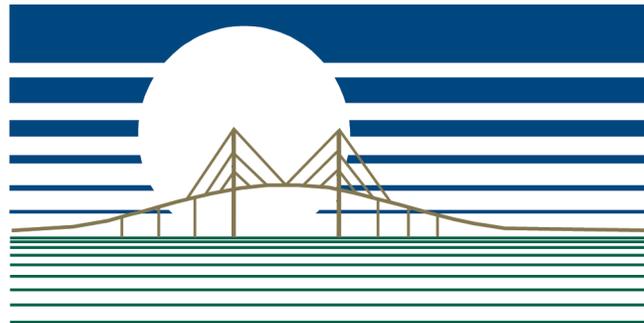


# FINAL REPORT

**DRI #263**

## **Hillsborough County Mine Consolidation S/D**

### **Hillsborough County**



*Tampa Bay Regional Planning Council*

4000 Gateway Center Boulevard, Suite 100, Pinellas Park, FL 33782  
Phone (727) 570-5151 Suncom 586-3217 FAX (727) 570-5118  
[www.tbrpc.org](http://www.tbrpc.org)

REPORT ADOPTED: May 14, 2007

**DRI #263 - HILLSBOROUGH COUNTY MINE CONSOLIDATION S/D  
HILLSBOROUGH COUNTY**

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**SECTION I - INTRODUCTION**  
**DRI #263 - HILLSBOROUGH COUNTY MINE CONSOLIDATION S/D**  
**HILLSBOROUGH 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 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 March 12, 1996, as amended.

<b>APPLICANT INFORMATION</b>	
<b>APPLICANT</b>	Mosaic Fertilizer, L.L.C. Post Office Box 2000 Mulberry, FL 33860
<b>AUTHORIZED AGENT</b>	Mr. Thomas Myers III Assistant Vice President - Mining Mosaic Fertilizer, L.L.C. Post Office Box 2000 Mulberry, FL 33860
<b>CONTACT PERSONS</b>	Ms. Lisa Lannon Permitting Engineer Mosaic Fertilizer, L.L.C. Post Office Box 2000 Mulberry, FL 33860
<b>APPLICANT COUNSEL</b>	Ms. Joyce Nader Saxon, Gilmore, Carraway Gibbons et al 201 E. Kennedy Blvd., Suite 600 Tampa, FL 33602
<b>CONSULTANTS</b>	Golder Associates, Inc. 5100 W. Lemon St., Suite 114 Tampa, FL 33609 (Stormwater Management)
	Lincks & Associates 5023 W. Laurel Street Tampa, FL 33607 (Transportation)

APPLICANT INFORMATION	
<b>CONSULTANTS (CONTINUED)</b>	Panamerican Consultants, Inc. 5910 Benjamin Center Dr., Suite 120 Tampa, FL 33634 (Historical & Archaeological)
	Florida Engineering & Design, Inc. 2054 E. Edgewood Drive Lakeland, FL 33803 (Mining Operation)
	Environmental Consulting & Technology, Inc. 1408 N. Westshore Blvd., Suite 115 Tampa, FL 33607 (All Other Issues)

CHRONOLOGY OF PROJECT:	
Preapplication Conference	- March 28, 2005
ADA Submittal	- March 28, 2006
Site Visit	- April 25, 2006
ADA Response	- April 27, 2006
Sufficiency Response #1 (extension granted)	- October 13, 2006
Comments to SR1	- November 9, 2006
Sufficiency Response #2 (SR2)	- February 20, 2007
Declared Sufficient (by TBRPC) & notified Hillsborough County to Set Hearing Date	- March 22, 2007
Notification Received of Hearing Date	- [REDACTED]
TBRPC Final Report	- May 14, 2007
Hillsborough County BOCC meeting (Scheduled)	- [REDACTED]

## PROJECT DESCRIPTION

Mosaic Fertilizer, L.L.C. is seeking Substantial Deviation Development of Regional Impact (DRI) approval to expand mining operations and other modifications in southern Hillsborough County. The additional seven parcels (totaling 1,540± acres) are internal to the existing Hillsborough County Mine DRI, both north and south of S.R. 674. It appears that the closest expansion parcel is approximately 1.5 miles away from Manatee County and approximately 2.25 miles from Polk County. **Map 1** (of this Report) is a General Location Map for the existing project. **Map 2** provides an aerial photograph of the overall site and additional parcels. The proposal involves the following requests:

- revision to the mining plans to add seven parcels (totaling 1,540± acres) and delete 8,946 acres which have previously been mined and reclaimed;

- approval of a mine infrastructure corridor including deletion of two previously-approved crossings and the expansion of a crossing of the Little Manatee River;
- relocation of three NPDES surface water discharge outfalls;
- consolidation of the 2.5 million tons per year production capacity approved for the Lonesome Plant location to the existing Four Corners Plant location, including installation of “state-of-the-art” separation technology at Four Corners;
- revisions to the clay settling area siting plans and reclamation plans, wetland impacts and mitigation associated with the parcels being added and the already-completed activities, as appropriate; and
- amend and restate the existing Hillsborough County Mines Consolidation Development Order to reflect new conditions pertaining to the additional parcels and deletion of conditions pertaining to the parcel being removed.

The reclamation program involves restoring mined land to their original uses, to the maximum extent practicable, as outlined in the Application for Development Approval and subsequent documentation. Sections #3 (*Developer Commitments*) and/or #4 (*Recommended Regional Conditions*) of this Report provide great detail about the type and extent of reclamation activities which have been committed and/or will be required. **Map 3** illustrates the Post-Reclamation Vegetative Cover. In addition, certain identified portions of the parcels will be preserved and/or “not disturbed.”

**Map 4** has been provided to indicate the *Natural Resources of Regional Significance* located within and adjacent to the project site.

The applicant has requested a slight increase in the number of trips associated with product shipment described elsewhere in this Report. The proposed revisions to the haul routes are characterized in **Map 5**.

The following table represents the overall and mining acreage associated with this *Final Report*:

DRI	SITE	TOTAL AREA	TO BE MINED OR DISTURBED	NOT DISTURBED
213	Consolidation Phase (93-071)	35,473	28,425	7,048
	Extension Parcel (95-062)	17,915	14,706	3,209
	<b>SUBTOTAL →</b>	<b>53,388</b>	<b>43,131</b>	<b>10,257</b>
263	<b>ADDITIONAL PARCELS</b> (See the following Table)	1,540	1,300	240
	<b>DELETED PARCELS</b> (Alafia State Park + Others)	(8,946)	(7,430)	(1,516)
	<b>SUBTOTAL →</b>	<b>(7,406)</b>	<b>(6,130)</b>	<b>(1,276)</b>
<b>REVISED OVERALL MINING TOTAL →</b>		<b>45,982</b>	<b>37,001</b>	<b>8,981</b>

The expansion area is located in following Section/Township/Ranges:

PARCEL #	SECTION(S)	TOWNSHIP	RANGE	ACRES ±	TOTAL
1	6	32S	22E	79.5	79.5
2	10	32S	22E	66.5	66.5
3	<b>NO LONGER APPLICABLE TO THIS PROPOSAL</b>				
4	16	32S	22E	1.2	9.6
		33S		8.4	
5	30	33S	22E	39.5	39.5
6	19	33S	22E	109.2	109.2
7	21	32S	21E	39.1	485.4
	22			324.2	
	28			122.1	
8	20	32S	21E	140.8	750.1
	21			326.2	
	28			162.8	
	29			120.3	
<b>TOTAL →</b>					<b>1,539.8</b>

DRI #263/ADA/Table 10-2 (revised) as further modified by subsequent removal of Parcel 3 in SR3.

## **PROJECT HISTORY**

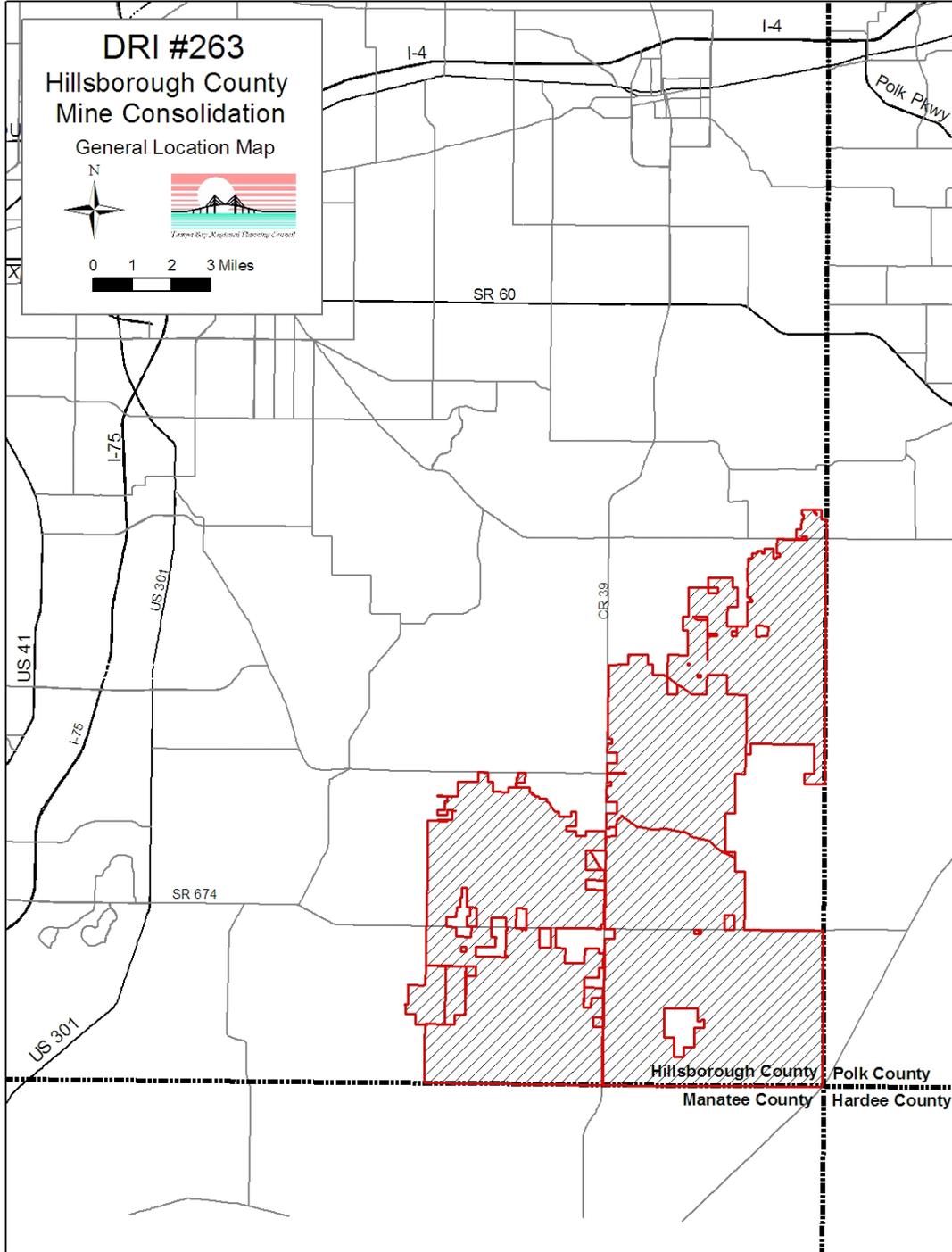
On July 21, 1993, Hillsborough County granted a Development Order (Resolution R93-0170) to IMC Fertilizer, Inc. (IMCF) for consolidation of IMC's existing approved mines in Hillsborough County (Kingsford, Lonesome and Four Corners Mine) into one mine. The Development Order authorized changes to these mines during Phase I, also referred to as the "Consolidation Phase." Although the Kingsford and Four Corners Mine are located in more than one county, this Substantial Deviation only addresses those portions of the Mines located in Hillsborough County. The latter development, Phase II or the "Expansion Phase," was not addressed as part of this Development Order.

The changes to the original mines included the following: the removal of approximately 850 acres from the Lonesome Mine (LSM) site; the addition of 3,248 mineable acres within the existing mines' boundaries; a revision to the mining schedule and equipment utilization; a time extension for mining; a revision to the clay and sand tailing storage areas and disposal methods; the approval of trucking as a method for transporting product from the plants; the addition of a railroad to connect all three mine plants; the upgrading of the Lonesome Plant operations; and additional 25-year floodplain, wetland and roadway crossings requirements.

Phase II of the project, “the Expansion Phase” was approved by Hillsborough County on March 23, 1995 (Resolution No. 95-062) for the addition of 17,915 acres (14,706 mineable acres) to the project. The amendment also: extended the mining schedule to 2017 (a cumulative four-year extension); extended the reclamation schedule to 2026 (a cumulative 11-year extension); extended the Development Order by 14 years (to December 31, 2027); added nine new tributary floodplain crossings; and revised tailings and clay disposal plans, including the size, capacity and general location of nine clay settling ponds in the Expansion area. The amendment indicates which conditions are applicable to which part of the project. Generally, the conditions of the older DRIs are applicable to the added areas, unless superseded by stricter conditions.

