

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

## Attachment C

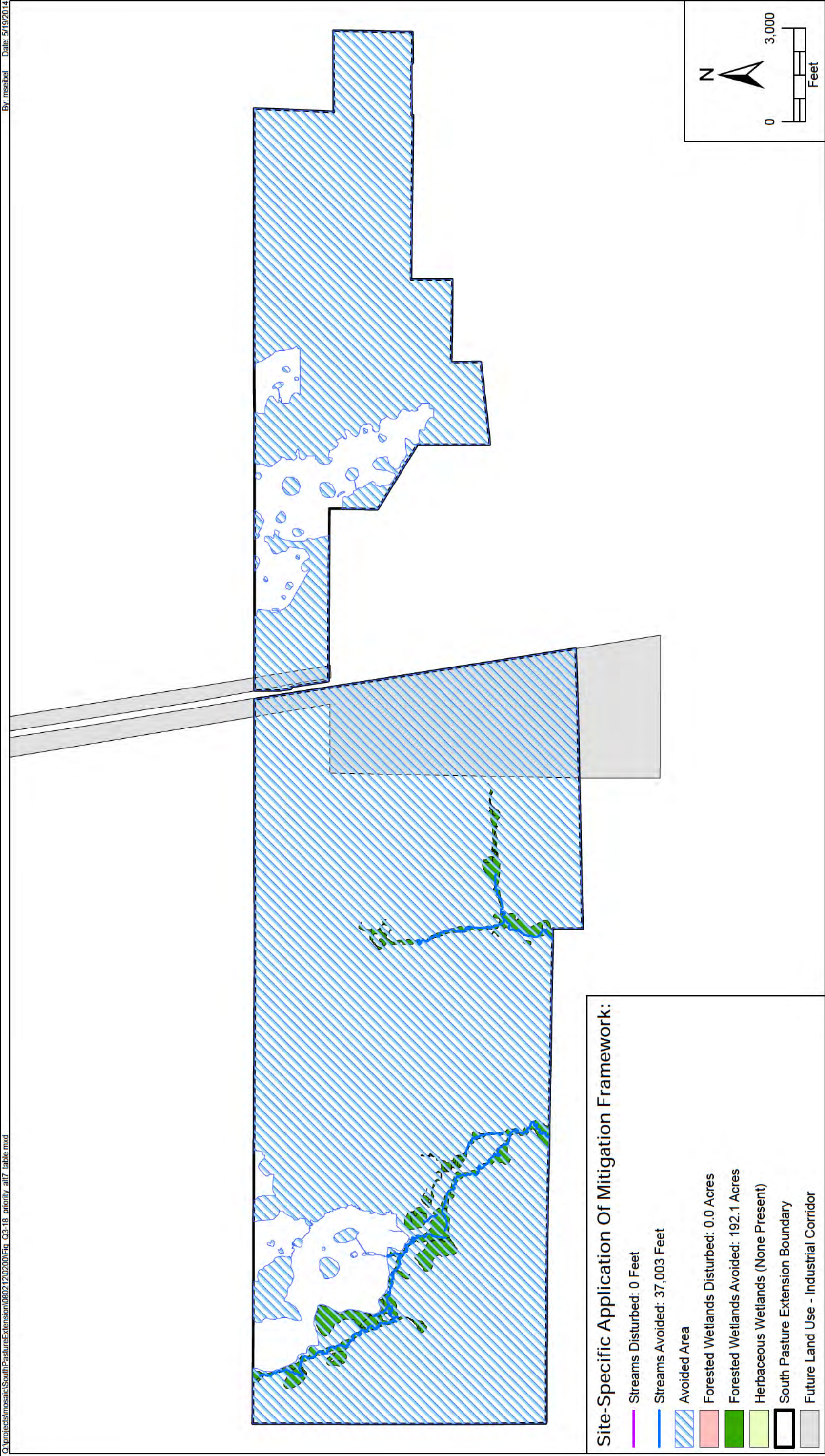


FIGURE Q3-18.  
ALTERNATE MINE PLAN #7  
SOUTH PASTURE EXTENSION  
HARDEE COUNTY, FLORIDA



Sources: Kucera International, Inc., 2014; Mosaic, 2014; ECT, 2014.



