections, local and state agencies, outside sources and comparisons with local and regional plans. Policies cited in this report are from the Council's adopted policy document, *Future of the Region: A Strategic Regional Policy Plan for the Tampa Bay Region* (SRPP), adopted September 12, 2005.

<b>APPLICANT INFORMATION</b>	
<b>APPLICANT</b>	Mosaic Fertilizer, LLC 13830 Circa Crossing Drive Lithia, FL 33547
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**CHRONOLOGY OF PROJECT:**

Preapplication Conference	-	December 21, 2009
ADA Submittal	-	February 8, 2011
Site Visit	-	March 4, 2011
ADA Response	-	March 10, 2011
Sufficiency Response #1 (SR1)	-	July 11, 2011
Comments to SR1 (extension granted)	-	August 10, 2011
Sufficiency Response #2 (SR2)	-	December 8, 2011
Declared Sufficient (by TBRPC) & notified Manatee County to Set Hearing Date	-	January 6, 2012
Notification Received of Hearing Date	-	January 26, 2012
TBRPC Final Report	-	April 9, 2012
Manatee County Planning Commission meeting	-	<b>TBD</b>
Manatee County BOCC meeting (Scheduled)	-	<b>TBD</b>

## PROJECT DESCRIPTION

Mosaic Fertilizer LLC (Mosaic) is seeking Substantial Deviation Development of Regional Impact (DRI) approval to expand mining operations at the existing Wingate Creek Mine in east central Manatee County. With partial frontage along the northern side of S.R. 64, the current 3,028+-acre Mine site boundaries are situated approximately three miles west of Hardee County and nearly 10 miles south of Hillsborough County. Part of the Mine site's eastern boundary is shared with other Mosaic land holdings, in particular, the recently-rescinded/withdrawn Wingate Extension DRI. A General Location Map has been provided as **Map 1**. An enlarged aerial of the site has been provided as **Map 2**. The proposal involves the following requests:

- process phosphate ore from the adjacent mining area (formerly recognized as the “Wingate Extension DRI”) at the existing Wingate Creek Plant;
- allow the exchange of sand tailings and overburden with the formerly-proposed Wingate Extension (#272) and SE Tract DRIs (#235);
- modify the waste disposal plan to allow mining of Wingate Creek Mine’s initial clay settling area and allow the use of conventional clay settling. The current clay settling composite materials will be transported to the SE Tract DRI mine sites;
- amend/extend the life of the Wingate Creek Mine for mining and trucking until July 2023 with reclamation continuing until December 2027 (nine year extension);
- authorize the mining of 652 acres of land previously approved for disturbance only (no mining) within the Wingate Creek Mine (see **Map 3**/Page 8 of this Report);
- approve the mining of 15 acres of land previously designated as preservation;
- establish Post-Reclamation Habitat consistent with **Map 4** (Page 9 of this Report); and
- revise mining and reclamation plans to allow activities described above to be accomplished.

The Applicant has requested authorization to mine a 7.7-acre parcel along the extreme northern boundary and a 0.6-acre area of regionally significant natural resources in the northeast corner of the project, as illustrated on **Map 5** (Page 10 of this Report). The areas are occupied by state or federally-listed wildlife species. Protection mechanism(s), consistent with the Florida Fish & Wildlife Conservation Commission and the U.S. Fish & Wildlife Service guidelines, shall be established as Development Order conditions to ensure that upon reclamation of these habitats, protection is provided in perpetuity.

The Developer has acknowledged that no changes are proposed in regards to the existing product trucking routes and/or trucking schedule in comparison with those previously established for the Mine site. The existing Trucking Routes are presented as **Map 6** (Page 11 of this Report).

The Florida Legislature’s recognition of the economic importance and vitality of the phosphate industry is exemplified in an excerpt from Section 378.202, F.S.: *“the Legislature finds that: (1) Florida is endowed with varied natural resources that provide recreational, environmental, and economic benefits to the people of the state. The extraction of phosphate is important to the continued economic well-being of the state and to the needs of the society. While it is not possible to extract minerals without disturbing the surface areas and producing waste materials, mining is a temporary land use. Therefore, it is the intent of the Legislature that mined lands be reclaimed to a beneficial use in a timely manner and in a manner which recognizes the diversity among mines, mining operations, and types of land which are mined...”*

## WINGATE CREEK MINE APPROVAL HISTORY

On January 28, 1975, the Manatee County Board of County Commissioners granted a Development Order to Beker Phosphate for the mining of 6,065 of the project's 10,971 acres. The project was formerly known as Beker Phosphate/DRI #42.

The Development Order for DRI #42 was amended one time, on February 5, 1987 (Resolution R-87-26). The primary purpose of the Amendment was to recognize a sizable land sale to Manatee County and others, resulting in a corresponding reduction in project acreage.

On October 18, 1988, the Manatee County Board of County Commissioners approved Resolution R-88-236 as a Substantial Deviation Development Order (SDDO). The project was reassigned DRI #95 and renamed Wingate Creek Mine. A chief objective of the SDDO was to settle litigation and allow the transport of phosphate rock from the facility to Port Manatee.

The SDDO has been amended nine times, most recently on May 1, 2008 (Ordinance No. 08-21). The numerous revisions included: changes in project ownership from Beker Phosphate to Nu-Gulf Industries to Cargill Fertilizer and ultimately to Mosaic Fertilizer; removal of project acreage resulting from formerly mined lands; changes to the assigned haul routes for product transport; and extending the mining life, Development Order expiration and reclamation completion dates. Currently, 1,252 of the Mine's 3,029 acres are approved for mining, most of which has already occurred.

Acknowledging that the mine site is not expanding as a result of this application, the following table constitutes a representation of changes proposed in terms of acres to be mined, acres to be disturbed and acres to remain undisturbed. These areas are graphically depicted in *Map 3 (Page 6 of this Report)*.

SITE	PROJECT TOTAL <sup>3</sup>				SETBACK AREA <sup>2</sup>	
	TOTAL AREA	TO BE MINED	TO BE DISTURBED <sup>1</sup>	NOT DISTURBED	TO BE MINED OR DISTURBED	NOT DISTURBED
Existing Mine Approvals	3,028	1,252	1,324	452	69	53
Proposed Modification	±0	+667	-652	-15	+8	-8
<b>Revised Mine Plan</b>	<b>3,028</b>	<b>1,919</b>	<b>672</b>	<b>437</b>	<b>77</b>	<b>45</b>

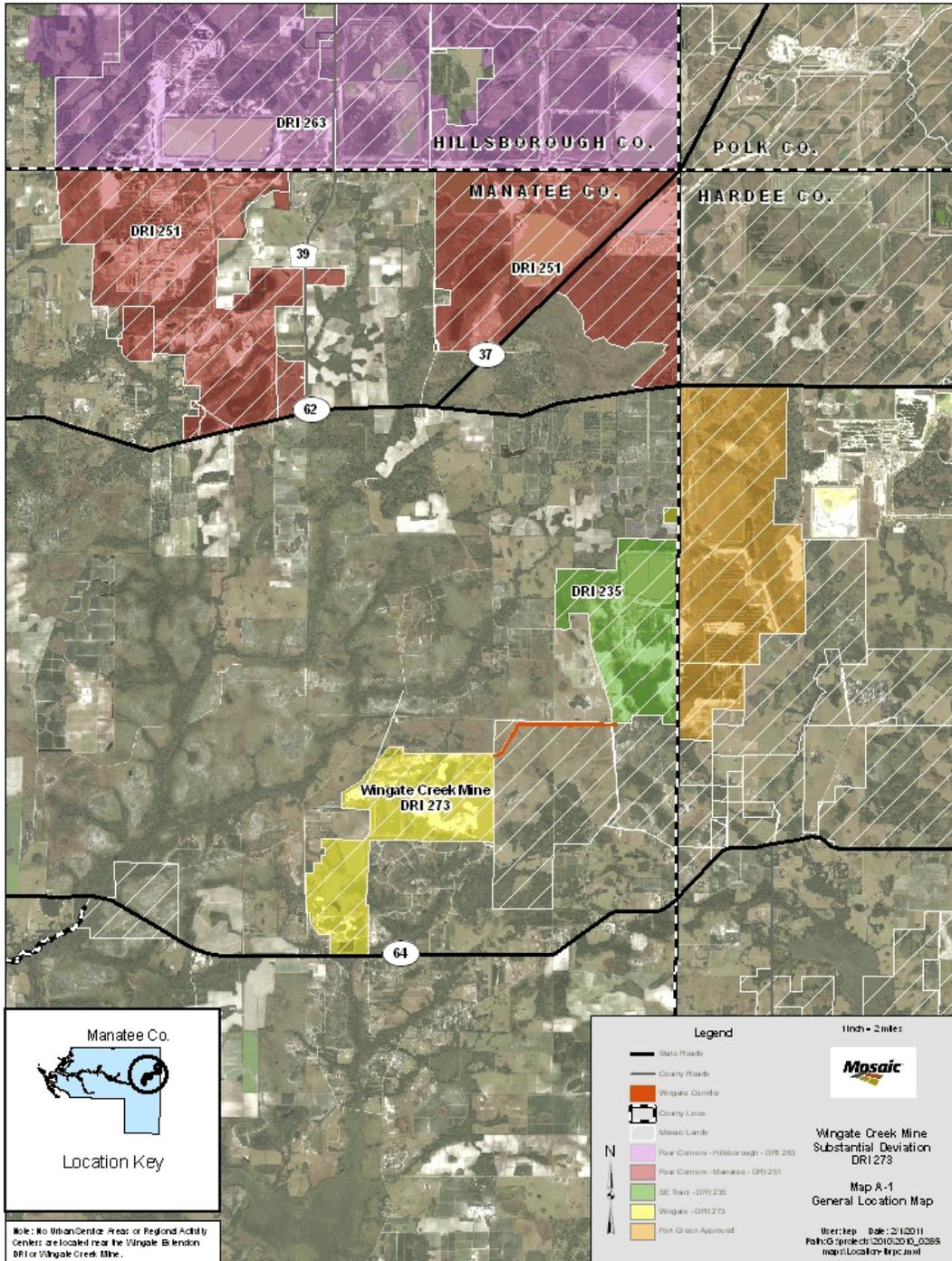
1. Disturbed areas are not mined (i.e. road, plant area, etc.); noting that habitat enhancements are not considered disturbance in this Table.
2. Setback Area includes prior setbacks which are no longer applicable due to current ownership (Wingate Extension) and are calculated based on prior approvals; where setback areas are detailed only around the active mining areas/property lines in Sections 20, 21, 28 and 29. These acres are a subset of the overall project acres.
3. All portrayed acreages are based on historical mapping/GIS based and are rounded to the nearest acre.

