

# Review of Nutrien – White Springs Activities and Operations Related to the Five-Year Renewal of Special Permit 03-1

Five-year Review Period:  
January 01, 2018, through December 22, 2022

Presented to:

Hamilton County Planning & Zoning Board  
March 28, 2023

Presented by:

Gregory M. Hitz, P.G.  
Vice President – Geology and Environment  
Lampl Herbert Consultants, Inc.

# Introduction

- Lampl Herbert Consultants (LHC) was retained by the Hamilton County Board of County Commissioners.
- LHC conducted a technical review of Nutrien–White Springs (NWS) for renewal of Special Permit 03-1.
- Review Period - January 01, 2018, through December 22, 2022.
- Review focused on
  - Mining- and reclamation-related permits and
  - Other site issues
- Gregory M. Hitz, P.G., Vice President - Lampl Herbert, Project Manager
  - 25+ years experience
  - Florida Professional Geologist #2155
  - Undergraduate degree in geologic sciences
  - Graduate degrees in environmental science, and business administration
    - Teaching Faculty appointment at FSU EOAS for courses in geohazards, geoscience and energy, and natural resource development.
    - Guest Lecturer at FAMU School of the Environment

# Approach

- Information was obtained from:
  - Documents and reports
  - Site visits
  - Office and telephone interviews
- Sources of information:
  - NWS Annual reports
  - NWS Renewal permit application
  - Permits (federal, state, regional, and local)
  - Regulatory and agency reports and correspondences
  - Variances and modifications
  - Inspections, Complaints, Release Reports, Notice of Violations, Warning Letters, Consent Orders, Enforcement Actions