Figure 2 - Upland mining with Crossings of WOUS

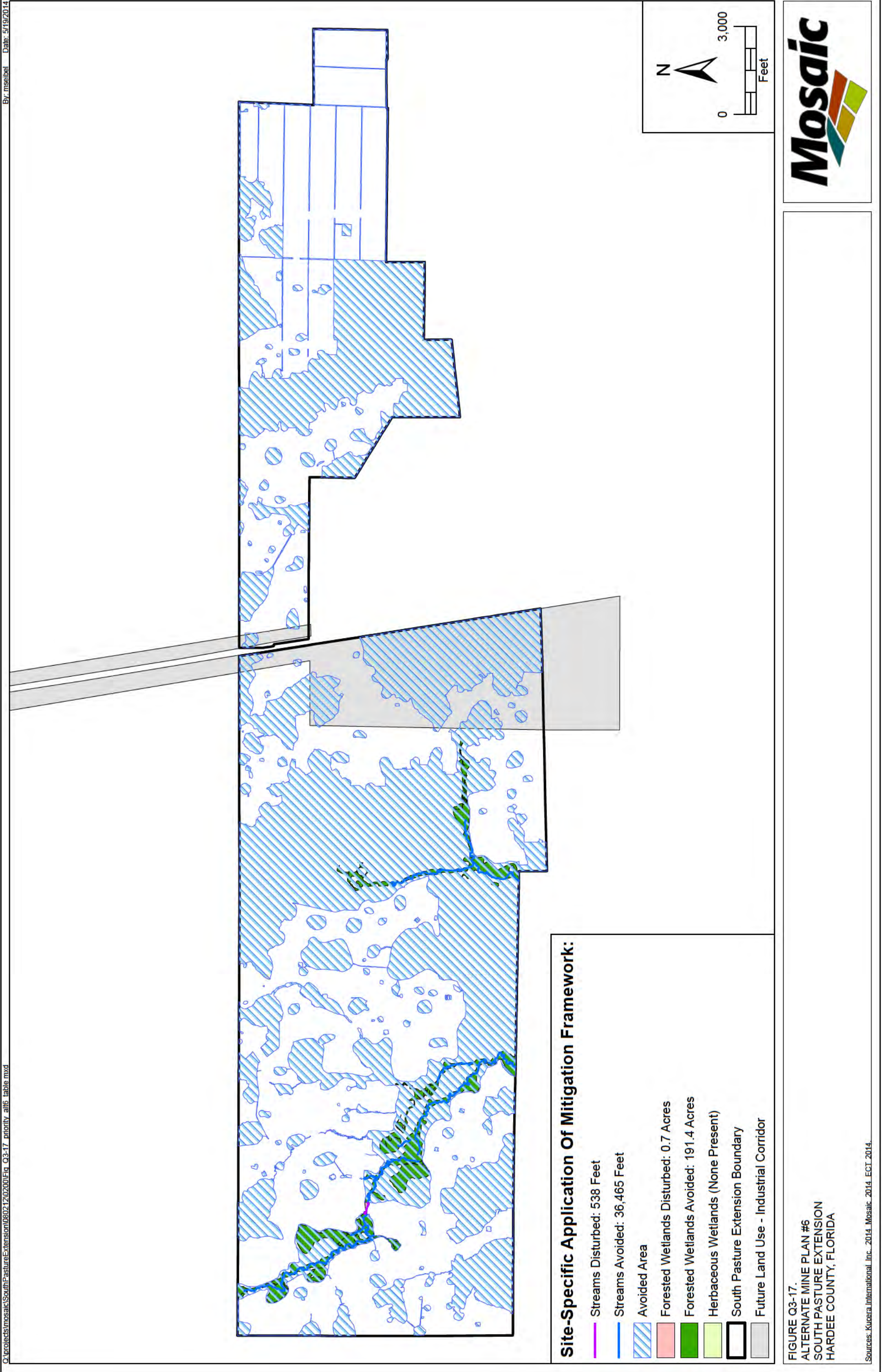




Figure 3 - Applicant's Preferred Alternative

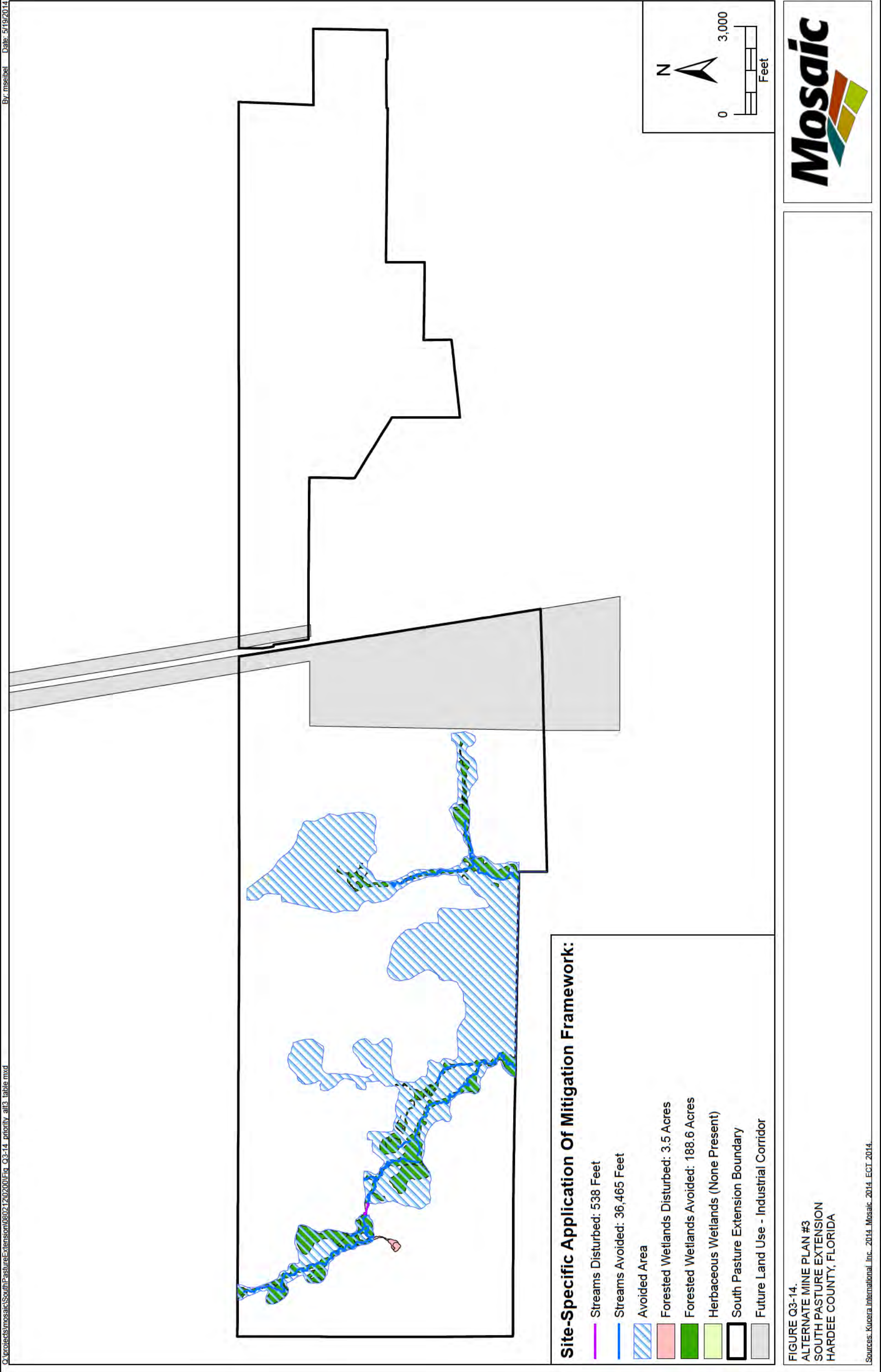


Figure 4 - Original Mine Plan - Maximum Recovery/Minimal Avoidance

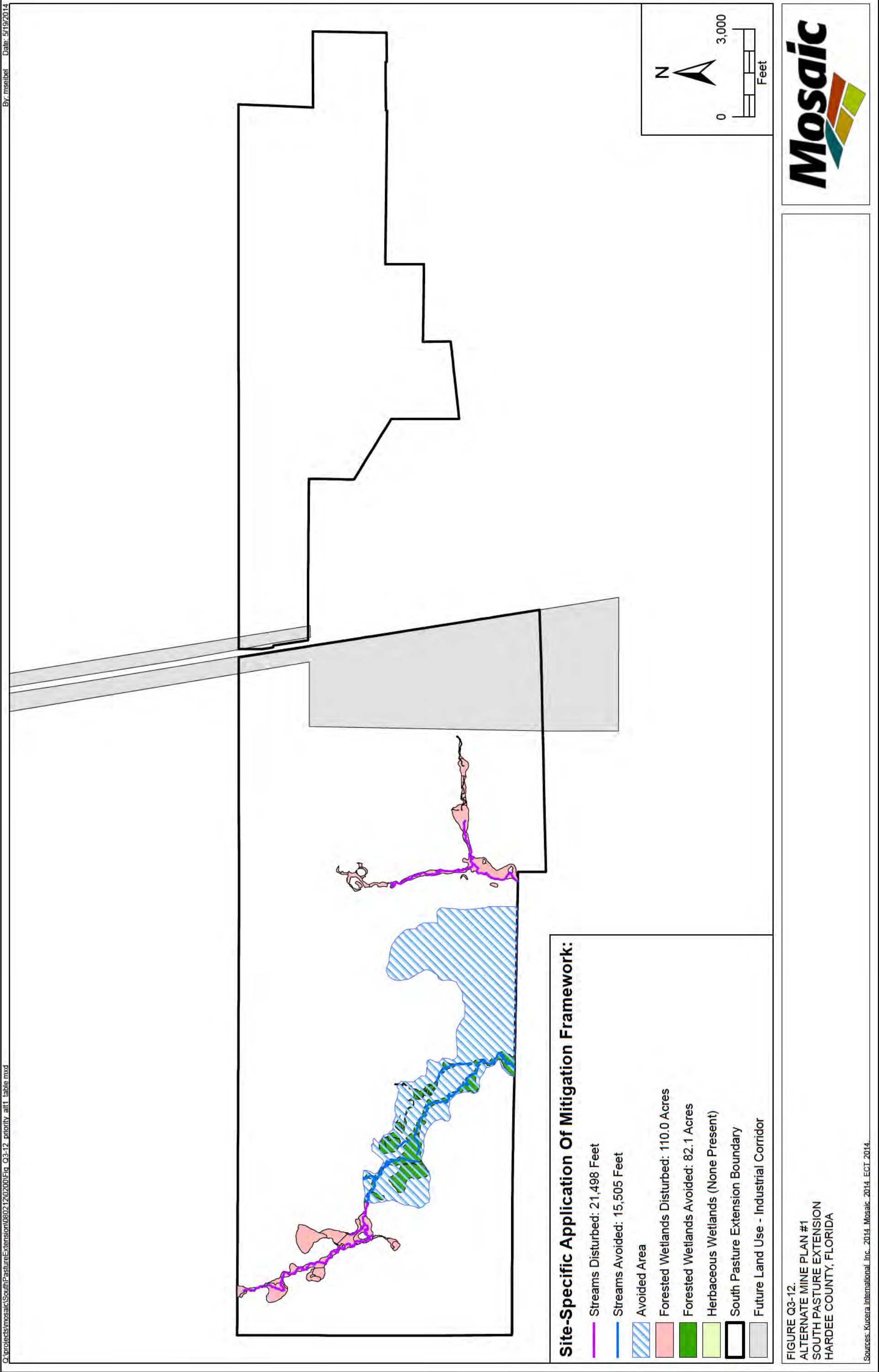




Figure 5 - UMAM-Based Avoidance

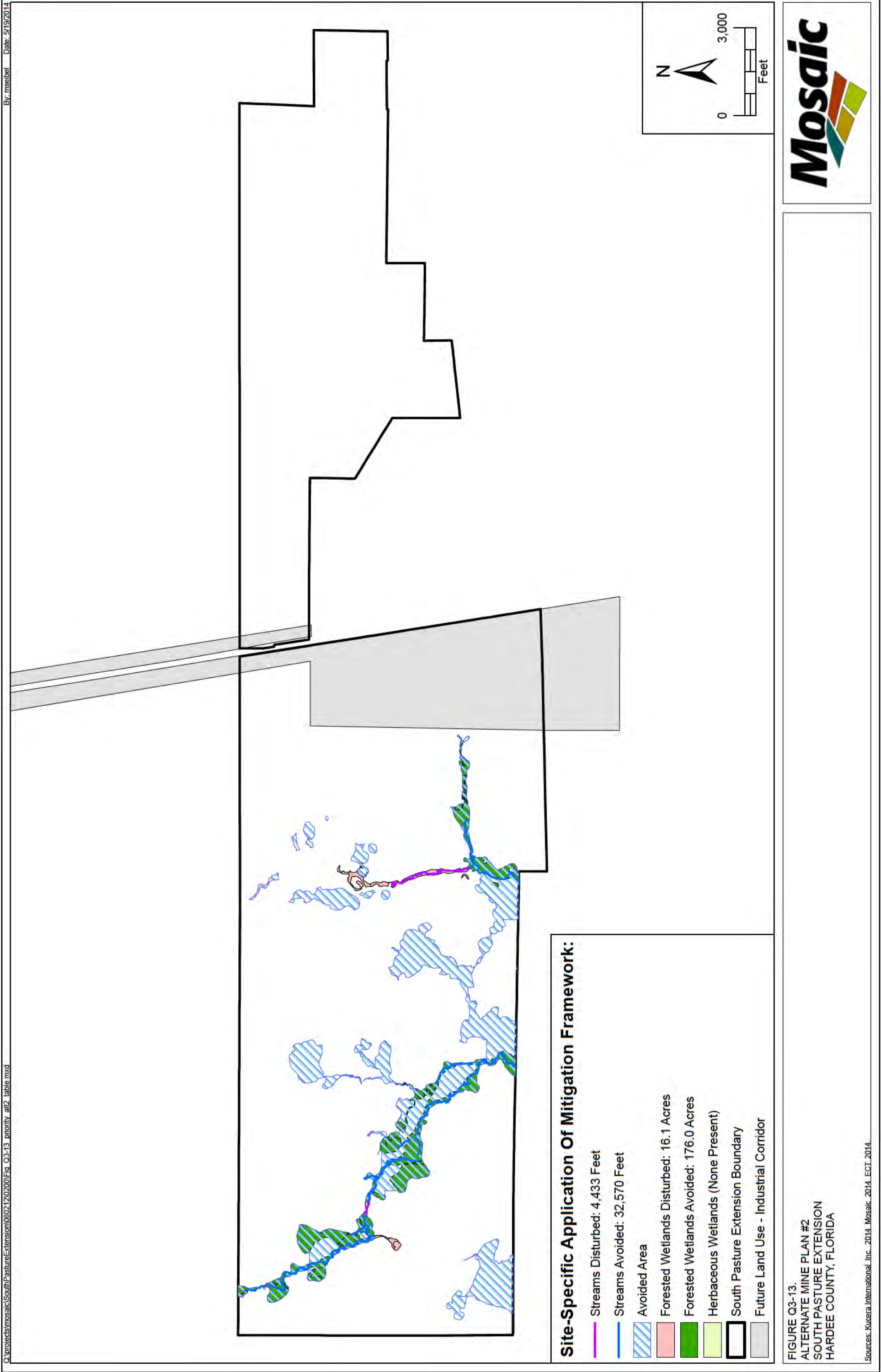


Figure 6 - Applicant's Preferred Plus Additional Avoidance

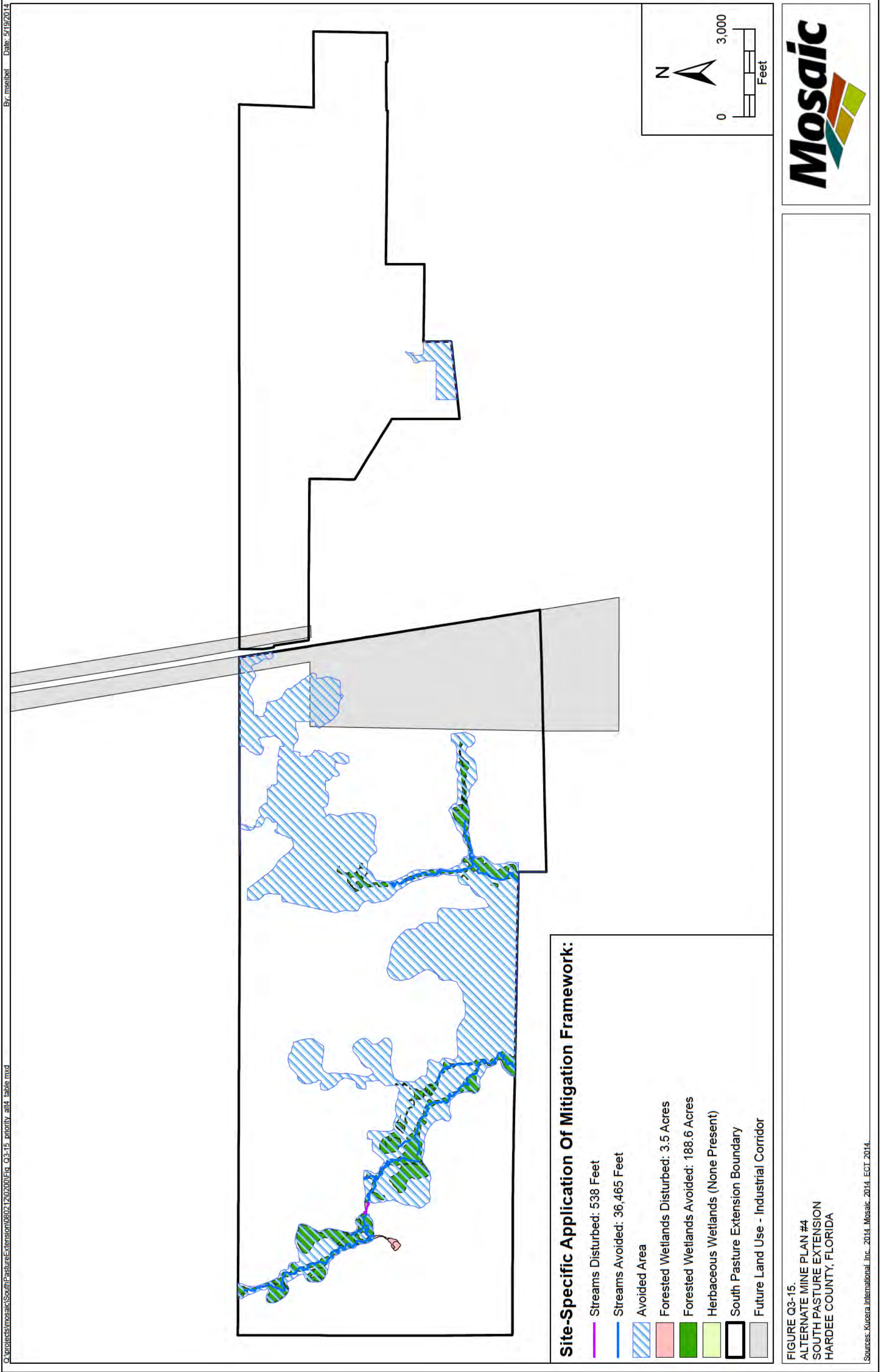


FIGURE Q3-15.  
ALTERNATE MINE PLAN #4  
SOUTH PASTURE EXTENSION  
HARDEE COUNTY, FLORIDA

Sources: Kuecera International, Inc., 2014; Mosaic, 2014; ECT, 2014.