The following table has been compiled to reflect extent of impact (in acres) within each Section/Township/Range, as recognized within this Wingate Creek Mine Substantial Deviation application:

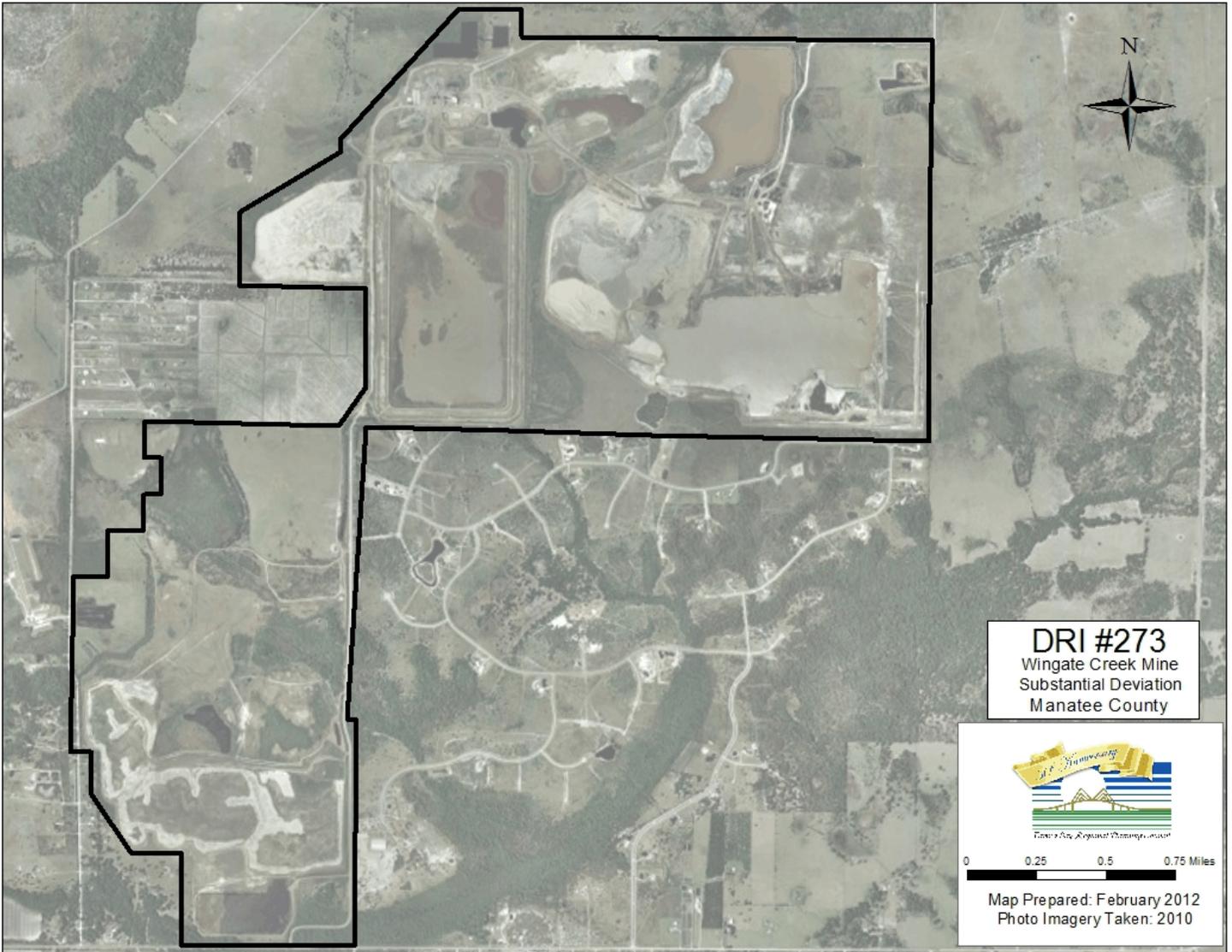
<b>SECTION</b>	<b>TOWN- SHIP</b>	<b>RANGE</b>	<b>TO BE MINED (Acres)</b>	<b>TO BE DISTURBED (Acres)</b>	<b>NOT TO BE DISTURBED (Acres)</b>	<b>TOTAL (Acres)</b>
19	34S	22E	0.0	0.2	4.5	4.7
20			164.6	61.6	52.3	278.5
21			257.4	17.5	15.3	290.2
28			563.9	35.1	41.3	640.3
29			442.2	166.2	46.1	654.6
30			75.7	15.2	28.8	119.7
31			204.6	217.5	168.4	590.5
1	35S	21E	0.0	0.0	2.5	2.5
6		22E	210.8	159.0	77.4	447.2
<b>TOTAL →</b>			<b>~1,919</b>	<b>~672</b>	<b>~437</b>	<b>~3,028</b>

