

RESOLUTION NO. 12-01

A RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS OF MANATEE COUNTY, FLORIDA, GRANTING MOSAIC FERTILIZER, LLC A MASTER MINING PLAN FOR THE WINGATE EXTENSION (±661 ACRES); AUTHORIZING MINING AND RECLAMATION ON THE WINGATE EXTENSION; ESTABLISHING NEW CONDITIONS OF APPROVAL FOR MINING WITHIN THE WINGATE EXTENSION; PROVIDING RECLAMATION SCHEDULES AND ENFORCEMENT; ALLOWING DRAGLINE CROSSING OF DUETTE ROAD; APPROVING PRE-MINING CONSTRUCTION ACTIVITIES; APPROVING WAIVER REQUEST OF THE SETBACK REQUIREMENT FOR MINING ADJACENT TO DUETTE PRESERVE; PROVIDING FOR SEVERABILITY; PROVIDING FOR AN EFFECTIVE DATE; AND PROVIDING FOR AN EXPIRATION DATE. APPROVING A BUILDOUT DATE FOR MINING UNTIL DECEMBER 31, 2019 AND RECLAMATION UNTIL DECEMBER 31, 2023

WHEREAS, Mosaic Fertilizer, LLC currently owns and operates the Wingate Creek Mine under a separate Master Mining Plan and Operating Permit; and

WHEREAS, Mosaic Fertilizer, LLC. currently owns the Wingate Extension* as described in Exhibit A; and

WHEREAS, on February 24, 2011, Mosaic Fertilizer, LLC. filed an Application and Additional Information Responses for a Master Mining Plan for the Wingate Extension* to be processed at the Wingate Creek beneficiation plant with the Manatee County Board of County Commissioners, pursuant to the provisions of Manatee County Codes Chapter 2-20 Phosphate Mining Code Ordinance 04-39*, and with subsequent Additional Information submittals on July 11, 2011 and October 24, 2011; and

WHEREAS, the County and Mosaic Fertilizer, LLC have agreed for administrative purposes that the Wingate Extension* Master Mining Plan and Operating Permit shall be governed by their own Resolutions; and

WHEREAS, notice of the public hearing was published on January 18, 2012, in newspapers of local circulation; and

WHEREAS, the Manatee County Planning Commission held a duly-noticed public hearing on the Wingate Extension* and has solicited, received and considered all testimony, reports, comments, evidence and recommendations from interested citizens, County agencies, and the applicant; and

WHEREAS, the Manatee County Planning Commission has filed a recommendation on this application; and

WHEREAS, the Board of County Commissioners of Manatee County, on February 2 and March 1, 2012, held duly-noticed public hearings on the Wingate Extension* and has solicited, received, and considered all testimony, reports, comments, evidence, and recommendations from interested citizens, County agencies and the applicant; and

WHEREAS, the Manatee County Board of County Commissioners has received and considered the review and report of the Manatee County Planning Commission; and

WHEREAS, the Board of County Commissioners of Manatee County finds that the application for a Master Mining Plan meets the standards for Master Mining Plan contained in Ordinance 04-39* and is consistent with the Manatee County Comprehensive Plan (Ordinance 89-01, as amended).

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Manatee County, Florida, that the Board approves the Master Mining Plan for the Wingate Extension* of the Wingate Creek Mine, subject to the conditions, limitations and restrictions set forth as follows:

**SECTION A. APPROVAL OF WINGATE EXTENSION*
MASTER MINING PLAN.**

This Resolution (R-12-01) establishes a Master Mining Plan Approval for the Wingate Extension* to be processed through the Wingate Creek Mine and beneficiation plant with waste clays deposited in FM-1 and FM-2 on Southeast Tract*.

SECTION B. FINDINGS.

The Board of County Commissioners, after considering the testimony, evidence, documentation, Application for Master Mining Plan, and all other matters presented to the Board at the public hearings hereby makes the following findings of fact:

1. All **“WHEREAS”** clauses in this Resolution are adopted as findings of fact.
2. The real property which is the subject of this application is the Wingate Extension* consisting of 661 ±acres, legally as described in Exhibit A and shown on Map A-2, both of which are attached to and made part of this Resolution.
3. The owner and Developer* of the Wingate Creek Mine* and the Wingate Extension* and the Southeast Tract* is Mosaic Fertilizer, LLC.
4. The authorized agent for the Developer* is Diana M. Jagiella, 13830 Circa Crossing Drive, Lithia, Florida 33547.
5. For purposes of this application, the Developer* is Mosaic Fertilizer, LLC.

6. A recompiled Master Mining Plan shall be submitted within three months after the adoption of the Operating Permit, compiling any changes directed by the BOCC or other agencies including detailed maps, descriptions and other materials that are required by Section IV.A and Section V of the Manatee County Phosphate Mining Code (Ordinance 04-39) and submit three (3) copies of the said documentation to the Director*, in accordance with paragraph C.12. below.
7. On January 12, 2012, the Planning Commission held a public hearing regarding the Application for the Master Mining Plan for the Wingate Extension*, in accordance with the requirements of the Manatee County Land Development Code (Ordinance 90-01, as amended), and the Manatee County Comprehensive Plan (Ordinance 89-01, as amended), Manatee County Phosphate Mining Code (Ordinance 04-39*), and has further considered the testimony, comments and information received at the public hearings.
8. The Board of County Commissioners has received and considered the report of the Manatee county Planning Commission concerning the Application for the Master Mining Plan and the Application for Official Zoning Atlas Amendment as it relate to the real Property described in Exhibit A of this Resolution.
9. On February 2 and March 1, 2012, the Board of County Commissioners held public hearings regarding the Application for the Master Mining Plan for the Wingate Extension*, in accordance with the requirements of the Manatee County Comprehensive Plan (Ordinance 89-01, as amended), and Manatee County Chapter 2-20 Phosphate Mining Code Ordinance 04-39*, and has further considered the testimony, comments and information received at the public hearings.
10. Specifically with regard to Comprehensive Plan Policy 3.3.1.1, the Developer* has demonstrated that:
 - a. Developer* has proposed to mine only those wetlands where wetland restoration is demonstrably achievable.
 - b. This Master Mining Plan* and any subsequent Operating Permit will impose standards of assurance that the impacted wetlands will be reclaimed in accordance with the requirements of Manatee County Ordinance 04-39*, including conditions for reclamation, bonding and surety requirements.
 - c. The Environmental Resource Permit evaluated wetland impacts utilizing the Uniform Mitigation Assessment Method (UMAM) to determine the requirements for wetland mitigation in accordance with Comprehensive Plan Policy 3.3.1.3.
 - d. Phosphate mining activities, unlike other types of development subject to the requirements of Comprehensive Plan Policy 3.3.1.1, are statutorily categorized as a temporary use to extract a mineral of important public concern, such that compliance with Comprehensive Plan Policy 3.3.1.1 must be determined on a case-by-case basis, in light of the unique circumstances of the subject property, the quality and functionality of impacted wetlands, and the assurance provided by the Developer* that such wetlands can and will be reclaimed in accordance with

Manatee County Ordinance 04-39 Appendix E*.

- e. The applicant-provided wetland avoidance and minimization analysis detailed the scale and operational constraints of avoidance of all wetland impacts for this project. These constraints would make avoidance burdensome and severely limiting on the practicable alternatives/reasonable extraction of the phosphate ore.
- f. The applicant has committed to developing a comparative hydrologic model of 1,400 acres within the Lake Manatee Watershed in Duette Preserve, for the purpose of assisting the County in permitting a hydrologic restoration project. This project would not only address habitat restoration but would also address water quality and water quantity benefits by storing and treating stormwater before slowly releasing waters downstream to the reservoir.

While each of these facts, by itself, is insufficient to support a finding of compliance with Comprehensive Plan Policy 3.3.1.1, the totality of these circumstances, together with the record of evidence submitted during the public hearing, supports the conclusion that the development satisfies the requirements of Comprehensive Plan Policy 3.3.1.1.

- 11. The Master Mining Plan for the Wingate Extension* is found to be consistent with the requirements of the Manatee County Comprehensive Plan, and the Manatee County Chapter 2-20 Phosphate Mining Code (Ordinance 04-39*), provided the Development proceeds in accordance with the Conditions specified in this Resolution, and all subsequent operating permits.
- 12. The development of the Wingate Extension* was found by the Tampa Bay Regional Planning Council (TBRPC) to be consistent with the State Comprehensive Plan and the Comprehensive Regional Policy Plan.
- 13. Prior to approval of operating permit for Wingate Creek Extension, Mosaic will provide to the County Master Mining Plan documents, such as mining and reclamation sequencing maps, which eliminates the reference of dragline mining to the approved dredge mining operations for the entire project.

SECTION C. MASTER MINING PLAN CONDITIONS OF APPROVAL.

General Conditions

- 1. The Wingate Extension* parcel is approved for mining and reclamation, as conditioned and limited, herein as follows:

Parcel	Total Area	Mined/Disturbed	Not Mined/Disturbed
Wingate Extension	660.8 acres	660.8 acres*	0
Pre-mining wetlands	48.4 acres	48.4 acres	0
Post-mining wetlands	56.1 acres	Wetland mitigation 49.0 acres	

* All mine infrastructure on the Wingate Extension will be mined, except for the 14.9 acres portion of Wingate Corridor.

2. Mining and Reclamation Schedule: It is expressly recognized that the mining blocks, rates and schedules provided in the application for the Master Mining Plan are estimates based upon the average rate anticipated. Accordingly, mining blocks and rates may vary depending upon market conditions. However, reclamation and revegetation shall proceed immediately after mining activities cease and in no case shall exceed the schedules for reclamation outlined in Table 35-5. Actual mining acreages will be documented in the annual reports submitted to the Director. Refer to Maps H-3 and H-7 for information on mining and reclamation sequences. Refer to Maps H-9 and I-3 for information on post-reclamation land use and topography.
 - a. After mining the setback waiver area adjacent to Duette Preserve, the excavated setback area will be backfilled within 12-18 months.
3. Compliance with Other Permits and Approvals: All mining operations shall be conducted in strict compliance with Ordinance 04-39*, the approved Master Mining and Reclamation Plan for the Wingate Extension*, any subsequently approved Operating Permit and all applicable approvals and permits issued by a federal or Florida governmental agency or entity. Violation of any of the terms and conditions of said approvals or permits shall be deemed a violation of this Master Mining Plan.
4. Approval of Pre-mining Activities: The following pre-mining activities are approved for the Wingate Extension*:
 - a. Construction of piezometer and other monitoring stations;
 - b. Clearing and burning of vegetation in areas to be mined within the subsequent year;
 - c. Construction of ditch and berm system;
 - d. Construction of dewatering wells; and
 - e. Construction of mine access corridors (road, powerlines, pipelines, pumps, sealing wells, etc.).
5. Notice:

All notices, requests, and annual reports provided for herein shall be in writing and shall be hand-delivered or sent through the U.S. Mail, addressed as follows:

To the County: Manatee County Natural Resources Department
202 6th Avenue East
Bradenton, Florida 34208
Attn: Charlie Hunsicker, Director

To Developer*: Mosaic Fertilizer, LLC
13830 Circa Crossing Drive
Lithia, Florida 33547
Attn: Diana M. Jagiella
Director, Mine Regulatory Affairs

OR addressed to either party at such other address or as such party shall

hereafter furnish to the other party in writing. If any such notice, request or authorization is delivered by hand, it shall be deemed to have been received when so delivered. If any such notice, request, or authorization is delivered through the U.S. Mail, it shall be sent by registered mail, postage paid and return receipt requested, and shall be deemed to have been delivered when deposited in the U.S. Mail.

6. All permit conditions identified in the ERP* shall be met. Should there be any amendments to those conditions, the amended ERP* conditions shall be considered a part of the stipulations of this approval.
7. Reclamation and Surety Bonds: Developer* shall comply with all general surety and reclamation bonding requirements of Ordinance 04-39* for the areas to be mined and disturbed on the Wingate Extension.
8. Any change in mining method, other than dredge mining; that would expand or change the location of dragline mining will constitute a significant amendment to the Master Mining Plan under Ordinance 04-39* and will require review by the Planning Commission and Board approval.
9. Those areas within the Wingate Extension* approved for mining and reclamation may continue to be used for agricultural / grazing activities. The commercial harvest of timber in those areas approved for mining is permitted, pending notice to the County along with best management practices to be utilized.
10. In the event that any material generated by mining or reclamation operations on Wingate Extension*, other than phosphate rock, is to be marketed for sale and use from the Wingate Creek Mine* site, Developer* shall obtain written approval from the Director* prior to selling any such materials. Said approval shall not be unreasonably withheld.
11. Any historical or archaeological resources discovered during mine operation within the Wingate Extension* shall be immediately reported to the Department of Historical Resources and the ultimate disposition of such resources shall be determined in cooperation with the Department of Historical Resources and Manatee County. The agreed upon treatment of the resources shall be completed before activities which would disturb the resources are allowed to continue.
12. This permit will expire twenty-five years from the Effective Date.

Mining Operations

13. Erosion control measures such as siltation screens / 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.
14. Surface and Groundwater Quality Monitoring shall be implemented as required by Exhibit C – Environmental Monitoring Program and shall continue through the end of mine life. Data shall be submitted to the County with the Annual Operating Permit

Report.