Figure 7 - Maximum Framework Avoidance

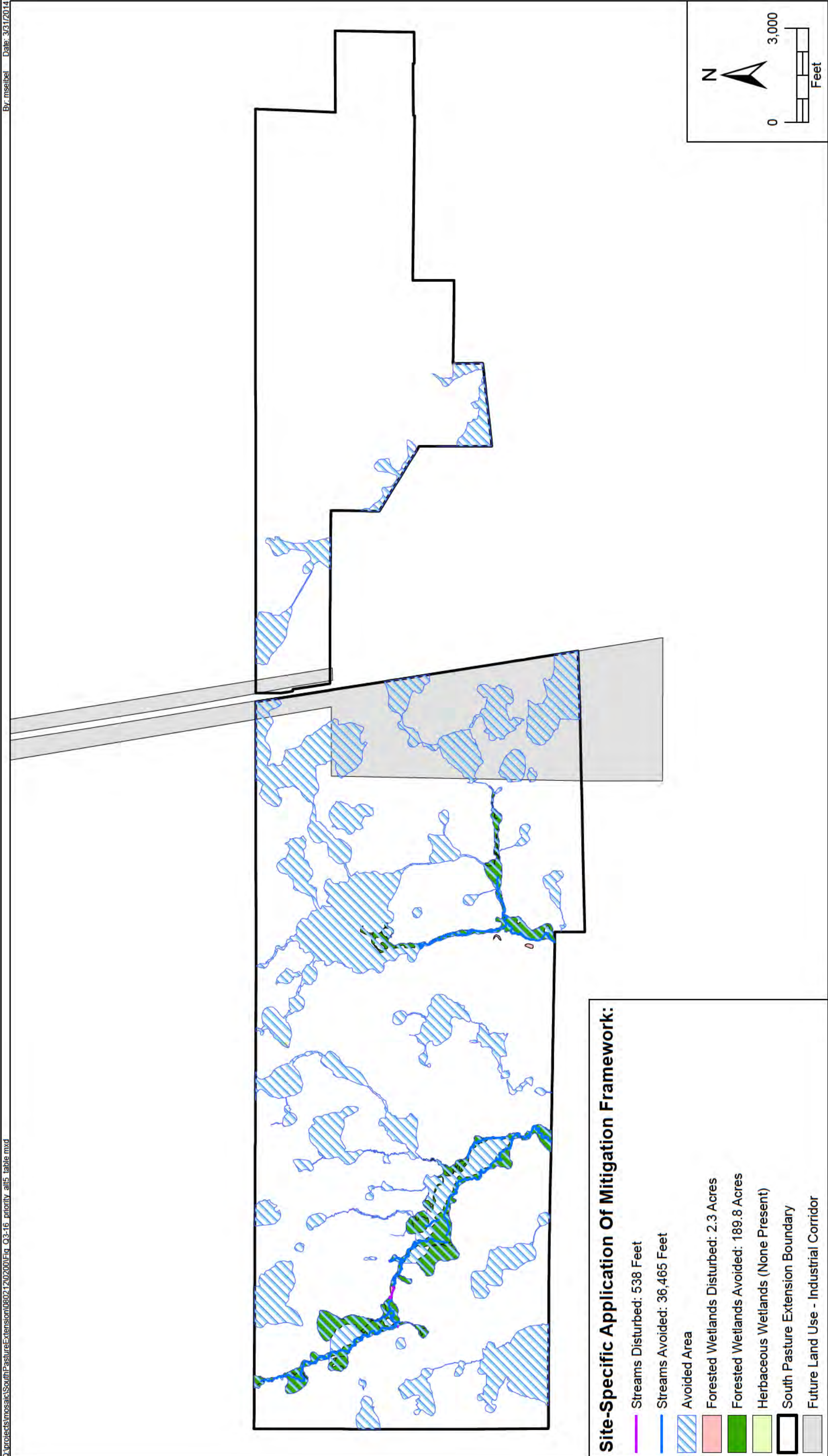


FIGURE Q3-16.  
ALTERNATE MINE PLAN #5  
SOUTH PASTURE EXTENSION  
HARDEE COUNTY, FLORIDA





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

## Attachment D

## **Special Conditions:**

**1. Reporting Address:** The Permittee shall submit all reports, notifications, documentation and correspondence required by the general and special conditions of this permit, preferably in an electronic format, to the following address:

a. For standard mail: U.S. Army Corps of Engineers, Regulatory Division, Special Projects and Enforcement Branch, 10117 Princess Palm Avenue, Suite 120, Tampa, FL 33610-8302.

b. For electronic mail (preferred) CESAJ-Mine.Team@usace.army.mil (not to exceed 10 MB).

c. For electronic submittals greater than 10 MB, the Corps recommends using an FTP site, such as the AMRDEC Safe Access File Exchange (<https://safe.amrdec.army.mil/SAFE/Welcome.aspx>)

The Permittee shall reference this permit number, SAJ-1993-01395 (SP - JPF), on all submittals.

**2. Commencement Notification:** Within 10 days from the date of the initial commencement of work authorized by this permit, and within 10 days from the date of commencement for each phase/mining unit thereafter, the Permittee shall provide a written notification of that date of commencement to the Corps.

**3. As-Built Certification:** Within 60 days of completion or cessation of a period of 1 year or more of authorized work within each phase/mining unit, the Permittee shall submit as-built drawings of the authorized work within that phase and a completed "As-Built Certification By Professional Engineer" form (**Attachment C**) to the Corps. Upon expiration of the construction window identified in General Condition 1, the Permittee shall submit a final as-built drawing and certification for all phases/mining units. The as-built drawings for each phase/mining unit and the final submittal shall be signed and sealed by a registered professional engineer and shall include the following:

a. A plan view drawing of the location of the authorized work footprint, as shown on the permit drawings, with transparent overlay of the work as constructed in the same scale as the permit drawings on 8½-inch by 11-inch sheets. The plan view drawing should show all "earth disturbance," including wetland impacts and water management structures.

b. A list of any deviations between the work authorized by this permit and the work as constructed. In the event that the completed work deviates, in any manner, from the authorized work, describe on the attached "As-Built Certification By Professional Engineer" form the deviations between the work authorized by this permit and the work as constructed. Clearly indicate on the as-built drawings any deviations that have been listed. Please note that the depiction and/or description of any deviations on the drawings and/or "As-Built Certification By Professional Engineer" form does not constitute approval of any deviations by the Corps.



c. the Department of the Army permit number on all sheets submitted.

In addition to the signed and sealed paper as-built drawings, the Permittee shall also provide electronic copies in .pdf format (sized to 8½-inch by 11-inch sheets) and in .shp format for each phase/mining unit and for the final as-built.

**4. Permit Compliance and Availability:** The Permittee will require its contractors and/or agents to comply with the terms and conditions of this permit in the construction and maintenance of this project, and will provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this permit. A copy of this permit, including all conditions, tables, figures and maps, will be available at the project site during mining and mitigation work of this project.

**5. Cultural Resources/Historic Properties:**

a. No structure or work shall adversely affect impact or disturb properties listed in the *National Register of Historic Places* (NRHP) or those eligible for inclusion in the NRHP.

b. If during the ground disturbing activities and construction work within the permit area, there are archaeological/cultural materials encountered which were not the subject of a previous cultural resources assessment survey (and which shall include, but not be limited to: pottery, modified shell, flora, fauna, human remains, ceramics, stone tools or metal implements, dugout canoes, evidence of structures or any other physical remains that could be associated with Native American cultures or early colonial or American settlement), the Permittee shall immediately stop all work and ground-disturbing activities within a 100-meter diameter of the discovery and notify the Corps within the same business day (8 hours). The Corps shall then notify the Florida State Historic Preservation Officer (SHPO) and the appropriate Tribal Historic Preservation Officer(s) (THPO(s)) to assess the significance of the discovery and devise appropriate actions.

c. Additional cultural resources assessments may be required of the permit area in the case of unanticipated discoveries as referenced in accordance with the above Special Condition ; and if deemed necessary by the SHPO, THPO(s), or Corps, in accordance with 36 CFR 800 or 33 CFR 325, Appendix C (5). Based, on the circumstances of the discovery, equity to all parties, and considerations of the public interest, the Corps may modify, suspend or revoke the permit in accordance with 33 CFR Part 325.7. Such activity shall not resume on non-federal lands without written authorization from the SHPO for finds under his or her jurisdiction, and from the Corps.

d. In the unlikely event that unmarked human remains are identified on non-federal lands, they will be treated in accordance with Section 872.05 Florida Statutes. All work and ground disturbing activities within a 100-meter diameter of the unmarked human remains shall immediately cease and the Permittee shall immediately notify the medical examiner, Corps, and State Archeologist within the same business day

(8-hours). The Corps shall then notify the appropriate SHPO and THPO(s). Based, on the circumstances of the discovery, equity to all parties, and considerations of the public interest, the Corps may modify, suspend or revoke the permit in accordance with 33 CFR Part 325.7. Such activity shall not resume without written authorization from the State Archeologist and from the Corps.

**6. Notice of Permit:** The Permittee shall complete and record the "Notice of Department of the Army Permit" form (**Attachment D**) with the Clerk of the Circuit Court, Registrar of Deeds or other appropriate official charged with the responsibility of maintaining records of title to or interest in real property within the county of the authorized activity. Within 90 days from the effective date of this permit, the Permittee shall provide a copy of the recorded Notice of Permit to the Corps clearly showing a stamp from the appropriate official indicating the book and page at which the Notice of Permit is recorded and the date of recording.