# MAP #1

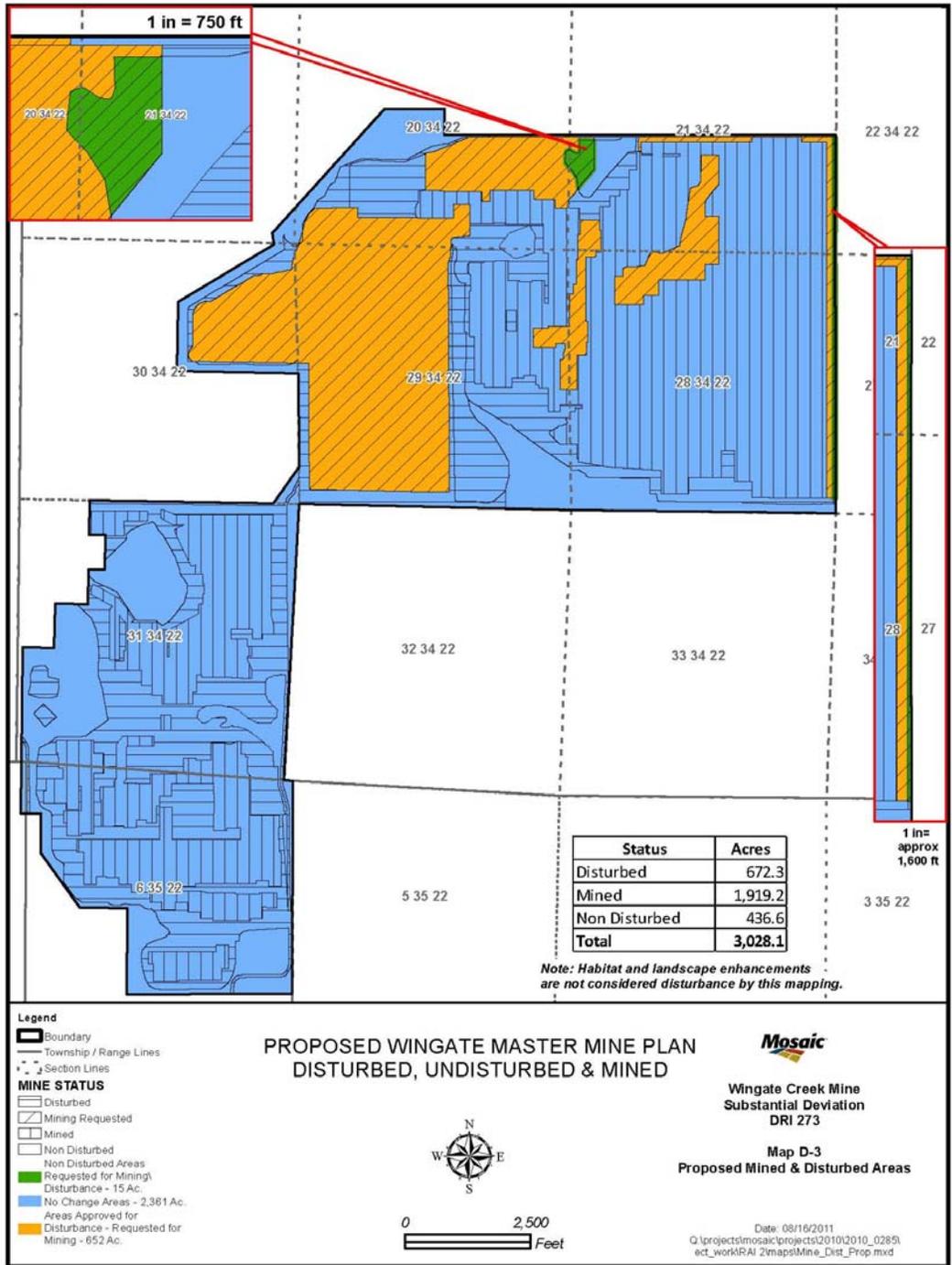
## DRI #273 - WINGATE CREEK MINE SUBSTANTIAL DEVIATION GENERAL LOCATION



**MAP #2**  
**DRI #273 - WINGATE CREEK MINE SUBSTANTIAL DEVIATION**  
**AERIAL PHOTOGRAPH**

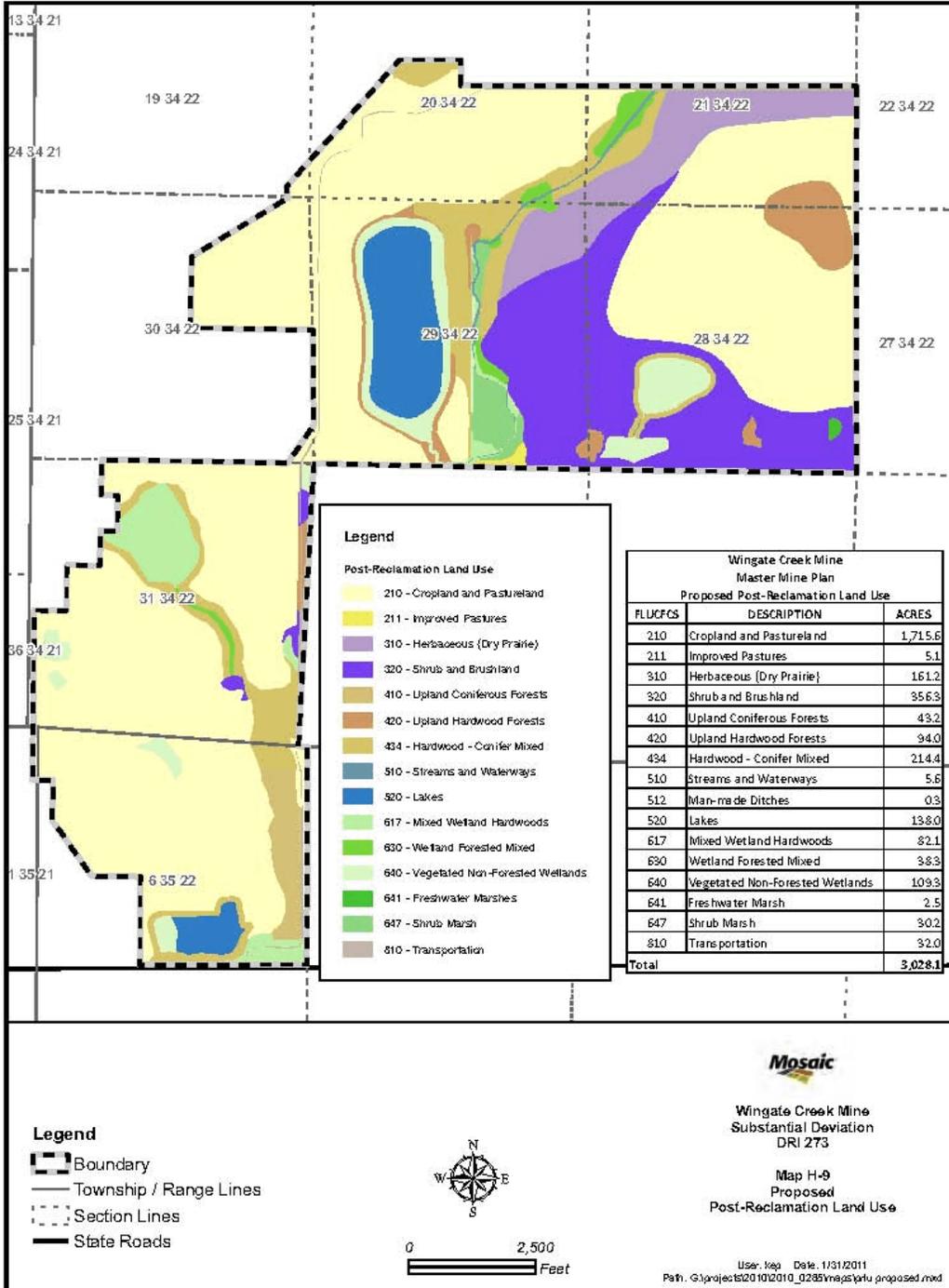


**MAP #3**  
**DRI #273 - WINGATE CREEK MINE SUBSTANTIAL DEVIATION**  
**PROPOSED MASTER MINING PLAN (Disturbed, Undisturbed & Mined Acreage)**

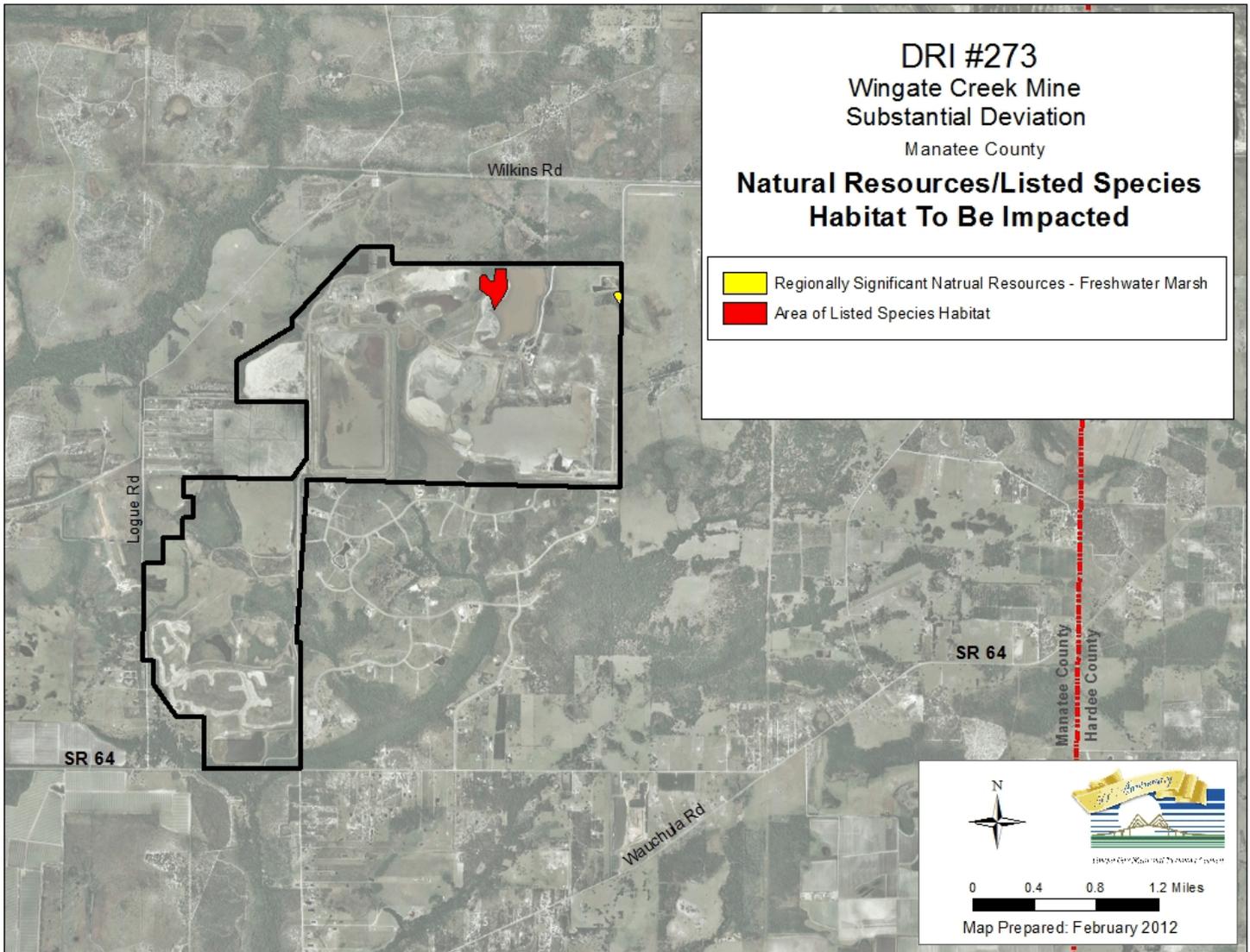


# MAP #4

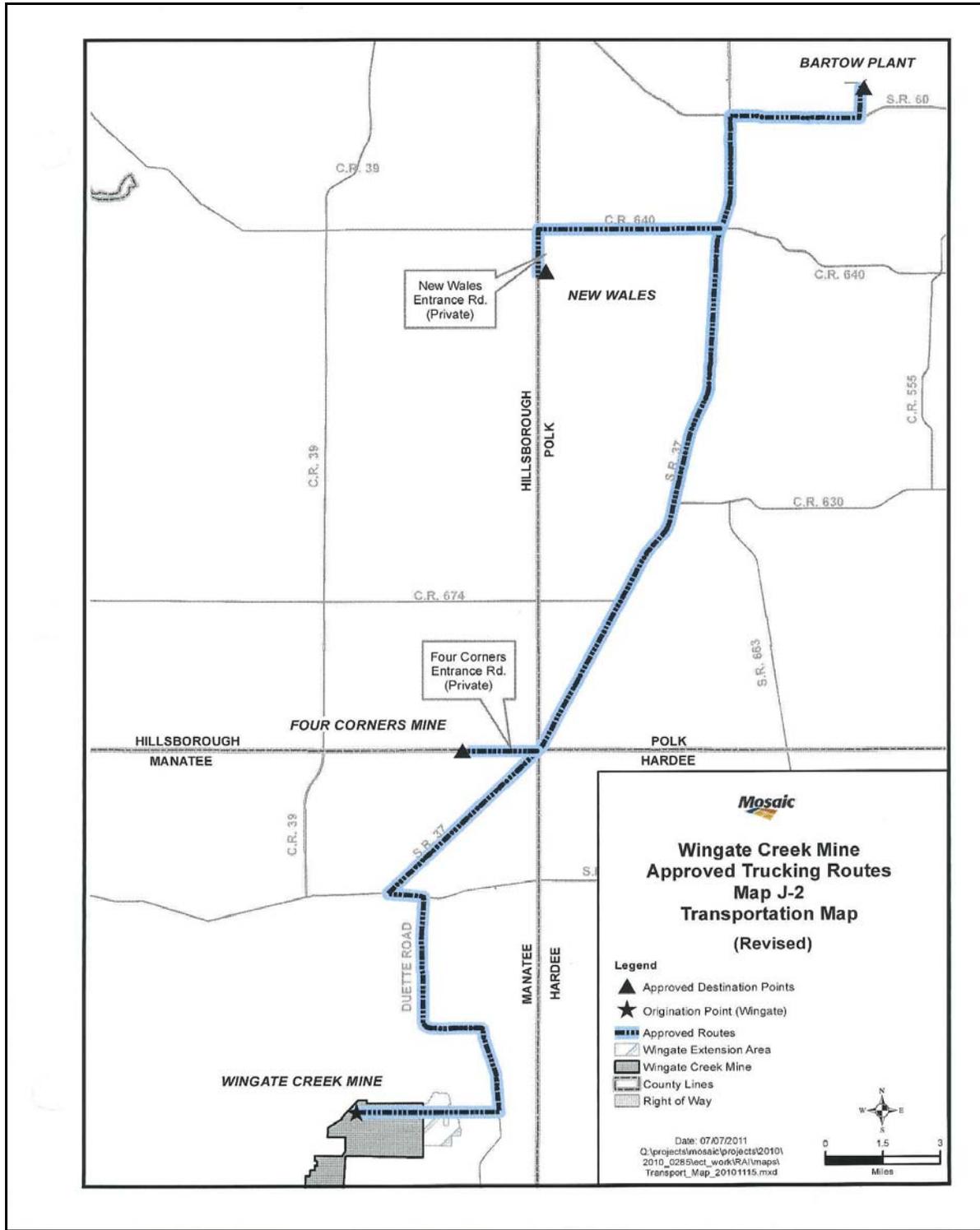
## DRI #273 - WINGATE CREEK MINE SUBSTANTIAL DEVIATION PROPOSED POST-RECLAMATION HABITAT



**MAP #5**  
**DRI #273 - WINGATE CREEK MINE SUBSTANTIAL DEVIATION**  
**LISTED SPECIES HABITAT MAP**



**MAP #6**  
**DRI #273 - WINGATE CREEK MINE SUBSTANTIAL DEVIATION**  
**EXISTING (APPROVED) PRODUCT TRUCKING ROUTES**



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**SECTION II - REGIONAL IMPACTS**  
**DRI #273 - WINGATE CREEK MINE SUBSTANTIAL DEVIATION**  
**MANATEE COUNTY**

**ECONOMY**

**Revenues Generated**

The Wingate Creek Mine will provide revenues to the State and Manatee County in the form of ad valorem taxes; sales and gas tax; severance tax receipts; and fees collected. These annual revenues are expected to cumulatively total more than \$13,000,000 over the life of the project.

Ad Valorem Taxes

The assessed value of the mining acreage is difficult to quantify since it changes acre by acre, depending upon what operations are occurring at the time. In 2009, the property paid \$343,242 in Ad Valorem taxes, expectations are for that amount to remain similar for the additional five years. The total for five years at a constant rate would be \$1.7 million.

Yearly Sales and Gas Tax

Wingate Creek Mine is not anticipating a sizable amount of sales tax to be collected directly from mining and opted for conservative numbers by not including any estimate in their report. The gas tax was estimated in line with the current amount paid of \$7,720/yr. A five-year total would \$38,600.