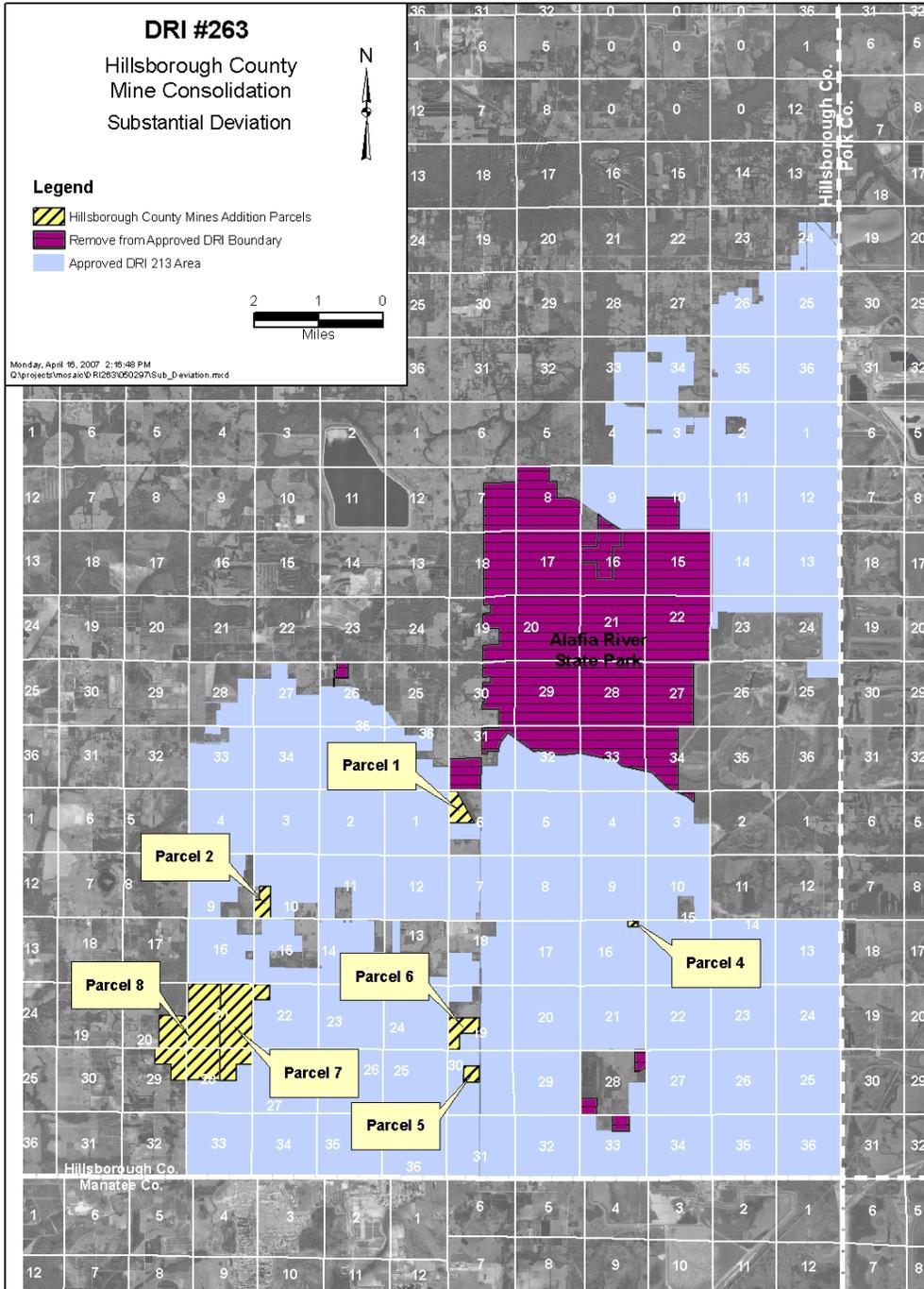
The Development Order has been amended five times, most recently on January 25, 2005 (Resolution No. R05-021). The amendments have cumulatively added 549 acres to the project, authorized a “temporary” rerouting of truck trips exiting the Lonesome Mine facility, recognized the new name of developer (Mosaic Phosphates Co.) and agent (Mr. Thomas Myers); and allowed an additional screening station in the Lonesome Mine area.

**MAP #1**  
**DRI #263 - HILLSBOROUGH COUNTY MINE CONSOLIDATION S/D**  
**GENERAL LOCATION MAP**



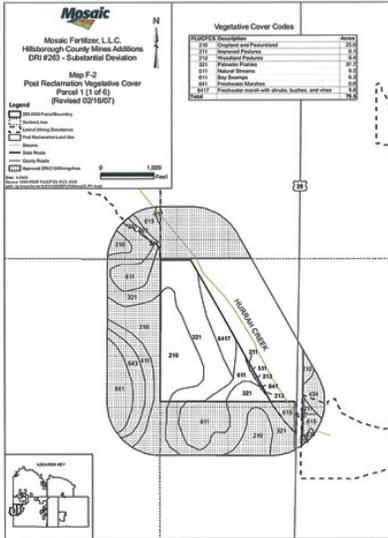
# MAP #2

## DRI #263 - HILLSBOROUGH COUNTY MINE CONSOLIDATION S/D AERIAL PHOTOGRAPH

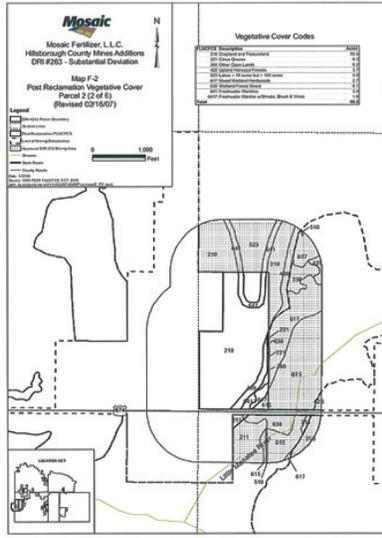


# MAP #3 DRI #263 - HILLSBOROUGH COUNTY MINE CONSOLIDATION S/D POST-RECLAMATION VEGETATIVE COVER

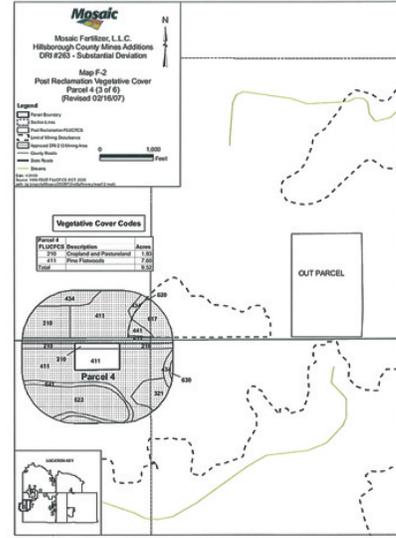
## Parcel 1



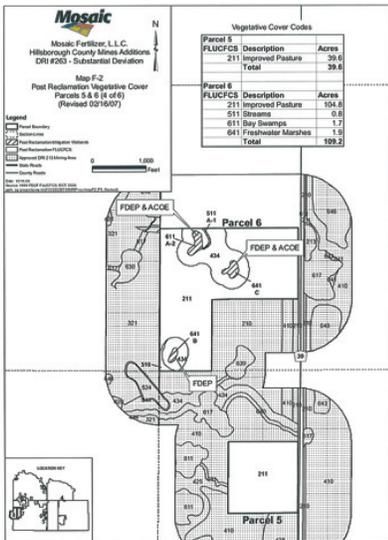
## Parcel 2



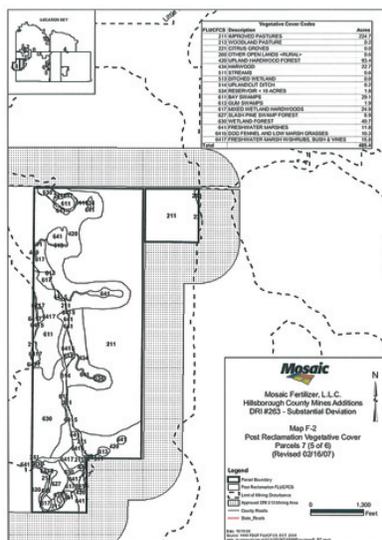
## Parcel 4



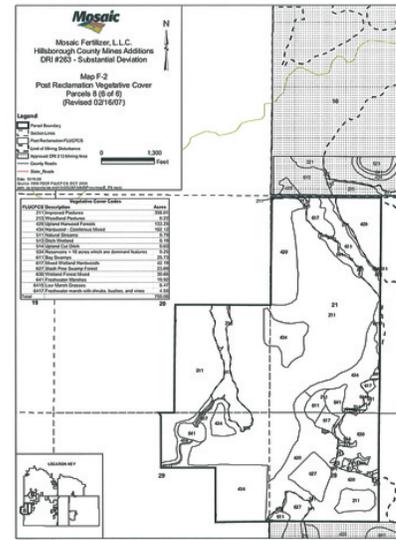
## Parcel 5 & 6



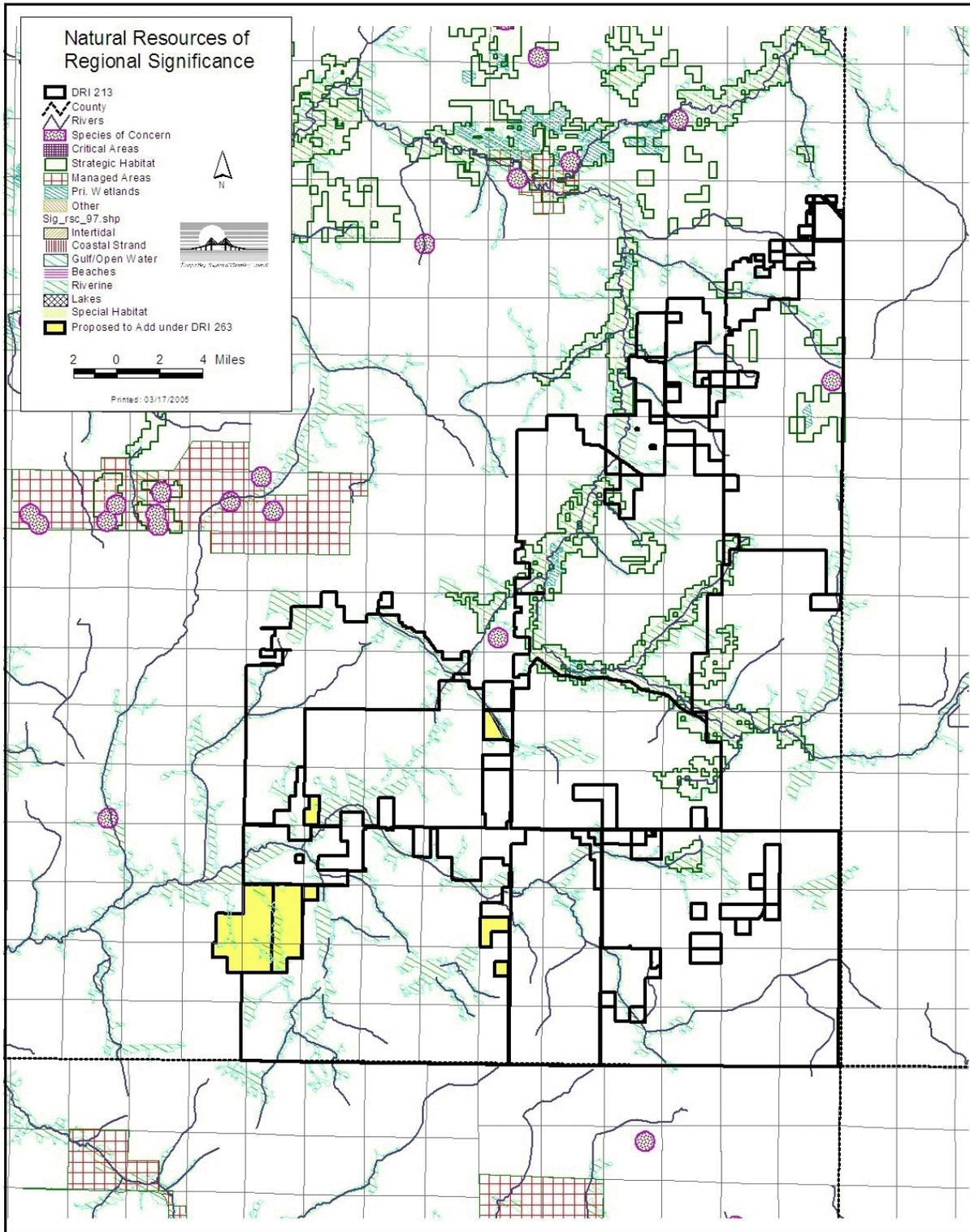
## Parcel 7



## Parcel 8



**MAP #4**  
**DRI #263 - HILLSBOROUGH COUNTY MINE CONSOLIDATION S/D**  
**NATURAL RESOURCES OF REGIONAL SIGNIFICANCE**





**SECTION II - REGIONAL IMPACTS**  
**DRI #263 - HILLSBOROUGH COUNTY MINE CONSOLIDATION S/D**  
**HILLSBOROUGH COUNTY**

**ECONOMY**

**Revenues Generated**

The Hillsborough County Mines Addition will provide significant revenues in the form of ad valorem taxes; sales and gas tax; severance tax receipts; and fees collected. These annual revenues are expected to total over \$4,000,000 a year during the project, with a total of almost \$61 Million over 15 years.

**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. Last year the property was taxed at \$2.15 Million, expectations are for this number to increase once operations begin.

**Yearly Sales and Gas Tax**

The Hillsborough County Mine is anticipating around \$800,000 in sales tax for goods and materials supplied to the site. The nearby Four County Mine paid over \$10,000 in motor fuel taxes for 2004. Expectations for the Hillsborough County Mine remain the same for the future.

**Severance Taxes**

The total severance tax applied to phosphate rock over the next 15 years should be approximately, \$16,400,000, of which Hillsborough County would receive \$2,048,000. This equates to almost \$1.1 Million dollars in total severance tax annually over this period, with Hillsborough receiving \$136,000 annually.

**Impact Fees**

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

**VEGETATION, WILDLIFE AND WETLANDS**

The proposed additional parcels are comprised of residential dwellings, improved pasture, forested pasture, row crops, citrus groves, and various natural habitat. Natural plant communities include Xeric oak and Hardwood-conifer mixed upland forest; Natural stream (unnamed tributaries to Hurrah Creek, the Little Manatee River, and the South Prong Little Manatee River), Bay swamp, Gum swamp, Mixed wetland hammock, Slash pine swamp forest, Wetland forested mixed, freshwater marsh, and wet prairie. The following table shows the existing acreage of each habitat type, the acreage of each expected to remain undisturbed, and the acreage expected to be recreated after mining and reclamation.

Type of Habitat/Land Use	Acreage Present	Acreage to Remain Undisturbed	% of Existing to Remain Undisturbed	Acreage to be Recreated
Improved pasture	658.1	10.3	1.6	716.6
Woodland pasture	71.8	0.7	0.1	0
Row crops	116.0	0	0	0
Citrus groves	247.0	0	0	0
Xeric oak forest	4.6	0	0	0
Temperate hardwood forest	0.2	0	0	0
Hardwood-conifer mixed	33.4	0	0	124.8
Natural streams	1.6	0.2	12.5	2.2
Bay swamp	53.9	48.8	90.5	14.0
Gum swamp	1.0	0.5	50	1.4
Mixed wetland hardwoods	68.2	58.2	85.3	11.6
Slash pine swamp	24.2	14.6	60.3	16.0
Wetland mixed hardwood-coniferous	73.3	70.9	96.7	0.6
Freshwater marsh	136.5	34.0	24.9	53.5
Wet prairie	0.2	0	0	0
Palmetto prairie	0	NA	NA	37.7

Source: SR3, Table 12-1 Revised.

The disturbance will be for mining-related activities, such as mining, dragline crossings, unpaved access roads, pipelines, etc. An estimated 227.9 acres (48.6%) of the 468.9 acres of natural habitat will not be disturbed, including most of the Bay swamp, Mixed wetland hardwoods, Slash pine swamp, and Mixed hardwood-coniferous wetlands. These are all wetland communities. It is planned that post-mining reclamation will recreate significant hardwood-conifer mixed upland and freshwater marsh habitat, as well as improved pasture.

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*, occur in Parcels 1,2,7 and 8 and consist of Riverine wetlands, which includes freshwater marsh, mixed wetland hardwoods, slash pine swamp and wetland mixed hardwood-coniferous forest. There are also several areas which are used by state- or federally listed species. These could also be considered to be natural resources of regional significance, pursuant to Policy 4.5.7 of the *SRPP*.