**7. Permit Modifications:** It is the Permittee's responsibility to request a modification of this permit, including to deviate from any of the terms and conditions, permit drawings, or attachments, from the Mining Team or other appropriate Jacksonville District Regulatory section. The Corps reserves the right to fully evaluate, amend, and approve or deny the request for modification of this permit. The Permittee agrees for the purposes of compliance with this DA permit, where the conditions of the FDEP and DA permits conflict, the DA permit shall apply. A modification of the FDEP environmental resource permit does not automatically constitute a modification of this DA permit. Should any other agency require and/or approve changes to the work authorized or obligated by this permit, the Permittee is advised a modification to this permit instrument is required prior to initiation of those changes.

Once the Corps has completed its review of a modification request, the Permittee shall provide a revised copy of this DA permit to the Corps for review and approval that reflects the proposed modification, plus any previous modifications approved by the Corps. The revised copy will include a listing and description of all approved modifications by number beneath the **Project Description** on Page 1 of this DA permit, for example: Modification #1: A change in the boundaries of Wetland R-10W-02, as shown in revised drawing number 36 of 56 in **Part 3, Attachment A to the Compensatory Mitigation Plan**. Once the Corps approves the modification, the Permittee shall use that revised copy of the DA permit, including for the purpose of compliance with the **Permit Compliance and Availability** special condition.

**8. Erosion Control:** Prior to the initiation of any work authorized by this permit, the Permittee shall install erosion control measures along the perimeter of all work areas to prevent the displacement of fill material outside the work area into waters of the United States. Immediately after completion of the final grading of the land surface, all slopes, land surfaces, and filled areas shall be stabilized using sod, degradable mats, barriers, or a combination of similar stabilizing materials to prevent erosion. The erosion control measures shall remain in place and be maintained until all authorized work is completed and the work areas are stabilized.

**9. Fill Material:** The Permittee shall use only clean fill material for this project. The fill



material shall be free from items such as trash, debris, automotive parts, asphalt, construction materials, concrete block with exposed reinforcement bars, and soils contaminated with any toxic substance, in toxic amounts in accordance with Section 307 of the Clean Water Act.

**10. Biological Opinion:** This permit does not authorize the Permittee to take an endangered species, in particular the Audubon's crested caracara (*Polyborus plancus audubonii*), eastern indigo snake (*Drymarchon corais couperi*), and wood stork (*Mycteria americana*). In order to legally take a listed species, the Permittee must have separate authorization under the Endangered Species Act (ESA) (e.g., an ESA Section 10 permit, or a Biological Opinion (BO) under ESA Section 7, with "incidental take" provisions with which you must comply). The enclosed United States Fish and Wildlife Service BO (**Attachment E**) contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" that is also specified in the BO. Authorization under this permit is conditional upon compliance with all of the mandatory terms and conditions associated with incidental take of the enclosed BO, which terms and conditions are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of the BO, where a take of the listed species occurs, would constitute an unauthorized take, and it would also constitute noncompliance with this permit. The United States Fish and Wildlife Service is the appropriate authority to determine compliance with the terms and conditions of its BO, and with the ESA.

**11. Eastern Indigo Snake Protection Measures and Inspection:** The Permittee shall comply with U.S. Fish and Wildlife Service's "Standard Protection Measures for the Eastern Indigo Snake" dated August 12, 2013, as provided in **Attachment F** of this permit. The Permittee shall evacuate all gopher tortoise burrows, active or inactive, prior to site manipulation in the vicinity of the burrow. If excavating potentially occupied burrows, active or inactive, individuals must first obtain state authorization via a Florida Fish and Wildlife Conservation Commission (FWC) Authorized Gopher Tortoise Agent permit. The excavation method selected shall minimize the potential for injury of an indigo snake. The Permittee shall follow the excavation guidance provided in the most current FWC Gopher Tortoise Permitting Guidelines found at <http://myfwc.com/gophertortoise>. If the Permittee encounters an eastern indigo snake, the Permittee must allow the snake to vacate the area prior to additional site manipulation in the vicinity. The Permittee shall inspect holes, cavities, and snake refugia other than gopher tortoise burrows each morning before planned site manipulation of a particular area, and if occupied by an indigo snake, no work shall commence until the snake has vacated the vicinity of the proposed work.

**12. Spill or Release Reporting:** In the event of a spill or unscheduled release, from a mine pipeline or other source associated with the authorized activity, that affects wetlands, streams, other waters of the United States, or a mitigation area required by a Department of the Army authorization, the Permittee shall include the Corps Mining Team in any reporting required by another agency.

**13. Compliance Status – Annual Report:** Separately from the compensatory mitigation reporting required by Special Conditions 15 through 18 and the long-term management reporting required by the **Compensatory Mitigation Plan**, the Permittee shall submit an annual report for compliance status starting one calendar year from the date of permit

issuance and on annual basis thereafter until the project has been completed or the construction window expires. The report shall include the following items:

- a. the status of compliance for each General and Special Condition of this DA permit, individually. If a condition of the permit is not in compliance the Permittee shall include a proposal to bring the project into compliance with the permit.
- b. a description of project completion at the time of the report, including:
  - i. the acreage of Corps-jurisdictional wetlands and other surface waters, and the linear footage of Corps-jurisdictional streams, directly impacted (for example by filling, clearing, or demucking) during the reporting period and cumulatively,
  - ii. the acreage of reclamation in progress or initially completed during the reporting period and cumulatively,
  - iii. the acreage of wetland mitigation (by type) and the linear footage of stream mitigation (by type) initially implemented during the reporting period and cumulatively,
  - iv. the functional value of wetland mitigation (using UMAM) and of stream mitigation (using the FDEP stream habitat assessment methodology) that achieved performance standards during the reporting period and cumulatively, and
  - v. a comparison between the above information and the UMAM mitigation ledgers (herbaceous wetlands, forested wetlands, and streams), as provided in **Attachment I**.

This report shall be submitted within one year of permit issuance and on an annual basis thereafter.

The Permittee may include copies of reports required by other agencies, such as the Florida Department of Environmental Protection; however, the Corps' annual report shall specifically address compliance with this DA permit.

If the Corps determines that the Permittee is not in compliance with the terms and conditions of this permit, the Corps may exercise its discretion to suspend authorization to discharge dredged or fill material into waters of the United States pursuant to 33 C.F.R. § 325.7.

#### **14. Compliance Status – Five-Year Review:**

Every five years, starting from the date of issuance of this DA permit, the Permittee shall prepare a summary report of the project's compliance status, including the authorized work, schedule, monitoring program, reporting process, compensatory mitigation, and other aspects of the authorized work. The review will include consideration of the annual compliance reports required by Special Condition 12, the compensatory mitigation reports



required by Special Conditions 17 and 18, site inspections, and other information as available. The Permittee shall submit the summary report to the Corps, USEPA, USFWS, and FDEP. The USEPA, USFWS, and FDEP can provide comments on the summary report which the Corps will consider when reviewing whether or not the Permittee is in compliance with the terms and conditions of this permit. If the Corps determines that the Permittee is not in compliance with the terms and conditions of this permit and the plan for remediation is not acceptable to the Corps or the plan fails, the Corps may exercise its discretion to suspend authorization to discharge dredged or fill material into waters of the United States pursuant to 33 C.F.R. § 325.7.

**15. Compensatory Mitigation Plan and Summary:** The Permittee shall implement the approved final **Compensatory Mitigation Plan** included as **Attachment G** of this permit, including **Attachment A – Part 1** and **Attachment A – Part 2** (the **Wetland** and **Stream Work Plans**, respectively) as compensatory mitigation for the authorized impacts to waters of the United States. As summarized in Tables 1 and 2 of the **Compensatory Mitigation Plan**, the required compensatory mitigation includes:

- a. 1259.58 acres of on-site wetland establishment (524.6 acres forested, 734.98 herbaceous), providing 417.4 units of wetland function (139.33 units forested, 278.07 units herbaceous), and 44.7 acres of off-site forested wetland establishment providing 13.5 units of wetland function, as specified in Table 8 of the **Compensatory Mitigation Plan**, along with associated upland buffers.
- b. 396.23 acres of Immediate Level I (completed prior to initiating the work authorized by this DA permit) on-site wetland preservation (329.13 acres forested, 67.10 herbaceous), providing 59.31 units of wetland function (48.7 units forested, 10.62 units herbaceous) as specified in Table 9 of the **Compensatory Mitigation Plan**, along with associated upland buffers. The preservation of these uplands did not provide direct compensation for the loss of aquatic resource functions; however, the Corps did consider the upland preservation's effect on WOUS in its review and approval of the functional analysis of the wetland preservation as compensatory mitigation.
- c. 123.52 acres of on-site wetland enhancement (20.61 acres forested, 102.91 herbaceous), providing 30.61 units of wetland function (4.03 units forested, 26.58 units herbaceous) as specified in Table 10 of the **Compensatory Mitigation Plan**, along with associated upland buffers.
- d. 18,402 linear feet (lf)/3.5 miles on on-site stream establishment providing 4437.46 units of stream function as specified in Table 4C of the **Compensatory Mitigation Plan**, along with associated upland buffers.
- e. 55,501 lf/10.5 miles of Immediate Level I (completed prior to initiating the work authorized by this DA permit) on-site stream preservation providing 9003.16 units of stream function as specified in Table 4B of the **Compensatory Mitigation Plan**. Each stream segment shall have a minimum 120-foot wide (60 feet on either side of the channel) preserved riparian buffer.

In addition, the Permittee shall provide the specific wetland types by Florida Land Use and Cover Classification System (FLUCCS) and acreages for individual wetland establishment areas as shown in **Table 8 of the Compensatory Mitigation Plan**, unless the Corps approves adaptive management measures as described in the **Mitigation Adaptive Management/Alternatives** Special Condition of this permit.

The Corps does not require compensatory mitigation above and beyond the minimum amount necessary to provide compensation for the loss of waters of the United States associated with the activities authorized by this permit. Although permit drawings, mitigation plan attachments, or other parts of this permit may reference additional wetland or stream establishment, enhancement, preservation, or other activities, the Permittee is not responsible for those additional activities under this permit.

#### **16. Mitigation Commencement Timeframes:**

a. Wetland and Stream Preservation: As described in the **Conservation Easement – Preservation Mitigation Areas** Special Condition of this permit, prior to initiating any work authorized by this DA permit the Permittee shall complete the Immediate Level I preservation mitigation.

b. Wetland Enhancement: Prior to initiating any mining activities, the Permittee shall complete the ditch block installation for the enhancement of Wetland 06W-20P as shown on pages 88 and 89 of the permit drawings (**Attachment A** of this DA permit) and the impoundment removal for the enhancement of Wetland 12W-40P, as described in **Sections 3.1 and 3.2 of the Wetland Work Plan (Part 1, Attachment A of the Compensatory Mitigation Plan)**.

c. Wetland Establishment: As described in **Section 5 of the Wetland Work Plan**, the Permittee shall perform final grading of each wetland mitigation site, including muck placement, no later than 18 months after completion of mining operations, including backfilling with sand tailings.

d. Stream Establishment: As described in **Table SRO-7 of the Stream Work Plan (Part 2, Attachment A of the Compensatory Mitigation Plan)**, the Permittee shall perform final grading and initial planting of each stream mitigation site no later than 24 months after completion of mining operations, including backfilling with sand tailings.