Severance Taxes

The total severance tax applied to phosphate rock over the next five years should be approximately, \$11,570,000, of which Manatee County would receive \$1,480,000. This equates to over \$2.3 million dollars in severance tax annually over this period, with Manatee receiving approximately \$296,000 annually.

Impact Fees

Manatee County does not assess impact fees for phosphate mining at the present time.

**VEGETATION, WILDLIFE AND WETLANDS**

The plan is to mine an additional 667 acres within the current boundaries of the Wingate Creek mine. Of the additional area to be mined, 652 acres were previously approved to be disturbed for other uses such as clay settling area, roads and berms. Of the lands previously designated to be undisturbed, it is proposed that 15 acres be mined or disturbed.

The table below identifies the types and acreages of habitat approved under the current reclamation plan, and the types and acreages of habitat proposed under the revised mining and reclamation plan.

HABITAT/LAND USE TYPE	FLUCFCS CODE(S)	APPROVED ACREAGE POST-RECLAMATION <sup>1</sup>	PROPOSED ACREAGE POST- RECLAMATION <sup>2</sup>
Crop and Pastureland	210	1,686.9	1,720.7
Herbaceous	310	165.2	161.2
Shrub and Brushland	320	356.6	356.3
Upland Coniferous Forest	410	43.2	43.2
Upland Hardwood Forest	420	93.6	94.0
Hardwood Conifer Mixed	434	201.6	214.4
Streams and Ditches	510	5.0	5.9
Lakes	520	194.0	138.0
Mixed Wetland Hardwoods	617	82.1	82.1
Mixed Wetland Forest	630	37.4	38.3
Vegetated Non-Forested Wetlands	640	112.1	109.3
Freshwater Marsh	641	0.0	2.5
Shrub Marsh	647	30.2	30.2
Transportation	810	20.2	32.0
<b>TOTAL →</b>		<b>3,028.1</b>	<b>3,028.1</b>

SOURCES: 1 - SR1/Map F-1; 2 - SR1 Map/H-8

The area proposed for impact as part of this Substantial Deviation DRI includes Natural Resources of Regional Significance, as designated on the maps in the *Future of the Region: A Strategic Regional Policy Plan for the Tampa Bay Region*. This is a 0.6-acre area of Freshwater Marsh on the eastern edge that was previously identified as “not to be disturbed” as it was within a required setback area. An additional 7.7-acre area of mixed habitat, on the northern project boundary, was also previously set aside to remain undisturbed. This area includes Shrub and Brushland (1.5 acres), Pasture/cropland (5.3 acres), and Upland Hardwood Forest (0.9 acres) and a portion of this area provides habitat for listed species.

Listed species identified on these two parcels include Sandhill Crane and Little Blue Heron in the freshwater marsh area, and Gopher Tortoise and Eastern Indigo Snake in the hardwood forest and pasture area. Nesting has not been observed for the Sandhill Crane or Little Blue Heron and is unlikely, given the condition of the marsh.

The applicant proposes to mitigate impacts to listed species other than the Gopher Tortoise and its burrow commensals in accordance with Florida Fish & Wildlife Conservation Commission guidelines. Wildlife surveys will be conducted up to three months in advance of clearing, and again before mining begins. Mitigation for the impact to Gopher Tortoise and commensal habitat is planned pursuant to Mosaic’s Mine-wide Gopher Tortoise and Burrow Commensal Management Plan, which includes relocation.

Additionally, adjacent to the north and west of the project site is Manatee County’s Duette Preserve, a large area of natural habitat similar to that found on the pre-mining project site.

As can be seen in the Table above, the post-reclamation landscape will include the habitat types to be removed under the proposed mining plan. Given the approved plan to mine in very close proximity to these areas and the expected secondary impact of heavy equipment and groundwater altering work adjacent to these sites, it does not seem prudent to require the areas designated as Natural Resources of Regional Significance to be protected. However, it is appropriate to recommend that preservation of recreated habitat of this type be required.

After reclamation, Mosaic does not intend to manage the land in perpetuity, but possibly sell the land for agriculture or development. There is no long-term plan to protect the recreated habitats or wetlands. However, it is stated in the ADA that “Mosaic proactively works with FDEP, FFWCC, and other agencies to provide assistance in the development of the IHN (Integrated Habitat Network) wildlife corridors... To the extent that the Wingate Creek Mine can serve as a connection to wildlife corridors, Mosaic will participate in these programs. Mosaic will reclaim the additional lands not only to meet the requirements of Manatee County and Chapter 62-16, F.A.C., but also result in a more diverse post-reclamation vegetative cover than exists currently in terms of wildlife habitat and wetland and upland systems.” (ADA/Page 10-26) To that end, it is appropriate to recommend that a wildlife corridor suitable for the species which use the Duette Preserve be created and maintained on the Wingate Creek Mine site post-reclamation. This corridor, including sufficient buffer to prevent degradation from future adjacent uses, may be established by conservation easement or title transfer.

Adherence to the following list of policies of the Council’s *Strategic Regional Policy Plan* will help minimize any potential impacts experienced in the areas of Vegetation, Wildlife and Wetlands.

- 4.43 *Protect, preserve and restore all regionally-significant natural resources shown on the Map of Regionally-Significant Natural Resources.*
- 4.44 *Allow impacts to regionally-significant natural resources only in cases of overriding public interest and when it is demonstrated and/or documented that mitigation will successfully recreate the specific resource. Mitigation should meet the following ratios, at minimum:*
  - *LULC Habitat Wet 3:1*
- 4.45 *Ensure that mitigation by habitat re-creation employs native plant material which provides the same natural value and function. Monitor mitigation areas for a sufficient time to ensure success: a minimum 85 percent final coverage of desired species. Yearly maintenance and replanting should be undertaken to ensure final cover as necessary.*
- 4.47: *Recognize that mitigation efforts shall be:*
  - *Performed within the same drainage basin where the unavoidable impacts to regionally significant wetlands occurs; and*
  - *Allowed only after avoiding impact to the greatest extent possible; and that habitat creation, restoration, and enhancement, with long-term management, be considered as viable methods of impact mitigation.*
- 4.48: *Mitigation by restoring disturbed habitat of a similar nature, including the removal of exotic plant species, may be acceptable. The minimum acceptable ratio should be twice the habitat re-creation ratio set forth in policy 4.44.*
- 4.49 *Maintain and improve native plant communities and viable wildlife habitats, determined to be regionally-significant natural resources in addition to the Map of Regionally-Significant Natural Resources, including those native habitats and plant communities that tend to be least in abundance and most productive or unique.*
- 4.50: *Maintain a naturally vegetated buffer sufficient to preserve the value and function of the regionally-significant natural resource.*

- 4.57: *Ensure that land use decisions are consistent with federal- and state-listed species protection and recovery plans, and adopted habitat management guidelines.*
- 4.70: *Identify and map prior to any land clearing for mining activities, the habitats of species listed in 39-27.003-.005, F.A.C. and 50 CFR and provide an opportunity for review by the Florida Fish and Wildlife Conservation Commission (FFWCC), the U.S. Fish and Wildlife Service and the local government. Also, a habitat protection plan based on the identified habitat areas should be reviewed by FFWCC, the U.S. Fish and Wildlife Service and the local government. The plan should be in effect throughout the mining and reclamation period.*

## **WATER QUALITY AND STORMWATER MANAGEMENT**

The Wingate Creek Mine historically included lands within the Manatee River watershed, but has been separated from it and now only discharges to the Myakka River watershed. Surface water quality on the project site is completely managed by the mining operation. Rain falling on the site is contained on-site and sent to the clay-settling area for clarification before being discharged through a permitted outfall. Water within the mining pits, derived from the surficial aquifer and processing, remains on-site. Water quality in the Myakka River meets Florida standards, except where elevated due to runoff and seepage baseflow from irrigated row-crops. The Southwest Florida Water Management District is investigating methods to reduce these flows and Mosaic is working with the District to determine if it can assist in finding a solution.

Three aquifers underlie the site: the surficial, or water table; the intermediate; and the Floridan aquifer. Water quality is good. The proposed mining expansion will not impact the water-bearing part of the intermediate or the Floridan aquifers because mining will not breach the confining layers of these aquifers. Groundwater quality is and will continue to be monitored through a series of wells placed throughout the Wingate Creek Mine area. Mosaic will continue to employ a series of proven structural BMPs to prevent adverse effects on surface and groundwater quality, a detailed description of which included in pages 14-6 - 14-8 of the ADA.

Pre-disturbance stormwater drainage patterns will be restored as part of reclamation. Post-reclamation drainage basins and outflow points will be similar in size and discharge to pre-mining conditions. The extensive ditching associated with mining will be eliminated in the post-reclamation landscape, replaced by sheet flow and meandering channels.

Adherence to the following list of policies in the Council's *Strategic Regional Policy Plan* will help minimize impacts in the areas of Water Quality and Stormwater Management:

- 4.2: *Implement plans to prevent, abate, and control surface water and groundwater pollution so that the resource meets local or state standards, whichever is more stringent.*
- 4.3: *Support the achievement of the pollutant loading targets established by the Sarasota Bay Estuary Program, the Tampa Bay Estuary Program, and the Charlotte Harbor Estuary Program for the Sarasota Bay, Tampa Bay, and Charlotte Harbor watersheds, respectively, and the pollutant load reduction goals of the Southwest Florida Water Management District for the remaining parts of the region.*
- 4.4: *Incorporate by reference and encourage the implementation of the water quality improvement strategies identified in the Tampa Bay, Sarasota Bay and Charlotte Harbor Estuary Programs' Comprehensive Conservation and Management Plan (CCMP).*

- 4.13: *Provide and maintain adequate long-term water quality monitoring of groundwater resources, particularly potable water resources for areas which are presently being monitored and develop programs for areas which are not presently monitored to provide a sound data base and to identify trends upon which future regulatory decisions can be based.*
- 4.19: *Promote coordinated and integrated watershed planning as identified in the Tampa Bay, Sarasota Bay and Charlotte Harbor Estuary Programs' adopted Comprehensive Conservation Management Plans and other applicable studies.*
- 4.20: *Support the establishment and implementation of Total Maximum Daily Loads (TMDLs) for those surface waters that do not meet applicable water quality standards (impaired waters) after implementation of technology-based effluent limitations. Implementation of TMDLs includes the combination of regulatory, non-regulatory, or incentive-based actions that attain the necessary reduction in pollutant loading.*
- 4.32: *Improve the quality of receiving waters by:*
- *Upgrading or retrofitting drainage systems to effectuate improved stormwater treatment;*
  - *Encouraging multi-purpose facilities which complement open space, recreation and conservation objectives; and*
  - *Requiring control and treatment of point and non-point discharges to estuarine and near-shore coastal waters.*
- 4.35: *Support the initiatives and restoration projects identified in the SWIM plans.*
- 4.37: *Provide sufficient inspection and maintenance of all stormwater facilities.*
- 4.38: *Support the preparation and implementation of comprehensive basinwide stormwater management master plans.*
- 4.65: *Efforts should be made in reclamation plans and activities to coordinate developed areas, operational mine areas, preservation areas, and mandatory, non-mandatory and reclaimed lands within each watershed into a comprehensive watershed plan to promote and enhance watershed health and viability.*

## **SOILS**

A variety of soil types occur on the project site, but no unique geological features exist. The area has a low probability of sinkhole occurrence. The soils do not present undue obstacles to use in the mining operation, or to reclamation. Topsoil and overburden (the soils over the phosphate deposit), as well as sand from the mining process, will be used in reclamation.