15. Each mining reclamation unit must be completed in accordance with the permitted plans and permit conditions. In addition, should any regulatory agency require design changes to the Wingate Extension* reclamation plans; the County shall be notified of the changes prior to implementation. Changes that are deemed significant by the County shall require approval by the Planning Commission and the BOCC prior to implementation.
16. Hours for operations of the mine are typically 24 hours per day, 7 days per week. Mosaic agrees to abate noise from dredging operations by not using horns for communications on the dredge from 7 PM to 9 AM. Alternatives to horn use for communication will be explored. If there are complaints or concerns on noise or light issues, Wingate Creek Mine operations personnel can be contacted at 941-322-6801, to promptly investigate and reach a fair resolution in consultation with Manatee County Natural Resources Department.
17. Setbacks: Minimum mine cut setbacks and setbacks for the perimeter recharge ditch shall be maintained as follows:
 - a. 1,000 feet of a habitable structure existing at the time of initial application for Master Mining and Reclamation Plan* approval, unless waived by affected habitable structure owner; this requirement is not applicable to this parcel;
 - b. 500 feet of Developer* (Mosaic Fertilizer, LLC) property line, where setback waivers have not been obtained. A setback waiver has been granted along the Developer* / Manatee County property line adjacent to Duette Preserve. This is in addition to the previous setback waiver granted to the existing utility corridor and drainage ditches as part of the Wingate Corridor* in Resolution R-08-009. Details are depicted on Map A-3 and Figure 5-2;
 - c. Nothing in this requirement shall prevent the reduction of setbacks pursuant to Ordinance 04-39*. All such setbacks shall be shown in the Operating Permit and shall be specifically approved by the Board of County Commissioners.
18. Clay Settling Areas: In order to maintain the clay balance between Manatee and Hardee counties, Mosaic shall comply with one of the following: 1) 8 .0 MM tons of future clay storage capacity will be kept available within approved clay settling areas in Manatee County to balance the clays stored in Hardee County from the initial mining block of the SE Tract; or 2) Mosaic will obtain a variance from Hardee County where no equivalent clay exchange is required. A summary of this condition shall be provided in the annual report until the condition is fulfilled.
19. The Developer shall utilize Best Management Practices* (including revegetation, reforestation, erosion control, etc.) for all mined or disturbed lands to accelerate and ensure the successful establishment of the natural vegetative associations that the reclamation areas are designed to support. Wherever possible, leach zone material shall be covered by graded spoil to lessen the potential of increased radiation levels on reclaimed lands.

- a. This approval does not supersede Resolution 09-010, Paragraph 37 and Ordinance 08-32, Paragraph E(3), which precludes the Developer from mining, land clearing or site preparation of the temporary conservation easement described therein. To insure protection of this area, prior to land clearing of the area adjacent to said easement, the Developer will have said easement staked by a Land Surveyor licensed in the State of Florida. Once staked and prior to commencement of clearing Developer and Natural Resources Department representatives will inspect the site to insure it has been marked for protection.
20. Process & Technology Improvements:
- a. Process improvements should improve the efficiency of the operation and enable more ore to be recovered or less energy or water to be used. Improvements to the mine's operation that implement the Best Possible Technology (BPT) requirements of the Wingate Creek Mining and Reclamation Ordinance 08-21 and the Best Management Practices (BMP*) changes shall be deemed to be non-significant changes that can be approved administratively.
 - b. The Director* may approve the construction of these types of improvements in conjunction with the issuance of appropriate County Permits, provided said improvements are consistent with this Master Mining Plan and the Operating Permit.
21. Sand Tailings: In order to provide reasonable assurance that sufficient sand tailings are available to timely reclaim the wetlands and other surface waters authorized for mining within the Wingate Extension*, the Developer* shall provide an updated sand tailings balance in annual report.

Surface Waters

- 22. Activities approved by this permit shall be conducted in a manner which does not cause violations of state water quality standards. The Developer* shall implement best management practices for erosion and a pollution control to prevent violation of state water quality standards.
- 23. Water Quality Protection: Water quality in wetlands or other surface waters adjacent and/or downstream from site preparation, mining operations, and reclamation activities shall be protected as follows:
 - a. Prior to any clearing or mining operations, areas to be disturbed shall be severed from adjacent wetlands and waters of the state. This severance includes the construction of an isolation berm and ditch adjacent to, but upland of, the preservation areas / undisturbed lands. When adjacent to no-mine wetlands, other surface waters, or offsite private property, monitoring wells and staff gauges shall be installed and water levels monitored as specified in Exhibit C.
 - b. During the dragline mining operations, recharge ditches adjacent to no-mine areas shall be charged with water to maintain base flows and/or minimize stress to the vegetation in the preservation areas. Water levels in the recharge ditches shall be

maintained at levels sufficient to support the normal seasonal water level fluctuations in the wetlands as determined from the baseline monitoring. Water levels in the recharge ditches shall be monitored daily and results made available to the County during inspections upon request. Results may include water level elevations or verification that adequate water levels were present in each ditch.

- c. Ditch, berm, and retention systems shall be designed and constructed prior to initiation of mining operations to manage or prevent discharge from a 25-year, 24-hour storm event.
 - d. The protective ditch and berm shall remain in place until mining operations and reclamation have been completed; monitoring indicates that no violations of State Water Quality Standards are expected to occur. At that time, the berm and ditch shall be returned to grade and revegetated according to MMP criteria.
 - e. Developer* shall follow Water Use Permit No. 2011400, as issued and/or amended by the SWFWMD for protection of the undisturbed wetlands. All drawdown mitigation plans and monitoring reports required by SWFWMD shall be copied to the County and FDEP Bureau of Mine Reclamation.
 - f. Adjacent to dragline mining operations, Developer* shall follow the recommendations in the Geotechnical and Hydrogeological Exploration and Analysis, Recharge System Design, Wingate Extension Report, File No: 09-10-0119F (Ardaman & Associates June 2011) for minimizing surficial aquifer impacts on adjoining lands not owned by Mosaic and sensitive wetlands on Mosaic property.
 - g. If preserved or undisturbed wetlands show signs of stress, the Developer shall notify the FDEP in writing, copying the County and SWFWMD. Upon approval, the permittee shall take remedial actions, including altering mining operations and reclamation procedures, modifying the recharge ditch, providing additional sources of water, and conducting additional monitoring, as necessary.
24. Discharges to surface waters shall occur as follows:
- a. Stormwater runoff from lands cleared for mining and active mining areas shall be routed through ditches into the mine water recirculation (ditch and berm) system and discharged only through permitted NPDES outfalls.
 - b. All discharges and discharge rates from the NPDES outfalls shall be in accordance with Chapters 62-302, 62-620, and 62-671, Florida Administrative Code (F.A.C.) and conditions of the specific NPDES permit.

Groundwater

- 25. The Developer* shall properly plug and abandon all on-site wells, in accordance with Southwest Florida Water Management District (SWFWMD) and Manatee County Natural Resources Department standards and rules, prior to mining each area of the Wingate Extension*.

Wetlands

26. All wetland losses within Wingate Extension* shall require mitigation in accordance with the specific mitigation plan described in the ERP* and shown in Map H-10. Any deviation from the specific mitigation plan not specifically required by Manatee County or permitting agencies with jurisdiction shall trigger a significant amendment to the MMP and require Planning Commission review and BOCC approval.
27. The Developer* shall restore the wetlands disturbed by mining operations in accordance with Chapter 2-20 Phosphate Mining Code Ordinance 04-39*, Appendix E* or the ERP*, whichever is more stringent. In accordance with Appendix E*, the Developer* shall utilize the following methods for all wetland restoration / mitigation:
 - a. Prior to mining, suitable wetland topsoil or sod (muck) shall be removed from the site for use in wetland restoration where feasible. Muck and topsoil donor sites will be inspected by an ecologist prior to clearing to ensure that high levels of nuisance or exotic species are not present prior to being used in restoration. Donor muck and topsoil piles will be inspected for nuisance and exotic species by mine personnel, and equipment will be cleaned prior to being brought onsite to avoid accidental transport of nuisance and exotic species to a wetland restoration site.
 - b. Hydrologic modeling will be used to finalize wetland designs, establish required final contouring, topsoil placement, and establish the appropriate hydroperiods for the reclaimed wetlands. The appropriate wetland hydroperiods will be determined taking into account the normal seasonal water level fluctuations and periods of inundation or saturation that are typical for the wetland type being reclaimed.
28. The re-created wetlands shall be designed to promote normal seasonal fluctuations of water levels within the wetlands and encourage seasonal saturation and inundation appropriate to the wetland type.

Vegetation and Wildlife

29. In the event that any listed species listed in Rule 68A-27.003 - 68A-27.005 FAC, or state or federally listed species or colonies of species are observed nesting or breeding at the Wingate Extension* in an area to be disturbed by mining operations beyond the species already identified and for which appropriate Wildlife and Habitat Management Plans have not been obtained, the Developer* shall immediately notify the Florida Fish and Wildlife Conservation Commission (FFWCC) and U.S. Fish and Wildlife Service and implement the recommended measures for species protection.
30. The Developer* shall implement the reclamation, management and monitoring activities as outlined in the Habitat Management Plan (HMP) as dated March 2010 and amended October 2011 for the Wingate East Mine* including Wingate Extension*, which have been approved by FFWCC and U.S. Fish and Wildlife Service.

- a. Prior to the clearing of each mining parcel, the Developer* shall obtain the necessary permits and approvals for relocation or incidental take of listed species. Implementation activity associated with the approved plan or listed species permitting will be reported in the Operating Permit annual report.
 - b. The Developer* shall continue to monitor on an annual basis the Wellfield Tract* for Florida Scrub-jays. In addition, the Developer* shall monitor the Wellfield Tract* on an annual basis for Eastern indigo snakes. An annual report shall be provided to FWS and copied to Manatee County Natural Resources Department. Monitoring reports shall be submitted within 120 days of completing the field work in each calendar year.
 - c. The Developer* shall be responsible for reclaiming habitat on Wingate Extension* in such a way to support the relocation of gopher tortoises following reclamation and hence support indigo snake populations.
31. The Developer* shall work cooperatively with Manatee County to attempt to relocate the giant orchid specimens to similar habitat on Duette Preserve.

Transportation

32. Trucking operation requirements for phosphate rock mined on Wingate Extension* shall be in accordance with Ordinance 08-21, Exhibit E, Trucking Operation Requirements for the Wingate Creek Mine*.
33. Dragline Crossing of Duette Road: The dragline road crossing of Duette Road shall be completed as outlined in the Master Mining Application, Appendix 13-A, in the location depicted on Figure 1, and shall meet the following:
 - a. Best management practices shall be used to meet Class III Water quality standards (Chapter 62-302, F.A.C.) during the construction, dragline move and crossing of Duette Road.
 - b. At least 60 days prior to any roadwork within the right-of-way, the Developer shall have obtained the appropriate permits from the Public Works Department.
 - c. The Director* will be copied on all Right of Way Use Permit(s) applications at the time of application(s).
 - d. A detour will be constructed to maintain traffic on Duette Road, during the dragline crossing of the road.
34. All non-public roads, streets, bridges, and other access ways located upon the site shall be constructed and maintained by the Developer* as required by the Wingate Creek Mine* Ordinance 08-21.

Reclamation Standards

35. Reclamation Notification: Inspection points for construction, maintenance, and monitoring for Wingate Extension* reclamation areas will be as required by Ordinance 04-39* - (Appendix E*) are set forth below:
- a. Inspections will be planned at certain reclamation milestones to ensure compliance with the basic elements of the approved reclamation plan. To accommodate scheduling, a notice will be given to the County a minimum of 15 days in advance to schedule an inspection date and time. If no response is received from the County within the required notification period, reclamation will proceed to the next phase. The required/planned inspection points are:
 - i. When overburden is pushed down to a set grade & sand tailings are deposited at the reclamation site.
 - ii. After the overburden and/or topsoil has been applied.
 - iii. At the completion of final grading.
 - iv. When final planting / mulching is completed.
 - b. Within 15 days of the completion of the final inspection point, the following shall be provided to the County:
 - i. As-built surveys, or a statement from the project reclamation engineer that the site was constructed per the approved reclamation plan.
 - ii. Approximate quantities, distribution and thickness of topsoil or artificial precursor for each plant community.
 - iii. A table of species installed in each plant community.
 - iv. Initial water table/staff gauge readings.
 - v. Initial plant community boundary maps. Limits of each community must be field marked and denoted on the plant community maps.
36. Monitoring: Upon inspection and approval of the area(s) by the County, monitoring shall be initiated. Monitoring shall be in accordance Appendix E*. Monitoring and maintenance will continue until success criteria have been met. Monitoring reports shall be submitted to Manatee County as part of the annual report.
37. Maintenance: All reclaimed habitats will be maintained on a regular basis as determined by the type and scope of maintenance required. Data collected during routine maintenance monitoring events will be reviewed and any necessary maintenance will be scheduled and conducted as needed. Manual or chemical treatment shall be implemented if cogon grass (Imperata cylindrica) coverage exceeds ten (10) percent on reclaimed sites or five (5) percent within 300 feet of any reclaimed wetland.
38. Reclamation Success Criteria & Wetland Mitigation Requirements: Reclamation area(s) shall meet the success criteria of Appendix E* before being released from reclamation obligations.
- a. Developer* shall create as wetland mitigation 49.0 acres of restored wetlands as identified in Table 24-1, as shown in the Master Mining Plan

Map H-9. Reclaimed wetlands must meet the landward extent and areas waterward of the proposed limits for rehabilitated/restored wetlands should meet criteria as described in Chapter 62-340, F.A.C. inclusive of vegetation and hydric soil characteristics.