**17. Mitigation Performance Standards – Preserved Wetlands:** The Permittee shall achieve the performance standards for wetlands preserved as mitigation as identified in the **Performance Standards** section of the approved final **Compensatory Mitigation Plan (Attachment G to this DA permit)**.

**18. Mitigation Performance Standards – Preserved Upland Buffers:** The Permittee shall achieve the performance standards for uplands preserved as wetland buffers, both as part of the Immediate Level I preservation and as buffers for enhanced or established wetlands later, as identified in the **Performance Standards** section of the approved final **Compensatory Mitigation Plan (Attachment G to this DA permit)**.

**19. Mitigation Performance Standards - Enhanced Wetlands:** The Permittee shall achieve the performance standards for wetlands enhanced as mitigation as identified in the **Performance Standards** section of the approved final **Compensatory Mitigation Plan (Attachment G)** to this DA permit).

In addition, the Permittee shall achieve the UMAM scores for individual enhanced wetland polygons, as described in **Table 10** in the **Compensatory Mitigation Plan**, prior to being released from monitoring and reporting as described in the **Release from Mitigation Implementation Monitoring and Reporting** special condition of this DA permit.

**20. Mitigation Performance Standards - Established Wetlands:** The Permittee shall achieve the performance standards for wetlands established as mitigation as identified in the **Performance Standards** section of the approved final **Compensatory Mitigation Plan (Attachment G)** to this DA permit).

In addition, the Permittee shall achieve the UMAM scores for individual established wetland polygons, as described in **Table 8** in the **Compensatory Mitigation Plan**, prior to being released from monitoring and reporting as described in the **Release from Mitigation Implementation Monitoring and Reporting** special condition of this DA permit.

**21. Mitigation Performance Standards - Preserved Streams:** The Permittee shall achieve the performance standards for streams and riparian areas (upland and wetland) preserved as mitigation as identified in the **Performance Standards** section of the approved final **Compensatory Mitigation Plan (Attachment G)** to this DA permit).

**22. Mitigation Performance Standards - Established Streams:** The Permittee shall achieve the performance standards for streams and riparian areas (upland and wetland) established as mitigation as identified in the **Performance Standards** section of the approved final **Compensatory Mitigation Plan (Attachment G)** to this DA permit).

**23. Wetland Compensatory Mitigation Monitoring and Reporting Timeframes (Implementation):** To document progress towards and achievement of the wetland performance standards identified in the **Performance Standards** section of the approved final **Compensatory Mitigation Plan (Attachment G)** to this DA permit), the Permittee shall complete the following:

#### Enhanced Wetlands

- a. Perform a time-zero monitoring event of each wetland enhancement area within 60 days of completion of the enhancement activities identified in the approved final **Compensatory Mitigation Plan** and the **Wetland Work Plan**.
- b. Submit the time-zero report to the Corps within 60 days of completion of the monitoring event. The report will include a detailed plan view drawing of the



enhanced mitigation areas, and at least one paragraph depicting baseline conditions of the mitigation site(s) prior to initiation of the compensatory mitigation objectives.

c. Following completion of the initial enhancement activities, initially perform semi-annual monitoring of each mitigation area for the first two years and then perform annual monitoring thereafter.

d. Submit annual monitoring reports to the Corps within 60 days of completion of the monitoring event, or on a set schedule as approved by the Corps. The Permittee shall combine semi-annual monitoring into one annual monitoring report.

e. Monitor each mitigation area(s) and submit annual monitoring reports to the Corps until the Corps determines that the mitigation area(s) have achieved their performance standards in accordance with the wetland performance standards identified in the approved final **Compensatory Mitigation Plan (Attachment G)** and provides notification that the Permittee can cease monitoring of such mitigation areas in accordance with the **Mitigation Implementation Completion** Special Condition of this permit.

#### Established Wetlands

a. Perform a time-zero monitoring event of each wetland establishment area within 60 days of completion of the compensatory mitigation construction and initial implementation activities identified in the approved final **Compensatory Mitigation Plan** and the **Wetland Work Plan**.

b. Submit the time-zero report to the Corps within 60 days of completion of the monitoring event. The report will include a detailed plan view drawing of the established mitigation area(s).

c. Following completion of the compensatory mitigation construction and initial implementation activities, initially perform semi-annual monitoring of each mitigation area for the first two years and then perform annual monitoring thereafter.

d. Submit annual monitoring reports to the Corps within 60 days of completion of the monitoring event, or on a set schedule as approved by the Corps. The Permittee shall combine semi-annual monitoring into one annual monitoring report.

e. Monitor the mitigation area(s) and submit annual monitoring reports to the Corps until the Corps determines that the mitigation area(s) have achieved their performance standards in accordance with the wetland performance standards identified in the approved final **Compensatory Mitigation Plan (Attachment G)** and provides notification that the Permittee can cease monitoring of such mitigation areas in accordance with the **Mitigation Implementation Completion** Special Condition of this permit.

**24. Wetland Compensatory Mitigation Reporting Format (Implementation):** The Permittee shall submit all monitoring documentation to the Corps on 8½-inch by 11-inch pages (preferably in an electronic format), and include the following:

a. Project Overview:

i. Department of the Army Permit Number

ii. Name and contact information of Permittee and consultant

iii. Name of party responsible for conducting the monitoring and the date(s) the inspection was conducted

iv. A brief paragraph describing the purpose of the approved project, acreage and type of aquatic resources impacted, and mitigation acreage and type of aquatic resources authorized to compensate for the aquatic impacts.

v. Written description of the location, any identifiable landmarks of the compensatory mitigation project including information to locate the site perimeter(s), and coordinates of the mitigation site (expressed as latitude, longitude, UTM, state plane coordinate system, etc.).

vi. Dates compensatory mitigation commenced and/or was complete.

vii. Dates of any corrective or maintenance activities conducted since the previous report submission

viii. Specific recommendations for any additional corrective or remedial actions.

b. Requirements: List the monitoring requirements and performance standards, as specified in the approved mitigation plan and special conditions of this permit, and evaluate whether the compensatory mitigation project site is successfully achieving the approved performance standards or trending towards success. A table is a recommended option for comparing the performance standards to the conditions and status of the developing mitigation site.

c. Summary Data: Summary data should be provided to substantiate the success and/or potential challenges associated with the compensatory mitigation project. Photo documentation may be provided to support the findings and recommendations referenced in the monitoring report and to assist the PM in assessing whether the compensatory mitigation project is meeting applicable performance standards for that monitoring period. Submitted photos should be formatted to print on a standard 8½-inch x 11-inch page, dated, and clearly labeled with the direction from which the photo was taken. The photo location points should also be identified on the appropriate maps.

d. Maps and Plans: Maps shall be provided to show the location of the compensatory mitigation site relative to other landscape features, habitat types, locations of photographic reference points, transects, sampling data points, and/or other features pertinent to the mitigation plan. In addition, the submitted maps and plans should clearly delineate the mitigation site perimeter(s). Each map or diagram should be formatted to print on a standard 8½-inch x 11-inch page and include a legend and the location of any photos submitted for review. As-built plans may be included.

For electronic copies of maps and plans, the Permittee shall provide those copies in .pdf format (sized to 8½-inch by 11-inch sheets) and in .shp format.

e. Conclusions: A general statement shall be included that describes the conditions of the compensatory mitigation project. If performance standards are not being met, a brief explanation of the difficulties and potential remedial actions proposed by the Permittee or sponsor, including a timetable, shall be provided. The District Commander will ultimately determine if the mitigation site is successful for a given monitoring period.

## **25. Stream Compensatory Mitigation Monitoring and Reporting Timeframes**

**(Implementation):** To document progress towards and achievement of the stream performance standards identified in the approved final **Compensatory Mitigation Plan (Attachment G)**, the Permittee shall complete the following:

### **Established Streams**

a. Perform a time-zero monitoring event of each stream establishment area within 60 days of completion of the compensatory mitigation construction and initial implementation activities identified in the approved final **Compensatory Mitigation Plan** and the **Stream Work Plan**.

b. Submit the time-zero report to the Corps within 60 days of completion of the monitoring event. The report will include a detailed plan view drawing of the stream establishment area(s).

c. Following completion of the compensatory mitigation construction and initial implementation activities, initially perform semi-annual monitoring of each stream establishment area for the first three years and then perform annual monitoring thereafter for a minimum of seven years. However, if a stream segment is not trending toward success after the initial three year semi-annual monitoring period, the Corps may require the Permittee to extend the semi-annual monitoring.

d. Submit annual monitoring reports to the Corps within 60 days of completion of the monitoring event, or on a set schedule as approved by the Corps. The Permittee shall combine semi-annual monitoring into one annual monitoring report.

e. Monitor the stream establishment area(s) and submit annual monitoring reports to the Corps until the Corps determines that the stream establishment area(s) have



achieved their performance standards in accordance with the stream performance standards identified in the approved final **Compensatory Mitigation Plan (Attachment G)** for five consecutive years and provides notification that the Permittee can cease monitoring of such mitigation areas in accordance with the **Mitigation Implementation Completion** Special Condition of this permit. In addition, the Permittee shall monitor each stream establishment area at least until it can be reconnected to its watershed.

**26. Stream Compensatory Mitigation Reporting Format (Implementation):** The Permittee shall submit all monitoring documentation to the Corps on 8½-inch by 11-inch pages (preferably in an electronic format), and include the following:

a. Project Overview:

- i. Department of the Army Permit Number
- ii. Name and contact information of Permittee and consultant
- iii. Name of party responsible for conducting the monitoring and the date(s) the inspection(s) was conducted
- iv. Indication of stream type
- v. Current **HAS** score
- vi. A brief paragraph defining the purpose for the approved project, the linear foot and type of aquatic resources impacted, and the mitigation linear feet and type of aquatic resources authorized to compensate for the aquatic impacts
- vii. Written description of the location, any identifiable landmarks of the compensatory mitigation project including information to locate the site perimeter(s), and coordinates of the mitigation site (expressed as latitude, longitude, UTM's, state plane coordinate system, etc.)
- viii. Dates compensatory mitigation commenced and/or was completed
- ix. Dates compensatory mitigation commenced and/or was complete
- x. Dates of any corrective or maintenance activities conducted since the previous report submission
- xi. Supporting documentation such as general observations relative to existing conditions, rainfall data, readings, calculations, and benchmark data

xii. Photographs showing upstream and downstream views of the stream restoration and the buffers.

xiii. General habitat assessment including documentation of wildlife or signs of wildlife observed and an evaluation of the buffer community type (by FLUCCS)

xiv. Specific recommendations for any additional corrective or remedial actions (e.g., additional grading, abate undesirable plant species, etc.)

b. Requirements: List the monitoring requirements and performance standards, as specified in the stream mitigation plan and special conditions of this permit, and evaluate whether the compensatory stream mitigation project site is successfully achieving the approved performance standards or trending towards success.

c. Summary Data: Summary data shall be provided to substantiate the success and/or potential challenges associated with the compensatory mitigation project. Photo documentation shall be provided to support the findings and recommendations referenced in the monitoring report and to assist the PM in assessing whether the compensatory mitigation project is meeting applicable performance standards for that monitoring period. Submitted photos shall be formatted to print on a standard 8½-inch x 11-inch page, dated, and clearly labeled with the direction from which the photo was taken. The photo location points should also be identified on the appropriate maps.

d. Maps and Plans: Maps shall be provided to show the location of the compensatory mitigation site relative to other landscape features, habitat types, locations of photographic reference points, transects, sampling data points, and/or other features pertinent to the mitigation plan. In addition, the submitted maps and plans should clearly delineate the mitigation site perimeter(s). Each map or diagram should be formatted to print on a standard 8½-inch x 11-inch page and include a legend and the location of any photos submitted for review. As-built plans may be included.