Listed species identified on the project site or highly-likely to occur include American alligator, Gopher tortoise, White Ibis, Florida sandhill crane, Peregrine falcon, Southeastern American kestrel - southeastern subspecies, Limpkin, Sherman's fox squirrel, Florida Mouse and Simpson's Zephyr lily. Bald Eagle nests occur in the area, though apparently not on the parcels proposed for addition to the project. Because one nest is within 1,000 feet of a mine parcel, setbacks may be required by federal or state law.

Regional wildlife corridors have been established by Mosaic, consistent with FDEP's Integrated Habitat Network. These corridors are established on a mine-wide basis across the Lonesome and Four Corners Mines. Use of the proposed alternate corridor will allow two IHN segments to be completed 15 years earlier than now planned.

Cattle grazing occurs in all habitat types on the site, and will continue until mining activities begin on specific portions of the site. Some existing agricultural uses are expected to resume after reclamation. Prior to any disturbance for mining, each mining unit will again be surveyed for the presence of listed species, in case species was missed during or has begun inhabiting the site since the pre-approval surveys. The survey findings will be incorporated into the mining plan. The protection methods to be employed are detailed on pages 12-16 and 12-17 of the ADA, and include relocation, allowing the species to migrate, and protection of habitat. A Site Habitat and Management Plan has been prepared for the Hillsborough County Mines project and approved by Hillsborough County. This plan will be modified to incorporate the additional parcels and used to manage listed species on the additional parcels. The goal is to maintain a natural population on or adjacent to the site so that repopulation can occur post-reclamation.

As can be seen in the table above, wetlands are planned to be impacted, including most of the freshwater marsh, prime feeding areas for wading birds. Reclamation will recreate less than half the marsh habitat to be lost. However, additional wetland reclamation will occur outside the addition parcels to ensure at least acre-for-acre wetland replacement. Care will be taken to ensure that the topographic, hydrologic, soil and subsoil conditions necessary for successful recolonization and vegetation of the post-reclamation habitat plan are provided. Topsoil from the wetlands to be mined will be used to revegetate reclaimed areas. The overall reclamation plan for the Hillsborough County Mines is to produce a mosaic of habitats that mimic natural conditions. The wetlands within the 100-year floodplain will not be directly impacted, and it is planned that those wetlands not subject to mining will be protected from siltation, dewatering, or other mining-related activities.

Mosaic has received formal wetland boundary determination from the FL Department of Environmental Protection for Parcels 1-6.

The proposed change in pipeline corridors will necessitate changes in stream crossings. The use of existing dragline crossing "G" will result in disruption of the Integrated Habitat Network which has been fully restored in the area and a longer pipeline. Crossing "O" occurs where the floodplain is only 400 feet wide and the dragline crossing has already been constructed, so the impacts to the wetlands have already occurred. About one-half acre of tree and shrub clearing will be necessary.

Restoration after use will restore floodplain habitat. The deletion of crossings “D” and “M” will also result in less floodplain disruption than was approved for the Hillsborough County Mines project.

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

- 4.5.1. *Protect, preserve and restore all regionally-significant natural resources shown on the Map of Regionally-Significant Natural Resources.*
- 4.5.2. *Impacts to regionally-significant natural resources shall be allowed only in cases of overriding public interest and when it is demonstrated and/or documented that the mitigation will successfully recreate the specific resource. Mitigation should meet the following minimum ratios:*
  - *Riverine habitats                      3:1*
- 4.5.6. *Mitigation for restoring disturbed habitat of a similar nature, including the removal of exotic plant species, may be acceptable. The minimum acceptable ratio shall be twice the habitat re-creation ratio set forth in policy 4.5.2.*
- 4.5.7. *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.*
- 4.5.10. *Maintain a minimum horizontal buffer necessary to preserve the natural value and function of the regionally-significant natural resource.*
- 4.5.12: *Prohibit hardening of unaltered shorelines or other structural lining of natural waterways or shorelines, except when required by watershed and/or stormwater management plans.*
- 4.6.6: *Evaluate the potential to mitigate adverse impacts resulting from prior alteration of natural hydrologic and circulation patterns in surface and groundwater (e.g., finger canals, altered streams, saltwater intrusion, causeways).*
- 4.9.3: *Encourage the removal of invasive, exotic species such as punk tree (Melaleuca), Australian pine (Casuarina) and Brazilian pepper (Schinus) and the replacement by native species.*
- 4.11.6: *Land use decisions shall be consistent with federal- and state-listed species protection and recovery plans, and adopted habitat management guidelines.*

## **WATER QUALITY AND STORMWATER MANAGEMENT**

The proposed Addition Parcels are located in the South Prong of the Alafia and the Little Manatee River watersheds. Surface water features or conveyances include the Hurrah Creek tributary to the South Prong, unnamed tributaries to the Little Manatee River, and a large tributary of the Little Manatee River. The smaller tributaries have been channelized. Both waterbodies are designated Class III waters. The Little Manatee River is also designated Outstanding Florida Waters in the vicinity of the proposed Addition Parcels.

The proposed project is not expected to impact the Floridan aquifer. Surface water quality in the rivers has been monitored since the mid 1970s. Typical contamination due to agricultural (cattle, citrus and row crop) practices is observed. Groundwater quality measurements showed normal iron and aluminum levels for the area, and elevated nitrate levels (probably due to application of fertilizers in agricultural areas and from cattle operations). Iron, aluminum, nitrates, radium and gross alpha levels exceed drinking water standards, but potable use is not planned.

Natural water table elevations will be affected by mining operations. In order to negate the effect on wetlands and surface waters mining practices include use of ditch and berm systems, system performance monitoring for prompt adjustment in case of need, and recharge system installation. Process waters used in mining will be separated from natural waterbodies. Water is used to transport the ore to the plant and to transport sand tailings back to the mine cuts. Recirculation water, captured from rainfall on the area under mining, is pumped to the clay settling areas for temporary storage and clarification. It is then used to recharge ground and surface waters through the recharge system. If excess water accumulates in the recharge ditches due to above-average rainfall, the excess is discharged through a permitted outfall. This water must meet applicable State surface water quality standards.

Stormwater drainage patterns will be restored by reclaiming the area. The extensive ditching associated with agriculture will be eliminated in the post-reclamation landscape, replaced by sheet flow and meandering channels.

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

- 4.1.1 *Implement plans to prevent, abate and control surface water and groundwater pollution so that the resource meets state standards.*
- 4.2.1 *Implement plans to prevent, abate and control groundwater pollution so that the resource meets state or local standards, whichever is more stringent.*
- 4.3.6 *Encourage the use of the lowest quality water reasonably available, suitable and environmentally-appropriate to a given purpose in order to reduce the use of potable-quality water for irrigation and other non-potable purposes.*
- 4.3.9 *Promote environmentally acceptable effluent disposal alternatives, toward the goal of achieving 100 percent reuse throughout the region.*
- 4.4.4 *Implement water reclamation and reuse alternatives for stormwater disposal to surface water bodies, as appropriate.*
- 4.4.5 *Provide sufficient inspection and maintenance of all stormwater facilities.*
- 4.12.4 *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 wide 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, predominantly Zolfo, Orlando, Seffnerf, Myakka, Ona , Smyrna, and Winder fine sands, 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 and clay from the mining process, will be used in reclamation. Post reclamation the soils of the mined areas will be classified as Arents (graded overburden) and Quartzipsamments or Neilhurst sands (sand backfill and graded overburden). Arents soils are moderately well-suited for pasture, habitat for upland wildlife, and dwellings without basements. Neilhurst sands are poorly suited for citrus and other row crops unless irrigated, but is moderately suited for pasture and pine silviculture.

Steps will be taken to control erosion during preparation, mining, and reclamation. Clearing will be limited to lands planned to be mined in the immediate future. Wind-caused erosion will be reduced by the grassed berms surrounding the mining area, and by covering the post-mining graded areas with topsoil or planting with a quick-germinating cover crop. Water-caused erosion will be prevented by using the ditch-berm system of isolating mining areas from areas to remain undisturbed, including streams. Turbid water is collected and directed to the clay settling areas or to the internal recirculation system. Details of erosion control measures and soil reclamation are found on pages 15-1 - 15-5 of the ADA.

## **FLOODPLAINS**

Mosaic proposes to mine within a small portion of the 100-year floodplain in Parcel 1, as shown on Map C-2 (of SR1). Hillsborough County must specifically approve any mining in the 25-year floodplain. No erosion problems currently exist, and it is expected that standard measures used to control erosion during all phases of the mining operation will protect surface waters from erosion. Post-mining reclamation will restore hydrologic regime and result in more wetlands than pre-mining.

Adherence to the following list of Goals and/or Policies of the Council's *Strategic Regional Policy Plan* will help minimize impacts in the areas of Floodplains:

- 4.6.9 *Protect the water storage and water quality enhancement functions of wetland and floodplain areas through acquisition and/or application of Best Management Practices.*
- 4.11.3 *Implement floodplain management strategies to prevent erosion, retard runoff and protect natural functions and values.*

## **WATER SUPPLY**

The water demand will not increase over the currently permitted levels as a result of the mining area expansion. The applicant has significantly reduced the amount of water demand as the use of

production wells has decreased over the past years. This trend is projected to continue. Water demand has, and will continue to be, limited to only the domestic needs of the employees and effectively eliminate all Floridan Aquifer withdrawals except during extremely dry conditions.

The applicant will submit an application to plug and abandon all current water wells proposed for disturbance within the property boundaries. All other wells will remain operational. No new production water supply wells will be drilled in association with the mining expansion.

## **WASTEWATER MANAGEMENT**

The rate of domestic or industrial wastewater generation will not increase over the currently permitted levels for the Hillsborough County Mine Consolidation DRI as a result of the mining area expansion. In essence, the applicant will be extending the currently permitted quantity of wastewater to 2027, representing the estimated time period to mine and reclaim the expansion area. Additionally, the relocation of discharge outfalls, as already approved by the DRI 213 Development Order, will result in water being discharged from the mine boundary in different locations; however, these relocations do not constitute new discharges into the Little Manatee River or the South Prong Alafia River.

The mine's domestic wastewater treatment plant effluent is discharged into the mine recirculation water system, reusing 100 percent of the treated domestic effluent.

## **TRANSPORTATION**

Since no increase is proposed for mining personnel, only a slight increase is proposed for daily truck shipments, and the fact that new product destination sites will utilize the currently-approved haul routes, no additional significant impacts are anticipated to the current transportation system.

While maintaining the assumed 808 employment, delivery and visitor trips daily at the Ft. Lonesome Mine and Four Corners Mine initially estimated for the site, the applicant proposes to increase the average annual daily truck trips by 34 (to 556) for the combined Ft. Lonesome and Four Corners Mine sites. This increase consists of eliminating 144 of the approved 160 daily truck trips at Ft. Lonesome Mine facility and a proposed increase of 178 daily truck trips at Four Corners (to 540) in comparison with the approvals previously granted in the Development Order for DRI #213.

The product destination sites of *Big Bend* and *Riverview* will utilize the same haul route previously approved for the *Port Sutton* facility, which is located further north on U.S. 41 in the Port of Tampa. In addition, the newly-proposed *South Pierce* product destination site will utilize the previous C.R. 630 haul route assigned to the *Rockland* facility, which is located further to the east in western Polk County. The length of the haul routes are actually being reduced with these new product destination sites. A map of haul routes and new destination sites is provided as **Map 5** (Page 10) of this Report.

## **AIR QUALITY**

The mining operation will employ a number of conventional techniques to minimize fugitive dust generation during mining and reclamation. These measures include: limiting the clearing of lands 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 state rules; and using quick-germinating temporary cover crops on reclaimed land.

Adherence to the following Goals and/or Policies of the Council's *Strategic Regional Policy Plan* would help minimize the air quality impacts of the proposed project:

4.13.7 *Encourage the development and implementation of innovative and cost-effective pollution prevention and control technologies.*

4.14.5 *Implement land-use related performance standards, such as setbacks and prohibition of conflicting land uses, that minimize negative air quality impacts resulting from development.*

4.15.8 *Encourage the development and implementation of innovative and cost-effective pollution prevention and control technologies.*

## **HISTORICAL AND ARCHEOLOGICAL**

The additional parcels have 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. Following the applicant's voluntary removal of Parcel #3 from expansion consideration in the current application, FDHR concurred with the applicant's findings that "the proposed development will have no effect on cultural resources listed or eligible for listing in the *National Register of Historic Places*, or otherwise of historical, architectural or archaeological value." Parcel #3 did contain the historic structures known as the "Earl Reynolds Sugar Cane Syrup House" (8HI9969) and the "Earl Reynolds Log Kitchen" (8HI9968).

## **MINING OPERATIONS**

Through the DRI process Mosaic is seeking permission or updating the approved DRI #213 to:

- to add seven parcels, totalling 1,540 acres, approximately 1,251.8 acres of which will be disturbed and/or mined;
- to remove 8,946 acres of mined and reclaimed land which is now almost entirely the Alafia River State Park;
- to relocate three NPDES outfalls;
- to add a mine infrastructure corridor, using an already-approved stream crossing, to reach the Four Corners beneficiation plant located in Manatee County;
- to revise the product transportation plan;
- to reflect the deletion of two previously-approved stream crossings; and
- to incorporate clay settling area shapes approved by the Environmental Protection Commission of Hillsborough County.

The phosphate rock (approximately ten million tons of apatite) will be mined using conventional dragline surface mining techniques, the mined matrix slurried to the Four Corners beneficiation plant, and the excavated areas backfilled with tailing sand generated at the Four Corners plant. The Addition Parcels are surrounded by previously-approved mining area, and will be incorporated into the mining schedule already in place. Reclamation will incorporate these parcels as well, making a seamless mosaic of habitats, including streams, marshes and forests.

The Alafia River State Park is a heavily-used recreation area with a variety of amenities and habitats bordering the river. It includes habitats undisturbed by mining as well as reclaimed lands, and is managed by the Florida Department of Environmental Protection, fully separate from Mosaic's interests.

The proposed mine infrastructure corridor will include water, phosphate matrix, and sand tailings pipelines, electrical power lines and an access road, but no clay slurry lines. It will traverse about 40,600 linear feet and cross the Little Manatee River at the approved, and prepared, dragline crossing "O." The general width of the pipeline corridor will be about 400 feet, but where it crosses the river it will be compressed to 200 feet, including the 149 feet of the already-approved dragline crossing. The additional 51 feet will not be impacted to the same degree as for a dragline crossing, since the pipelines will be trestled. Less than 0.5-acres of wetland impact will be associated with the crossing.