- b. Plant communities must have the aerial coverage / projected coverage, quantities, and diversity of trees, shrubs and ground cover consistent with Appendix E* - Table 4.
- c. Document at least one or more occurrences of flowering of ten (10) percent or more of the species from each stratum, exclusive of nuisance species, with viable seed set for each of the wetland communities. Seedlings, saplings, or other 'young' vegetation will be considered proof of flowering and/or viable seed.
- d. Appendix E*-Table 5 provides a list of native vertebrate species known or suspected to occur in Manatee County on existing or future phosphate-mined lands. These vertebrates form the pool from which representative species can be sampled to evaluate the success of the rehabilitation area. Table 5 includes both the permanent native resident fauna and migratory birds, which depend heavily on the Florida landscape for their survival and are an important component of the consumer food chain. Success criteria will only use those vertebrate species appropriate for the plant communities contained within the site.
- e. Document wildlife success criteria for each plant community.
- f. Water quality shall meet Class III standards (Chapter 62-302, F.A.C.).

Radiation Standards

- 39. Radiation standards shall be maintained as follows:
 - a. For the Wingate Extension*, the radiation standards shall be maintained in accordance with Ordinance 04-39*.
 - b. Any building shall be designed and constructed and all reclamation shall be done to provide protection against gamma radiation and radon gas accumulation and emanation in accordance with the most stringent applicable state and federal requirements.
 - c. This section shall be subject to any restrictions set forth in Section 553.98, Florida Statutes.

Public Contribution

- 40. For the promotion and benefit of the health, safety, and welfare of the citizens of Manatee County, the Developer shall perform one of the following wetland

restoration design projects within 12 months of Developer* obtaining the Operating Permit. The final project details shall be developed jointly by NRD and the Developer*:

- a. Develop and complete a comparative hydrologic model on a 1,400 acre area to be defined by Natural Resources Department and located within Duette Preserve in the Lake Manatee Basin. The InterConnected Pond Routing Model (ICPR) model will be used to support an ERP application for the hydrologic restoration of wetlands within a designated tract. The comparative hydrologic model will be based on available SWFWMD LiDAR data, USGS data including some site specific surveying (cross sections) as required to meet the ERP basis of review standards. In addition, the modeling of the wetland restoration will include the proposed ditch block designs demonstrating that no adverse impacts will occur to water quantity, public health, safety, or welfare or to the property of others adjacent to these lands. The location of the restoration project area (one continuous area) will be developed in cooperation with the Natural Resources Department.
 - b. Draft an ERP application for wetlands restoration work in Duette Preserve on lands located north of SR 62 and southwest of SR 37, on both sides of Carlton Road. The draft ERP application will include surveying cross sections and comparative InterConnected Pond Routing Modeling (ICPR) analysis on all affected wetland restoration sub-basins including the proposed ditch block designs. The application survey information will be based on available SWFWMD LiDAR data and site specific surveying as required to meet ERP basis of review standards. The draft ERP application to be submitted by Manatee County will propose the restoration of historically ditched wetland within the Lake Manatee watershed. The wetlands to be restored and scope of the modeling will be developed in cooperation with the Natural Resources Department within one year of the approval of the Operating Permit.
 - c. Mosaic agrees to contribute to Manatee County \$100,000 for wetland improvements in Duette Preserve recommended in the hydrologic study.
41. Definitions: Except as specifically defined herein, terms used in this Resolution shall govern and be defined in a manner consistent with the Manatee County Phosphate Mining & Reclamation Code Chapter 2-20.
- a. "Appendix E*" shall mean the Manatee County Chapter 2-20 Phosphate Mining Code – Ordinance 04-39 Appendix E - Reclamation Manual.
 - b. "Application for Master Mining Plan" shall mean the Mosaic Fertilizer, LLC Development of Wingate Extension Master Mining Plan Application, dated February 2010 and all following Additional Information Responses (July 8, 2011, October 24 2011, etc.), including and all information submitted by the Developer* for Rezoning Application DTS 20110036 (Z-11-02), Florida Department of Environmental Protection (FDEP) Environmental Resource Permit #095520-17 (ERP) and application and all other submittals / applications made to support the

Wingate Extension Application.

- c. “Best Management Practices*” or “BMP*” shall mean practices that are technologically and economically practicable and most beneficial in preventing or reducing adverse impacts from mining activities. For more specific information and examples, see the same definition in the Manatee County Comprehensive Plan.
 - d. “Chapter 2-20 Phosphate Mining Code” - (Ordinance 04-39*) shall mean the Manatee County Phosphate Mining Code Ordinance 04-39 as codified and found in Chapter 2-20, MINING AND RECLAMATION, of the Code of Laws of Manatee County, Florida.
 - e. Department - shall mean the Manatee County Natural Resources Department. Written approvals, as required herein, shall be issued by the Department Director, or his or her designee.
 - f. Director - shall mean the Director of the Manatee County Department of Natural Resources, or his or her designee.
 - g. “ERP*” shall mean the Mosaic Fertilizer, LLC Florida Department of Environmental Protection (FDEP) Environmental Resource Permit #095520-17 (ERP), its application and all other FDEP submittals / applications made to support the Wingate Extension Application.
 - h. “Southeast Tract*” shall mean the 2,508 acres in Manatee County located in Section 36 in Township 33S, Range 22E, and Sections 1, 2, 11, 12, 13, and 14 in Township 34S, Range 22E, which is legally described in Section 7 of Ordinance 08-20.
 - i. “Wingate Corridor*” shall mean the 103 acre parcel located in Sections 14, 22, and 23, Township 34 South, Range 22 East in Manatee County legally described in Section 7 of Ordinance 08-20 .
 - j. “Wingate Creek Mine*” shall mean the 3,029 acre mine in Manatee County located in Sections 21, 22, 28 & 29, Township 34S, Range 22E, which is legally described in Section 7 of Ordinance 08-21.
 - k. “Wingate Extension Approvals*” shall mean the Zoning Ordinance (Ord. 11-02), the Master Mining Plan (R-12-01) and the Operating Permit (R-12-XX).
 - l. “Wingate Extension*” shall mean the 661 acres located in Sections 22 and 27 of Township 34S, range 22E described in Section 7 of this Ordinance.
 - m. “WUP*” shall mean the SWFWMD WUP No. 20011400, as amended.
42. Severability: If any section, sentence, clause, phrase or word of this Resolution is for any reason held or declared to be unconstitutional, inoperative or void, such holding

or invalidation shall not affect the remaining portions of this Resolution, and those remaining provisions shall be deemed to be valid as if such invalid parts had not been included herein.

43. Tolling: In the event of an appeal of or challenge to any portion of the Wingate Extension* which has the effect of staying the effective date of any or all of the Wingate Extension*, the time period for conducting any activity authorized or required by the Wingate Extension* shall be tolled until such time as the appeal or challenge has been finally decided by a tribunal of competent jurisdiction and all appellate remedies associated therewith have been exhausted. No action shall be required to amend the Wingate Extension* or any attachment or exhibit thereto to effectuate this tolling provision.

44. Effective Date. This Resolution shall become effective upon adoption by the Board of County Commissioners of Manatee County, Florida.

ADOPTED AND APPROVED with a quorum present and voting, this
1st day of March, 2012.

**BOARD OF COUNTY COMMISSIONERS
OF MANATEE COUNTY, FLORIDA**

BY: John R. Chappie
John R. Chappie, Chairman

**ATTEST: R.B. SHORE
Clerk of the Circuit Court**

By: Wabi Lasser D.C.



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Attachments:

EXHIBIT A - LEGAL DESCRIPTION

EXHIBIT B – MINING & RECLAMATION LIST OF ATTACHMENTS

The following information addresses pre and post land use as well as reclamation and mine scheduling matters:

Table 4-1	Preliminary Production Schedule
Table 35-1	Annual Mine Production Rates
Table 35-5	Reclamation Schedule
Table 24-1	Vegetative Cover (Pre-Mining and Post-Reclamation)

Map A-2	Mine Plan & Access Corridors
Map A-3	Setback Waiver
Map A-4	Dragline Crossing
Map H-3	Mining Sequence Map
Map H-7	Reclamation Sequence
Map H-9	Post Reclamation Land Use
Map H-10	Mitigation Wetlands
Map I-3	Post Reclamation Topography

Figure 13-1	Proposed Walkpath and Road Detour
Figure 5-2	Property Line Setback Cross-Section
Figure 14-5a	Dragline Area Typical BMP Cross Section A
Figure 14-5b	Adjacent to Existing Corridor Typical BMP Cross Section B
Figure 14-5c	Dredge Area Typical BMP Cross Section C

EXHIBIT C – ENVIRONMENTAL MONITORING PROGRAM REQUIREMENTS

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**EXHIBIT A - LEGAL DESCRIPTION
WINGATE EXTENSION**

IN TOWNSHIP 34 SOUTH, RANGE 22 EAST MANATEE COUNTY, FLORIDA.