For electronic copies of maps and plans, the Permittee shall provide those copies in .pdf format (sized to 8½-inch by 11-inch sheets) and in .shp format.

e. Conclusions: A general statement shall be included that describes the conditions of the compensatory mitigation project. If performance standards are not being met, a brief explanation of the difficulties and potential remedial actions proposed by the Permittee or sponsor, including a timetable, shall be provided. The District Commander will ultimately determine if the mitigation site is successful for a given monitoring period.

**27. Rain Gauge Installation:** Each phase/mining unit which contains established stream segments will have a rain gauge appropriately located and installed to collect and monitor daily rainfall data. The rain gauges will be used only until the subject stream reaches have experienced five bankfull rainfall events.

**28. Bankfull Rainfall Event Monitoring:** Monitoring after the first 5 bankfull rainfall events will be recorded within each proposed stream section. The Permittee shall include data from rain gages to the Corps in the annual compliance reporting. Post



bankfull event, the Permittee shall provide a narrative for any adaptations or changes made to the subject stream reaches.

**29. Monitoring for un-mined stream segments:** The Permittee shall monitor undisturbed stream segments located within the project site. Water table piezometers (outside the stream bank) or staff gauges (within the stream channel) will be installed and datum surveyed during all phases of mining and reclamation within the project site. The Permittee will submit a map indicating the exact locations of the piezometers and quarterly data to the Corps with the annual compliance reporting.

**30. Release from Mitigation Implementation Monitoring and Reporting:** For each mitigation area, the Corps will consider the Permittee's responsibility to complete implementation as set forth in this permit and the approved final **Compensatory Mitigation Plan (Attachment G)** fulfilled only after the Permittee meets all of the following requirements in a manner acceptable to the Corps:

- a. Demonstration of achievement of performance standards (as described in the **Performance Standards** section of the **Compensatory Mitigation Plan**) and in the **Mitigation Performance Standards** special conditions of this DA permit,
- b. Documentation of issuance of the approved long-term funding mechanism (surety bond) with sufficient funding to cover the completed area(s) (as described in the **Long-Term Management Funding** Special Condition of this DA permit),
- c. Documentation of execution of the associated revised standby trust agreement (as described in the **Long-Term Management Funding** and **Long-Term Management Funding - Changes** Special Conditions of this DA permit), and
- d. Documentation of the recorded conservation easement over the completed area(s), plat, and acceptance by the easement grantee (as described in the **Conservation Easement – Implementation Mitigation Areas** Special Condition of this DA permit)

After the Corps verifies that the Permittee has met these requirements, the Permittee shall no longer be responsible for the implementation monitoring of and reporting on the completed mitigation area(s) as required by this Permit. However, the Permittee, Successors and subsequent Transferees remain perpetually responsible to ensure that the mitigation area(s) remain successful by complying with the **Long-term Management** Special Conditions of this permit and by implementing the **Long-Term Management Plan** that is part of the approved final **Compensatory Mitigation Plan (Attachment G)**.

**31. Mitigation Adaptive Management/Alternatives:** If the Corps determines that any compensatory mitigation area is not trending towards achievement of the wetland or stream performance standards identified in the approved final **Compensatory**

**Mitigation Plan (Attachment G)**, the Permittee shall develop and implement site-specific adaptive management actions to correct the mitigation deficiencies. Such actions may include but would not be limited to adjusting wetland hydrology, supplemental plantings, and increasing the frequency of exotic or nuisance species maintenance. The Permittee shall submit any such adaptive management plan to the USACE for approval prior to implementation, and include a description of the implementation and results in the annual monitoring reporting.

Within 60 days of notification by the Corps that the compensatory mitigation is unsuccessful, the Permittee shall submit to the Corps an alternate compensatory mitigation proposal sufficient to create the functional lift required under this permit. This may include the purchase of mitigation credits from a Corps-approved mitigation bank. The alternate compensatory mitigation proposal may be required to include additional mitigation to compensate for the temporal loss of aquatic resource functions associated with the unsuccessful compensatory mitigation activities. The Corps reserves the right to fully evaluate, amend, and approve or reject the alternate compensatory mitigation proposal. Within 120 days of Corps approval, the Permittee will implement the alternate compensatory mitigation proposal.

**32. Conservation Easement – Preservation Mitigation Areas:** Prior to initiating any work authorized by this DA permit, the Permittee shall preserve in perpetuity the Immediate Level I preservation mitigation areas referenced in the approved **Compensatory Mitigation Plan** which includes 1093 acres of wetlands and uplands, and 55,501 linear feet of streams and upland buffers by recording the attached conservation easement (**Attachment H**) within the boundaries and location shown as the No Mine Area in the attached permit drawings in the public records of Hardee County, with a legal description, survey, and scale drawings of the areas in question.

Prior to initiating any work authorized by this DA permit, the Permittee shall record the conservation easement in the public records of Hardee County, Florida. A certified copy of the recorded document, plat, and verification of acceptance from the Grantee shall be forwarded to the Corps within 30 days of recording. The Permittee shall also provide to the Corps a copy of the title insurance policy issued consistent with the September 15, 2016 Commonwealth Land Title Insurance Company title insurance commitment for File No. H20160159 in the amount of \$3,085,002.90. If the Permittee records the conservation easement more than 90 days from the effective date of the title insurance commitment (December 15, 2016), the Permittee will provide a gap report to the Corps for review.

In the event that this DA permit is transferred, proof of delivery of a copy of the recorded conservation easement to the subsequent Permittee or Permittees shall be submitted to the Corps together with the notification of permit transfer within 30 days of the transfer.

The Grantee shall not assign its rights or obligations under this conservation easement except to another organization qualified to hold such interests under the applicable state and federal laws, including §704.06 Florida Statutes, and committed to holding this

conservation easement exclusively for conservation purposes. The Corps shall be notified in writing of any intention to reassign the conservation easement to a new grantee and shall approve the selection of the grantee. The new grantee shall accept the assignment in writing and a copy of this acceptance shall be delivered to the Corps. The conservation easement shall then be re-recorded and indexed in the same manner as any other instrument affecting title to real property and a copy of the re-recorded conservation easement furnished to the Corps. If the Permittee does not receive the Corps' approval of the grantee, the Corps may determine that the compensatory mitigation site is no longer appropriate and may require alternative compensatory mitigation.

Any other deviation from the established conservation easement cannot be performed without a modification to this permit instrument. The ability to modify or remove this conservation easement is neither implied nor guaranteed. If the conservation easement is removed for any reason, the Permittee shall provide appropriate mitigation to compensate for functional wetland loss.

**33. Conservation Easement – Implementation Mitigation Areas:** After the Corps determines in writing that an enhanced or established mitigation area has met the DA permit performance standards described in special conditions **19, 20** and **22** of this DA permit and in the approved final **Compensatory Mitigation Plan (Attachment G)**, the Permittee shall preserve in perpetuity that mitigation area and its associated upland or riparian buffer by recording the attached **conservation easement (Attachment H)** in the public records of Hardee County, with a legal description, survey, and scale drawings of the areas in question.

Prior to recording the conservation easement, the Permittee shall submit a title insurance commitment in favor of the Grantee for the property which is being offered for preservation to show that the Permittee has clear title to the real property and can legally place it under a conservation easement. Any existing liens or encumbrances on the property shall be subordinated to the conservation easement or extinguished. The Permittee shall submit the legal description, survey, scale drawings, and title insurance commitment, together with copies of any encumbrances listed in the Schedule B of the title insurance commitment, to the Corps for review and approval prior to recording the conservation easement. If the Corps does not approve of the conservation easement because the Permittee has not demonstrated that it has clear title to the real property and can legally place it under a conservation easement, then the Corps may determine that the compensatory mitigation site is not appropriate and may require alternative compensatory mitigation.

Within 30 days of the Corps' approval of the conservation easement and title insurance commitment, the Permittee shall record the conservation easement in the public records of Hardee County, Florida. A certified copy of the recorded document, plat, and verification of acceptance from the Grantee shall be forwarded to the Corps within 30 days of recording. The Permittee shall also provide to the Corps a copy of the title insurance policy in an amount equal to the market value of the unencumbered property.



In the event that this DA permit is transferred, proof of delivery of a copy of the recorded conservation easement to the subsequent Permittee or Permittees shall be submitted to the Corps together with the notification of permit transfer within 30 days of the transfer.

The Grantee shall not assign its rights or obligations under this conservation easement except to another organization qualified to hold such interests under the applicable state and federal laws, including §704.06 Florida Statutes, and committed to holding this conservation easement exclusively for conservation purposes. The Corps shall be notified in writing of any intention to reassign the conservation easement to a new grantee and shall approve the selection of the grantee. The new grantee shall accept the assignment in writing and a copy of this acceptance shall be delivered to the Corps. The conservation easement shall then be re-recorded and indexed in the same manner as any other instrument affecting title to real property and a copy of the re-recorded conservation easement furnished to the Corps. If the Permittee does not receive the Corps' approval of the grantee, the Corps may determine that the compensatory mitigation site is no longer appropriate and may require alternative compensatory mitigation.

Any other deviation from the established conservation easement cannot be performed without a modification to this permit instrument. The ability to modify or remove this conservation easement is neither implied nor guaranteed. If the conservation easement is removed for any reason, the Permittee shall provide appropriate mitigation to compensate for functional wetland loss.

**34. Mitigation Implementation Financial Assurances:** The Corps has determined that the State-approved mitigation financial assurances included with the approved final **Compensatory Mitigation Plan (Attachment G)** provide sufficient financial resources to complete or replace the permittee's obligations to implement the required mitigation and meet specified performance standards in this DA permit in the event that the permittee proves unable or unwilling to meet those obligations.

The permittee shall submit written proof that they have executed and funded the financial assurance instrument prior to initiating the authorized work.

**35. Mitigation Implementation Financial Assurances - Changes:** If, at any time, the Corps determines that the type or amount of the approved financial assurance mechanism is not sufficient to meet the Corps' mitigation requirements associated with this DA permit, or if the State financial assurance has been terminated, or partially released by the State prior to the Corps' determination that any part of the mitigation is successful in accordance with the **Wetland Performance Standards** or the **Stream Performance Standards** Special Conditions of this permit and can be released from monitoring in accordance with the **Mitigation Implementation Completion** Special Condition of this permit, the Permittee shall provide the Corps with financial assurances to ensure a high level of confidence that the required mitigation will be successfully completed in accordance with applicable Corps performance standards. The Corps

shall review and approve the new financial assurance instrument, and the Permittee shall execute and fund it, prior to commencing or continuing the permitted activity.

**36. Mitigation Implementation Financial Assurances - Termination or Revocation:**

The Permittee shall provide the Corps written notice at least 120 days in advance of any termination or revocation of any financial assurance instrument, and notice at least 30 days in advance of modifications, amendments, and partial releases.