Radium-226 is the indicator radionuclide for potential radiological impacts from phosphate mining and reclamation. Radon-222, its immediate decay product, is a noble gas that can seep through soils and enter structures built on the soils, where its decay products (called radon progeny) can accumulate. Polonium-210, one of the decay products, has been observed in ground water. All are known to cause adverse health effects at high concentrations, but the concentrations of these radionuclides that have been observed in the phosphate region are close to background levels and hundreds of thousands of times lower than concentrations known to cause adverse health effects. Studies have been conducted concerning the potential impacts to surface and ground water, and are summarized on pages 35-9 - 35-10 of the ADA. Monitoring of surface and groundwater also reveals no statistically-significant increase in levels above normal. Additionally, because of the concern for radiation exposure from the consumption of foods grown on reclaimed lands, studies were conducted to compare foods grown on lands unaffected by mining and foods grown on reclaimed land. The studies found that while foods grown on soils with Radium-226 concentrations 2-3 times higher than average background levels had higher concentrations of radioactivity, the radiation doses from the consumption of those foods were negligible.

Adherence to the following Goals and/or Policies of the Council's *Strategic Regional Policy Plan* (1998) would help minimize the impact of mining:

*Goal 4.12: Mining practices shall not degrade regionally-significant natural resources.*

4.12.2: *Design mining practices to protect regionally-significant natural resources from the adverse effects of resource extraction.*

- 4.12.3: *Promote landscape reclamation, including, but not limited to establishing functional and diverse ecological communities, achieving a balance of human uses and natural lands, engineering post-reclamation hydrology compatible with regional hydrology, and establishing post-reclamation land use compatible with the reclamation technique, as part of any mining plan.*
- 4.12.4: *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.*
- 4.12.5: *Utilize vegetation native to the Tampa Bay region for mining reclamation and mitigation.*
- 4.12.9: *Development permits shall include a maintenance and monitoring plan to prohibit mining in areas which are geologically or hydrologically unsuited for the extraction of minerals.*
- 4.12.10: *Within mining plans, require the preservation of sufficient contiguous upland areas adjacent to the 25-year flood plain for the purpose of establishing/maintaining wildlife corridors, greenways, buffering the floodplain and promoting healthy wetland systems' values and functions. Protect these areas from adverse adjacent mining activity impacts, erosion, and vegetation loss.*
- 4.12.11: *Prior to any land clearing for mining activities, the habitats of species listed in 39-27.003-.005, F.A.C. and 50 CFR 17.11-12 should be identified and mapped with an opportunity to review by the Florida Game and Fresh Water Fish Commission (FGFWFC), 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 FGFWFC, the U.S. Fish and Wildlife Service and the local government. The plan should be in effect throughout the mining and reclamation period.*

**SECTION III - DEVELOPER COMMITMENTS**  
**DRI #263 - HILLSBOROUGH COUNTY MINE CONSOLIDATION S/D**  
**HILLSBOROUGH 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).

**GENERAL**

1. *Because the expected mine life of DRI 213 had been shortened - due to preservation of ecologically valuable lands - the changes requested in this application do not necessitate an increase in the approved mine life or an extension of the termination date as set forth in the DRI 213 Development Order. (ADA/Page i)*
2. *Access to the Addition Parcels will be accomplished without needing to create new access corridors. No additional clay settling areas will need to be constructed as a result of the additional acres to be mined. (ADA/Page 10-3)*
3. *... all of the lands disturbed by mining activities will be reclaimed over a period of 20 years. (ADA/Page 10-6)*
4. *The site will continue to be used for agricultural activities up until mining activities begin. (ADA/Page 10-6)*
5. *Mining setbacks will be established when mining units are submitted. (ADA/Page 10-9)*
6. *Mosaic is not proposing to increase groundwater withdrawals to mine the Addition Parcels. No diversions of surface water are proposed. No disturbance below the 25-year floodplain elevation is proposed. (ADA/Page 10-10)*
7. *Mosaic has, and will continue to, submit annual reports. As part of the annual reports, Mosaic will continue to provide evidence of financial responsibility in the amounts required. (ADA/Page 10-10)*
8. *The revised MMRP being submitted concurrently with this ADA contains additional stations to collect data in the vicinity of the Addition Parcels. (ADA/Page 10-14)*
9. *Mosaic is not proposing to conduct new development in these riverine systems and, in fact, the Company has granted a conservation easement to the State of Florida on the majority of these systems [Developer clarification: except Crossing "O"]. (SR1/Page 10-2)*

## VEGETATION AND WILDLIFE

1. *Approval of Mosaic's alternate pipeline corridor would allow two IHN [Integrated Habitat Network] segments to be completed 15 years earlier than now planned. (ADA/Page 10-16)*
2. *Mosaic has prepared a Site Habitat and Management plan for the DRI 213 area that has been approved by Hillsborough County in accordance with the provisions of Section 8.02.08A.18b of the LDC. Although there is no upland significant and essential wildlife habitat on the Addition Parcels, the elements of the DRI 213 Plan will be applied to manage listed species and wildlife on the Parcels. (ADA/Page 12-15)*
3. *Mosaic's biologist(s) will survey each mining unit prior to any disturbance associated with mining. Results of the surveys and actions taken will be reported to regulatory agencies during project status annual reports. (ADA/Pages 12-15 - 12-16)*
4. *Protection Methods. Species will be protected by (ADA/Page 12-16):*
  - *Relocation to reclaimed suitable habitat or other protected areas elsewhere on Mosaic property, but not necessarily on the Addition Parcels;*
  - *Planned or natural reintroduction into reclamation areas, depending upon specific species requirements;*
  - *Allowing the species to migrate to adjacent habitat on their own; and/or*
  - *Protecting the habitat that is proposed not to be disturbed.*
5. *The relocation of listed species found in areas scheduled for disturbance will be accomplished in several ways (ADA/Page 12-16):*
  - *By direct capture and relocation of species with limited mobility (e.g. gopher tortoises, Florida mice, etc.); or*
  - *For more mobile species, the FFWCC best management practices will be used to conduct preclearing surveys prior to mining. These surveys will locate current populations of species prior to clearing. Clearing activities can then be modified, if necessary, to proceed in a manner that "herds" or gathers those species into an adjoining refuge area or unmined lands.*
6. *No actions or relocations will occur until after USFWS and FFWCC have reviewed the results of the preclearing surveys and all necessary permits have been obtained. (ADA/Page 12-16)*
7. *Listed species occurring in habitats not proposed to be disturbed will not be relocated. Mosaic will protect these species through habitat preservation, habitat management, and restriction of public access. (ADA/Page 12-17)*

8. *Mosaic works with, and obtains the necessary permits from, the Florida Fish and Wildlife Conservation Commission and the U.S. Fish and Wildlife Service to develop species-specific management plans for all listed species that may be impacted by Mosaic's planned mining activities. These management plans are implemented on Mosaic's lands, which extend beyond Hillsborough County and include lands that have been reclaimed and are mature. (SR1/Page 12-1)*
9. *Table 12-1 in the ADA demonstrates that more habitat for listed species will exist in the post-reclamation landscape, including an increase of 45 acres of palmetto prairie and pine flatwoods, 324 acres of upland forest communities, 18 acres of forested wetlands, and 41 acres of herbaceous wetlands. (SR1/Page 12-2)*

## **WETLANDS**

1. *Mosaic's mitigation plan does not propose any specific direct enhancement activities within the undisturbed wetlands or uplands. All mitigation needed to fulfill the obligations imposed by Section 373.414(18), F.S. and Chapter 62-345, F.A.C. will be accomplished through wetland creation..... (ADA/Page 13-3)*
2. *Mosaic will utilize a series of proven techniques to protect wetland areas adjacent to active mining and reclamation operations. Limits to 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 in adjacent on the waterside of the areas to be disturbed. Subsequently, perimeter berms will be constructed and vegetated with a quick germinating cover crop of winter rye or brown top millet and bahia grass. (ADA/Page 13-4)*
3. *The perimeter berms... will be designed to catch and contain process water and stormwater runoff from active areas, recharge ditches or other like systems, and keep the adjacent wetlands hydrated during the time they are separated from their respective watershed. A source of clear water, such as rainwater, dewatering well discharge, overburden drainage into the active mine cut and/or mine recirculation water, will be used to supply recharge water to the ditches. Input to the recharge ditches will be adjusted to maintain appropriate ground water and surface water elevations. (ADA/Page 13-4)*
4. *Mosaic is proposing to mitigate for all wetland impacts by creating wetlands within the post-reclamation landscape. (ADA/Page 13-4)*
5. *Within areas to be mined, wetlands will be drained, cleared and mined. Wherever practicable, topsoil from wetlands to be mined will be removed as part of the land clearing step for use in creating new wetlands. The wetland topsoil will be directly transferred to wetlands being reclaimed or stockpiled for later use. Stockpiled topsoil will be covered with a layer of overburden to reduce oxidation of organic matter and inoculation with weed seeds. (ADA/Page 13-5)*

6. *All locations where created wetlands will join the downstream avoided wetlands will be surveyed to provide not only the cross sections, but also gradients along the wetland upstream and downstream of the limit of mining disturbance. (ADA/Page 13-8)*
7. *Once the initial topography design has been established, hydrologic models will be applied to the sub-basins that will drain into each created connected wetland. The modeling will be used to determine whether the hydrologic attributes of the contributing sub-basin(s) will support the created and downstream wetlands in terms of hydroperiod, flow duration, and other factors/ The design topography will then be revised, if necessary, to achieve the desired hydrologic attributes. (ADA/Page 13-8)*
8. *Once the initial microtopographic design has been established, hydrologic models will be used to predict the surface water runoff into and groundwater inflow and outflow conditions that will affect the created wetland. The modeling will be used to determine whether the microtopography will result in a hydroperiod suitable for that wetland type and in zonation, if appropriate. The design microtopography will be revised, if necessary, to achieve the desired hydroperiod and zonation. (ADA/Page 13-8)*
9. *Soil stability will be achieved in reclaimed wetland systems through the use of a combination of gentle slopes, rapid revegetation, small storm water berms and/or swales, buffer zones of upland forest plantings, and in certain applications, the use of mulch, hay bales, silt screens and other temporary structural measures. Any erosion that might occur from extreme rainfall events will be repaired and replanted until a self-sustaining vegetative cover is established. (ADA/Page 13-8)*
10. *Mosaic will create a suitable topsoil to support reclaimed wetlands when and where topsoiling is not feasible. Topsoil in these wetlands will consist of approximately three inches of overburden spread over tailing sand. A quick growing cover crop will be established on these soils, and disked before the cover crop produces seeds... An application of fertilizer based upon soil testing will be added to aid in the establishment and vigorous growth of the cover crop. The cap will be broken up and incorporated with the cover crop into the tailing sand during plowing. (ADA/Page 13-8)*
11. *All soils beneath created wetlands will be created by reconstruction of soil in a layered manner that is appropriate for the target reclaimed land use. (ADA/Page 13-9)*
12. *Forested Wetlands. Trees will be planted at a density to achieve a final 400 trees per acre with trees greater than 12 feet in height after five growing seasons. The shrub understory strata of the forested wetlands will also be planted with a typical mix of desirable herbaceous wetland plants on 3-foot centers to provide cover and competition for invasive species. Where and when topsoiled muck is used to create these vegetation communities, the planting densities will be adjusted to account for the muck seed source. (ADA/Page 13-9)*

13. *Herbaceous Wetlands. Where the use of wetland muck does not produce the appropriate plant assemblage, a combination of desirable native emergents will be planted on 3-ft centers or about 4,800 plants per acre within the herb and shrub-dominated wetlands... Within the shrub marshes, native shrubby species will also be planted on 10-ft centers. Plants to be installed will consist of species listed as "Typical," "Associated," or "Additional" for shallow marshes, wet prairie, and shrub marsh in 'A Guide to Selected Florida Wetland Plants and Communities' published by the USACOE Jacksonville District in 1988 (ADA/Pages 13-9 - 13-10)*
14. *In order to ensure that the created wetlands meet success criteria that will be specified in the ERP (e.g. percent cover, species dominance, nuisance species presence, etc.), Mosaic will implement the wetland management/maintenance flow chart illustrated in Figure 13-10 [of the ADA]. (ADA/Page 13-10)*
15. *The stream channels to be created will be designed by applying stream restoration principles that have been developed over the last five to 10 years. The designs will reflect the current state-of-the-art, recognizing that disturbance of certain existing channel segments will not occur for many years. (ADA/Page 13-10)*
16. *Prior to stream disturbance, Rosgen reference reach surveys [Developer clarification: or equivalent] will be performed on representative streams. The surveys will provide background data that will enhance the design of the created channels. (ADA/Page 13-10)*
17. *The plans are to mitigate the proposed impacts by creating and/or enhancing wetlands on an acre-for-acre and type-for-type or better basis, pending the approval of EPC/HC, FDEP, and ACOE. (SR1/Page 10-5)*
18. *Mosaic is proposing to impact less than 800 feet of a minor stream on Parcel 1 due to the ability to maintain or improve the ecological conditions of this stream segment combined with the phosphate reserve losses that would result from its avoidance. (SR1/Page 13-4)*
19. *Mosaic is proposing to impact less than 300 feet of a minor stream on Parcel 6 due to the ability to maintain or improve the ecological condition as a result of the historic changes made to the drainage patterns by prior landowners. (SR1/Page 13-4)*
20. *There will not be a reduction in post reclamation herbaceous wetland acres. (SR2/Page 10-5)*

## **WATER QUALITY**

1. *Water table measurements were taken manually on a weekly basis [Developer clarification: or as required by the Southwest Florida Water Management District]; these measurements are ongoing. (ADA/Page 14-7)*

2. *Mosaic will implement the following measures to avoid potential adverse impacts upon ground and surface water hydrology and water quality on, beneath, and downgradient of the Addition Parcels: Maintenance of Water Table Elevations (Ditch and Berm System, System Performance Monitoring, Design Variables and Installation Schedule); Stream Flows; and Water Quality (Mine Recirculation System, Tailings Backfill and Wetlands). (ADA/Pages 14-9 - 14-13)*

## **SOILS**

1. *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 with a quick germinating cover crop. (ADA/Pages 15-2 & 22-1)*
2. *The area for disturbance is isolated from any streams, tributaries, wetlands, water bodies, drainage features, or watercourses that are not designated for mining before site preparation and construction activities are started. This is accomplished by the construction of a ditch and berm system that separates the area to be disturbed from the protection areas... Any turbid water flow will be collected and directed to clay settling areas or back into the internal recirculation water system where it will be allowed to clarify... After revegetation of the reclaimed areas and demonstration of meeting water quality standards, the ditch and berm system is removed. (ADA/Page 15-2)*
3. *All of the land proposed to be mined will be backfilled with sand or reclaimed by shaping overburden spoils as part of the reclamation process... All of the sand backfill will originate from the Mosaic mine property and all overburden spoil generated by mining the Addition Parcels will be beneficially used onsite as part of the reclamation process. None of the sand or overburden is proposed to be sold. (ADA/Page 15-2)*
4. *The grassing of the perimeter berms around the mining and reclamation areas is done as soon as the berm is in place and the outside slopes have undergone final grading. (SR2/Page 15-2)*