Erosion will be controlled during preparation, mining, reclamation and afterwards. Clearing will be limited to lands planned to be mined in the immediate future, especially during the fall, winter and spring when seasonally high winds can occur.

## **FLOODPLAINS**

No portion of the proposed additional mining area is located within the 100-year floodplain. No structures, roadways or utilities are proposed within the post-reclamation 100-year floodplain.

Adherence to the following policies of the Council's *Strategic Regional Policy Plan* will help minimize impacts in the areas of Floodplains:

- 4.99: *Implement floodplain management strategies to prevent erosion, retard runoff, and protect natural functions and values.*

## **WATER SUPPLY**

No changes are proposed to the water use plans at the Wingate Creek Mine beneficiation plant, in terms of daily withdrawal, consumptive use, source of supply, recycling rate, type of use, quality and method of treatment, and point and amount of discharge. As a result, no increases in water demand beyond the rates authorized by the SWFWMD Water Use Permit will result from the Wingate Creek Mine Substantial Deviation project.

## **WASTEWATER MANAGEMENT**

The rate of domestic or industrial wastewater generation will not increase over the currently permitted levels for the existing Wingate Creek Mine as a result of the mining area expansion. In essence, the applicant will be extending the duration of currently permitted quantity of wastewater.

## **TRANSPORTATION**

As committed, the phosphate rock product shipped by truck shall utilize the approved routes, destinations and frequency already specified within the existing Development Order. This includes restrictions of trucking during school busing hours. Therefore, no additional regional impacts are anticipated in excess of those currently approved.

With employment and the rate of mining assumed to remain constant, it is anticipated that the Wingate Creek Mine will continue to generate an estimated 78 P.M. Peak Hour Project Trip Ends, broken down as follows: 48 by employees (i.e. 11 Inbound/37 Outbound) and 30 by trucks (i.e. 15 Inbound/15 Outbound). These trip estimates were based on actual traffic counts conducted on November 17, 2009.

## **AIR QUALITY**

The mining operation currently employs a number of conventional techniques to minimize fugitive dust generation during mining and reclamation, and these will also be employed within the additional mining areas. These measures include: limiting the clearing of lands in advance of when necessary to prepare for mining; using hydraulic slurry transport of phosphate matrix, sand and clay; reclamation of mined lands and revegetation in accordance with the timetables prescribed in state rules; and using quick-germinating temporary cover crops on reclaimed land.

Adherence to the following policy of the Council's *Strategic Regional Policy Plan* would help minimize the air quality impacts of the proposed project:

4.110: *Incorporate specific mitigative measures to prevent fugitive dust emissions during excavation and construction phases of all land development projects which produce heavy vehicular traffic and exposed surfaces.*

## **HISTORICAL AND ARCHEOLOGICAL**

The entire site has been surveyed for historical and archaeological resources. The Florida Division of Historical Resources (FDHR) has acknowledged that the site has been adequately assessed for eligible historic sites. FDHR concluded with an opinion that the proposed project will have "no effect on the sites listed, or eligible for listing, in the *National Register of Historic Places*, or otherwise of historical or archaeological value."

## MINING OPERATIONS

The project entails mining phosphate ore from additional lands within the boundary of an approved and active 3,028-acre phosphate mine. The phosphate rock to be mined is a sedimentary form of apatite, in a pebble, silica sand and clay matrix. The additional 667 acres were either: previously approved for disturbance but not mining (644 acres), to be undisturbed as part of a setback zone (8 acres), or to be otherwise undisturbed (15 acres).

Initial work will include installing silt fences and ditch-and-berm systems adjacent to property lines or areas to remain undisturbed where these BMP's are not already present. Clearing will occur using conventional construction equipment. Vegetation is primarily grasses, but where trees must be cleared they will be burned or buried. Overburden removal and matrix extraction will be accomplished using dredges.

The existing Wingate Creek beneficiation plant will be used to separate the matrix into phosphate rock, sand and clay-sized particles. Existing infrastructure at the Wingate Creek Mine, including access roads, piping, water supply and discharge, offices and maintenance facilities will continue to serve during the additional mine life, which is expected to be approximately nine years.

An estimated six million tons of wet phosphate rock is expected to come from the additional mined lands, to be extracted at a rate of about 1.5 million tons per 150 acres per year. Actual mining rates will depend upon market demand and geological conditions. Draglines will not be used.

The beneficiation of the phosphate ore will create an estimated 5,560 tons of sand and 1,050 tons of clay per year. All of the sand will be pumped into mine excavations to create the land forms and land surface elevations set out in the reclamation plan. The clay will be placed in the FM-1 or FM-2 of the Southeast Tract settling areas. Clarified water from the settling and consolidating clay will be re-used in the mining operation or discharged through a permitted outfall.

The recovered phosphate rock will be transported under the same conditions as currently, to the Bartow phosphate plant, to the Four Corners mine, or to the New Wales plant.

Adherence to the following policies in the Council's *Strategic Regional Policy Plan* (1998) would help minimize the impact of mining:

- 4.61: *Permit mining activities in regionally-significant natural areas only when it has been demonstrated/documentated that the areas can be successfully restored, consistent with the requirements of permitting agencies and when no permanent adverse environmental impact will result.*
- 4.62: *Ensure that the exploration and development of mineral resources only proceed in an ecologically sound manner.*
- 4.63: *Design mining practices to protect regionally-significant natural resources from the adverse effects of resource extraction.*
- 4.64: *Promote landscape reclamation, including, but not limited to establishing functional and diverse ecological communities, achieving a balance of human uses and natural lands, and engineering post-reclamation hydrology compatible with regional hydrology.*
- 4.65: *Efforts should be made in reclamation plans and activities to coordinate developed areas, operational mine areas, preservation areas, and mandatory, non-mandatory and unreclaimed lands within each watershed into a comprehensive watershed plan to promote and enhance watershed health and viability.*
- 4.66: *Utilize vegetation native to the Tampa Bay region for mining reclamation and mitigation.*

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**SECTION III - DEVELOPER COMMITMENTS**  
**DRI #273 - WINGATE CREEK MINE SUBSTANTIAL DEVIATION**  
**MANATEE COUNTY**

The following commitments have been made by, or on behalf of, the applicant in the Application for Development Approval (ADA), the first Sufficiency Response (SR1) and/or the second Sufficiency Response (SR2). In instances where the applicant may have posed recommended Development Order condition language, that language may be reflected in this listing of commitments. These commitments typically serve as responses to specific questions posed by the reviewer(s) of this application.

**GENERAL**

1. *There will be appropriate setbacks applied at the boundaries of the mine. (ADA/Page 10-20)*
2. *The proposed continued operation of the Wingate Creek beneficiation plant would cause the existing water use and discharge, employment, trip generation, solid waste generation, public revenue generation, air emissions, and energy consumption to continue; however, the annual rates would not change appreciably. (SR1/Page 2-11)*
3. *Mosaic will endorse the utilization of the Department of Agriculture's recommendations for cattle grazing on the post reclamation habitat. If necessary, fences or other methods will be utilized to ensure cattle do not degrade the reclaimed habitat. (SR2/Page 1-1)*

**VEGETATION AND WILDLIFE**

1. *Prior to disturbing the non-disturbed lands proposed to be mined, biologists will conduct "pre-clearing surveys" designed to identify the wildlife species present, if any, that will need to be managed... Should the surveys identify the presence of wildlife species protected by the rules of the FFWCC or the USFWS, Mosaic will protect the species in accordance with USFWS and FFWCC regulations. Wildlife management measures will be species-specific and could include relocation of individuals, or the avoidance of certain areas. (ADA/Page 10-8)*
2. *As with other Mosaic mining properties, the [containment] berm will be maintained until the post reclamation vegetation has stabilized. At that time, the berm will be regraded and revegetated as the final reclamation step. (ADA/Page 10-18)*
3. *Mosaic proactively works with FDEP, FFWCC, and other agencies to provide assistance in the development of the IHN wildlife corridors... To the extent that the Wingate Creek Mine can serve as a connection to wildlife corridors, Mosaic will participate in these programs. (ADA/Page 10-26)*
4. *... Mosaic will reclaim the additional lands not only to meet the requirements of Manatee County and Chapter 62-16, F.A.C., but also to result in a more diverse post-reclamation vegetative cover than exists currently in terms of wildlife habitat and wetland and upland systems. (ADA/Page 10-26)*

5. *The areas proposed to be re-classified to authorize mining are comprised of lands disturbed by mining operations, grassed areas, and less than 2.5 acres of native habitat. Nevertheless, Mosaic will conduct wildlife surveys prior to disturbing these areas. Listed species will be protected and managed as specified by the FFWCC and USFWS. (ADA/Page 10-49)*
6. *The gopher tortoises will be managed and relocated as specified by a FFWCC relocation permit. The indigo snakes will be protected as specified by the USFWS. (ADA/Page 12-3)*
7. *Mosaic has or will obtain Habitat Management Plans for protected wildlife species in accordance with the requirements of FFWCC and USFWS prior to initiating work on the Wingate Creek Mine site. (ADA/Page 12-4)*
8. *... Results of the surveys and actions taken will be reported to regulatory agencies during project status annual reports. (ADA/Page 12-4)*
9. *In general, species will be protected by:*
  - *Relocation to reclaimed suitable habitat or other protected areas elsewhere on Mosaic property;*
  - *Planned or natural reintroduction into reclaimed areas, depending upon specific species requirements;*
  - *Allowing species to migrate to adjacent habitat on their own; and/or*
  - *Avoiding areas where certain species are located (e.g., eagle or caracara nests).**The relocation of protected animal species found in areas scheduled for disturbance will be accomplished in several ways: direct capture and relocation of species with limited mobility (gopher tortoises, etc.); or use of FFWCC best management practices to conduct pre-clearing surveys, and then clearing activities designed to “herd” or gather more mobile species into an adjoining refuge area or unmined lands. (ADA/Pages 12-4 -12-5)*
10. *The prime protection for birds will be to protect nesting areas. This can be done in three ways: Habitat Avoidance; Seasonal Avoidance; and Distance Avoidance. Any protected species occurring in habitats not proposed to be disturbed will not be relocated. Mosaic will protect these species through habitat avoidance, habitat management, and restriction of public access. (ADA/Page 12-5)*
11. *Through the reclamation of the site after mining, the opportunity is presented to improve and expand the site’s habitat value. A primary reclamation emphasis will be to improve wildlife corridors, and to provide buffering of wetland habitats with upland forests. (ADA/Page 12-5)*
12. *Protection of state- or federally-listed species that may use the site for breeding or nesting will be accomplished by the pre-clearing surveys, The pre-clearing surveys, depending upon the season when land clearing is proposed, will include inventorying breeding or nesting sites if land clearing could occur before the nests have fledged. (SR1/Page 1-6)*
13. *Pre-clearing surveys will be completed up to three months prior to clearing to allow for identification of, management efforts of, or permitting to relocate observed species if needed. After clearing, the areas will be routinely observed by Mosaic staff to determine if species return to the area or recruit into the areas prior to mining. (SR1/Page 1-6)*