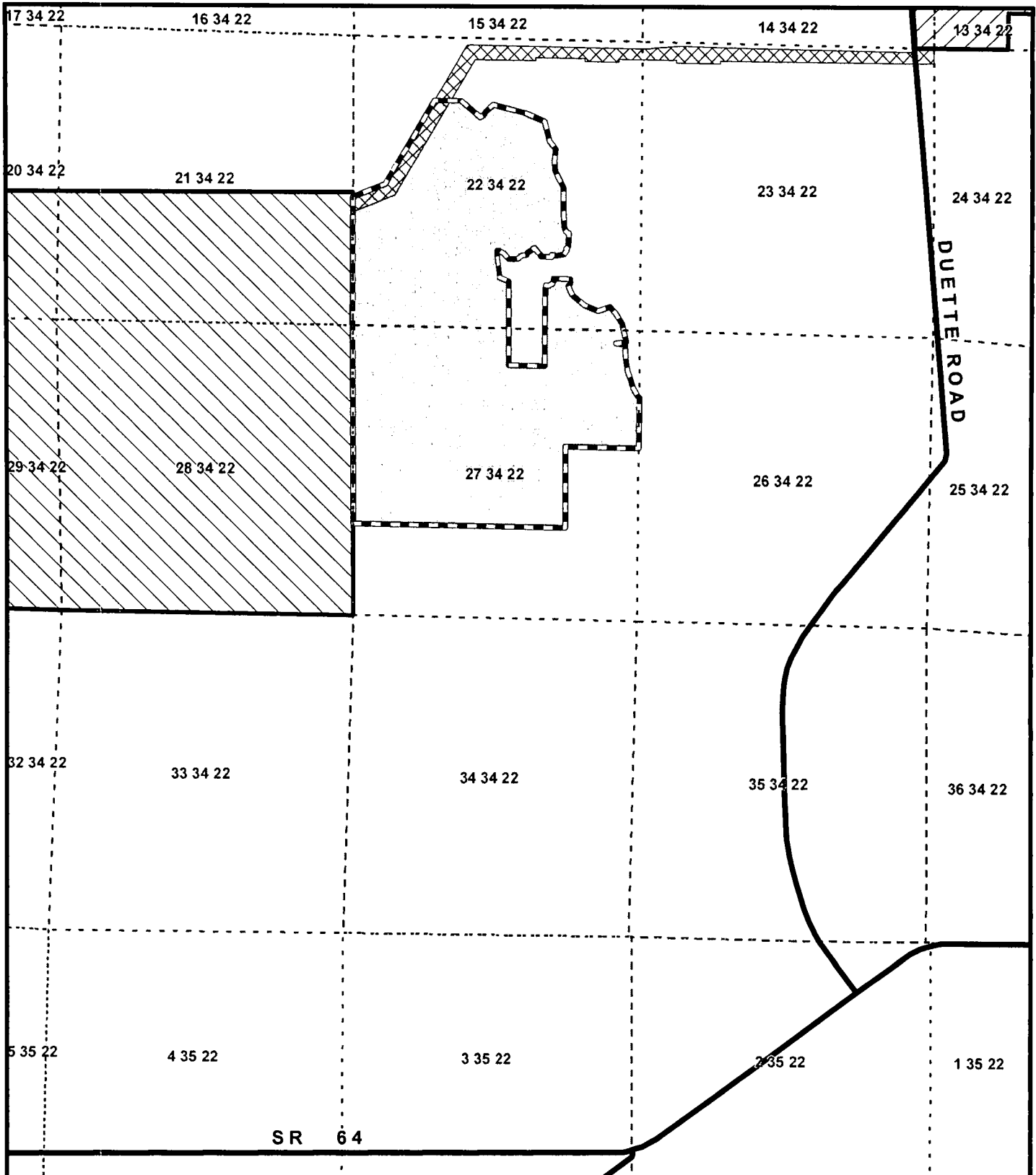
Section 22

- a.) Commence at the NW Corner of section 22; thence S00°17'11"W along the west boundary of said Section 22, 2923.96 feet to the POINT OF BEGINNING; thence N67°58'39"E 625.54 feet; thence N30°31'36"E 1759.84 feet; thence East 468.11 feet; thence S50°17'46"E 466.50 feet; thence N59°17'02"E 72.82 feet; thence N27°39'15"E 75.37 feet; thence N48°57'39"E 175.67 feet; thence S76°43'18"E 397.37 feet; thence S74°57'41"E 211.82 feet; thence S65°45'33"E 378.29 feet; thence S14°59'59"E 359.53 feet; thence S37°00'04"E 181.88 feet; thence S07°15'34"W 217.66 feet; thence S03°30'50"E 179.87 feet; thence S27°09'56"E 326.29 feet; thence South 195.14 feet; thence S01°45'59"E 226.63 feet; thence S03°13'42"E 285.77 feet; thence S09°02'23"E 89.18 feet; thence S47°36'08"E 51.36 feet; thence N88°33'44"E 24.84 feet; thence S00°27'27"W 224.29 feet; thence S07°12'12"W 31.21 feet; thence S49°53'18"W 43.34 feet; thence S18°13'40"E 28.77 feet; thence S34°37'12"W 90.72 feet; thence S79°51'38"W 140.57 feet; thence N82°16'41"W 86.79 feet; thence S09°34'39"W 35.52 feet; thence N89°03'11"W 194.98 feet; thence N27°33'36"E 16.31 feet; thence N39°45'06"W 178.94 feet; thence S53°03'18"W 63.27 feet; thence S66°22'45"W 69.02 feet; thence S31°53'58"W 62.44 feet; thence S79°20'28"W 89.85 feet; thence S49°39'03"W 88.19 feet; thence West 172.39 feet; thence N38°31'14"W 129.96 feet; thence N67°47'14"W 115.00 feet; thence S87°38'42"W 21.14 feet; thence S02°58'35"E 103.56 feet; thence S06°38'49"E 389.70 feet; thence S66°53'11"E 181.99 feet; thence S00°24'02"W 843.01 feet to a point on the south boundary of section 22; thence N89°04'35"W along said south boundary 2829.21 feet to the southwest corner thereof; thence N00°17'11"E along the west boundary of section 22, 2322.62 feet to the POINT OF BEGINNING.
- b.) Commence at the SE corner of Section 22; thence N89°04'35"W along the south boundary of said section 291.80 feet to the POINT OF BEGINNING. Thence continue N89°04'35"W along said south boundary 1425.03 feet; thence N00°24'02"E 725.48 feet; thence N15°19'46"E 67.82 feet; thence S74°56'08"E 36.37 feet; thence N62°27'18"E 81.32 feet; thence N32°54'22"E 63.24 feet; thence N00°39'46"W 39.30 feet; thence S89°35'58"E 295.55 feet; thence S00°27'27"W 90.40 feet; thence S37°11'51"W 51.55 feet; thence S22°12'14"E 177.66 feet; thence S53°20'16"E 111.19 feet; thence S50°32'43"E 178.50 feet; thence S67°14'48"E 261.42 feet; thence N72°24'32"E 221.71 feet; thence S43°07'48"E 145.21 feet; thence S32°23'41"E 235.68 feet; thence S11°59'19"E 120.11 feet to the POINT OF BEGINNING.




Section 27

- a.) The NW ¼.
- b.) The North 965.74 feet of the SW ¼.
- c.) The West 1266.23 feet of the North 965.74 feet of the SE ¼.
- d.) The S ½ of the NE ¼: LESS the east 1318.85 feet of the south 500 feet.
- e.) The N ½: LESS the east 654.10 feet of the west 883.20 feet of the south 668.72 feet and LESS that part being more particularly described as follows: BEGIN at the NE corner of section 27; thence S00°32'17"W along the east boundary of the N ½ of the NE ¼ 1218.85 feet; thence N37°39'38"W 54.50 feet; thence N27°36'17"W 151.46 feet; thence N18°35'37"W 317.60 feet; thence N08°20'09"W 234.18 feet; thence N04°39'47"W 248.50 feet; thence N81°26'25"W 168.16 feet; thence N79°22'15"E 191.76 feet; thence N11°59'19"W 209.92 feet to a point on the north boundary of section 27; thence S89°04'35"E 291.80 feet to the POINT OF BEGINNING.




Figure 1- Insert location (general location map for legal)



Legend

-  Wingate Extension Master Mining Plan Boundary
-  Major Roads
-  Section Lines

Approved Areas

-  Southeast Tract - DRI 235
-  Wingate Creek Mine - DRI 273
-  Approved Utility Corridor



**Wingate Extension
Master Mining Plan
Boundary
Exhibit
S 22, 27
T34S; R22E**

**EXHIBIT B – MINING & RECLAMATION
LIST OF ATTACHMENTS**

The following information addresses pre and post land use as well as reclamation and mine scheduling matters:

Table 4-1	Preliminary Production Schedule
Table 35-1	Annual Mine Production Rates
Table 35-5	Reclamation Schedule
Table 24-1	Vegetative Cover (Pre-Mining and Post-Reclamation)
Map A-2	Mine Plan & Access Corridors
Map A-3	Setback Waiver
Map A-4	Dragline Crossing
Map H-3	Mining Sequence Map
Map H-7	Reclamation Sequence
Map H-9	Post Reclamation Land Use
Map H-10	Mitigation Wetlands
Map I-3	Post Reclamation Topography
Figure 13-1	Proposed Walkpath and Road Detour
Figure 5-2	Property Line Setback Cross-Section
Figure 14-5a	Dragline Area Typical BMP Cross Section A
Figure 14-5b	Adjacent to Existing Corridor Typical BMP Cross Section B
Figure 14-5c	Dredge Area Typical BMP Cross Section C

Table 4-1
Wingate Extension
Proposed Annual Production Schedule

Year	Acres Mined	Phosphate Rock (million tons)	Sand Tailings (million tons)	Clay (million tons)	Ore (million yds ³)
2014	166	1.3	5.8	0.8	5.4
2015	124	1.3	5.8	0.8	5.4
2016	96	1.3	5.8	0.8	5.4
2017	92	1.3	5.8	0.8	5.4
2018	103	1.3	5.8	0.8	5.4
2019	17	0.2	0.8	0.1	0.8

Note: This schedule is an estimate only. No assurance is given that these estimates will be accurate for the years shown. The area, dates, and production estimates are subject to change due to economics, geology, permit requirements, etc. Actual production quantities will be reported annually to the Natural Resources Dept.

Table 35-1
Wingate Extension
Annual Mine Production Rates

Mining Period	Maximum Acres Mined in any one year	Average Acres Mined per Year	Average Tons Mined Per Year (Million Tons)		
			Sand Tailings	Clay	Phosphate Rock
Years 1 - 5	175	116	5.8	0.8	1.3

Table 35-5
Wingate Extension
Reclamation Schedule

Mining Method	Reclamation Activity	*Time - Years
Dragline Mining	0. End of Mine use	'---
	1. Contour - Earthwork	18 months
	2. Re-Vegetation	6 months
	3. Establishment Period	1 year
	Total Time	3 years
Dredge Mining	0. End of Mine use	'---
	1. Contour - Earthwork	30-42 months
	2. Re-Vegetation	6 months
	3. Establishment Period	1 year
	Total Time	4-5 years

* Note: Times are based on completion of all mining activities within a program or logical reclamationunit area that allows for reclamation of a sub-basin system rather than partial system.

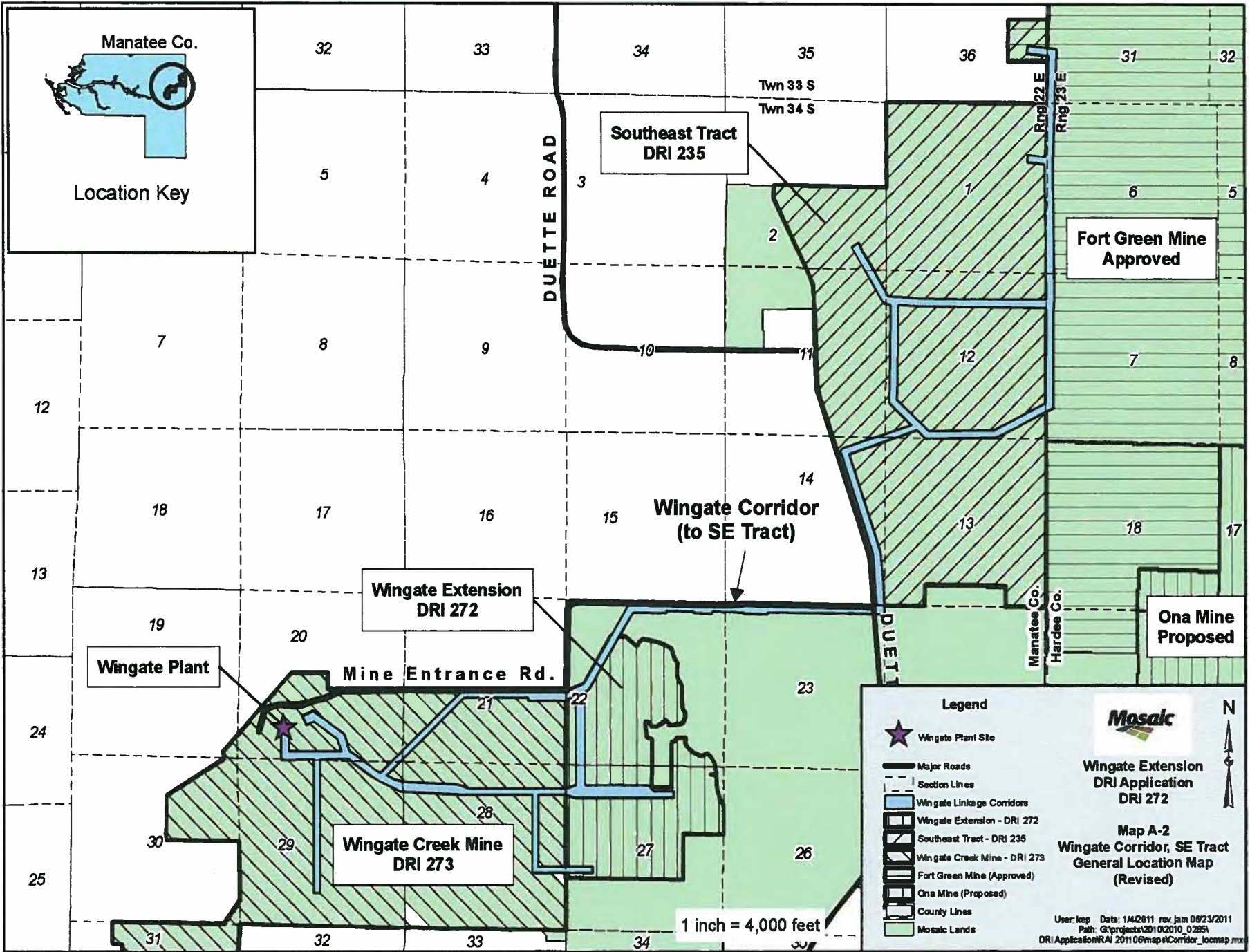
Table 24-1
Wingate Extension Vegetative Cover
(Pre-Mining and Post-Reclamation)
(Revised)

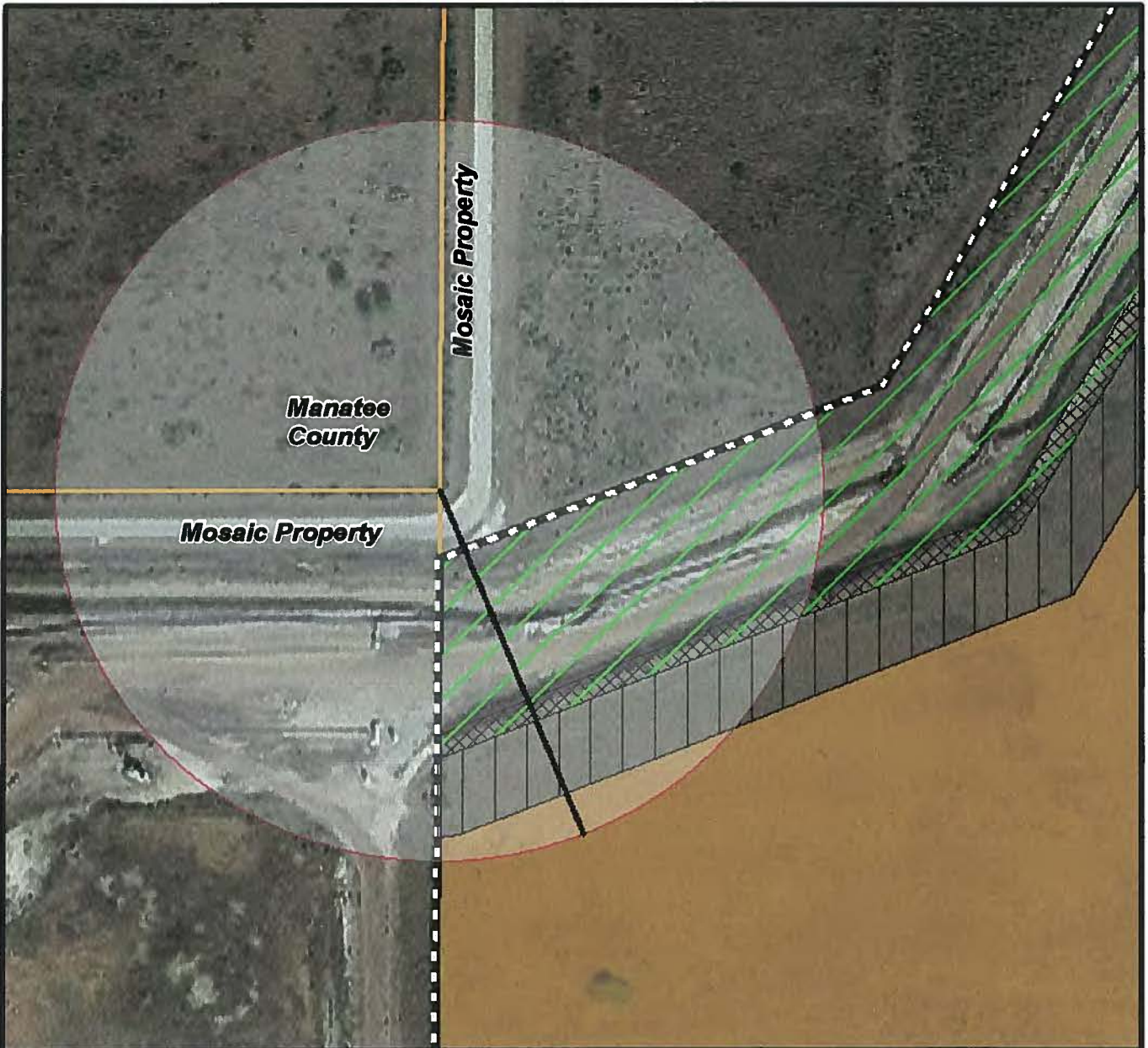
FLUCFCS Code	Description	Current Acres	Post Reclamation Acres	Change
210	Pastureland	417.4	363.8*	- 53.6
320	Shrub and Brushland	57.8	58.0	+ 0.2
330	Mixed Rangeland	90.8	91.2	+ 0.4
410	Upland Coniferous Forests	8.7	10.0	+ 1.3
420	Upland Hardwood Forests	0.7	0.7	- 0-
430	Upland Forests - Mixed	20.9	47.3	+ 26.4
510	Waterways	0.6	-	- 0.6
520	Lakes	-	19.0	+ 19.0
530	Livestock Ponds	0.6	-	- 0.6
640	Non-Forested Wetlands	48.4	56.1	+ 7.7
810	Transportation Corridors	14.9	14.9*	- 0-
Total**		660.8	660.8	

Notes:









* - The utility corridor will be reclaimed to pasture (i.e., FLUCFCS Code 210) upon completion of its mining use, which will occur after the remainder of the Wingate Extension is reclaimed.