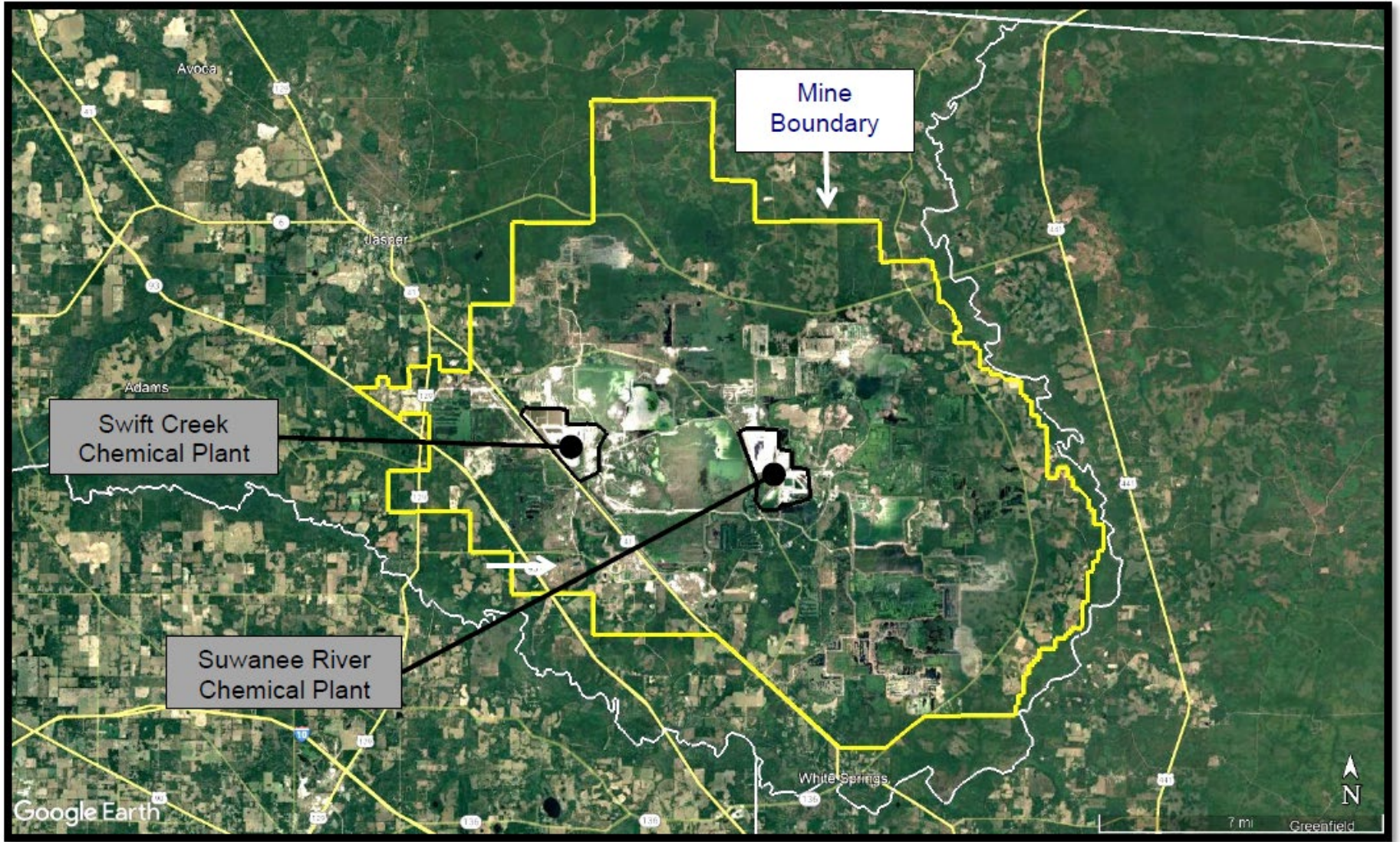


Figure 1. Map of Nutrien-White Springs

# Summary of Mining and Reclamation Acreage as Reported by Nutrien-White Springs

Year	Acres mined (acres)	Mined acres contoured to final grade (acres)	Mined acres revegetated (acres)	Disturbed Acres Revegetated (acres)
2018	633	655	719	<i>not reported</i>
2019	599	628	628	584
2020	689	802	651	118
2021	579	502	303	86
2022 <sup>1</sup>	612	<i>acreage not estimated</i>	728	<i>acreage not estimated</i>
<b>Total</b>	<b>3,112</b>		<b>3,029</b>	

# Summary of Landowner Complaints as Reported by Nutrien-White Springs

Year	Landowner complaints with Nutrien Response (as of December 2022)
2018	<ol style="list-style-type: none"> <li data-bbox="359 472 1846 508">1. <b>Pending</b> - Landowner made accusations of flooding. This matter is in pending litigation.</li> </ol>
2019	<ol style="list-style-type: none"> <li data-bbox="359 549 1846 621">1. <b>Resolved</b> - Individual complained about bad water in well. Nutrien were nowhere near their property but addressed the issue.</li> <li data-bbox="359 635 1246 671">2. Nutrien is unaware of the details of the second resolved issue.</li> <li data-bbox="359 685 1846 756">3. <b>Unresolved</b> - Landowner issue from 2018 carried into 2019, with a claim that there was damage to mobile home foundation from flooding. This matter is in pending litigation.</li> </ol>
2020	<ol style="list-style-type: none"> <li data-bbox="359 789 1846 861">1. <b>Resolved</b> - Landowner claimed Nutrien was flooding property, however surveys done in 2019 show that landowners land is 6 ft higher than ours. Landowners has filed complaints with the county directly.</li> <li data-bbox="359 875 1246 911">2. Nutrien is unaware of the details of the second resolved issue.</li> <li data-bbox="359 925 1213 961">3. Nutrien is unaware of the details of the third resolved issue.</li> <li data-bbox="359 975 1846 1046">4. <b>Unresolved</b> - Landowner claimed Nutrien was flooding property and preventing accessibility. Issue was not resolved and has been an ongoing conversation with company and landowner to identify resolution.</li> </ol>
2021	<ol style="list-style-type: none"> <li data-bbox="359 1086 1846 1186">1. <b>Unresolved</b> - Landowner claims of flooding and access issues unresolved from 2020. Working directly with landowner to resolve, landowner has outlined their complaints and provided document to Nutrien as of 12/13/2022.</li> </ol>
2022	<p data-bbox="359 1218 1846 1253"><i>Nutrien will report on 2022 Annual Operating and Progress Reports to the Board of County Commissioners in 2023.</i></p>