## **FLOODPLAINS**

1. *No mining activities are proposed to be conducted in the undeveloped [100-year] floodplain [Developer clarification: other than a small amount in Addition Parcel #1]. (ADA/Page 10-19)*

2. *With the exception of the proposed expansion of one infrastructure crossing, Mosaic's plans to mine and reclaim the Additions Parcels will not result in the disturbance of hydrologically significant floodplain features. No other disturbance of hydrologically significant wetlands or other natural floodplains features of the Alafia and Little Manatee River or tributaries are proposed to occur. (ADA/Page 10-21)*
3. *... Mosaic will reclaim the Addition Parcels to land surface elevations that approximate the current elevations and topography. (ADA/Page 16-1)*
4. *No structures, roadways or utilities are proposed within the post-development 100-year flood prone areas on the Addition Parcel. (ADA/Page 16-2)*
5. *Mosaic is not proposing to divert or dam any streams. However, Mosaic is proposing to eliminate numerous existing upland cut ditches, a change that will retard runoff rates on the reclaimed land surface. In addition, the post-reclamation conditions will include more wetland acres than currently exist, which will increase the flood storage capacity on the Additions Parcels. (ADA/Page 16-2)*
6. *Mosaic will not mine within the existing 25-year floodplain. (ADA/Page 19-1)*

#### **WATER SUPPLY**

1. *No increase in authorized well water withdrawals is proposed, nor are new production water wells proposed. (ADA/Page 10-3)*
2. *Mosaic provides about 95 percent of its needs through implementation of onsite re-use programs. Mining of the Addition Parcels will not affect the mine-wide water demands. (ADA/Page 10-15)*
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 10-22)*

#### **WASTEWATER MANAGEMENT**

1. *During the years that mining and reclamation activities occur on lands addressed by this ADA, such portable facilities will be relocated onto these lands; however, the [existing] aggregate mine-wide volume will not change. Employees who work at the beneficiation plant will continue to use the existing Mosaic facilities. Treated effluent generated at these existing Mosaic facilities at the beneficiation plant is discharged into the mine recirculation water system for reuse... This practice will continue throughout the duration of mining. (ADA/Page 18-2)*

2. *The relocation of discharge outfalls, as already approved by the DRI 213 Development Order, will result in water being discharged from the mine boundary in different locations; however, these relocations do not constitute new discharges into the Little Manatee River or the South Prong Alafia River. (ADA/Page 18-2)*
3. *Mosaic maintains a mine-wide recirculation system to provide all of the water required to: (1) slurry and transport the phosphate matrix from the dragline mining site to the central beneficiation plant; (2) wash, screen, size, and beneficiate (recover) wet phosphate rock product; and (3) hydraulically transport sand and clay residuals to backfill mine excavations. (ADA/Page 18-2)*
4. *No septic tanks will be required to complete mining and reclamation of the Addition Parcels. (ADA/Page 18-3)*

### **STORMWATER MANAGEMENT**

1. *The existing drainage patterns will be re-established by grading the mined (and backfilled) land to the elevations shown on Figures 2 and 3 [of the ADA] to form drainage divides which approximate existing conditions. (ADA/Page 19-1)*
2. *Typical cross sections for the lake proposed to be built on Parcels 3 and 7 will consist of littoral zones that cover at least 25 percent of the high water surface area and submerged vegetation zones less than six feet deep that cover at least 20 percent of the low water surface area. Further, no portions of the cross sections of these lakes will have slopes steeper than 1 foot vertical to 4 feet horizontal. (ADA/Page 19-2)*

### **TRANSPORTATION**

1. While maintaining the 808 employment, delivery and visitor trips daily at the Ft. Lonesome Mine and Four Corners Mine combined, as currently approved under the DRI 213 Development Order, the applicant proposes to decrease the number of trips associated with the Ft. Lonesome Mine by 202 trips (to 220), with a corresponding increase of the identical the number of trips at the Four Corners Mine (to 588). (ADA/Page 21-2)
2. The applicant has proposed an increase of 34 average annual daily truck trips (to 556) for the combined Ft. Lonesome and Four Corners Mine sites. This increase consists of eliminating 144 of the approved 160 daily truck trips at Ft. Lonesome Mine facility and a proposed increase of 178 daily truck trips at Four Corners (to 540) in comparison with the approvals granted by the existing DRI 213 Development Order. (ADA/Page 21-2 as revised by SR1/Page 21-1)
3. The applicant proposes to maintain the 910 maximum daily product shipment trucks due to redistribution. (ADA/Page 21-2)

4. *There will be no change to the existing access to the sites. (ADA/Page 21-5)*
5. *[Production] Employees will operate on three shifts with no shift beginning or ending during the typical street peak hours. (SR1/Page 21-1)*

### **AIR QUALITY**

*There are several structures on the Addition Parcels that will be demolished in advance of mining in the vicinity of each respective structure. Prior to demolition, Mosaic will contract with a licensed asbestos contractor to conduct definitive asbestos surveys. The demolition of any structures found to contain ACMs will be conducted by licensed asbestos abatement contractors. All ACMs will be disposed of offsite in licensed landfills. (ADA/Page 22-1)*

### **HURRICANE PREPAREDNESS**

*Mosaic modified its hurricane season standard operating procedure (SOP) as a result of the magnitude and duration of power outages experienced in the 2004 hurricane season. Mosaic now rents generators and/or employs the use of diesel-operated pumps at all critical locations during the hurricane season to assure the appropriate control of the water within the recirculation/containment system. (SR2/Page 13-1)*

### **HISTORICAL AND ARCHAEOLOGICAL SITES**

*In the event that Mosaic acquires the parcel(s) containing the Earl Reynolds Sugar Cane Syrup House (8HI9969) and the Earl Rogers Log Kitchen (8HI9968) historic structures with the intention of mining, Mosaic will move these structures in advance of mining to protect them from adverse impacts if Mr. Reynolds does not elect to move them. (ADA/Pages 30-1 - 30-2)*

### **MINING OPERATIONS**

1. *No clay slurries will be transported in the proposed new pipelines [associated with Crossing "O"]. (ADA/Page 35-3)*
2. *Mosaic is not proposing to change the mine-wide annual rate of extraction of minerals nor the amount of material spoiled from the rates presented and approved in DRI 213. (ADA/Page 35-6)*
3. *Proper access and toe roads will be constructed and maintained to facilitate adequate dam inspections. Grass on the dams will be maintained to prevent erosion and mowed to allow visibility for inspection. (ADA/Page 35-8)*
4. *Mosaic personnel will "perform periodic inspections and maintenance of retaining dikes." (ADA/Page 35-8)*

5. *As part of the application to construct each dam, an Emergency Response Plan will be prepared and submitted to FDEP and Hillsborough County. (ADA/Page 35-8)*
6. *No onsite processing of ore or minerals is proposed. (ADA/Page 35-9)*
7. *For those areas that will receive tailings sand fill, the schedule assumes three years after mining to place the tailings prior to the start of reclamation. In the areas where no tailings sand backfill is planned, reclamation is projected to start in the year following mining. (ADA/Page 35-12)*
8. *Monitoring and supplemental planting, as specified and necessary to achieve the post-reclamation vegetative condition, will continue on an as-needed basis until the land is deemed reclaimed by Hillsborough County and FDEP. In addition, the ditch and berm systems will be left in place and will be reclaimed two years after the adjoining areas are reclaimed to give time for vegetation to stabilize the soil. (ADA/Page 35-12)*
9. *Mosaic will reclaim the clay settling areas by constructing and maintaining a series of ditches on the settled clay to drain surface water runoff; further consolidate the clay; and convert the consolidated clay into the soil type described in the response to Question 15. (ADA/Page 35-13)*
10. *In flatwoods, longleaf pine or South Florida slash pine will be planted in the appropriate areas to achieve densities between 25 and 75 trees per acre. In flatwoods and dry prairie, shrubs typical of central Florida flatwoods and dry prairies will be recruited from the topsoiling, planted, and/or seeded to achieve a minimum average density of 300 shrubs per acre. The total vegetative cover in hydric flatwoods will be greater than 80 percent, in mesic flatwoods and dry prairie will be greater than 60 percent, and in scrubby flatwoods greater than 40 percent. (ADA/Page 35-14)*
11. *Areas designated as sand live oak or xeric oak scrub will be reclaimed by placing several feet of sand tailings over the overburden and topsoiling with direct transfer of 3 to 6 inches of native topsoil from scrubby flatwoods or scrub... Trees and shrubs typical of Central Florida scrubs will be recruited from the topsoil, planted, and/or seeded to achieve a minimum density of 600 plants per acre... Where special habitat is required for species such as the Florida mouse, the density will include various patches containing 200 trees or shrubs per acre. Vegetative cover will be greater than 40 percent. (ADA/Page 35-14)*
12. *The NPDES outfall relocations are not proposed to be modified or amended due to the incorporation of the DRI 263 Parcels into the mine. (SR1/Page G-3)*

**SECTION IV - RECOMMENDED REGIONAL CONDITIONS**  
**DRI #263 - HILLSBOROUGH COUNTY MINE CONSOLIDATION S/D**  
**HILLSBOROUGH COUNTY**

Subsection 380.06(15), F.S., requires that the local government render a decision on the development proposal within 30 days after a public hearing, and issue a development order containing, at minimum:

- findings of fact
- conclusions of law
- conditions of approval
- consideration of whether or not the development interferes with the achievement of the objectives of an adopted state land development plan applicable to the area
- consideration of whether the development is consistent with the local comprehensive plan and local land development regulations
- consideration of whether the development is consistent with the report and recommendations of the regional planning agency
- monitoring responsibility
- expiration dates for commencing development, compliance with conditions or phasing requirements and termination date of the order
- biennial report requirements
- substantial deviation determinations
- legal description of the property

Any Development Order adopted for the Hillsborough County Mine Consolidation S/D shall include the above-referenced Section 380.06, F.S., requirements and shall include the following recommended regional conditions:

**BASED ON THE FINDINGS AND THE ISSUES RAISED IN THIS REPORT, IT IS THE RECOMMENDATION OF THE TAMPA BAY REGIONAL PLANNING COUNCIL THAT THE HILLSBOROUGH COUNTY MINE CONSOLIDATION S/D DRI, AS CURRENTLY PROPOSED, BE APPROVED, SUBJECT TO THE FOLLOWING CONDITIONS, AT MINIMUM.**

**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, 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 areas to be mined shall consider the listed species of concern. Contact with the Florida Fish and Wildlife Conservation Commission and/or the US Fish and Wildlife Service shall be performed before each area is prepared for clearing. A discussion of site planning shall be included in each annual report.

3. The areas of regionally-significant habitat within the Addition Parcels, as shown on Map 4 of this Report, and subject to ground truthing, shall be protected in perpetuity.
4. Existing wetlands which are permitted to be altered or eliminated shall be used as donor material for revegetation or mitigation to the greatest extent practicable.
5. Existing agricultural activities on the site may continue until the area is prepared for mining, but at no greater density or intensity than at present.

### **WATER QUALITY & STORMWATER MANAGEMENT**

1. Erosion control measures such as siltation screens and hay bales shall be used to prevent surface water quality degradation. Best Management Practices shall be employed throughout preparation, mining and reclamation to minimize surface and groundwater quality impacts.
2. All existing wells which have no future use or attempted wells or test foundation holes shall be cement plugged by the firm of a licensed water well contractor (under SWFWMD Well Abandonment Permits(s)), or by test or foundation hole contractor in accordance with Rule 40D-3.041(1), F.A.C. Mere capping, burying or non-permitted filling of the well(s) will not suffice and can result in groundwater contamination. Test foundation holes that penetrate only sand or gravel, and no clayey layers, may be filled with drill cuttings. Existing wells will be retained if proposed for use, properly fitted and permitted by the District. (SWFWMD)

### **SOILS**

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

### **FLOODPLAINS**

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

### **WATER SUPPLY**

1. There shall be no net increase in the public water demand in excess of the currently permitting volume as it pertains to the mining of the additional parcels.
2. As committed, Mosaic shall implement the following measures to avoid potential adverse impacts upon ground and surface water hydrology and water quality on, beneath, and downgradient of the Addition Parcels: Maintenance of Water Table Elevations (Ditch and Berm System, System Performance Monitoring, Design Variables and Installation Schedule); Stream Flows; and Water Quality (Mine Recirculation System, Tailings Backfill and Wetlands).

3. In order to ensure the protection of water resources, water table measurements shall continue to be taken manually on a weekly basis or as required by the Southwest Florida Water Management District.

### **WASTEWATER MANAGEMENT**

There shall be no increased wastewater generation in excess of the currently permitting volume as it pertains to the mining of the additional parcels.

### **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.

### **HURRICANE PREPAREDNESS**

Per Mosaic's revised standard operating procedures, as recognized during the course of S/D DRI review, the applicant shall ensure that all critical locations are provided alternative energy sources for the pumps during the hurricane season to assure the appropriate control of the water within the recirculation/containment systems.

### **HISTORICAL AND ARCHAEOLOGICAL RESOURCES**

1. If historical or archeological sites are discovered within the additional mine sites, the Florida Division of Historical Resources shall evaluate the significance of such findings and assess the measures which will be taken to avoid, minimize, or mitigate any adverse impacts prior to continuation of mining activities.
2. In the event the Parcel containing the *Earl Reynolds Sugar Cane Syrup House* (8HI9969) and the *Earl Reynolds Log Kitchen* (8HI9968) historic structures is acquired by Mosaic with the intention of mining, Mosaic shall contact the FDHR, once again, to determine the appropriate protection measures for these facilities.

### **MINING OPERATIONS**

Should the changes to pre-mining, mining or post-mining scenarios depart significantly from the schedules and methods described in the ADA or meet the criteria set forth in Subsection 380.06(19), F.S., the project will be subject to a Substantial Deviation determination.

### **GENERAL CONDITIONS**

1. All provisions of the Development Order for DRI #213 shall be incorporated into the Substantial Deviation Development Order unless revised to reflect the requested modifications reviewed under DRI #263.

2. Any approval of this development shall require that all of the developer commitments set forth in the 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. Any approval of Hillsborough County Mine Consolidation S/D shall, at minimum, satisfy the provisions of Subsection 380.06(15), F.S., and the following provisions of the Florida Administrative Code (F.A.C.): Rule 9J-2.041 (Listed Plant and Wildlife Resources Uniform Standard Rule); Rule 9J-2.043 (Archaeological and Historical Resources Uniform Standard Rule); Rule 9J-2.044 (Hazardous Material Usage, Potable Water, Wastewater, and Solid Waste Facilities Uniform Standard Rule); and Rule 9J-2.045 (Transportation Uniform Standard Rule).
4. 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 9J-2.0252, FAC.
5. The Development Order shall incorporate resolution of the issues raised by the Southwest Florida Water Management District, Tampa Bay Water and the Florida Division of Historical Resources (attached) to the extent appropriate.

---

Scott Black, 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 14th day of May, 2007.