14. *Currently, Mosaic is managing gopher tortoises and commensals under FFWCC Permit No. WR07393, which expires on August 24, 2012. Mosaic intends to renew or acquire a separate approval from FFWCC going forward to manage tortoises and commensals present on the Wingate Creek Mine. (SR1/Page 2-12)*
15. *Mosaic's wellfield conservation property located two miles west of the Wingate Creek Mine will be the recipient site for [Developer Clarification: many of the] species if relocation is needed. (SR1/Page 2-29)*

## **WETLANDS**

1. *Mosaic will reclaim the mined lands to uplands appropriate for agricultural use, to wetland natural systems, and to uplands using native vegetation indigenous to Manatee County and as required by the Florida Department of Environmental Protection Environmental Resource Permit and applicable Manatee County requirements. (ADA/Page 10-21)*
2. *Mining of the additional areas within the Wingate Creek Mine will not increase the acreage of wetlands approved to be disturbed by the currently-approved FDEP Wetland Resource Permit. The area proposed to be re-classified from "undisturbed" to "mined" contains no wetlands or other surface water subject to FDEP jurisdiction. (ADA/Page 10-23)*
3. *Only a small incremental wetland impact will result from mining the additional areas under the MMP, as the FDEP has approved all impacts. Therefore, the existing FDEP mitigation requirements imposed by the Wetland Resource Permit will not change. (ADA/Pages 10-23 - 10-24)*
4. *The proposed mining of the additional areas on the Wingate Creek Mine will not require modification of existing or issuance of new federal or state dredge and fill permits (e.g. modification of the existing Wetland Resource Permit or issuance of a new Environmental Resource Permit). (ADA/Page 10-24)*
5. *The proposed mining of additional areas will not create incremental wetland impacts beyond those already authorized by the Wetland Resource Permit. (ADA/Page 10-42)*
6. *Mosaic is not proposing any specific enhancement activities. All compensatory mitigation requirements will be accomplished through wetland creation... (ADA/Page 13-2)*
7. *Mosaic will utilize a series of proven techniques to protect wetland areas (including offsite wetlands) adjacent to active mining and reclamation operations. Limits of disturbance lines will be established in the field and staked by land surveyors. Trained biologists will review the staked line as a quality assurance check. Conventional silt fences will be installed along the project perimeter. Subsequently, the perimeter berms will be constructed and vegetated with a quick germinating cover of winter rye or brown top millet and bahia grass. Thereafter, clearing will proceed and construction of the recharge-ditch system will occur. The perimeter berms will serve as physical barriers between mining and reclamation activities and the off-site wetlands. They will also be designed to contain storm water runoff and preclude siltation of the adjacent property. The dredge pool elevations will be adjusted to maintain appropriate groundwater and surface water elevations. (ADA/Page 13-2)*

8. *Wetland Resource Permit No. 0095520... documents [what] mitigation has been or will be provided for all wetland impacts. (SR1/Page 2-13)*

## **WATER QUALITY AND HYDROGEOLOGY**

1. *Mosaic has or will install perimeter berm systems along the boundaries of the Wingate Creek Mine in order to prevent discharges of process and storm water from active mining and reclamation areas. (ADA/Page 10-8)*
2. *There are no changes proposed at the Wingate Creek Mine that would result in a lowering of groundwater levels or cause the interchange of water between any two confined aquifers. (ADA/Page 10-22)*
3. *There will be no disturbance of a perennial stream or lake or floodway as a result of the mining of the additional areas at the Wingate Creek Mine. (ADA/Page 10-29)*
4. *In order to protect surface water resources in the vicinity of the Wingate Creek Mine site, Mosaic will operate a series of perimeter ditches to capture storm water runoff and route these flows through clay settling areas for treatment prior to reuse or discharge. No streams or associated floodplains are proposed to be mined or disturbed. All discharges are subject to FDEP water quality based effluent limitations... Following mining and reclamation of the site, the surface water draining patterns and storm water runoff intensity will be returned to essentially pre-mining conditions. (ADA/Page 10-49)*
5. *Mosaic will employ a series of proven structural BMPs [Best management Practices] to prevent adverse effects on surface and groundwater quality. These practices will be implemented at the Wingate Creek Mine...: (ADA/Pages 14-6 - 14-8)*
  - *Construction of Storm Water Interceptor Ditch and Retention Berm System*
  - *Pre-Mining Clearing of Land*
  - *Mining and Reclamation*
  - *Surface Water Ditch Outfalls*
  - *Mining Related Regulatory Program Requirements*

## **SOILS**

1. *All post-reclamation slopes will be flatter than 26.5 degrees. (ADA/Page 10-18)*
2. *Land cleared in advance of mining or graded to the design post-reclamation elevations exposes the surface soils to the potential of wind erosion in the same way as cleared row-crop fields yet to be planted. In order to minimize this potential, land clearing in advance of mining will be restricted to the areas to be mined in the immediate future, especially during the fall, winter, and spring months when seasonal weather fronts can generate high winds. In addition, the wind erosion potential will be reduced by the presence of grassed berms to be located around the perimeter of active mining and reclamation areas. Land graded to the design post-reclamation elevations will either be covered with topsoil from an unmined donor area or planted as soon as grading is complete. (ADA/Page 15-2)*

## **FLOODPLAINS**

*No [new] mining activities are proposed to be conducted in the undeveloped floodplain. (ADA/Page 10-39)*

## **WATER SUPPLY**

1. *Mosaic is not requesting to increase groundwater withdrawals above the levels currently approved under the SWFWMD Water Use Permit. (ADA/Page 10-22)*
2. *No irrigation systems will be installed or required. (ADA/Page 10-23)*
3. *No water will be withdrawn from the area streams, nor any surface water bodies that support navigation, recreation, or fish and wildlife. (ADA/Page 10-41)*
4. *Mosaic is not proposing to change the water use plans at the Wingate Creek beneficiation plant, in terms of daily withdrawal, consumptive use, source of supply, recycling rate, type of use, quality and method of treatment, and point and amount of discharge. Mosaic is proposing to continue to operate the Wingate Creek beneficiation plant at the approximate same rates as have been achieved historically. (ADA/Page 35-3)*

## **WASTEWATER MANAGEMENT**

*The (former) statement that “no septic tanks are proposed to be constructed during mining or reclamation of the site” [ADA/Page 18-1] ... applies to only the additional lands currently proposed for mining. (SR1/Page 1-8)*

## **STORMWATER MANAGEMENT**

1. *No mining will occur in the Manatee River Protection Overlay District. (ADA/Page 10-17)*
2. *There will be no storm water releases to the watershed and no new NPDES [National Pollutant Discharge Elimination System] discharge points are needed. (ADA/Page 10-29)*
3. *As discussed in Appendix 19-A [of the ADA], the post-reclamation flood flow rates will decrease when compared to the existing condition, which will result in beneficial decreases in offsite, downstream flooding. As a result of the decreased peak flood flows, the total volume of stormwater runoff will be spread over a longer duration. The offsite receiving waterbodies will remain Wingate and Johnson Creeks. (ADA/Page 19-3)*
4. *In the post-reclamation condition, all water on and leaving the Wingate Creek Mine must meet Florida water quality standards before the reclamation liability can be released under Rule 62C-16.0051(7), F.A.C. Once this performance standard has been met, the perimeter berms and stormwater collection ditches will be reclaimed. (ADA/Page 19-3)*

5. *After reclamation, Mosaic will be responsible to operate and maintain drainage systems on the site [Developer Clarification: through release by FDEP]. (ADA/Page 19-3)*

## **TRANSPORTATION**

1. *The phosphate rock product to be shipped by truck will utilize the “approved routes to destinations and at rates currently approved by the DRI Development Order (#95).” (ADA/Page 10-4)*
2. *The proposed mining of the additional areas will not cause any change in the currently approved transportation methods, facilities or quantities; with the exception of extending their duration. (ADA/Page 35-9)*
3. *Truck transportation limitations [e.g. trips per day, timing limitations...] are proposed to remain as currently approved in the Development Order... The number of daily truck trips is limited to 360 outbound shipments on days when school buses are not operating and lesser amounts on days when school buses are operating to reflect no shipments during busing hours. On any given day, all shipments may be to a single destination and the Development Order does not impose an apportionment between the three locations. (SR1/Page 1-11)*

## **AIR QUALITY**

1. *Emissions attributable to the Wingate Creek Mine will be limited to minor amounts of fugitive dust generated by earthmoving equipment. (ADA/Page 10-48)*
2. *Mosaic will employ techniques to minimize the generation of fugitive dust during the mining and reclamation of the Wingate Creek Mine. These measures include (ADA/Page 22-1):*
  - *Clearing of land will be limited to prepare for mining during a four to 12 month period;*
  - *Use of hydraulic slurry transportation of phosphate matrix, sand and clay;*
  - *Reclamation of mined lands and revegetation in accordance with the timetables prescribed by Chapter 62C-16, F.A.C.; and*
  - *Use of quick germinating temporary cover crops of winter rye or brown top millet on reclaimed lands.*

## **EMERGENCY PREPAREDNESS**

1. *The mining of additional areas will not generate any hazardous wastes and will not involve significant quantities of hazardous substances. (ADA/Page 10-26)*
2. *The potential for the release of radioactive materials into groundwater, surface water, or the air will not change due to the proposed mining of the additional areas. Releases into groundwaters and surface waters will continue to be regulated by the FDEP Industrial Wastewater Permit... (ADA/Page 35-4)*

## **HISTORICAL AND ARCHAEOLOGICAL SITES**

1. *Should Mosaic discover potential archaeological sites when conducting mining activities, the land disturbing activities will cease until trained cultural resource experts can examine the area and determine, in consultation with DHR, whether the site is significant. Mosaic will work with DHR to ensure that the appropriate action is taken to preserve the value of such resources. (ADA/Page 10-28)*
2. *In the event that human remains are found during mining activities, the provisions of Chapter 872 of the Florida Statutes (872.05) will apply. Chapter 872, F.S. states that, when human remains are encountered, all activity that might disturb the remains shall cease and may not resume until authorized by the District Medical Examiner (if the remains are less than 75 years old) or the State's Archaeologist (if the remains are more than 75 years old). (ADA/Page 10-28)*