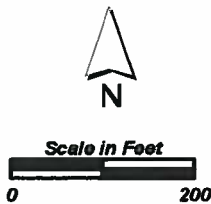
** - Numbers may not add to totals due to rounding





Legend

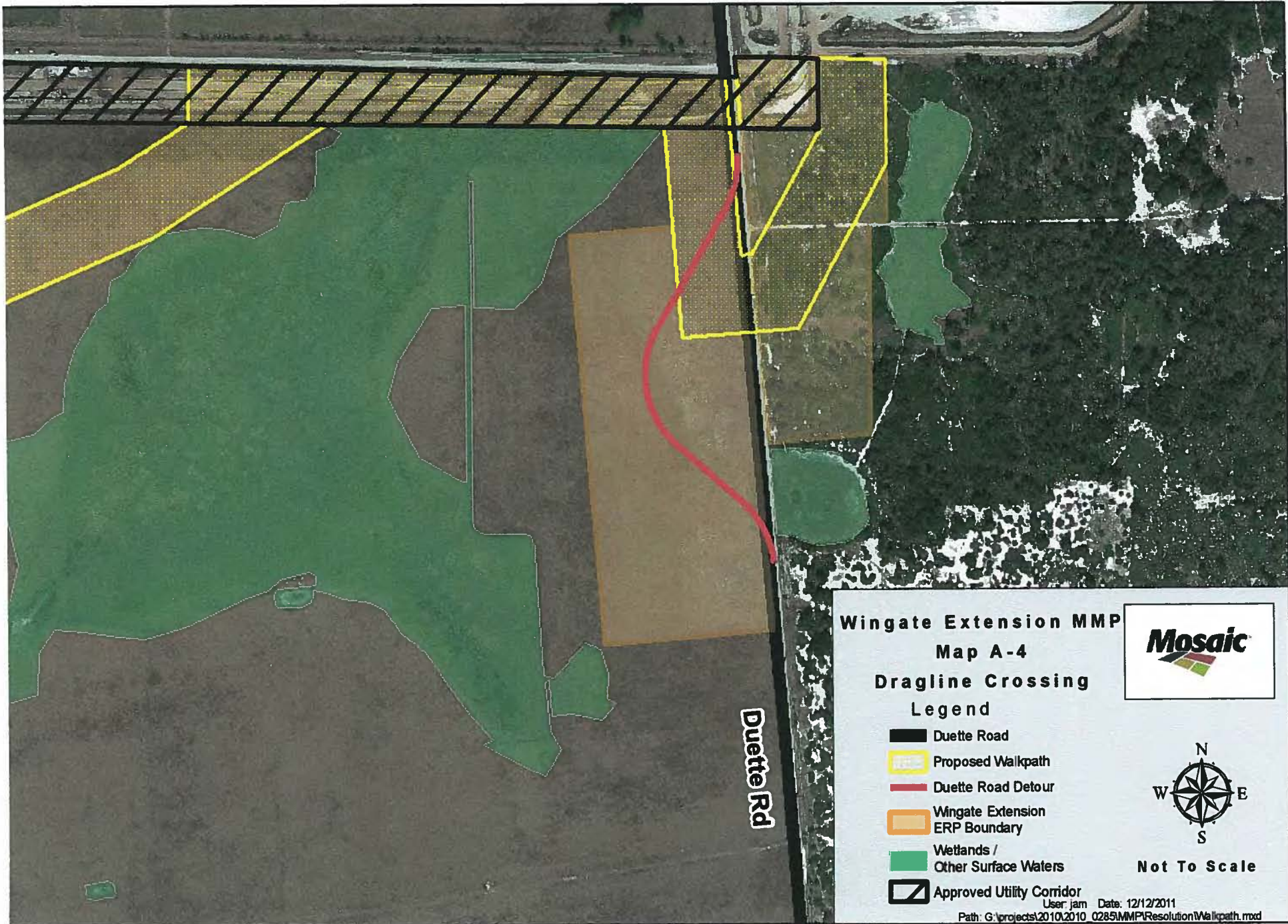
-  500 Foot Radius Circle
-  Cross Section
-  Mosaic Property
-  Project Boundary
-  Approved Utility Corridor (Approx. 250' Wide)
-  Proposed Berm Road Area (Approx. 30' Wide)
-  Proposed "additional" BMP Area (Approx. 105' Wide)
-  Mining Area



**Wingate Creek Mine
Manatee County
Wingate Extension**

**Map A-3
Setback Waiver**

**S 22, 23, 24, 27
T34S; R22E**









Wingate Extension MMP

Map A-4

Dragline Crossing

Legend











-  Duette Road
-  Proposed Walkpath
-  Duette Road Detour
-  Wingate Extension ERP Boundary
-  Wetlands / Other Surface Waters
-  Approved Utility Corridor



Not To Scale



Legend

-  Proposed Duette Road Detour
-  Proposed Dragline Walkpath
-  Section Lines
-  Right of Way
-  Proposed BMP Location
-  Dragline Mining
-  Dredge Mining
-  Approved Utility Corridor (FDEP Permit 0095520-008)
-  FDEP Wetlands / Surface Waters
-  Mosaic Property

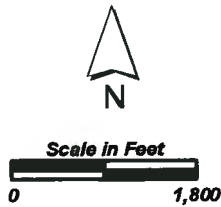
This map is given as an example only, with no assurance actual mining will follow the sequence or years shown. The area, location, sequence, and dates are subject to change due to economics, geology, permit requirements, etc.

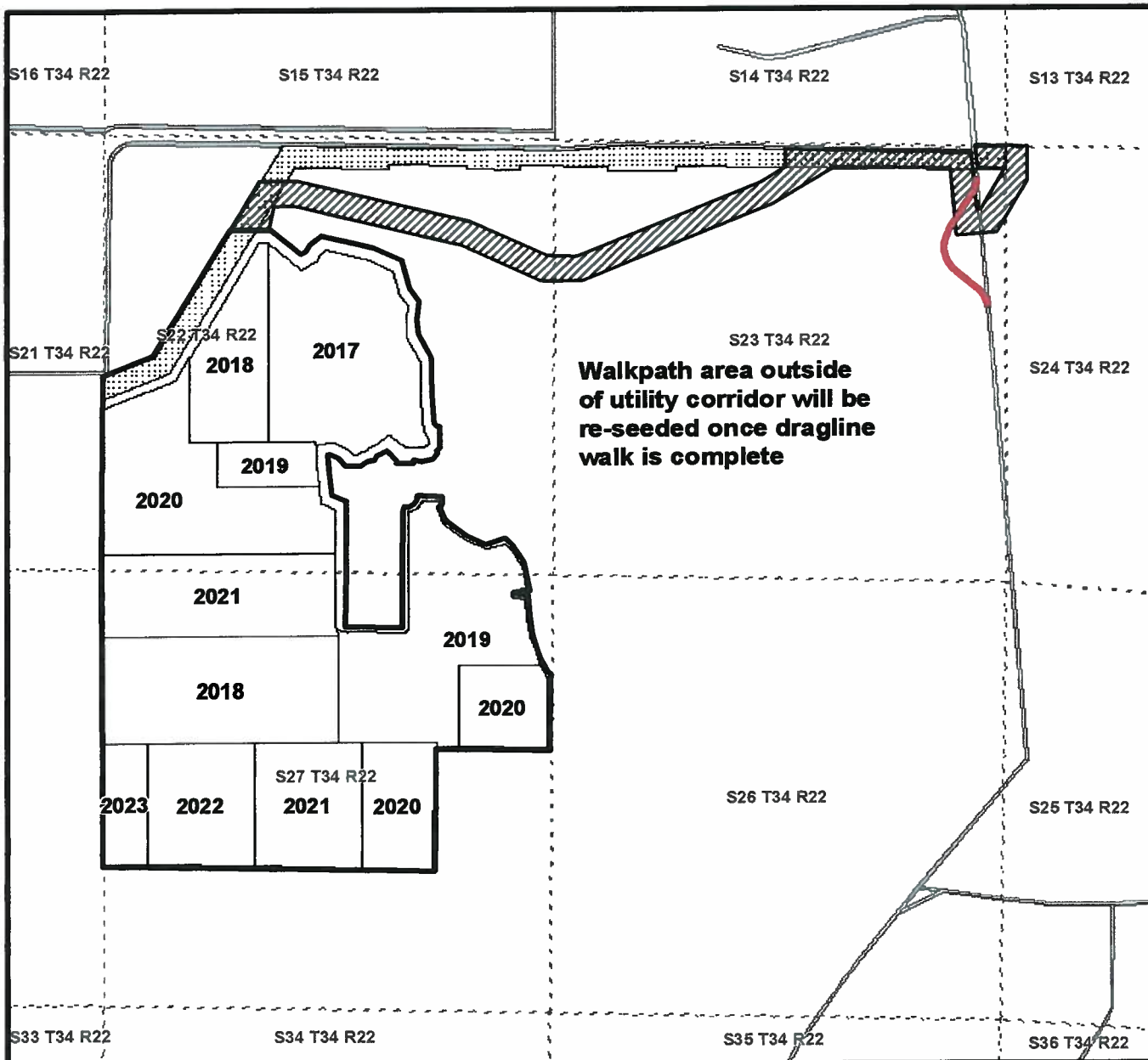


**Wingate Extension
Master Mine Plan**

**Map H-3
Mining Sequence
Map**

**S 22, 27
T34S; R22E**





This map is given as an example only, with no assurance actual reclamation will follow the sequence or years shown. The area, location, sequence, and dates are subject to change due to economics, geology, permit requirements, etc.



**Wingate Creek Mine
Master Mine Plan**

**Map H-7
Reclamation Sequence
For Vegetation Completion
Map**

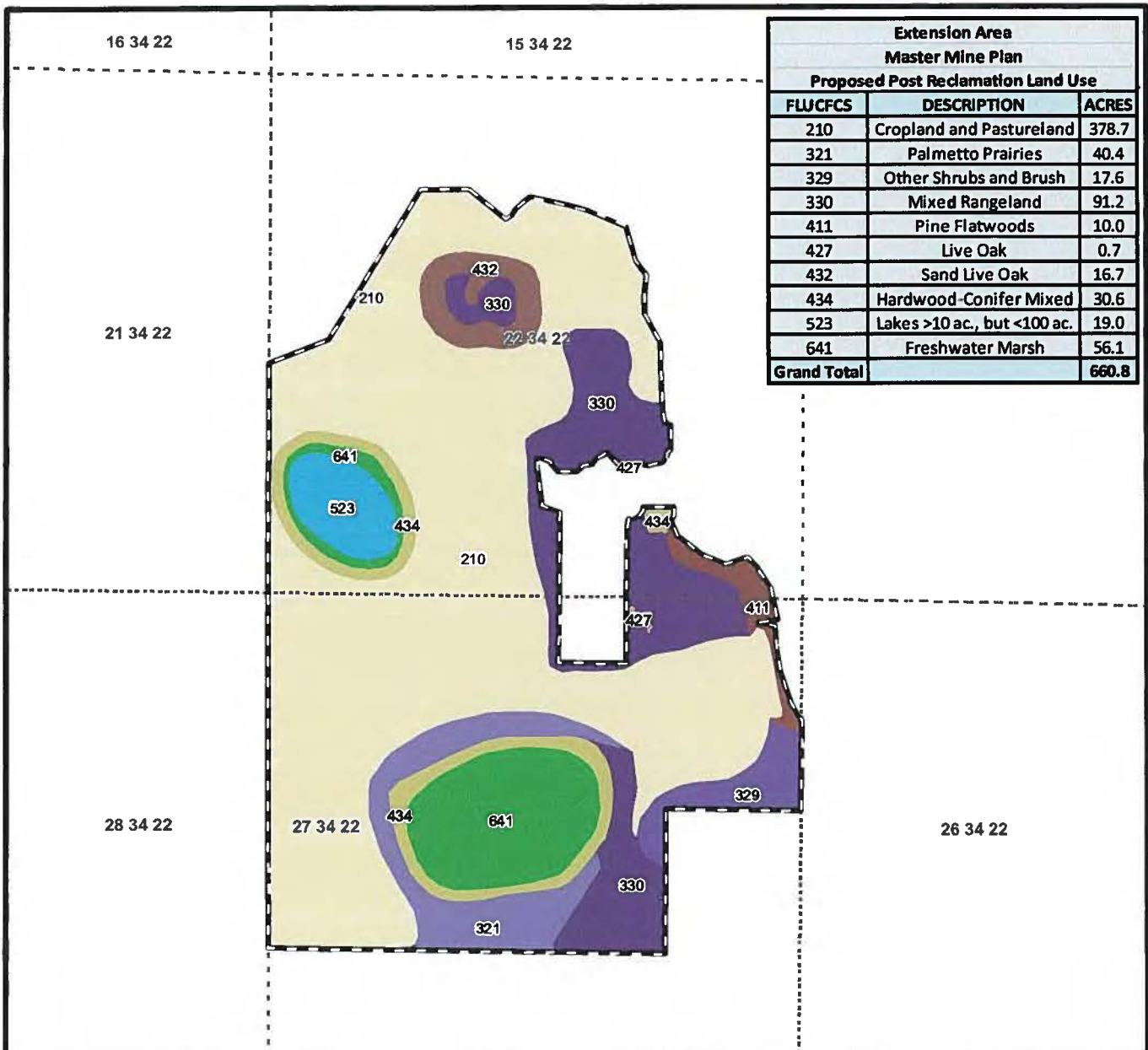
**S 22, 27
T34S; R22E**

User: jam Date: 11/17/2011

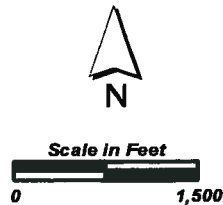
Path: G:\projects\2010\2010_0285\MMP\Resolution\seq.mxd