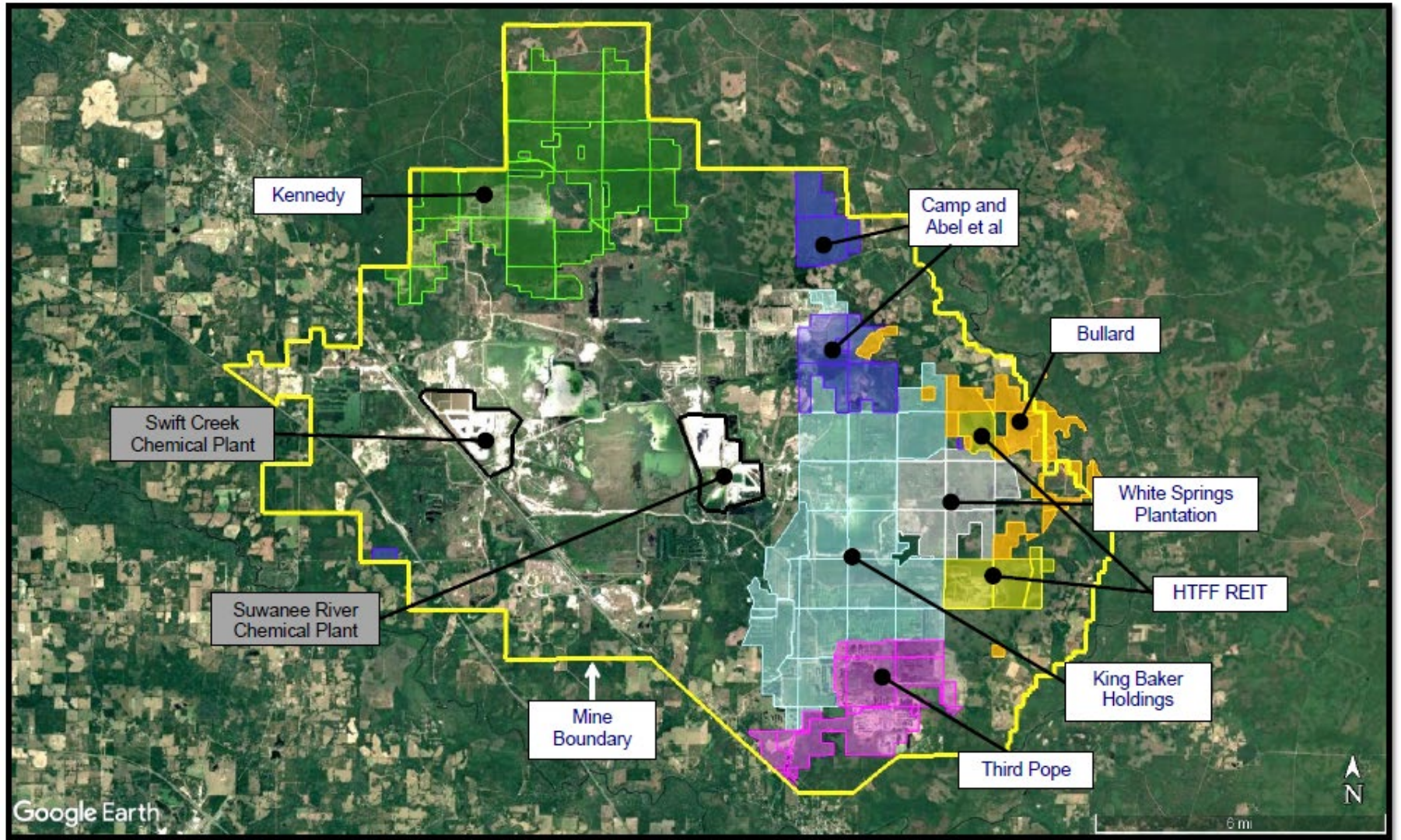


Figure 3. Map of selected private landowners within mining boundary at Nutrien-White Springs