**37. Mitigation Implementation Financial Assurances - Release:** The Permittee can request release or partial release from mitigation implementation financial assurances when (1) the Corps determines that any part of the compensatory mitigation has met the requirements of the **Wetland Performance Standards** or the **Stream Performance Standards** and the **Mitigation Implementation Completion** Special Conditions, (2) the Corps has released the Permittee from further monitoring in accordance with the Mitigation Monitoring Release special condition of this permit, and (3) the Permittee has executed and funded the long-term funding mechanism pursuant to the Long-Term Management Funding Mechanism special condition of this DA permit. The Permittee shall not request a release of the State Financial Assurances from the State of Florida until the Corps concurs.

**38. Long-Term Management:** After recording of a conservation easement over a mitigation area, the Permittee (or Corps-approved responsible party) shall maintain that compensatory mitigation area in a condition in accordance with the performance standards and the **Long-term Management Plan** that are part of the approved final **Compensatory Mitigation Plan (Attachment G)**. The Long-term Management Plan includes a description of long-term management needs, and annual cost estimates for these active long-term management needs.

Also included in the **Long-Term Management Plan** are requirements for an Ecological Baseline Report and annual reporting to document the ecological conditions within the preserved mitigation areas, maintenance activities expenses, and the effects of secondary uses within the mitigation areas.

**39. Long-Term Management – Secondary Uses:** As stated in the **Long-Term Management Plan**, the primary function of all of the mitigation areas, including the upfront preservation mitigation areas, is to serve as compensatory mitigation under Section 404 of the Clean Water Act for impacts to waters of the United States authorized by this DA permit. Any secondary uses of these areas that conflict with that primary function and will jeopardize the objectives of the approved **Compensatory Mitigation Plan**, as determined by the Corps, shall be prohibited. If the Corps determines that a secondary use is conflicting with the primary function and jeopardizing the objectives of the approved **Compensatory Mitigation Plan**, then the Permittee will stop that secondary use until further review and approval by the Corps.

**40. Grazing:** The Permittee shall prohibit grazing by cattle or any other captive livestock or game species within mitigation areas where implementation is not complete in

accordance with the **Wetland Performance Standards** or the **Stream Performance Standards** Special Conditions and sections of the **Compensatory Mitigation Plan**, and the **Mitigation Implementation Completion** Special Conditions, and within preserved mitigation areas except in areas where the Corps has approved a grazing management plan. The purpose of the grazing management plan shall be to manage grazing as a secondary use of mitigation areas. If the Permittee wishes to pursue cattle grazing as a secondary use of a mitigation area, the Permittee must submit to the Corps a cattle grazing management plan demonstrating to the Corps satisfaction that cattle grazing is consistent with the objectives of the **Compensatory Mitigation Plan**. The Permittee must receive the Corps' review and approval before initiating cattle grazing as a secondary use of a mitigation area.

**41. Long-Term Management Funding:** Prior to initiating the authorized work, the Permittee must submit proof that the long-term management financial assurance included with the **Long-Term Management Plan (Attachment D to the approved final Compensatory Mitigation Plan)** has been funded with an initial principal of \$3,588,750.00 and executed. The initial principal of \$3,588,750.00 is estimated to fund the management of the "Immediate Level I" preservation areas, including approximately 1093 acres of preservation of wetlands and associated upland buffers and 55,501lf of preservation of streams and riparian buffers. The Permittee must provide a cost estimate for long-term management of additional mitigation areas as they are requested by the Permittee to be released from mitigation implementation and put under long-term management. The Corps must review and approved the proposed cost estimate and receive written proof from the Permittee that the long-term management financial assurance principal has been increased by the appropriate amount before releasing the mitigation area from mitigation implementation requirements.

**42. Long-Term Management Funding - Changes:** If, at any time, the Corps determines that the type or amount of the approved long-term management financial assurance mechanism is not sufficient to meet the Corps' mitigation requirements associated with this DA permit, the Permittee shall provide the Corps with revised financial assurances to ensure a high level of confidence that the required mitigation will be successfully completed in accordance with applicable Corps performance standards. The Corps shall review and approve the new financial assurance instrument, and the Permittee shall execute and fund it, prior to commencing or continuing the permitted activity.

**43. Long-Term Management Funding - Termination or Revocation:** The Permittee shall provide the Corps written notice at least 120 days in advance of any termination or revocation of any financial assurance instrument, and notice at least 30 days in advance of modifications, amendments, and partial releases.

**44. Long-Term Management Funding - Release:** If the Permittee demonstrates to the Corps' satisfaction that any or all of the mitigation areas have become self-sustaining, the Permittee may request partial or complete release from the long term management funding obligations and reporting requirements. The Permittee or other responsible

party shall continue to maintain the mitigation areas in accordance with permit performance standards and the approved Long-term Management Plan as necessary.

**45. Temporary Impacts:** As stated in the **Project Description** and shown in the **permit drawings (Attachment A)**, this permit authorizes 0.9 acre of temporary impacts to WOUS for a consolidated dragline and infrastructure corridor crossing of Brushy Creek. Within 30 days from the date of completing mining activities within the phase/mining unit accessed by the corridor, the Permittee shall restore the affected 0.9 acres of wetlands to pre-existing contours, elevations, vegetation, habitat type, and hydrology.

**End of Special Conditions**

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

## Attachment E



## MEMORANDUM FOR RECORD

SUBJECT: Financial Assurance Supplement to the Record of Decision and Statement of Findings for Department of the Army (DA) Permit Application SAJ-1993-01395

**1. Applicant:** Mosaic Fertilizer, LLC  
13830 Circa Crossing Drive  
Lithia, Florida 33547

### **2. Background:**

- A. The Corps requires sufficient financial assurances to ensure a high level of confidence that the compensatory mitigation project will be successfully completed, in accordance with applicable performance standards. 33 C.F.R. § 332.3(n)(1). The Corps may consider an alternate mechanism that ensures with a high level of confidence that the compensatory mitigation will be provided and maintained. Financial assurances required for compensatory mitigation projects under state law may be an appropriate alternative when the same compensatory mitigation project will be used to satisfy the requirements of the Corps Regulatory Program, as well as the state regulatory program.

The applicant proposes to provide the same financial assurance mechanism to meet the requirements of 33 C.F.R. § 332.3(n) as that required by the State permit, which is a surety bond equal to 110 percent (%) of the estimated mitigation costs for WOUS affected in the first three years of operation, including monitoring and maintenance. The applicant proposes to update the financial responsibility yearly to cover, on a rolling basis, the cost of mitigation activities proposed to be undertaken over the next three year period, with a 10% contingency factor for any adaptive management that might be required. The applicant will update the mechanism with revised costs until release.

- B. On 14 September 2016, this District received a Compensatory Mitigation Plan (CMP) to offset the loss of wetland and stream functions associated with construction of the proposed 7,513-acre South Pasture Extension (SPE) phosphate mine. The CMP consists of 524.60 acres of onsite forested wetland establishment, 734.98 acres of onsite herbaceous wetland establishment, 329.13 acres of onsite forested wetland preservation, 67.10 acres of onsite herbaceous wetlands preservation, 20.61 acres of onsite forested wetland enhancement, and 102.91 acres of onsite herbaceous wetlands enhancement. Off-site mitigation consists of 44.7 acres of forested wetland establishment within the existing South Pasture mine located directly to the north of SPE. The CMP includes the onsite establishment of 17,833 linear feet of ephemeral streams, and 569 linear feet of intermittent streams. The established streams will have a 60-foot wide vegetated

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riparian buffer on each side (of the meander belt) which includes uplands as well as wetlands.

The CMP includes a copy of the detailed financial assurance mechanism previously approved by the State of Florida, Department of Environmental Protection, for Environmental Resource Permit No. 0294666-001. Also included are Draft financial assurance instruments (surety bond, and standby trust), and the initial compensatory mitigation cost estimates for wetlands impacts incurred during the first three years of mining operations. The Applicant believes that the State approved financial assurances, along with the Draft financial assurance instruments are sufficient to ensure satisfactory completion of the compensatory mitigation for the SPE project as required by the DA permit.

- C. On 22 June 2012, the State of Florida, Department of Environmental Protection issued Environmental Resource Permit No. 0294666-001 under part IV of chapter 373, F.S. for the construction of the proposed 7,513-acre South Pasture Extension (SPE) phosphate mine. The State permit included the approval of a financial assurance mechanism developed to satisfy the regulatory requirements of the State for the State approved compensatory mitigation plan. Specifically, the State permit requires an initial financial responsibility demonstration equal to 110 percent of the estimated mitigation costs for wetlands and other surface waters affected in the first three years of operation under the permit. For each year thereafter, the financial responsibility demonstration shall be updated, including to provide an amount equal to the 110 percent of the estimated mitigation costs for the next year of operations under the permit for which financial responsibility has not already been demonstrated.

**3. Review:** As stated previously, financial assurances required for compensatory mitigation projects under state law may be a satisfactory alternate mechanism provided it ensures, with a high level of confidence, that the Corps required compensatory mitigation will be provided and maintained. In June, 2011, the Institute for Water Resources (IWR) provided a reference resource to aid in the key design and implementation issues and considerations relating to the use of financial assurances for mitigation project success. Titled "Implementing Financial Assurance for Mitigation Project Success," the document, updated in March, 2016, has been referenced to determine if the State financial assurance plan is sufficient to ensure with a high level of confidence that the compensatory mitigation project will be successfully completed, in accordance with applicable performance standards. The Corps has therefore considered the following:

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- A. Size, Type & Location: The State permit and this DA permit both require on-site and adjacent off-site permittee-responsible mitigation based on a watershed approach. The size and type of mitigation required by each plan is listed in the Table 1 below. The overall acreage of Corps required forested wetland establishment is 525 acres whereas the State requirement is 489 acres. The overall acreage of Corps required herbaceous wetland establishment is 735 acres whereas the State requirement is 988 acres. The overall acreage of Corps required forested wetland enhancement is 21 acres whereas the State requirement is 26 acres. The overall acreage of Corps required herbaceous wetland enhancement is 103 acres whereas the State requirement is 96 acres. The overall acreage of Corps required forested wetland preservation is 329 acres whereas the State requirement is 322 acres. The overall acreage of Corps required herbaceous wetland preservation is 67 acres whereas the State requirement is 66 acres. The overall length of Corps required stream establishment is 18,402 linear feet whereas the State requirement is 43,838 linear feet.

Table 1

Mitigation Type	Corps CMP	State CMP
Forested Establishment	525 ac.	489 ac.
Forested Establishment (off-site)	45	0
Herbaceous Establishment	735	988
Forested Enhancement	21	26
Herbaceous Enhancement	103	96
Forested Preservation	329	322
Herbaceous Preservation	67	66
Stream Creation	18,402 lf	43,838 lf
Stream Preservation	55,501 lf	71,918 lf

- B. Implementation of the CMP: The State and Corps have approved the same mitigation construction timetable, as listed below in Table 2.
- 1) Both the Corps and State CMPs include the preservation of on-site, undisturbed wetlands and associated upland buffer areas. The current 8 acre shortfall in State required preservation is a result of modifications to the mitigation plan since the State permit was issued in 2012. The applicant is responsible for requesting adjustments to the State approved mitigation plan prior to construction. Both plans require the Permittee to

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record these preserved areas in conservation easements prior to initiating the authorized work.