**SECTION V - REVIEW AGENCY COMMENTS/RECOMMENDATIONS  
DRI #263 - HILLSBOROUGH COUNTY MINE CONSOLIDATION S/D  
HILLSBOROUGH COUNTY**

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

Southwest Florida Water Management District  
Tampa Bay Water  
Florida Division of Historical Resources





An Equal Opportunity Employer

# Southwest Florida Water Management District

**Barlow Service Office**  
170 Century Boulevard  
Barlow, Florida 33830-7700  
(863) 534-1448 or  
1-800-482-7882 (FL only)  
SUNCOM 572-6200

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

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

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

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

May 3, 2007

- Yalmadge G. "Jerry" Rice**  
Chair, Pasco
- Judith C. Whitehead**  
Vice Chair, Hernando
- Neil Combee**  
Secretary, Polk
- Jennifer E. Crosshey**  
Treasurer, Hillsborough
- Thomas G. Dabney**  
Sarasota
- Heidi B. McCree**  
Hillsborough
- Sally Parks**  
Pinellas
- Todd Pressman**  
Pinellas
- Maritza Rovire-Farina**  
Hillsborough
- Fatey C. Symons**  
DeSoto

**David L. Moore**  
Executive Director  
**William S. Blfenky**  
General Counsel

Mr. John Meyer  
Tampa Bay Regional Planning Council  
4000 Gateway Centre Boulevard, Suite 100  
Pinellas Park, Florida 33782

**SUBJECT: Hillsborough County Mines Addition, Substantial Deviation**

Dear Mr. Meyer:

Thanks for the opportunity to comment on the referenced application. We would like to see the following item incorporated into the recommended Development Order:

All existing wells which have no future use or attempted wells or test foundation holes shall be cement plugged by the firm of a licensed water well contractor (under SWFWMD Well Abandonment Permits (s)), or by test or foundation hole contractor in accordance with Rule 40D-3.041(1), F.A.C. Mere capping, burying or non-permitted filling of the well(s) will not suffice and can result in groundwater contamination. Test foundation holes that penetrate only sand or gravel, and no clayey layers, may be filled with drill cuttings. Existing wells may be retained if proposed for use, properly fitted and permitted by the District.

Again, thanks for this opportunity to provide feedback. Should you need further assistance, you can reach me in the District's Planning Department.

Sincerely,

Trisha Neasman, AICP  
Governing Planning Coordinator

cc: John Healey, Hillsborough County  
Mike Kelley, SWFWMD

Rand Baldwin, SWFWMD

Received Time May. 3. 11:44AM

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**Board of Directors** Susan Lalvala, Mark Sharpe, Rick Baker, Ronnie Duncan,  
Al Higginbotham, Ann Hildebrand, Pam Iorio, Ted Schrader, Dan Tipton  
**General Manager** Jerry L. Maxwell  
**General Counsel** Richard A. Lolspeich  
2575 Enterprise Road, Clearwater, FL 33763-1102  
Phone: 727.796.2355 / Fax: 727.791.2388 / SunCam: 513.7010  
www.tampabaywater.org



SENT VIA FAX & US MAIL

April 26, 2007

Mr. John Meyer, DRI Coordinator  
Tampa Bay Regional Planning Council  
4000 Gateway Centre Boulevard, Suite 100  
Pinellas Park, FL 33782

**Re: DRI #263 – Hillsborough County Mine Consolidation S/D  
Recommended Development Conditions**

Dear Mr. Meyer:

Tampa Bay Water staff offer the following recommended development conditions for DRI #263/Hillsborough County Mine Consolidation S/D. The proposed development is for phosphate mining of land parcels located in southeastern Hillsborough County. One of the proposed mining parcels is located within the drainage basin of the Alafia River, which is a public water supply source, and as such, is considered a strategic regional resource. Thank you for considering our recommendations for development conditions for the Hillsborough County Mine Consolidation S/D DRI.

**Water Quality and Drainage:**

1. Pre-development hydrologic/hydraulic properties of all onsite wetlands should remain unaltered to maintain the quantity and timing of runoff discharges to offsite wetlands and creeks.
2. No wetland outlet or conveyance, either natural or man-made, should be lowered in elevation, which could cause lower water levels and reduced hydroperiods. No changes to wetland outlets or conveyances should occur unless it is to restore artificially connected or drained wetlands to a more natural state so that historic wetland water levels and flow quantities are restored.
3. Development/Mining activities shall not breach the clay-confining unit, and in no event shall contact with the limestone aquifer be allowed. The Applicant's responsibilities to prevent such a breach and to conduct any

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remedial actions that are required will be determined during the site plan permitting process.

4. In order to protect surface water quality, all stormwater and mine discharges to the South Prong of the Alafia River and its tributaries shall meet all applicable State water quality standards. The applicant shall develop a surface water quality monitoring program approved by Hillsborough County, Southwest Florida Water Management District (SWFWMD), Florida Department of Environmental Protection (FDEP) and Tampa Bay Water, and shall be instituted before commencement of phosphate mining activities as defined in the Hillsborough County Land Development Code and continue through reclamation. Access to the monitoring sites shall be made available to the agencies listed above. One of the purposes of these monitoring programs is to ensure no adverse impact to the Alafia River, which is a regionally significant public water supply resource. The following parameters shall be included within any required water quality monitoring program:
  - a. Sampling locations and specific parameters (including nutrients, pesticides, herbicides, and stormwater parameters), frequency (minimum of twice annually) of monitoring, and reporting shall be subject to Hillsborough County, FDEP and other appropriate regulatory bodies' approval.
  - b. All water quality analytical methods and procedures shall be thoroughly documented and shall comply with the Environmental Protection Agency/FDEP quality control standards and requirements.
  - c. The monitoring results shall be submitted to FDEP, SWFWMD, Tampa Bay Water and Hillsborough County within 90 days of the sampling event. Should the monitoring indicate that applicable State water quality standards are not being met; the violation shall be reported by the Applicant to Hillsborough County and other appropriate regulatory bodies immediately. In the event there is a violation of any State water quality standard, the Applicant shall cease the specific construction or other activity identified as causing the violation shall cease until the violation is corrected. In the event that the specific mining or other activity causing the violation cannot be identified, all mining in the sub-basin shall cease until the violation is corrected.

5. A groundwater monitoring program for parcel no. 1 located adjacent to Hurrah Creek shall be developed in coordination with FDEP, SWFWMD and Tampa Bay Water to establish parameters, methodology, sampling frequency, and locations of monitoring sites. Any such program shall be submitted to FDEP, SWFWMD and Tampa Bay Water for review and for approval. The groundwater quality monitoring program shall be instituted at least one year before commencement of mining activities, as defined in the Hillsborough County Land Development Code, to provide background data and shall continue through reclamation of the mined land. In the event there is a violation of any State water quality standard, the Applicant shall cease the specific mining or other activity identified as causing the violation until the violation is corrected. Monitoring results shall be reported at least annually or more often as may be required, and shall be included in the Annual Report.

**Water Resource Protection:**

1. The applicants/developers shall comply with the Hillsborough County Wellhead Protection Ordinance.
2. Should any noticeable soil slumping or sinkhole formation become evident, the applicants/developers shall immediately notify the County, Tampa Bay Water and SWFWMD, and adopt one (1) or more of the following procedures as determined to be appropriate by the County and SWFWMD:
  - a. If the slumping or sinkhole formation becomes evident before or during construction activities, stop all work (except for mitigation activities) in the affected area and remain stopped until the County and SWFWMD approve resuming construction activities.
  - b. Take immediate measures to ensure no surface water drains into the affected areas.
  - c. Visually inspect the affected area.
  - d. Excavate and backfill as required to fill the affected area and prevent further subsidence.
  - e. Use geotextile materials in the backfilling operation, when appropriate.
  - f. If the affected area is in the vicinity of a water retention area, maintain a minimum vertical distance of five (5) feet from the

Mr. John Meyer, DRI Coordinator  
April 26, 2007  
Page 4

bottom of the retention pond to the surface of the limerock clay or karst connection.

- g. If the affected area is in the vicinity of a water retention area and the above methods do not stabilize the collapse, relocate the retention area.
- 3. Discharge of stormwater into depressions with direct or demonstrated hydrologic connection to the Floridian Aquifer is prohibited.
- 4. The historic, average, rainfall volume discharged from mined parcels within the Alafia River basin shall be maintained post mining. The applicant shall implement mining best management practices which achieve this requirement to the extent that the permitting agencies (Hillsborough County and SWFWMD) can allow.

Tampa Bay Water staff appreciates the opportunity to review and comment on land development-related activities. Please contact me at (727) 796-2355 if you have any questions, or if you need any further information.

Sincerely,



Terrence C. Thomas, P.G.  
Hydrogeologist

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

Mr. John Meyer  
Tampa Bay Regional Planning Council  
4000 Gateway Centre Boulevard, Suite 100  
Pinellas Park, Florida 33782

March 29, 2007

RE: DHR Project File Number: 2007-1479  
Received by DHR: February 22, 2007  
Development of Regional Impact – Second Sufficiency Response  
DRI #263 – Hillsborough County Mines Consolidation S/D  
Hillsborough County

Dear Mr. Meyer:

Our office received and reviewed the above referenced project in accordance with this agency's responsibilities under Section 380.06, *Florida Statutes*. The State Historic Preservation Officer is to advise in the identification of historic properties (listed or eligible for listing in the *National Register of Historic Places (NRHP)*, or otherwise of historical or architectural significance), assess effects upon them, and consider alternatives to avoid or minimize adverse effects.

A review of the Florida Master Site File and our records indicates that many cultural resource surveys have been conducted in the area proposed for mining. One of these, conducted by Calvin Jones and Scott McNutt, identified several archaeological sites that have yet to be evaluated for significance or eligibility for listing on the *National Register*. While most of these appear to have been destroyed by previous mining, Sites 8HI5343 and 8HI5382 appear to be within the area proposed for future mining.

In another survey in the project area, *Cultural Resource Assessment Survey of IMC Fertilizer Inc. Extension Area of the Hillsborough County Mines DRI Number 213*, additional sites were recommended for preservation or, if preservation was deemed impossible, additional investigation. Several of these have since been evaluated and determined ineligible for listing on the *National Register*. However, 7 of these sites remain potentially eligible and should be preserved. These sites are 8HI3791, 8HI3794, 8HI3795, 8HI3804, 8HI3817, 8HI3824, and 8HI3868.

- It is the opinion of this office that Sites 8HI3791, 8HI3794, 8HI3795, 8HI3804, 8HI3817, 8HI3824, 8HI3868, 8HI5343, and 8HI5382 should be avoided by project activities and preserved. A professional archaeologist should be consulted to determine the boundaries of the area to be preserved in a permanent conservation/preservation area identified in the property deed. We request that the applicant forward to our office written confirmation that these sites will be preserved (see enclosures).

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

<input type="checkbox"/> Director's Office (850) 245-6300 • FAX: 245-6435	<input type="checkbox"/> Archaeological Research (850) 245-6444 • FAX: 245-6452	<input checked="" type="checkbox"/> Historic Preservation (850) 245-6333 • FAX: 245-6437	<input type="checkbox"/> Historical Museums (850) 245-6400 • FAX: 245-6433
<input type="checkbox"/> Southeast Regional Office (561) 416-2115 • FAX: 416-2149	<input type="checkbox"/> Northeast Regional Office (904) 825-5045 • FAX: 825-5044	<input type="checkbox"/> Central Florida Regional Office (813) 272-3843 • FAX: 272-2340	

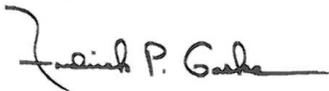
Mr. Meyer  
March 30, 2007  
Page 2

- If avoidance is not possible, a professional archaeologist should conduct a Phase II cultural resource site assessment of each of the above-referenced sites that is not able to be preserved prior to work commencement in the vicinity of the site. For any Phase II assessment that is conducted, the resultant report should conform to the specifications set forth in Chapter 1A-46, *Florida Administrative Code*, and will need to be forwarded to this agency in order to complete the process of reviewing the impact of this proposed project on historic properties.
- For the sites that are to be avoided and preserved, what protective measures will be implemented to assure that these sites are not impacted by heavy equipment or erosion? We recommend that all sites to be preserved be surrounded by a protective buffer zone and that fences are erected along the outside boundaries of the buffer zones prior to mining activities in the vicinity of the sites.
- All potentially significant archaeological sites should be included on a map. Those that will be preserved should be clearly marked as falling within a preservation area.

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

For any questions concerning our comments, please contact April Westerman, Historic Preservationist, by electronic mail [amwesterman@dos.state.fl.us](mailto:amwesterman@dos.state.fl.us), or at 850-245-6333 or 800-847-7278. We appreciate your continued interest in protecting Florida's historic properties.