## **MINING OPERATIONS**

1. *Upon completion of mining areas, the mined or disturbed lands will be reclaimed into... the landforms, land elevations and land covers specified within the ADA, as may have been otherwise modified by SR1 and/or SR2. Upon completion of reclamation, the land use will revert back to the underlying agricultural zoning and agricultural/rural future land use classification. (ADA/Page 10-2)*
2. *Manatee County will be provided copies of all related (permit) applications when such applications are filed. (ADA/Page 10-7)*
3. *No changes in the [Wingate] corridor or the hydraulic transportation of clay-sized residuals and deposition in the FM-1 and FM-2 CSAs from the currently-approved plans are proposed, other than extend the time these methods will be utilized. (ADA/Page 10-9)*
4. *Advanced clearing will be limited so as to minimize the acreage of barren land susceptible to wind and stormwater erosion. Cleared vegetation will be burned or buried in a mined void. (ADA/Page 10-9)*
5. *No changes in the overburden removal or matrix extraction procedures and methods are proposed, except that a dragline mining in the Wingate Extension may mine the adjacent, prior 200 ft. setback area along the Wingate Creek Mine/Wingate Extension boundary. (ADA/Page 10-9)*
6. *All of the clay residuals generated by washing and beneficiation of the ore/matrix excavated from the additional areas will be hydraulically transported to the FM-1 and FM-2 clay settling areas on the Southeast Tract. No new clay settling areas will need to be permitted as a result of this development proposal. (ADA/Page 10-9)*
7. *... conversion of land into mining operations is projected during 2013 through 2023 at an approximate average rate of 150 acres per year, which is consistent with the production rates approved by the [current] DRI Development Order. (ADA/Pages 10-11 - 10-12)*

8. *Mosaic employs a waste disposal procedure (i.e. stage-filled settling) to minimize the acres required for CSAs to comply with this Policy [i.e. “Reduce the adverse impacts of waste disposal associated with resource extraction]. This process involves alternatively filling and consolidating a clay settling area over the course of a number of years to maximize the clay mass that can be stored in a given area. (ADA/Page 10-44)*
9. *Mining of the additional areas will remove the overburden and phosphate matrix that comprise the surficial aquifer. Dewatering, or lowering of the water table, will be prevented by maintaining the dredge pool levels at elevations similar to the adjoining water table. Hydraulic deposition of overburden and residual sand will displace the water in the dredge pool and re-hydrate the surficial aquifer. Following completion of reclamation, water table elevations will approximate pre-mining conditions. (ADA/Page 10-48)*
10. *No changes in the current dam inspection and maintenance program are proposed at this time. However, when clay and water retained in the existing clay settling area have been removed, Mosaic will abandon the dam as specified in Rule 62-672, F.A.C. (ADA/Page 35-4)*
11. *The differences between the currently-approved and proposed reclamation plans “occur [Developer Clarification: primarily] in the northern portion of the mine (i.e. Sections 20, 21, 28, 29, and 30, Township 34 South, Range 22 East)... The principal changes and supporting rationale are as follows (ADA/Pages 35-4 - 35-5):*
  - *The post-reclamation lake resulting from the final years of mining shifts to the location of the initial CSA because the approved plan does not remove the clay and mine this area, but rather reclaims the CSA as an above-grade pasture;*
  - *The additional sand generated from the ore extracted from the additional areas allows a sandhill to be created in Sections 21 and 28, returning this portion of the mine to the approximate original contour and facilitating creation of an upland forest;*
  - *The additional sand also reduces the total area of lakes by approximately 56 acres; and*
  - *The acreage of upland and wetland natural systems reclamation increases.*
12. *No mining activities are proposed to occur within the 300-foot setback along the southern mine boundary. The sight berm will be the southern CSA dam, which extends across all uplands adjacent to the Winding Creek subdivision prior to mining in the ISA [Initial Settling Area] in 2021. (SR1/Page 2-5)*
13. *Map B illustrates the presence of native upland plant communities along the mine boundary in Sections 19, 20, and 30. These native communities lie to the west and northwest of the isolation berm... and will remain undisturbed. Therefore, native plant communities will abut the Duette Preserve along the mine’s northwest boundary. (SR1/Page 2-6)*
14. *The post-reclamation design is consistent with upland habitats at higher elevations and the lake and wetlands at lower elevations, in order to provide the topography needed to support the land uses depicted. (SR1/Page 2-6)*

15. *Improved pasture is proposed as the post-reclamation vegetative community in one small area where no mining disturbance has occurred or is proposed. The existing pasture pre-dates development of the subdivision...* (SR1/Page 2-7)
16. *The Winding Creek subdivision 300-foot setback and sight berm landscaping requirements are proposed to remain unchanged as required by the existing Development Order. The Wingate Creek southern clay settling area (CSA) dam wall along the common property line will be re-contoured and landscaped to meet the sight berm requirements of Ordinance 08-21 Condition 10. In keeping with the Wingate Creek Mine setback requirements specified by Ordinance 08-21 and Master Mine Plan Amendment Resolution (R-08-007) approved May 1, 2008 and prior approvals. [Developer Clarification: Pursuant to Manatee County Phosphate Mining Code, Mosiac has vested rights to conduct its mining and reclamation activities at the Wingate Creek Mine in accordance with the standards previously established by Manatee County in Ordinance No. 08-21 ]. Mosaic will adhere to the approved setback requirements as stated:* (SR1/Page 2-10)
- *50-foot setback area for mining along the north property boundaries in Sections 20 and 21, Township 24 south, Range 22 east;*
  - *300-foot setback and sight berm for mining for the property boundary in Sections 28 and 29, Township 34 south, Range 22 east along the Winding Creek subdivision; and*
  - *200-foot setback is required by Ordinance No 08-21 along the exterior boundary of the Wingate Creek Mine and shall not subsequent to the effective date hereof, conduct any [new] mining operations (including stockpiling) within such setback area. [Developer clarification: However, the 200-foot setback requirements shall be reduced to 50-foot setback requirements at all points along the eastern boundary of the Wingate Creek Mine located in Section 20, 21 & 28, Township 22 East, Range 34 South (“the 50-foot setback area”)].*
17. *The reclamation schedule along the western boundary of the Winding Creek subdivision is not proposed to be changed, nor is the reclamation schedule east of Wingate Creek along the northern boundary of the Winding Creek subdivision.* (SR2/Page 2-13)
18. *While Mosaic has not proposed post-reclamation topography that exactly replicates the pre-mining topography, the proposed post-reclamation elevations are analogous to the pre-mining conditions and are based upon sound reclamation design and hydrology principles. The following discussion is focused upon the northern half of the mine in Sections 20, 21, and 28 through 30 because reclamation is essentially complete elsewhere. Figures RAI-19A and B have been prepared to support the discussion.*

*The proposed reclamation plan has been designed from the “bottom up”, meaning that the elevations of Wingate Creek and the associated wetland forest riparian corridor from north to south form the base elevation that the contributing subbasins will drain to. As shown on Figure RAI-19A, the elevation at the northern mine boundary is between 104 and 105 feet (NGVD), which is equivalent to the offsite elevations upstream in Duette Preserve. The elevation of the stream drops to approximately 93 feet at the southern mine boundary, which also matches the elevation of the receiving stream channel downstream of the southern mine boundary.*

*The post-reclamation sub-basins east of Wingate Creek will be created by filling the mine voids with overburden dredged from mining areas and sand (tailings) separated from the ore matrix at the beneficiation plant, with the sand typically deposited after the overburden. Thus, in most areas, the topsoil and sub-soil will be sand, which is the same parent material as is found in native soils. The hydraulic conductivity of this proposed post-reclamation lithology will be higher than the native soils because the clay and silt-sized particles have been separated from the sand.*

*As shown on figure RAI-19A, the land surface elevations will increase gradually to an elevation above 112 feet along the eastern mine boundary; generally, the slope of the land surface will rise 12 feet in elevation over  $\pm 7,000$  feet of distance, which equates to 0.17 percent.*

*Immediately adjacent to the stream channel, the proposed post-reclamation vegetative communities would consist of mixed wetland hardwood (FLUCFCS Code 617) and wetland mixed coniferous/hardwood forests (FLUCFCS Code 630); these communities would be planted at elevations mostly below 105 feet NGVD on the northern mine boundary to below 100 feet NGVD on the southern mine boundary. A nearly contiguous band of hardwood/conifer mixed forest (FLUCFCS Code 434) would be planted adjacent to the east of the riparian wetland forest at elevations between 105 and 106 feet NGVD to the north in Section 21 and below the 101-foot NGVD contour in Section 29 to the south. While these communities would be planted with upland species such as laurel oak and pine, they could become jurisdictional wetlands as the natural soil development processes occur because the hydrology will create saturated soils during portions of the year due to the seepage draining from the permeable sands placed to the east for over 1.25 miles.*

*A continuous swath of rangeland will be planted to the east up-slope of hardwood/conifer mixed forest to broaden the native habitat corridor along Wingate Creek and extending along the northern mine boundary to connect with similar habitat on the adjacent Duette Preserve as well as along the southern mine boundary to connect and integrate proposed pine flatwoods and herbaceous wetland communities. To the north, herbaceous rangeland species corresponding to FLUCFCS Code 310 would be planted. To the south, shrub species corresponding to FLUCFCS Code 320 would be planted.*

*The rangeland communities would be planted on lands graded to elevations ranging from below 100 feet NGVD to over 110 feet NGVD. All of the rangeland communities would be positioned in the landscape down-slope of pasture and xeric oak forest communities. As such, much of the rangeland would fall within the “mesic” category, with portions of the lowermost elevations periodically becoming saturated/inundated as defined on Page 18 of the Manatee County Phosphate Mining Reclamation Manual. Along the northern mine boundary, the rangeland would transition from mesic to xeric as the land surface elevation increases from west to east.*

*Above the rangeland communities, pastures are proposed to be established on land elevations ranging from 102 feet NGVD to over 112 feet NGVD, all of which will be uplands. Above 111 feet NGVD, a xeric oak community is proposed to be established. Due to the post-reclamation soil lithology proposed, the soils beneath the xeric oak forest community will be well drained and supportive of a xeric vegetative community.*

*Along the southern mine boundary, three freshwater marshes are proposed to be established in Section 28 below the 102-foot NGVD contour. These wetlands will be seepage-driven because the contributing*

watersheds extend up-slope to above 111 feet NGVD with sand-based lithology similar to that described above. West of Wingate Creek, wetland mixed hardwood/conifer forest (FLUCFCS Code 630) and mixed wetland hardwood forest (FLUCFCS Code 617) communities are proposed to be established to form a riparian corridor that would be extended westward with the establishment of hardwood/conifer mixed forest (FLUCFCS Code 434) communities so as to connect and integrate the proposed post-reclamation lake to be located in Section 29 with the Wingate Creek native habitat corridor. Figure RAI-19A illustrates that the northern portion of the riparian corridor will be positioned down-slope of lands ranging from 104 feet NGVD to above 111 feet NGVD. The resulting slope would be 0.53 percent, which would create a seepage that could cause the northern portions of the hardwood/conifer mixed forest to become jurisdictional wetlands as the soils develop.