- Project Boundary
- Proposed Duette Road Detour
- Proposed Dragline Walkpath
- Approved Utility Corridor (FDEP Permit 0095520-008)
- Section Lines
- Reclamation Sequence
- Right of Way





- Project Boundary
- Section Lines
- 210 - Cropland and Pastureland
- 321 - Palmetto Prairies
- 329 - Other Shrubs and Brush
- 330 - Mixed Rangeland
- 411 - Pine Flatwoods
- 427 - Live Oak
- 432 - Sand Live Oak
- 434 - Hardwood - Conifer Mixed
- 523 - Lakes > 10 Acres and < 100 Acres
- 641 - Freshwater Marshes

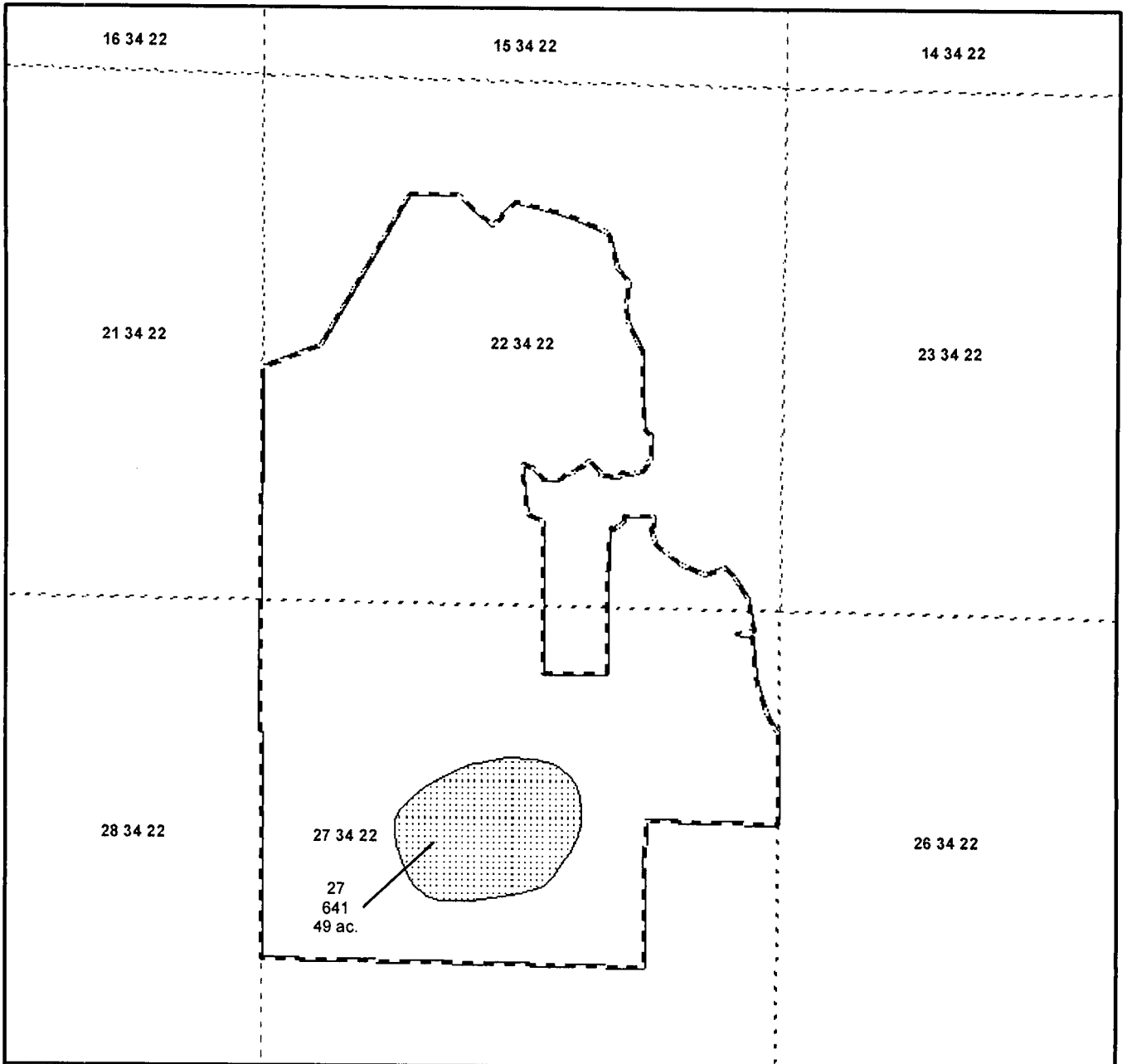


**Wingate Extension
Master Mine Plan**

**Map H-9
Post-Reclamation
Land Use
REVISED**

**S 22, 27
T34S; R22E**

User: kep Date: 7/8/2011 rev ymz 9/26/11
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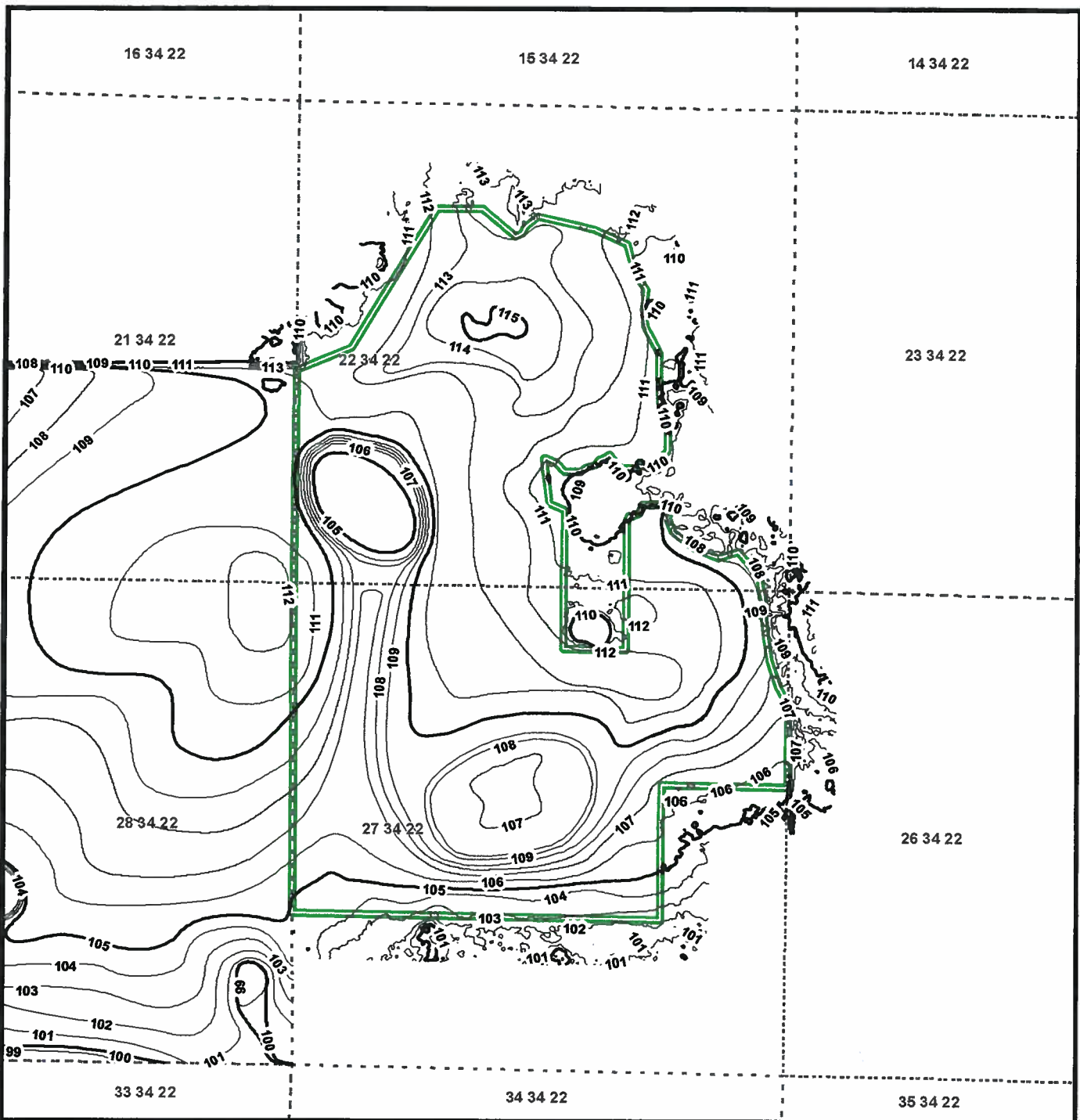
**Wingate Extension
Master Mine Plan**