**Table 4 – Summary of Regulatory Permits and Actions Pertaining to Mining and Reclamation Activities at Nutrien–White Springs**

Permit Name	Permit No.	Permit Focus	Permit Issued by	Related Actions		Current Status	Contact Information
				Event/Episode	Regulatory Resolution		
Special Permit	03-1	Mining and reclamation	Hamilton County	--	--	In compliance with terms of permit	Ard, Shirley, Rudolph Scott Shirley (850) 577-6500
Consumptive Use Permit (CUP)	2-84-00703.004 219878-6	Groundwater and surface water for mining/dewatering	SRWMD	--	--	In compliance with terms of permit	SRWMD Warren Zwanka, P.G. (800) 226-1066
Conceptual Reclamation Plan (CRP)	PCS-HC-CP(D)	Reclamation to incorporate Loncala Tract	FDEP	--	--	In compliance with terms of permit	FDEP-Mining and Mitigation Evan Martin (850) 245-8483
	PCS-HC-CP(E)	Mine-wide Reclamation Activities	FDEP	--	--	In compliance with terms of permit	FDEP-Mining and Mitigation Evan Martin (850) 245-8483
Wetlands Resource Permit (WRP)	0144913	Florida jurisdictional wetlands impacted by mining activities	FDEP	PCS request variance 0144913-020-EV-VE	Mine-wide Variance from Minimum Dissolved Oxygen Concentrations	In compliance with terms of permit	FDEP-Mining and Mitigation Evan Martin (850) 245-8483
				PCS request variance 0144913-034-EV-VE	Variance from Swift Creek Phosphogypsum Reclamation Standards	In compliance with terms of permit	FDEP-Mining and Mitigation Evan Martin (850) 245-8483
Domestic Wastewater Treatment	FLA011633 FLA011626 FLA011627 FLA187712	Domestic wastewater related to Nutrien operations	FDEP	--	--	In compliance with terms of permit	FDEP-Wastewater Herndon Sims (904) 256-1700
Ambient Air Quality and Point Source Emissions	0470002	Air quality related to mining and chemical plant operations	FDEP under delegation from EPA	--	EPA Consent Order 14-707-BAJ-SCR	In compliance with terms of permit	FDEP- Air Resources Chris Azcuy / Sara Grave 904-256-1529
Federal Permit for Wetlands	198404652  (IP-RHL)	Federal jurisdictional wetlands impacted by mining activities	USACE	--	--	In compliance with terms of permit	USACE-Jacksonville Bob Halbert / John Fellows (904) 232-2502
National Pollution Discharge Elimination System (NPDES)	FL0000655  FL0000655-021	Industrial waste water related to mining and chemical plant operations; Horizontal and Vertical Zone of Discharge for surface and ground waters	FDEP under delegation from EPA	Release of process water from sinkhole into the Floridan Aquifer at Swift Creek Phosphogypsum Storage Stacks	FDEP Consent Order 10-1878	In compliance with terms of permit and consent order	FDEP-Water Resources Dung Vo, P.E. (904) 256-1618
	--			--	Management of Phosphogypsum Storage Stacks	EPA Consent Order 04-2010-4250	In compliance with terms of consent order



# Summary of Compliance Issues

# Hamilton County - Special Permits 03-1

- Nutrien continuing to reduce the amount of and the County's exposure to un-reclaimed and/or released lands
- Nutrien reports the amount of financial obligation that Nutrien has regarding FDEP Wetlands Resource Permit #0144913 through 2021 is \$11,545,683.
- Nutrien reports the amount of financial obligation that Nutrien has to Hamilton County regarding Hamilton County Mining Ordinance (as amended by Ordinance #2016-01) through year 2021 is an additional \$11,019,967.
- On December 8, 2022, Nutrien provided Hamilton County a Standby Trust Agreement and an Irrevocable Standby Letter of Credit, #OSB267175NYA from The Bank of Nova Scotia.