- 2) Stream Preservation: Both the Corps and State CMPs include the preservation of on-site natural streams. Both plans require the Permittee to record these preserved areas in conservation easements prior to initiating the authorized work. The State plan includes an additional 16,417 linear feet of stream preservation.
- 3) Wetland Enhancement: Both the Corps and State CMPs include the enhancement of on-site wetlands along with associated upland buffers. The Corps plan includes an additional 2 acres of wetland enhancement. Both plans require the enhancement and protection of these areas in recorded conservation easements prior to initiating the authorized work.
- 4) Wetland Establishment: Onsite herbaceous and forested wetland establishment shall occur sequentially across the 7,513 acre site following completion of mining operations in each mining block (segment of mining). According to the timetable in Table 2, Phase A plantings must commence no later than 24 months after completion of mining operations, final grading, and muck placement. Phase B plantings will commence following two years of hydrological monitoring, and Phase C plantings will commence as conditions allow. Table 2 is part of the Corps approved CMP. Table 2 is included in Specific Condition 16 of the State permit. The State plan includes an additional 172 acres of wetland establishment.
- 5) Stream Establishment: On-site stream establishment will occur on a rolling basis across the site, as restoration follows behind mining. Attachment A, Part 2 of the Corps approved CMP details the stream design characteristics and timetables. The Corps approved stream restoration plan matches the State approved plan (See Appendix 10 of the State permit) except the State plan includes an additional 25,436 linear feet of stream restoration.

Table 2

Activity Relative Time Frame	Relative Time Frame
Commencement of Severance/Site preparation	No more than six (6) months prior to mining operations (unless approved by the USACE for the purposes of directly transferring topsoil/muck to a contoured mitigation site), except as otherwise authorized herein.
Final grading, including muck placement	No later than 18 months after completion of mining operations, including backfilling with sand tailings.
Phase A planting (species that tolerate a wider range of water levels)	No later than six (6) months after final grading or 1 year after muck placement
Hydrological Assessment	For two (2) years after contouring in accordance with Specific Conditions and the Monitoring Conditions of this permit.
Phase B planting (species that tolerate a more narrow range of water levels)	Up to 12 months after the completion of the hydrological assessment
Phase C planting (shade-adapted ground cover and shrub species, additional trees and shrubs to meet the objectives of the Compensatory Mitigation Plan	At least two (2) years prior to release in forested wetlands

C. Monitoring requirements: Below is a comparison of Corps' and the State's mitigation monitoring requirements. The Corps and the State requirements are similar.

- Corps: For established wetland mitigation areas, the Corps requires semi-annual monitoring of mitigation areas for the first two years following construction, and then annual monitoring thereafter. Semi-annual monitoring shall be combined into one annual monitoring report. Monitoring parameters include percent cover by desirable species by stratum, percent cover by exotic or nuisance species, dominant species, Water depth relative to zonation, soil monitoring relative to muck depth, color, texture, litter accumulation and moisture, the health and



viability of the trees by measuring DBH and height. Annual monitoring reports shall be submitted until the Corps determines that the mitigation area(s) have achieved their performance standards. For streams, the Corps requires semi-annual monitoring of each stream establishment area for the first three years and then perform annual monitoring thereafter for a minimum of seven years. Monitoring parameters include drainage area, average bankfull cross-sectional area, average bankfull width, bankfull thalweg depth, hydraulic depth, width/depth ratio, pool depth, Rosgen class, sinuosity, stream length, bed slope, flood-prone width, functional process zone type, and habitat assessment score (HAS). Annual monitoring reports shall continue to be submitted until the Corps determines that the stream mitigation area have achieved their performance standards for five consecutive years.

- State: Semi-annual vegetative monitoring for each mitigation area, and the submittal of the reports beginning one year after planting. Subsequent vegetation statistical reports shall be submitted in years two, three, five, and biennially thereafter until release. Vegetative monitoring will include a species list and % cover, FLUCCS level III map, % bare ground and open water, nuisance spp. cover, upland spp. cover, tree density, shrub density, tree height, tree dbh, and fruit and seedlings. All monitoring data shall be submitted no later than March 1st of the following year. In addition to annual vegetative monitoring reporting, hydrology and water quality monitoring reports must be submitted annually. For stream mitigation, annual monitoring shall occur in years one through five, then every other year until release. Stream monitoring will include bank and channel stability, map of channel, sinuosity, stream length. Stream slope, bankfull indicators present, bankfull area, depth, width, maximum depth, width depth ratio, entrenchment ratio, radius of curvature large woody debris abundance, and vegetation cover in stream channel.

D. Performance standards: Below is a comparison of Corps mitigation performance and the State permit mitigation release criteria. The Corps and the State have similar performance standards.

<b>Preserved Wetlands</b>	<b>Corps</b>	<b>State</b>
Baseline hydrology maintained	Yes	No
UMAM Community Structure scores maintained	Yes	No
Invasive exotic plant species (maximum)	5%	10%
Performance standards met prior to mining	Yes	Yes
Conservation easement recorded	Yes	Yes

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<b>Enhanced Wetlands</b>	<b>Corps</b>	<b>State</b>
Corps/State Jurisdictional	Yes	Yes
Percent cover by appropriate wetland species (minimum)	80%	N/A
Appropriate soil hydrology	Yes	Yes
Years to achieve the performance standards	3	N/A

<b>Established Wetlands (Herbaceous)</b>	<b>Corps</b>	<b>State</b>
Corps/State Jurisdictional	Yes	Yes
Percent cover by appropriate wetland species (minimum)	80%	80%
Invasive exotic plant species (maximum)	5%	10%
Maximum percent cover by single species	30%	50%
Maximum relative percent cover by single groundcover species	30%	80%
Years to achieve the performance standards	5	7

<b>Established Wetlands (Forested)</b>	<b>Corps</b>	<b>State</b>
Corps/State Jurisdictional	Yes	Yes
Percent cover by appropriate wetland species (minimum)	No	80%
Invasive exotic plant species (maximum)	5%	10%
Maximum percent cover by single species	No	No
Appropriate soil hydrology	Yes	Yes
Minimum number live trees per acre that are at least 12' tall	400	400
Minimum number of shrubs per acre	100	100
Maximum years to achieve the performance standards	15	12
Minimum riparian buffer width with native vegetation	60'	95', 60', and 25'
Maximum years to achieve performance standards within each established stream segment	10	12

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Preserved Stream Segments	Corps	State
Required FDEP visual habitat assessment scores (HAS) maintained in perpetuity	Yes	No
Riparian buffers 60 foot wide with native wetland or upland vegetation	Yes	No

Established Stream Segments	Corps	State
Rosgen Type stream segments with the specific characteristics as described in work plan.	C5 or E5	C or E
Macroinvertebrate species richness and diversity within the range of or which exceeds the reference stream segments	Yes	Yes
FDEP visual habitat assessment score (HAS) of 105 with a minimum buffer width of 60 feet on each side and stable stream banks.	Yes	Yes
Minimum riparian buffer width with native vegetation	60'	95', 60', and 25'
Maximum years to achieve performance standards within each established stream segment	10	12

- E. Notification to the Corps of Termination, Revocation, Modification, Amendment, Partial Release, or Disbursement: The draft surety bond provided by the applicant (CMP Attachment H) stipulates that the Surety provide notice to the Corps at least 120 days in advance of any termination or revocation of the bond, and provide notice to the Corps at least 30 days in advance of modifications, amendments, partial releases, or disbursements. By providing advance noticing language directly in the State Financial Assurance legal instrument, an additional measure of confidence has been provided that the financial assurance required by the State for the construction of the compensatory mitigation project is sufficient for the purposes of achieving compliance with compensatory mitigation requirements of the DA permit, and is in compliance with 33 CFR 332.3(n)(1)-(6).
- F. **Cost:** Rationale behind the cost estimate for providing replacement mitigation which considers costs for land acquisition, planning and engineering, legal fees, mobilization, construction, and monitoring. [See Institute for Water Resources (IWR) "Implementing Financial Assurance for Mitigation Project Success, June 2011" Updated March 2016]

CESAJ-RD-W

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

- 1) **Cost of Land Acquisition:** The approved permittee-responsible, on-site and offsite mitigation has been subjected to comprehensive hydrologic modeling, geologic and soils testing, and ecological analyses by the permittee. It was designed to fit the post-mining landscape which itself was designed to replicate or improve water resource features (i.e. wetlands), that were present prior to mining. In the event that the permittee abandoned the mitigation prior to release, remediation would be desirable and likely to be successful. If necessary, access to the mitigation sites by an independent, third-party contractor for remediation work and monitoring and maintenance is facilitated by the location of the property. The property directly abuts a public roads, as opposed to being surrounded by private properties whose owners may limit or deny access to the mitigation sites. For these reasons stated above, the Corps has determined that there is no need to include component costs for land purchase when setting assurance amounts.
- 2) **Cost of Planning And Engineering:** As is the case with land acquisition, the approved permittee-responsible mitigation plan is the result of comprehensive hydrologic modeling, geologic and soils testing, and ecological analyses by the permittee. Likewise, the mitigation sites are designed to fit the post-mining landscape which itself is designed to replicate or improve water resource features (i.e. wetlands), that were present prior to mining. The risk of failure of the mitigation based on design deficiencies beyond that which could be corrected through on-site remediation, by a third party contractor, is unlikely.
- 3) **Legal Fees:** The financial assurance instruments, (surety bond, and the standby trust agreement), will be funded and in place prior to commencement of the authorized activities. The procedure for triggering the release of those funds from the surety bond into the standby trust, and administering those funds for the mitigation work until performance standards are achieved have already been established. Legal fees associated with implementing the financial assurance should therefore be minimal.
- 4) **Cost of Mobilization, Construction, and Monitoring:** On 23 May 2016, the Corps received a copy of the initial wetland mitigation financial assurance demonstration provided to the State. The estimated mitigation liability for the first three years of operations under the South Pasture Extension ERP is \$14,237,428. Cost estimates for mobilization, construction, maintenance and monitoring of the mitigation sites are based on the permittees history of competitive bidding associated with similar wetlands mitigation projects.

CESAJ-RD-W

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

Cost estimates are updated annually to account for inflation based on the Construction Cost Index (CPI) as published in the Engineering News-Record. In addition to estimating costs based on other projects, the permittee has provided copies of signed contracts for earthwork, surveying, planting, maintenance, monitoring, and project management for wetland mitigation of a similar size.

**4. Determination:** The Corps has independently reviewed and verified the mitigation construction cost estimate as approved by the State. Based on the submitted documentation, the Corps has determine that the State-approved mitigation financial assurances provides sufficient financial resources to complete or replace the permittee's obligations to implement the required mitigation project and to meet specified performance standards in DA permit number 1995-00794, in the event that the permittee proves unable or unwilling to meet those obligations. Additional financial assurances are not necessary at this time. The Corps permit will include a special condition requiring the financial assurances to be in place prior to commencement of the authorized activities.

**Prepared By:**

Date: 8 November 2016

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Mark E. Peterson, Project Manager  
Mining Team

**Reviewed and Approved By:**

Date:

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John P. Fellows, Team Leader  
Mining Team