**Map H-10
Mitigation Wetlands**

**S 22, 27
T34S; R22E**






-  Post Reclamation Mitigation Areas
-  Project Boundary
-  Section Lines

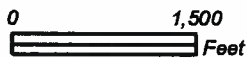


**Wingate Extension
Master Mine Plan**

**Map I-3
Post-Reclamation Topography
(Revised)**

Legend

-  Topography 5'
-  Topography 1'
-  Wingate Extension Area



User: jam Date: 7/7/2011

Path: G:\projects\2010\2010_0285\MMP\RAI_201106\Maps\prtp.mxd

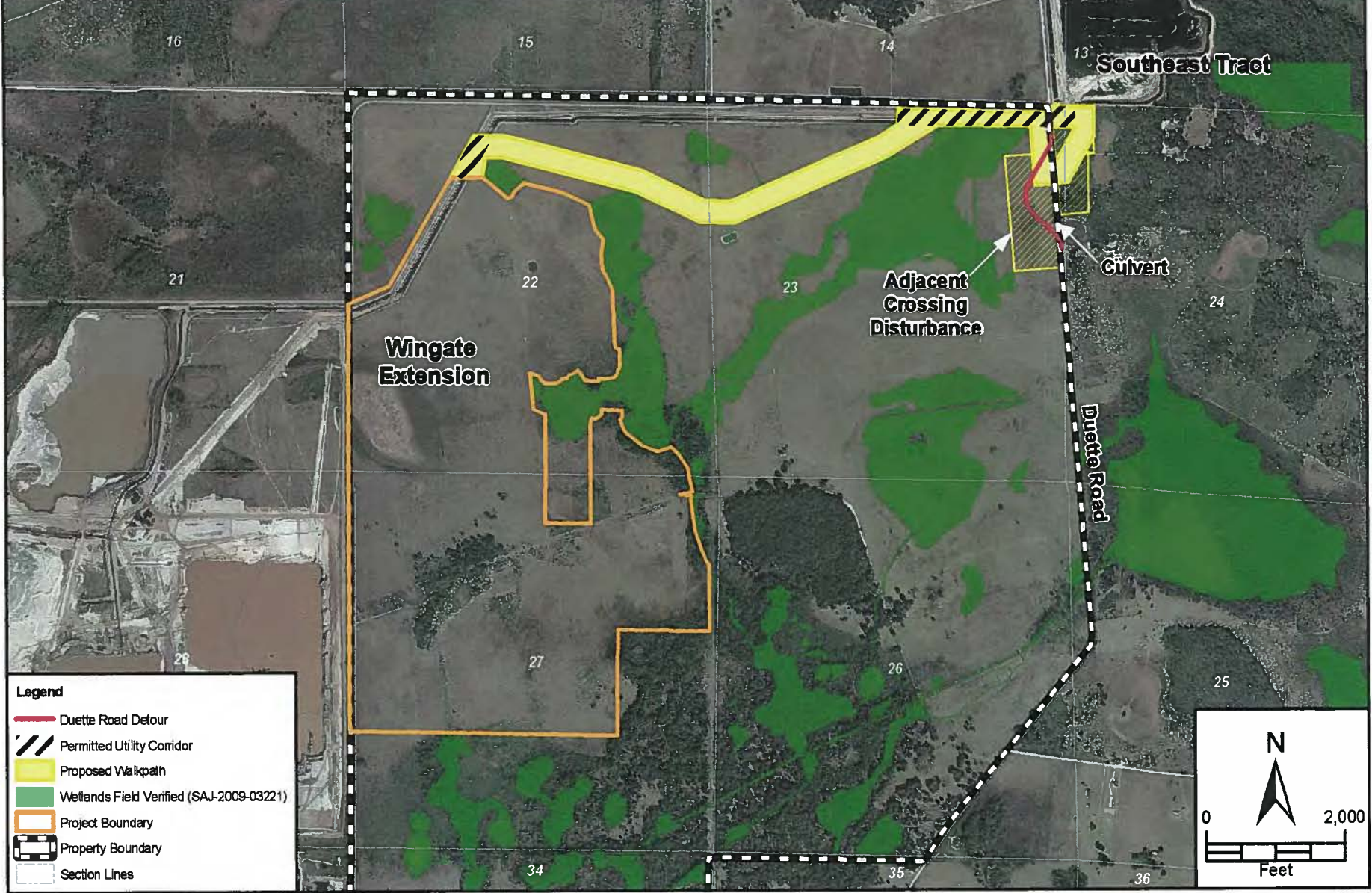


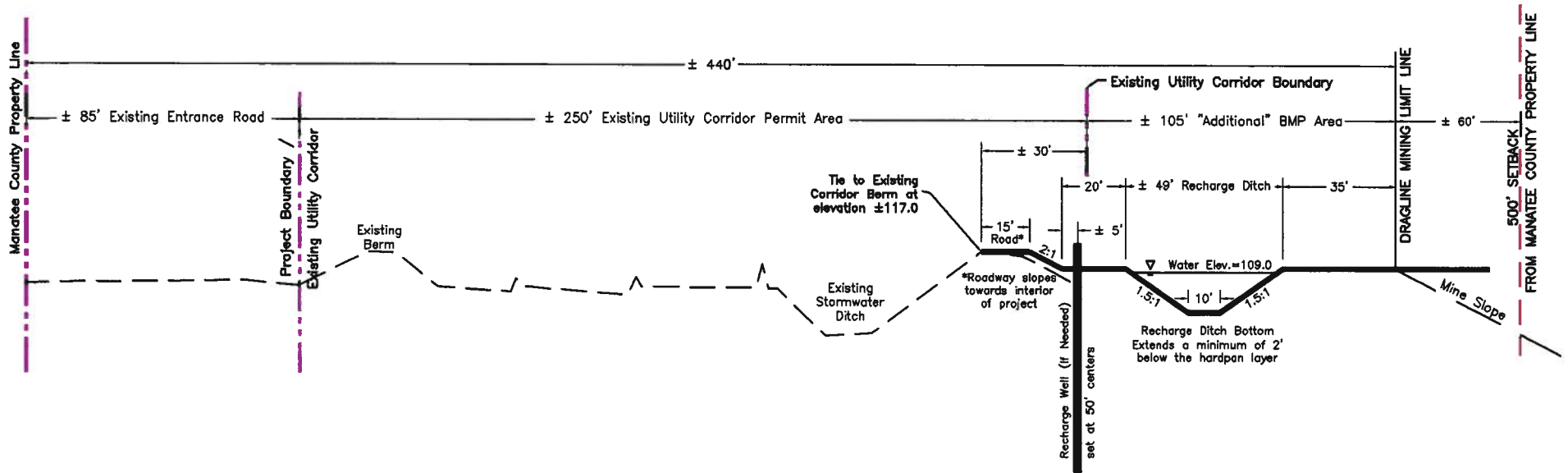
FIGURE 13-1.
PROPOSED WALKPATH & ROAD DETOUR
WINGATE EXTENSION MASTER MINING PLAN
MANATEE COUNTY, FLORIDA

Source: SWFWMD, 2008; MOSAIC, 2010; ECT, 2011



Figure 5-2 Property Line Setback Cross-Section

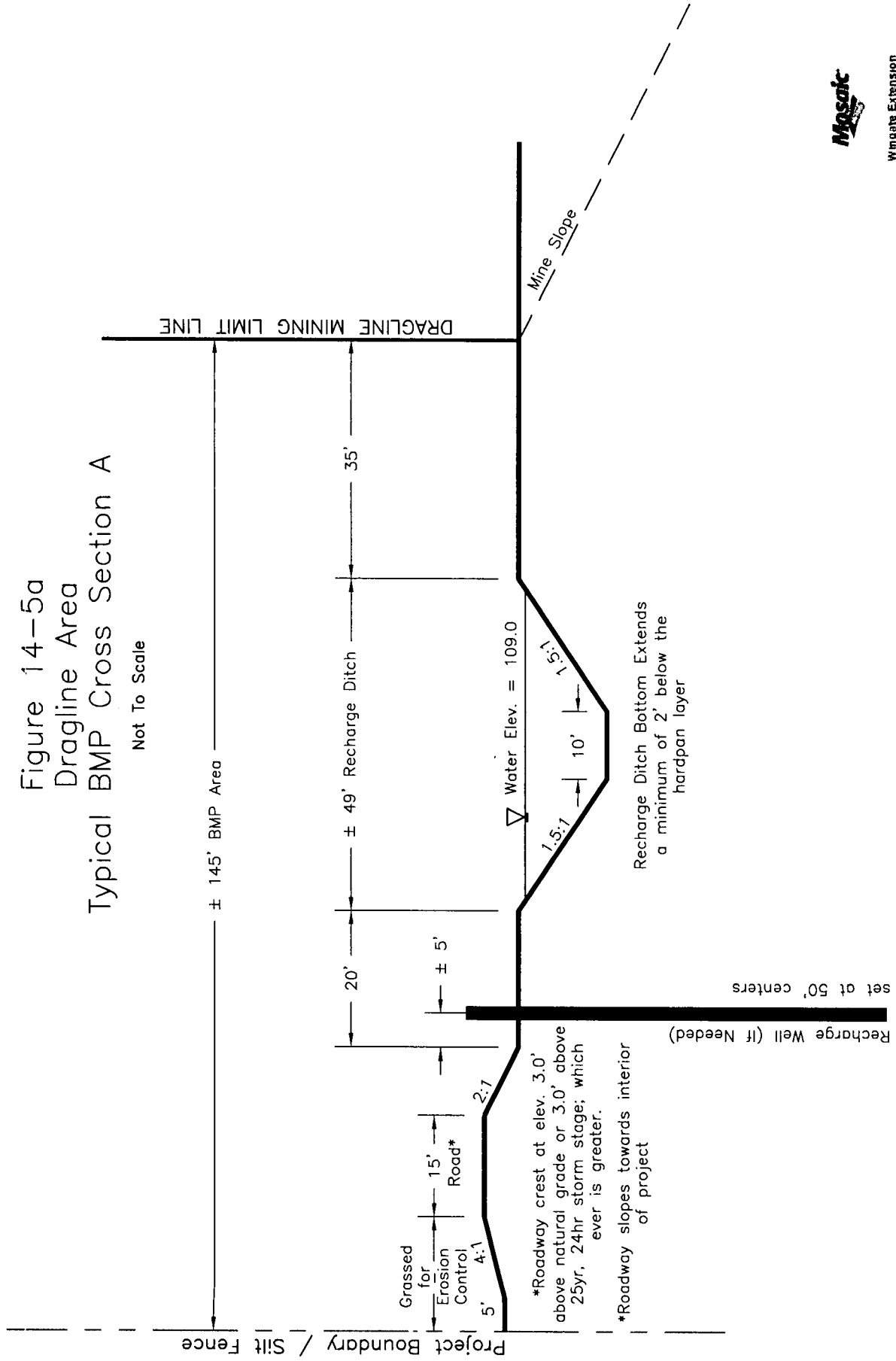
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Mosaic
Wingate Extension
MMP

Figure 14-5a
 Dragline Area
 Typical BMP Cross Section A

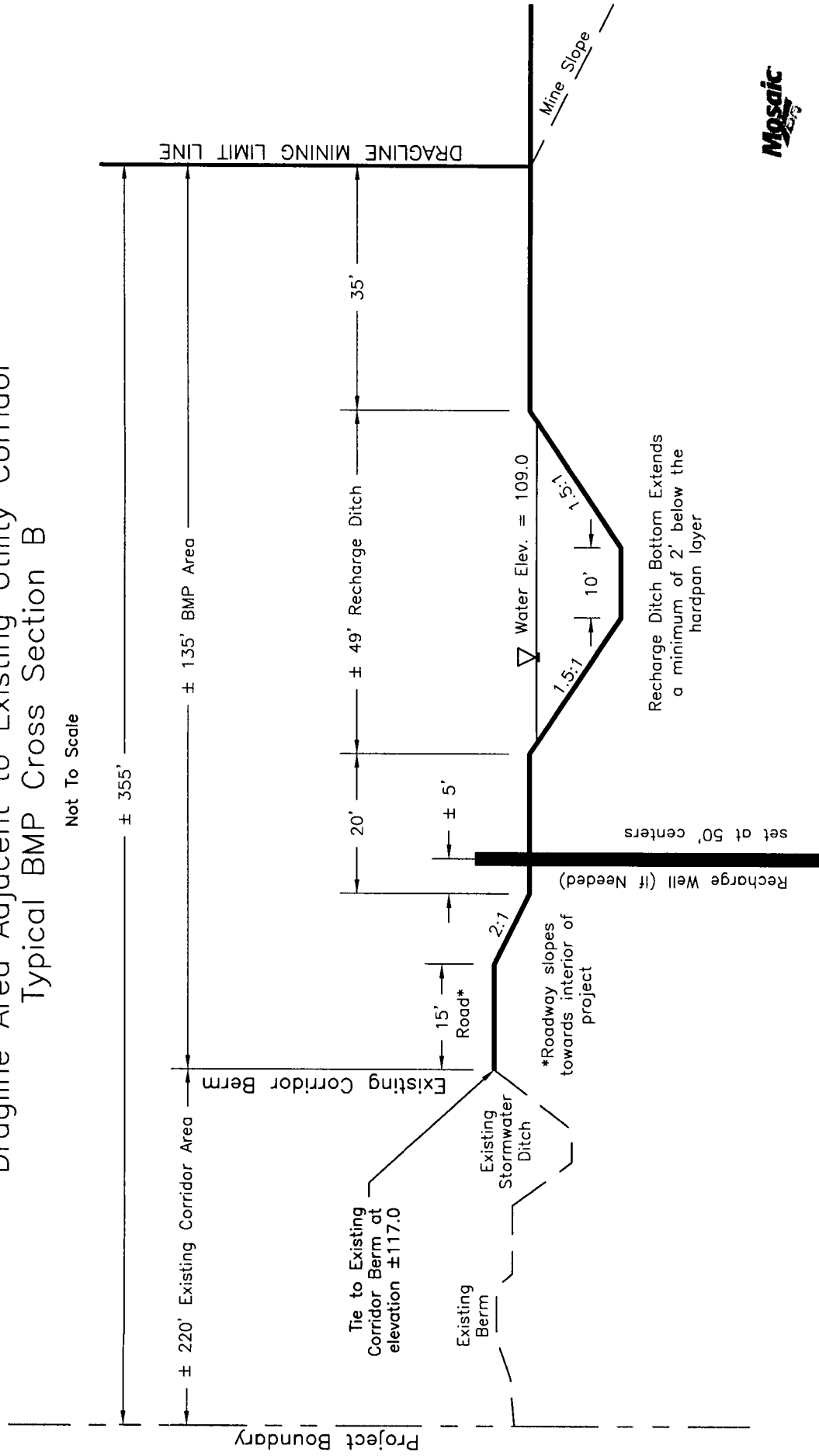
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Wingate Extension
 DRI Application
 DRI 272

Figure 14-5a
 Dragline Area
 Typical BMP Cross Section A

Figure 14-5b
 Dragline Area Adjacent to Existing Utility Corridor
 Typical BMP Cross Section B



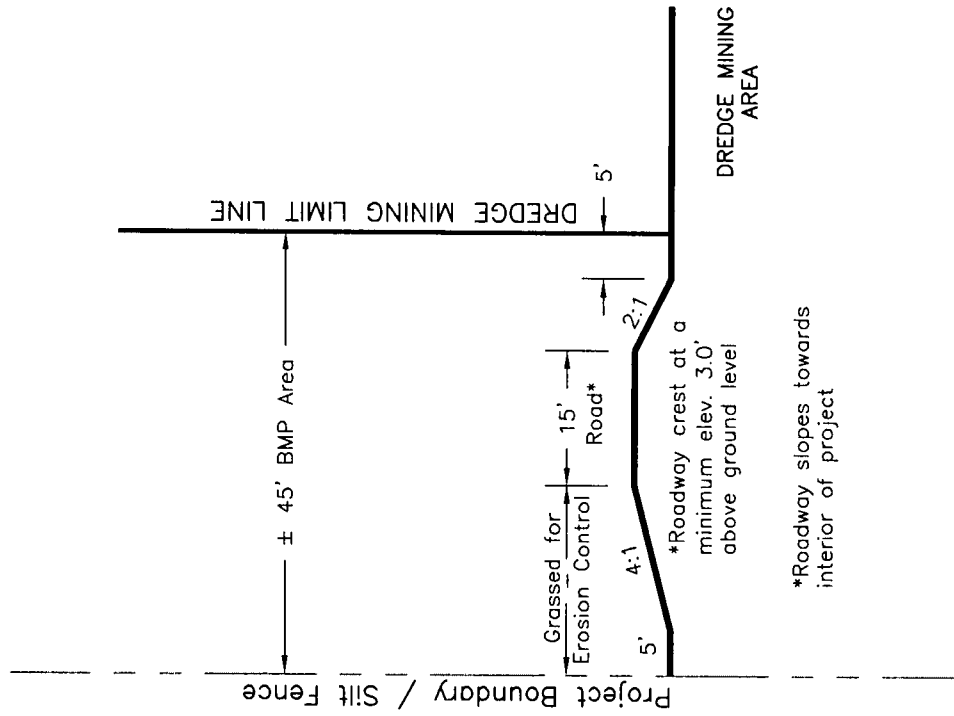
Wingate Extension
 DRI Application
 DRI 272

Figure 14-5b
 Dragline Area
 Adjacent to Existing Corridor
 Typical BMP Cross Section B

Revised Information
 ERP Application #095520-017
 RAI #1

Figure 14-5c
Dredge Area
Typical BMP Cross Section C

Not To Scale



Wingate Extension
DRI Application
DRI 272

Figure 14-5c
Dredge Area

Typical BMP Cross Section C

EXHIBIT C – ENVIRONMENTAL MONITORING PROGRAM REQUIREMENTS

Exhibit C

ENVIRONMENTAL MONITORING PROGRAM

An environmental monitoring program to be developed by the applicant in accordance with section 2-20-31(22), which shall include baseline data for at least one year prior to mining activities. The applicant shall develop the monitoring program in conjunction with the Natural Resources Department;

1.0 SHALLOW GROUNDWATER

1.1 General

The Shallow Groundwater Monitoring Program (SGWMP) for the Wingate Extension is intended to 1) establish initial conditions over a one (1) year period prior to mining and 2) monitor and evaluate groundwater quality and static water levels under operational conditions through the completion of reclamation.