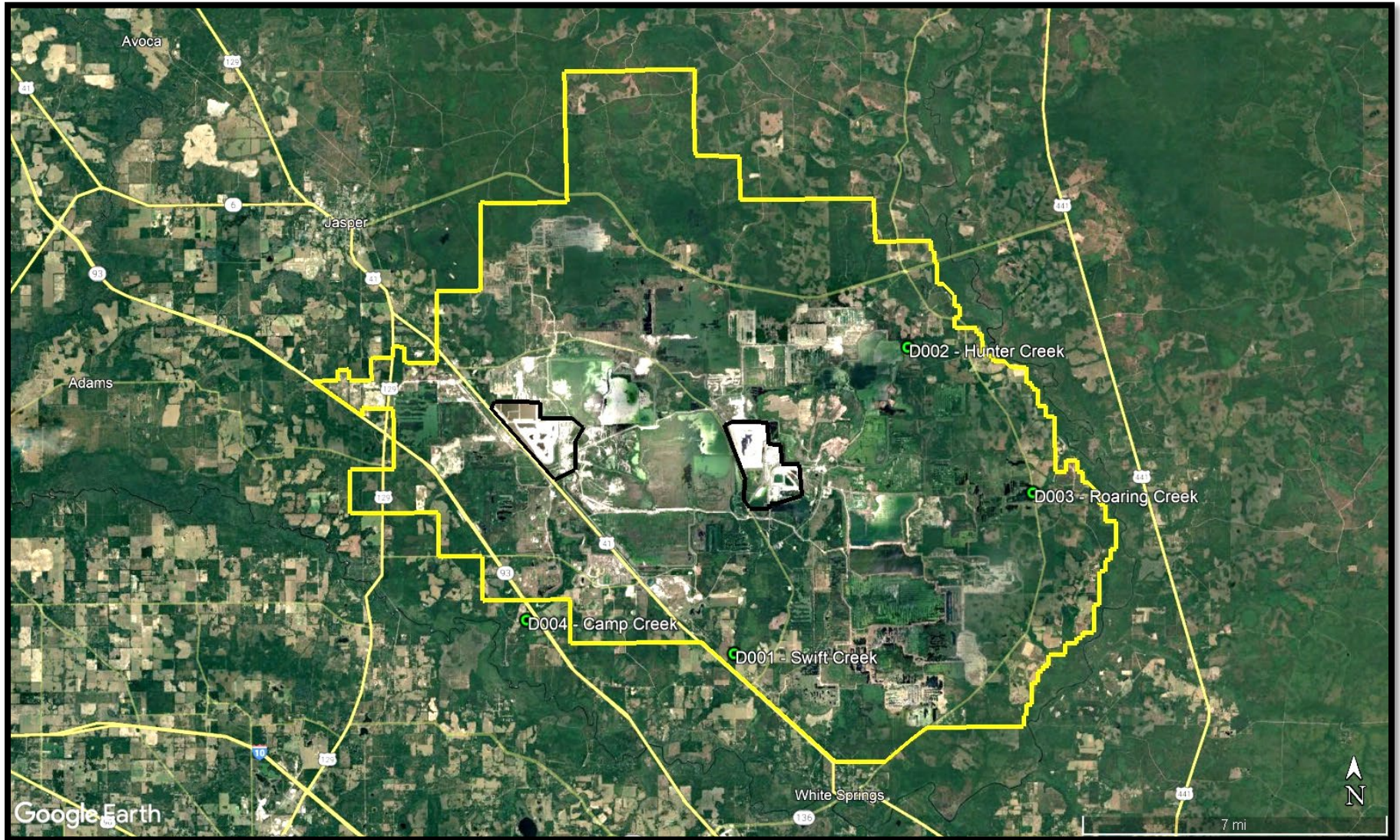
# FDEP – Wetlands Resource Permit No. 0144913 and Conceptual Reclamation Plan HC-CRP(C), D), and (E)