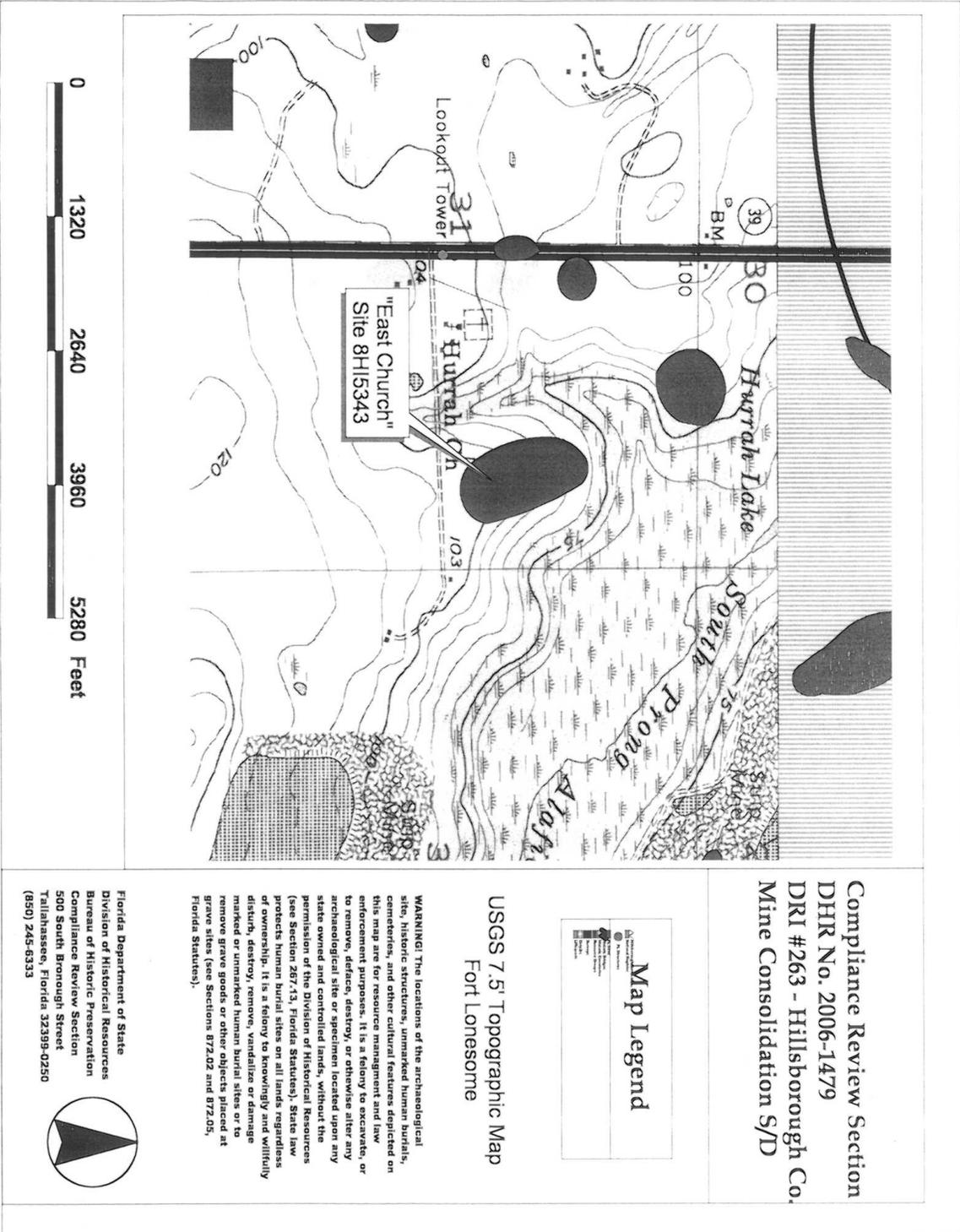
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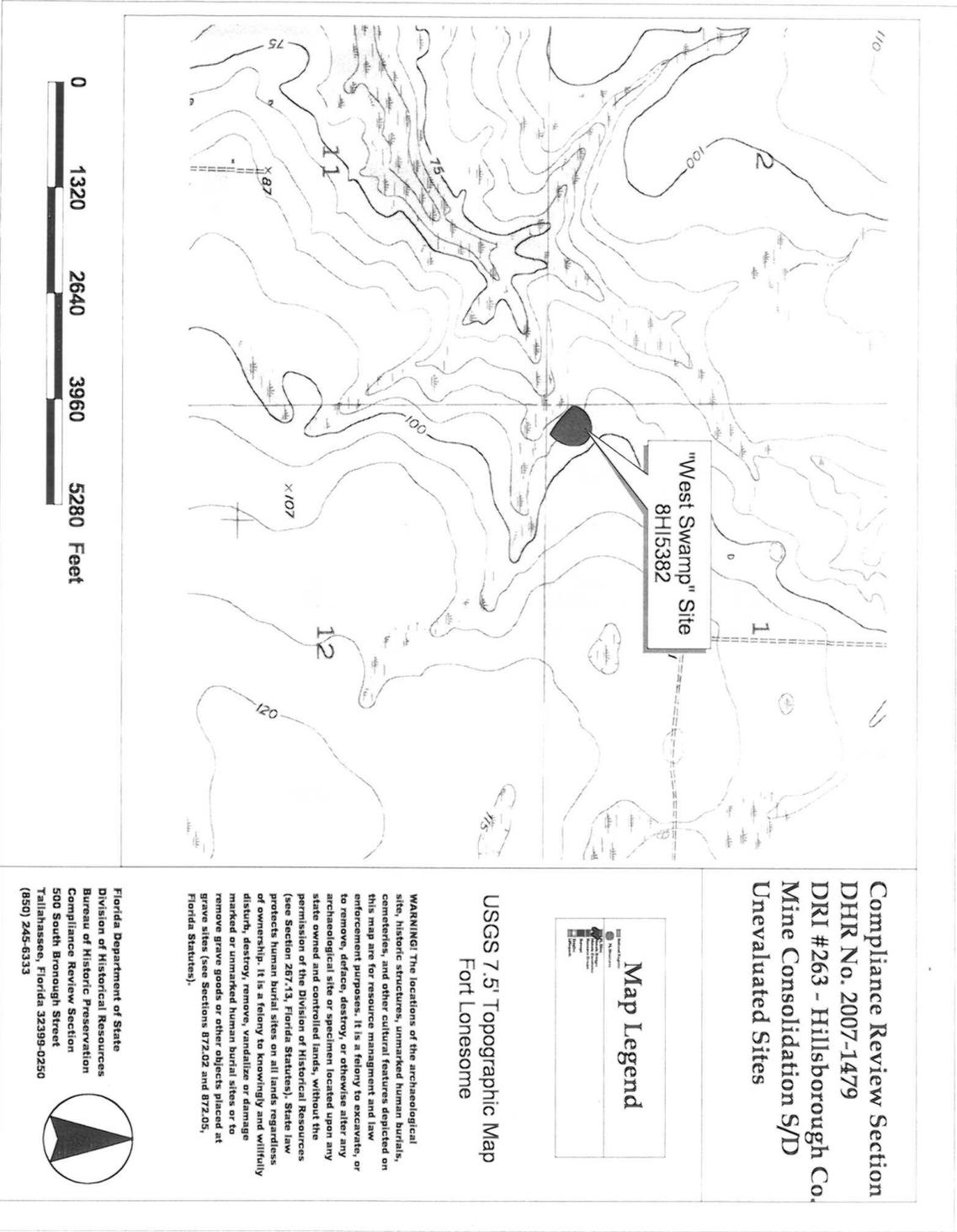


Frederick P. Gaske, Director, and  
State Historic Preservation Officer

Xc: Lisa Lannon, Mosaic Fertilizer, LLC  
Mike Stevenson, Hillsborough County Planning & Growth Management

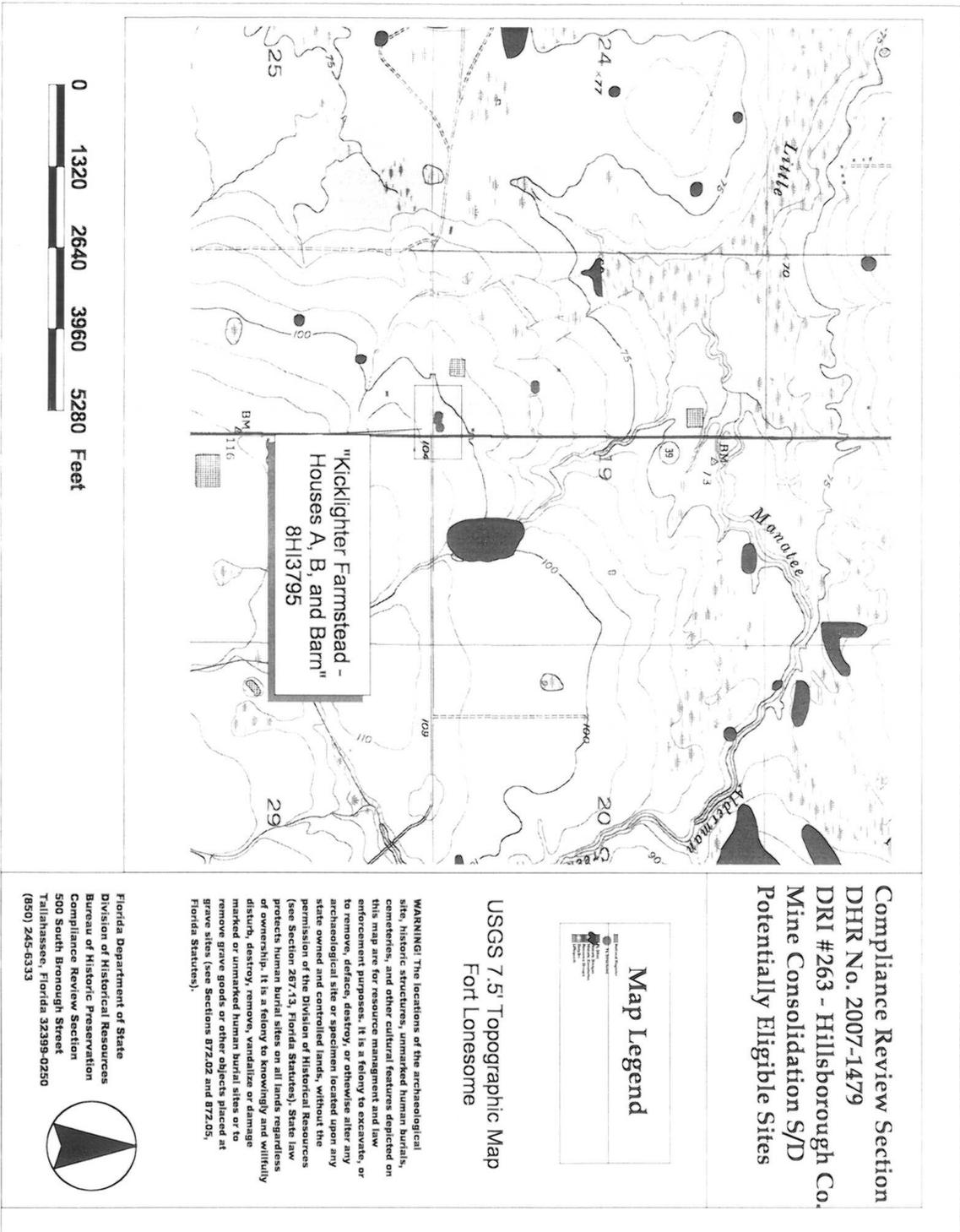
Enclosures





**WARNING!** The locations of the archaeological site, historic structures, unmarked human burials, cemeteries, and other cultural features depicted on this map are for resource management and law enforcement purposes. It is a felony to excavate, or to remove, deface, destroy, or otherwise alter any archaeological site or specimen located upon any state owned and controlled lands, without the permission of the Division of Historical Resources (see Section 267-13, Florida Statutes). State law protects human burial sites on all lands regardless of ownership. It is a felony to knowingly and willfully disturb, destroy, remove, vandalize or damage marked or unmarked human burial sites or to remove grave goods or other objects placed at grave sites. (See Sections 872.02 and 872.05, Florida Statutes).





Compliance Review Section  
 DHR No. 2007-1479  
 DRI #263 - Hillsborough Co.  
 Mine Consolidation S/D  
 Potentially Eligible Sites

**Map Legend**

	Archaeological Site
	Historic Structure
	Unmarked Human Burial
	Cemetery
	Other Cultural Feature

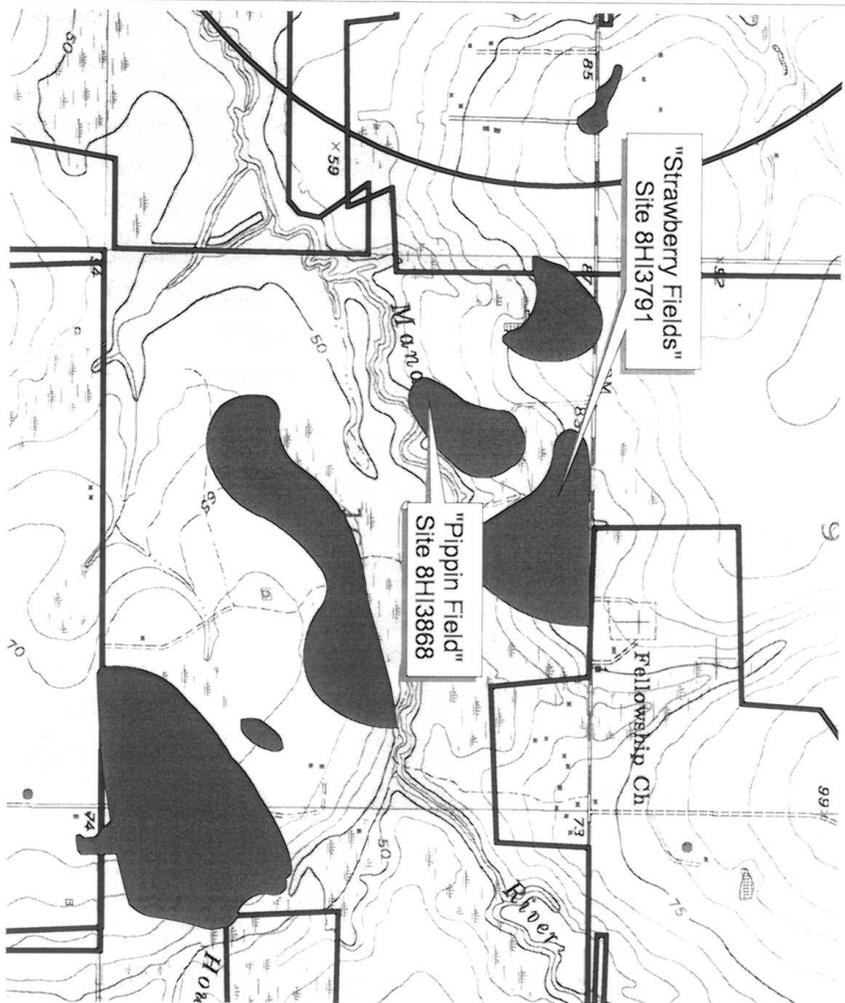
USGS 7.5' Topographic Map  
 Fort Lonesome

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Florida Department of State  
 Division of Historical Resources  
 Bureau of Historic Preservation  
 Compliance Review Section  
 500 South Bronough Street  
 Tallahassee, Florida 32399-0250  
 (850) 245-6333



**Compliance Review Section  
DHR No. 2007-1479  
DRI #263 - Hillsborough Co.  
Mine Consolidation S/D  
Potentially Eligible Sites**



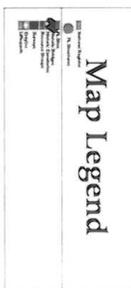
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Fort Lonesome

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Florida Department of State  
Division of Historical Resources  
Bureau of Historic Preservation  
Compliance Review Section  
500 South Bronough Street  
Tallahassee, Florida 32399-0250  
(850) 245-6333