The lake proposed to be located in Section 29 west of Wingate Creek is located in the areas to be mined last; therefore, backfill used to slope and create the lake and littoral zone will come from stockpiles. The lake will drain into the historic Wingate Creek channel at the southern mine boundary.

To further illustrate the similarities between the pre-mining and the post-reclamation topography, Figure RAI-19B has been prepared. As shown on this figure, land surface elevations have been illustrated in a digital elevation model format for both the pre-mining and post-reclamation conditions. With the exception of the post-reclamation lake, the remaining land surface elevations are comparable to the pre-mining conditions.

In conclusion, Figures RAI-19A and B, together with the discussion presented above, illustrate and explain how the post-reclamation communities planned will be supported by the post-reclamation topography and lithology. The hydrology and hydraulic evaluation presented in Appendix 19-A supports the discussion by quantifying storm response flow rates and volumes. As noted therein, post-reclamation flow responses would never exceed pre-mining conditions and would always be within eight percent of pre-mining conditions. (SR2/Pages 2-5 - 2-8)

19. Mosaic suggests the following condition of approval regarding the balance of clays stored between Manatee and Hardee Counties be used: (SR2/Page 2-10)

*“In order to maintain the clay balance between Manatee and Hardee counties, Mosaic shall comply with one of the following: 1) 8.0 MM tons of future clay storage capacity will be kept available within approved clay settling areas in Manatee County to balance the clays stored in Hardee County from the initial mining block of the SE Tract; or 2) Mosaic will obtain a variance from Hardee County where no equivalent clay exchange is required. A summary of this condition shall be provided in the annual report until the condition is fulfilled.”*

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**SECTION IV - RECOMMENDED REGIONAL CONDITIONS  
DRI #273 - WINGATE CREEK MINE SUBSTANTIAL DEVIATION  
MANATEE COUNTY**

**VEGETATION, WILDLIFE AND WETLANDS**

1. In the event that any additional state- or federally-listed species or colonies of species are discovered using the project site for breeding during the pre-clearing wildlife surveys or the pre-mining inspection, the developer shall immediately notify the Florida Fish and Wildlife Conservation Commission and implement the recommended measures for species protection.
2. Planning for the clearing of the additional areas to be mined shall consider listed species. Methods recommended by the Florida Fish and Wildlife Conservation Commission shall be employed for “herding” mobile species out of the area and into suitable adjacent habitat. Permits for relocating gopher tortoises and burrow commensals shall be obtained and implemented prior to impacts. A discussion of site activities related to listed species shall be included in each annual report.
3. Areas of recreated regionally-significant habitat (Freshwater Marsh and Upland Hardwood Forest) should be protected in perpetuity through the establishment of a conservation easement.
4. As committed, reclamation shall result in a more diverse vegetative cover than exists currently in terms of wildlife habitat and wetland and upland systems. A wildlife corridor suitable for the species which use the Duette Preserve should be created and maintained on the Wingate Creek Mine site post-reclamation. This corridor, including sufficient buffer to prevent degradation from future adjacent uses, may be established by conservation easement or title transfer.
5. Existing natural habitat which is permitted to be altered or eliminated shall be used as donor material for revegetation or mitigation where practicable.
6. Reclamation plans for the additional area to be mined should align with habitats on the adjacent Duette Preserve.

**WATER QUALITY & STORMWATER MANAGEMENT**

Best Management Practices shall be employed throughout preparation, mining and reclamation to prevent surface and groundwater quality impacts.

**SOILS**

Best Management Practices, including those identified in the ADA, shall be employed during site preparation, mining and reclamation to prevent soil erosion.

## **FLOODPLAINS**

There shall be no net loss of 100-year floodplain storage capacity.

## **WATER SUPPLY**

There shall be no increase in the rate of groundwater withdrawals above the currently permitted volume for the overall mine site.

## **WASTEWATER MANAGEMENT**

There shall be no increase in the rate of wastewater generation above the currently permitted volume for the overall mine site. In addition and as committed, no septic tanks shall be constructed within the mining expansion area.

## **TRANSPORTATION**

The Applicant has agreed to maintain the same truck shipment rates and haul routes designated in the existing Development Order. The parameters include:

- transport of up to 2.0 million dry tons of phosphate rock per year;
- utilization of the designated haul routes graphically depicted in *Map 6* (Page 11 of this Report);
- restriction from transporting product during “school bus hours”; and
- utilization of a single material transporter at any one time

## **AIR QUALITY**

Best Management Practices, including those identified in the ADA, shall be employed during site preparation, mining and reclamation to minimize air quality impacts.

## **HISTORICAL AND ARCHAEOLOGICAL RESOURCES**

If historical or archeological sites are discovered during mining operations, land disturbing activities shall cease until trained cultural resource experts can examine the area and determine, in consultation with DHR, whether the site is significant and, to the extent appropriate, assess the measures which will be taken to avoid, minimize, or mitigate any adverse impacts prior to continuation of mining activities.

## **MINING OPERATIONS**

Preparations for mining, mining and reclamation activities on the additional lands approved for mining under this Substantial Deviation shall proceed as described in the Application for Development Approval and supplemental materials.

**GENERAL CONDITIONS**

1. All provisions of the original Development Order shall remain intact unless superseded by specific Conditions to address the Wingate Creek Mine expansion or specifically deleted by the new Development Order.
2. Any approval of this development shall require that all of the developer commitments set forth in the S/D ADA and subsequent Sufficiency Responses, and summarized in Section III of this Report, be honored, except as they may be superseded by specific terms of the Development Order.
3. Payment for any future activities of the TBRPC with regard to this development including, but not limited to monitoring or enforcement actions, shall be paid to the TBRPC by the applicant/developer in accordance with the Rule 73C-40.0252, FAC.
4. The Development Order shall address any recommendation provided by the various DRI review agencies, if applicable, at the time of Development Order adoption.

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Commissioner Larry Bustle, Chair

ATTEST: \_\_\_\_\_  
Lori Denman, Recording Secretary

These comments and recommendations were approved by a majority vote of the Tampa Bay Regional Planning Council on this 9<sup>th</sup> day of April, 2012

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**SECTION V - REVIEW AGENCY COMMENTS/RECOMMENDATIONS  
DRI #273 - WINGATE CREEK MINE SUBSTANTIAL DEVIATION,  
MANATEE COUNTY**

**Comments for the following Review Agency(ies) are attached:**

Manatee County Building & Development Services

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MANATEE COUNTY  
FLORIDA

March 21, 2012

John Meyer  
Principal Planner  
Tampa Bay Regional Planning Council  
4000 Gateway Centre Blvd., Suite 100  
Pinellas Park, Florida 33782

**Subject: Mosaic Fertilizer, L.L.C., Wingate Creek Mine (TBRPC #DRI 273) Substantial Deviation, Final Report – Manatee County Comments**

Dear Mr. Meyer:

Manatee County staff has received the above referenced draft Final Report on March 6, 2012. We have reviewed the report and offer the following comments.

**1. Developer Commitments:**

- Item 5 on Page 27 – "No changes in the overburden removal or matrix extraction procedures and methods are proposed." Strike the rest of the sentence.
- Item 16 on Page 29 – Staff does not concur with the added Developer Clarifications regarding setbacks and vested rights. The applicant will be required to adhere to setback requirements as determined through a vested rights determination and will be required, at a minimum, to adhere to those setback requirements specified by Ordinance 08-21, Condition 10.
- Item 19 on Page 31 – Staff is still evaluating clay balance proposal and may propose an alternate condition.

**2. Section II- Regional Impacts-Vegetation, Wildlife and Wetlands:**

- Policy 4.44 of the Council's Strategic Regional Policy Plan states that impacts to LULC Wet Habitat should be mitigated at a ratio of 3:1. It appears that this ratio for mitigation is preempted by Chapter 373.414(18) of the Florida Statutes, which states that the Uniform Mitigation Assessment Methodology shall be the sole means to determine the amount of mitigation needed to offset adverse impacts to wetlands.

*Building and Development Services Department*  
Mailing Address: P. O. Box 1000 \* Street Address: 1112 Manatee Ave W., Bradenton, FL 34205  
WEB: [www.mymanatee.org](http://www.mymanatee.org) \* PHONE: 941.748.4501 \* FAX: 941.749.3071

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LARRY BUSTLE \* MICHAEL GALLEN\* JOHN R. CHAPPIE \* ROBIN DISABATINO \* DONNA HAYES \* CAROL WHITMORE \* JOE McCLASH  
*District 1                      District 2                      District 3                      District 4                      District 5                      District 6                      District 7*

**Subject: Mosaic Fertilizer, L.L.C., Wingate Creek Mine (TBRPC #DRI 273) Substantial Deviation, Final Report – Manatee County Comments**  
**Page 2 of 2**

**3. Recommended Regional Conditions Nos. 3 and 4 on Page 33.**

- Stipulation 3 recommends that recreated Freshwater Marsh and Upland Hardwood Forest be protected in perpetuity through the establishment of a conservation easement. It is not clear whether the stipulation is intended to require that all of these post reclamation habitats within the project be placed in a conservation easement or only reclamation areas associated with this NOPC.
- Staff recommends the following replacement language for proposed Stipulation 4: "Wingate Creek along with functionally-integrated wetlands and associated 30-foot wetland buffers shall be preserved at the completion of reclamation. Preservation of this habitat addresses wildlife corridors and connectivity between Duette Preserve and downstream preserved habitats as outlined in the goals, objectives, and policies of the Comprehensive Plan. Preservation may be established by conservation easement or title transfer".

Manatee County staff is still working on local issues with the Applicant with regards to vested rights related to setbacks, mining activities, reclamation activities, and clay storage. Staff is also reviewing the Wingate Creek Mine Substantial Deviation in light of Developer Commitments made at the Board of County Commissioner Hearing on March 1, 2012 for the Wingate Extension Project. Therefore, staff has outstanding concerns to resolve with the Applicant as reflected in our comments. In addition to State and Regional requirements, Wingate Creek Mine will be required to comply with the policies of the Manatee County Comprehensive Plan and the Manatee County Phosphate Mining Code, Ord. 04-39.

If you have questions regarding the content of our review, please feel free to contact us.

Sincerely,



Lisa Barrett, Planning Manager  
Building and Development Services  
Comprehensive Planning – Public Hearing Division

Cc William Clague, Manatee County  
Doug Means, Manatee County  
John Barnett, Manatee County  
Rob Brown, Manatee County  
Charlie Hunsicker, Manatee County  
Joel Christian, Manatee County  
Alissa Powers, Manatee County

**SECTION VI - MINUTES FROM APRIL 9, 2012 COUNCIL MEETING  
DRI #273 - WINGATE CREEK MINE SUBSTANTIAL DEVIATION  
MANATEE COUNTY**

**TO BE  
PROVIDED**