1.2 Monitoring

1.2.1 Groundwater Sampling Locations

The designated shallow groundwater monitoring well locations, 3591 and 3159 for the shallow groundwater quality monitoring program are shown on the drawing included in this section. Although these sites are anticipated to remain through the life of mine, if mining or mining related activities require the relocation of these sites, the new sites must be approved six (6) months before the old sites are impacted so as to give time for a minimum of six (6) months background sampling of the new sites. The relocation wells, if required shall be approved by the Natural Resources Department. Each sampling location shall consist of a small diameter well, the bottom of which shall be above the phosphate matrix but completed within the surficial aquifer. In addition to the locations mentioned above, prior to mining activities, shallow groundwater quantity shall be measured at well locations 3177 and 3178 as shown on the included drawing.

1.2.2 Sample Parameters

Shallow ground-water quality initial monitoring shall include the following parameters:

- | | |
|--|------------------|
| 1. pH | 11. Calcium |
| 2. Conductivity | 12. Magnesium |
| 3. Nitrogen-Total | 13. Sodium |
| 4. Nitrogen-Ammonia | 14. Potassium |
| 5. Nitrogen-Nitrate (NO ₃) | 15. Chloride |
| 6. Nitrogen-Nitrite (NO ₂) | 16. Fluoride |
| 7. Sulfates | 17. Iron |
| 8. Phosphorus-Total as P | 18. Gross Alpha |
| 9. Total organic Carbon (TOC) | 19. Oil & Grease |
| 10. Total Alkalinity | |

Note: Radium 226 and 228 will be analyzed for any sample in which Gross Alpha exceeds 15 pCi/L. If Oil & Grease exceeds 5 mg/L, TRPH, EPA 602, and EPA 610 will be analyzed.

1.2.3 Frequency/Duration

Groundwater Monitoring shall be conducted semi-annually in January and July for the parameters listed in Section 1.2.2. Groundwater levels will be recorded when the wells are monitored.

1.2.4 Methods

All groundwater sampling methodology will follow the current DEP Standard Operating Procedures(SOPs) for groundwater sampling (i.e. FS2200 - Groundwater Sampling) per the DEP Quality Assurance Rule, 62-160, F.A.C. Further, all associated field activities, sample preparation and handling, and laboratory activities required by this program will follow the applicable Department of Environmental Protection SOPs as specified in the DEP Quality Assurance Rule, 62-160, F.A.C.

1.2.5 Quality Control Provisions

Upon reasonable notice, split samples will be obtained to allow for Manatee County to perform an independent analysis. All sampling procedures, field activities, and laboratory activities required by this program will follow the Department of Environmental Protection Standard Operating Procedures as specified in the DEP Quality Assurance Rule, 62-160, F.A.C..

1.2.6 Schedule of Reporting

Results of shallow groundwater monitoring will be provided to Manatee County in the annual report.

2.0 INTERMEDIATE AQUIFER MONITOR WELLS

2.1 Groundwater Sampling Locations

The designated intermediate groundwater monitoring well locations, 3591 and 3159 for the intermediate groundwater quality monitoring program are shown on the drawing included in this section. Although these sites are anticipated to remain through the life of mine, if mining or mining related activities require the relocation of these sites, the new sites must be approved six (6) months before the old sites are impacted so as to give time for a minimum of six (6) months background sampling of the new sites. The relocation wells, if required shall be approved by the Natural Resources Department. Each sampling location shall consist of a small diameter well, the bottom of which shall be in the intermediate aquifer as determined by a third party hydrologist, hydrogeologist or engineer.

2.2 Sample Parameters

Same as 1.2.2 above.

2.3 Frequency/Duration

Same as 1.2.3 above

2.4 Methods

Same as 1.2.4 above

2.5 Quality Control Provisions

Same as 1.2.5 above

2.6 Schedule of Reporting

Same as 1.2.6 above

3.0 STREAM MONITORING

3.1 General

This section of the monitoring program was developed in consultation with the Manatee County Natural Resources Department to insure water quality of the stream systems located in the vicinity of the site.

3.2 Station Locations

The designated stream monitoring location is identified as TEXSWQ-4 on the attached drawing.

3.3 Sample Parameters

- | | |
|---|-------------------------------------|
| 1. pH | 15. Solids – Total Suspended Solids |
| 2. Temperature | 16. Sulfates – SO ₄ |
| 3. Turbidity | 17. Gross Alpha |
| 4. Fluoride | 18. Color |
| 5. Dissolved Oxygen | 19. Chlorophyll a |
| 6. Conductivity | 20. Chloride |
| 7. Phosphorus – Total P | 21. Silica |
| 8. Ortho Phosphate | 22. Sodium |
| 9. Nitrogen - Ammonia | 23. Calcium |
| 10. Nitrogen - Kjeldahl | 24. Potassium |
| 11. Nitrogen - Nitrate/Nitrite (NO _x) | 25. Magnesium |
| 12. Nitrogen - Total | 26. Iron |
| 13. Fixed Solids | 27. Alkalinity |
| 14. Solids - TDS | 28. Oils & Greases |

Radium 226 & 228 will be analyzed for any sample in which Gross Alpha exceeds 15 pCi/l. If parameter 28 exceeds 5 mg/liter, TRPH, EPA 602 and EPA 610 will be analyzed.

3.4 Methods

Grab samples will be obtained for analysis. Surface water sample collection shall be in accordance with current DEP SOPs for surface water sampling (i.e. FS2100 – Surface Water Sampling) per the DEP Quality Assurance Rule, 62-160, F.A.C.. Further, all associated field activities, sample preparation and handling, and laboratory activities required by this program will follow the applicable Department of Environmental Protection SOPs as specified in the DEP Quality Assurance Rule, 62-160, F.A.C.

3.5 Quality Control Provisions

Upon reasonable notice, split samples will be obtained to allow for the County to perform an independent analysis.

3.6 Frequency/Duration

Samples will be collected on a monthly basis for the first year of active mining. Sampling frequency will be reduced to quarterly after the first year of active mining, contingent on the approval of the Manatee County Natural Resources Department.

3.7 Schedule of Reporting

Results of stream monitoring will be provided to Manatee County on a yearly basis, unless otherwise requested.

4.0 RADIATION IN SOILS

The Florida Department of Health now administrates radiation monitoring. They are responsible for pre-mining and post-reclamation monitoring, sampling, analysis and reporting. Mosaic will supply Manatee County with the results of their efforts when release of reclaimed areas is requested pursuant to Phosphate Mining Code Chapter 2-20 and Wingate Extension MMP conditions of approval.

5.0 GENERAL REPORTING REQUIREMENTS

5.1 Recipients of Monitoring Reports

Results of all elements of the environmental monitoring program should be reported at the intervals indicated in each section to the following County offices:

- One copy to the Manatee County, Natural Resources Department
- One copy to the Manatee county, Mining Coordinator

- Mosaic will provide all information as required by Manatee County ordinances and statues.

5.2 Report Contents

Monitoring reports should present the following information where applicable, in a clear concise format.

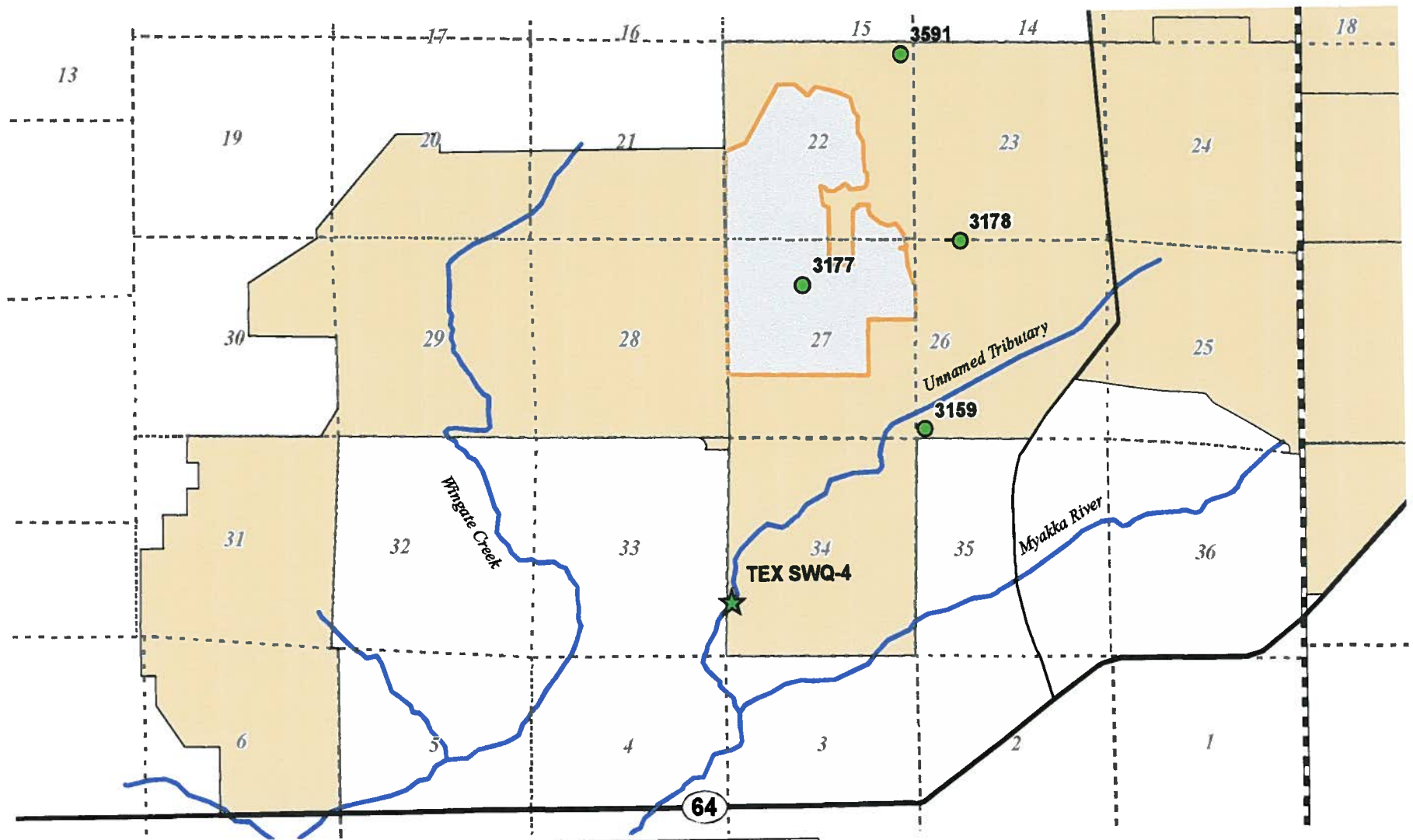
- type of station
- station identification number
- name and affiliation of sample collector
- date and time of sample collection or measurement
- results of laboratory analysis or field measurement with units of measure indicated.
- comments on any unusual conditions or circumstances in connection with the sample collection or analysis and notation of any deviations from the approved monitoring program procedures. Reports shall also note any variances from applicable standards. Any results, which fall outside of the control limits established by the laboratory performing the analysis, should also be reported.

6.0 MODIFICATION OF MONITORING PROGRAM

The Environmental Monitoring Program may be amended in accordance with the Manatee County Code of Laws, section 2-20-33(c) (4). The purpose of such modification is to add or delete sampling to reflect new developments in mining and sampling technology which may improve both sampling and environmental quality. This will allow for unnecessary stations and/or parameters to be eliminated, while additional ones may be added if they are proven to be required.

7.0 OTHER MONITORING PROGRAMS

All environmental monitoring information required by agencies other than Manatee County will be submitted to the County. This monitoring information shall be submitted in conjunction with its transmittal to the specific regulatory agency.



Legend

- Wingate Extension
- Other Mosaic Property
- Section Lines
- County Lines
- Waterways
- Surfacewater Monitoring Station
- Groundwater Monitoring Station



Wingate Extension

**Exhibit C
Monitoring Map**