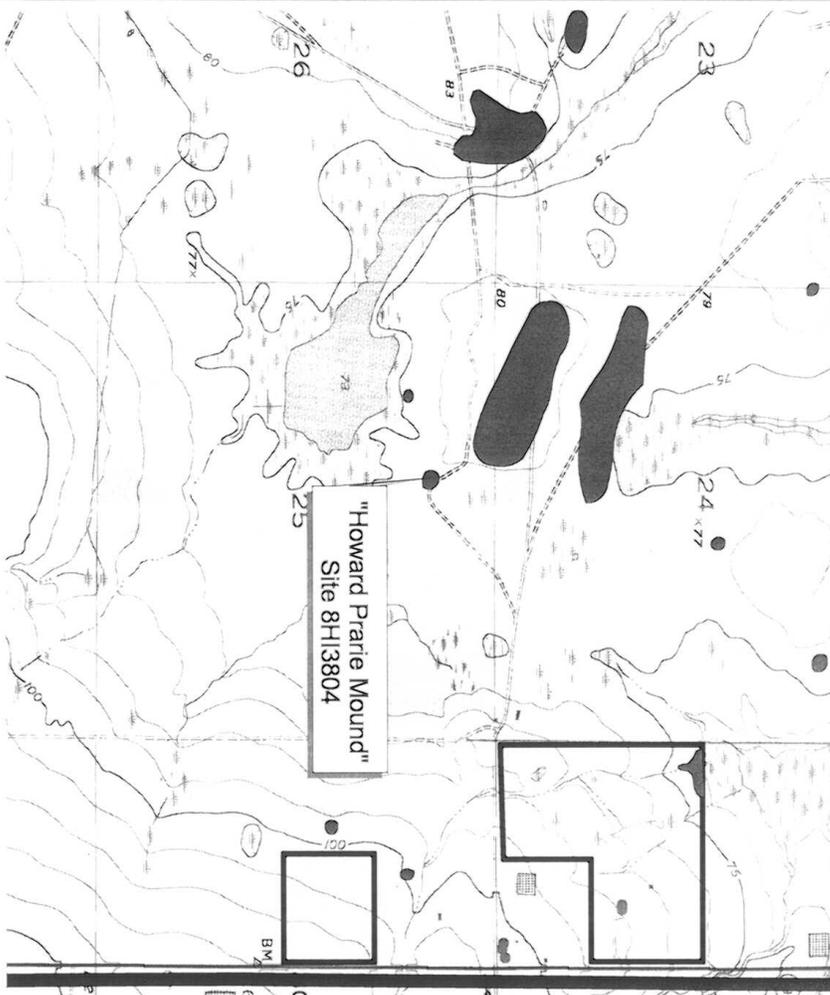
Compliance Review Section  
 DHR No. 2007-1479  
 DRI #263 - Hillsborough Co.  
 Mine Consolidation S/D  
 Potentially Eligible Sites

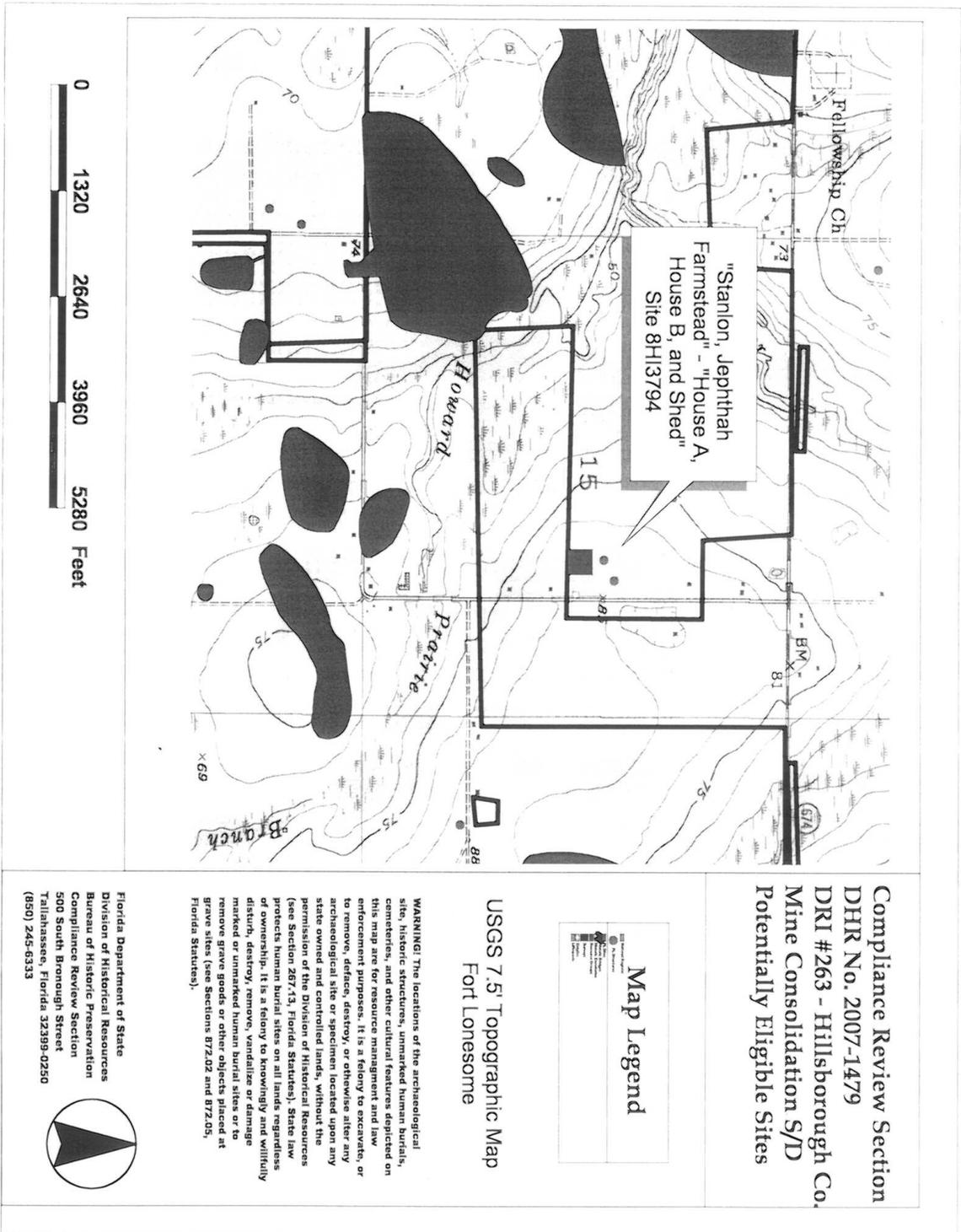


USGS 7.5' Topographic Map  
 Fort Lonesome

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Florida Department of State  
 Division of Historical Resources  
 Bureau of Historic Preservation  
 Compliance Review Section  
 500 South Bronough Street  
 Tallahassee, Florida 32399-0250  
 (850) 245-6333





**Compliance Review Section  
DHR No. 2007-1479  
DRI #263 - Hillsborough Co.  
Mine Consolidation S/D  
Potentially Eligible Sites**

**Map Legend**

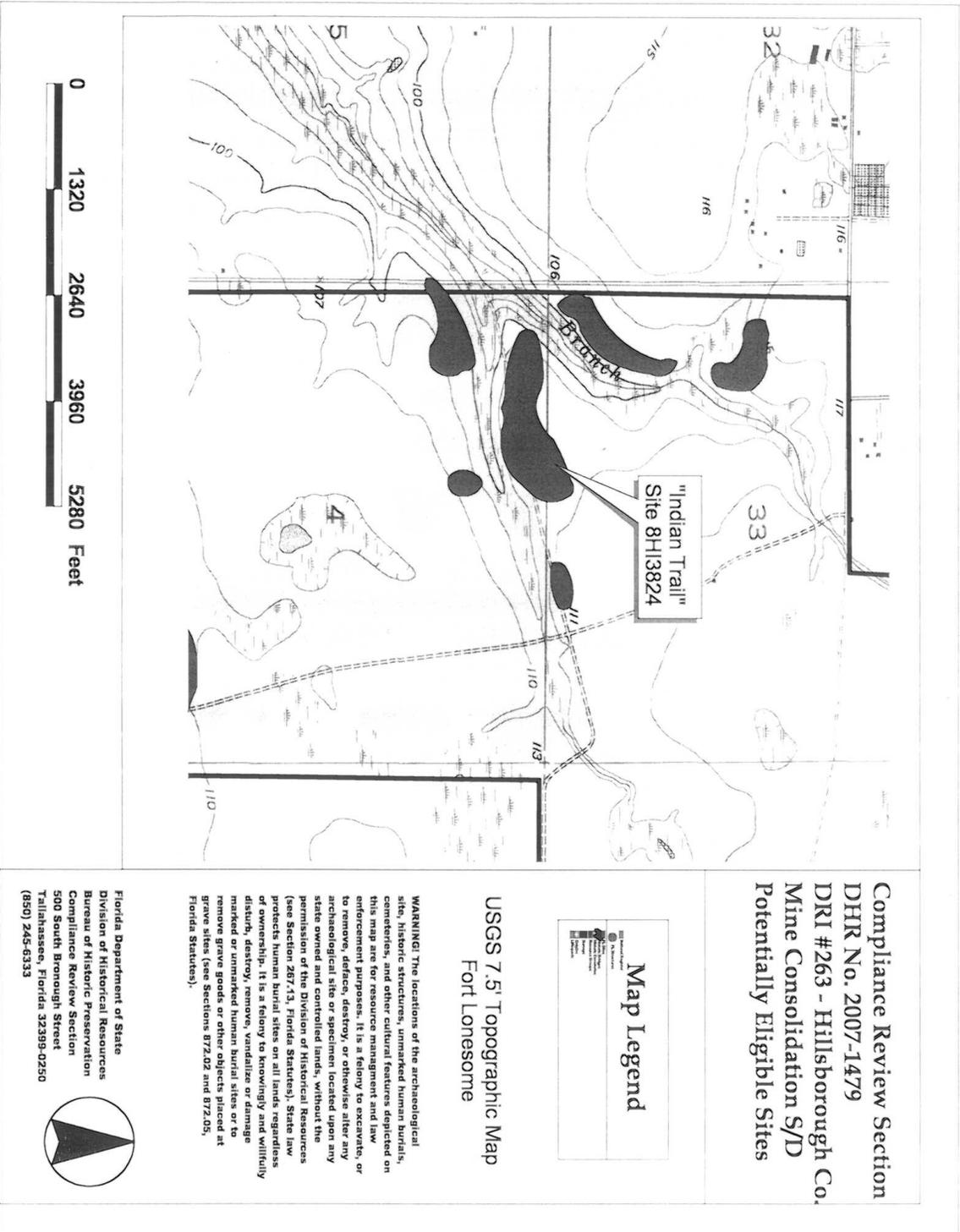
	Archaeological Site
	Unmarked Human Burial
	Cemetery
	Other Cultural Features

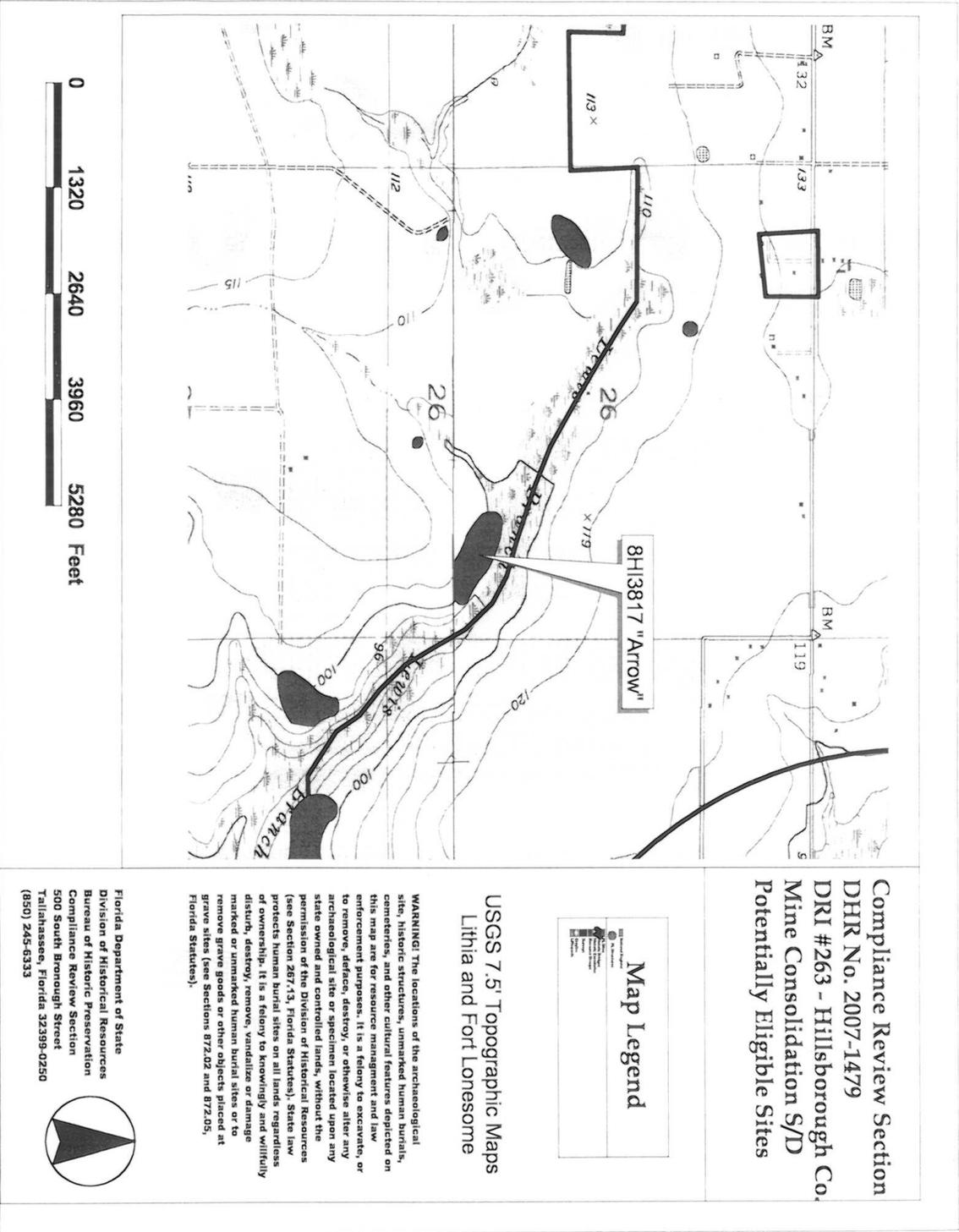
USGS 7.5' Topographic Map  
Fort Lonesome

**WARNING!** The locations of the archaeological site, historic structures, unmarked human burials, cemeteries, and other cultural features depicted on this map are for resource management and law enforcement purposes. It is a felony to excavate, or to remove, deface, destroy, or otherwise alter any archaeological site or specimen located upon any state owned and controlled lands, without the permission of the Division of Historical Resources (see Section 267.13, Florida Statutes). State law protects human burial sites on all lands regardless of ownership. It is a felony to knowingly and willfully disturb, destroy, remove, vandalize or damage marked or unmarked human burial sites, or to remove grave goods or other objects placed at grave sites (see Sections 872.02 and 872.05, Florida Statutes).

Florida Department of State  
Division of Historical Resources  
Bureau of Historic Preservation  
Compliance Review Section  
500 South Bronough Street  
Tallahassee, Florida 32399-0250  
(850) 245-6333







Compliance Review Section  
 DHR No. 2007-1479  
 DRI #263 - Hillsborough Co.  
 Mine Consolidation S/D  
 Potentially Eligible Sites

**Map Legend**

	Archaeological Site
	Structure
	Spot Elevation
	Contour Line

USGS 7.5' Topographic Maps  
 Lithia and Fort Lonesome

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