- Complaint Investigation re flooding of the Bull Bay wetland.
  - FDEP concluded that “The cause of tree mortality within the northern portion of Bull Bay is not clear due to the sporadic mortality in the canopy and across age class”
- Complaint Investigation re flooding at an individual's home.
  - FDEP determined that the complainant’s home was not built within wetlands, however, it appears to be a low-lying area with adjacent areas having wetland characteristics.

# FDEP – NPDES/Industrial Wastewater Facility Permit No. FL0000655

- This permit authorizes 27.8 Million Gallons Discharge (MGD) at the Suwannee River Facility and 26.9 MGD at the Swift Creek Facility.
- Discharge consisting of treated process wastewater, contaminated non-process wastewater, treated sanitary wastewater, storm water, clay settling areas, and the phosphogypsum stack systems.

# NPDES Outfalls



# FDEP – NPDES/Industrial Wastewater Facility Permit No. FL0000655

- FDEP Compliance evaluation Inspection, May 1, 2018. December 2017 Alpha Gross Particle Activity was measured at and reported to be 15.5 pCi/L at well MWC-SC-15D.
  - A resample was conducted on March 18, 2018, that resulting in a 4.8 pCi/L at well. This was below the limit of 5 pCi/L at well.
- FDEP Warning letter, January 16, 2019, re effective capacity for treatment of process wastewater at Swift Creek Chemical Plant due to extreme rainfall in November and December 2018.
  - Nutrien increased treatment rates at or above 1,200 gallons per minute and confirmed alternative treatment methodologies and equipment. Nutrien also began de-bottlenecking of the liming station and associated equipment.
  - Nutrien submitted a Process Water Management Plan for Phosphogypsum Stacks on February 8, 2019.
  - Nutrien submitted a Closure Permit Application for the unlined Swift Creek Phosphogypsum Stack in December 2021.

# FDEP – NPDES/Industrial Wastewater Facility Permit No. FL0000655

- FDEP Release Report Incident - Discovery of a release of an estimated 1,000 gallons of turbid stormwater that discharged off-site to Long Branch on July 8, 2021. There are no other indicated contaminants.
  - Erosion of two sections of a perimeter berm caused by heavy rainfall (Tropical Storm Elsa) which allowed inflow of excess stormwater from outside our operational area. That led to a second berm failure which allowed discharge of turbid water through an unnamed tributary to Long Branch.
- FDEP Release Report Incident - Discovery of a release of an estimated 20,000 gallons of turbid stormwater that discharged off-site to Long Branch on August 4, 2021. There are no other indicated contaminants.
  - Erosion of a perimeter berm caused by heavy rainfall which allowed inflow of excess stormwater from outside our operational area. That led to a second berm failure which allowed discharge of turbid water through an unnamed tributary to Long Branch.

# FDEP – NPDES/Industrial Wastewater Facility Permit No. FL0000655

- FDEP Release Report Incident - Discovery of a release of an estimated 10,000 gallons of turbid stormwater that discharged off-site to Long Branch on August 5, 2021. There are no other indicated contaminants.
  - Discharge was stopped promptly upon discovery by repair of the perimeter berm, preventing further inflow and stopping the outflow. This incident was caused by external erosion of the perimeter berm at the point of the previous repair. Corrective actions are complete.
- FDEP Release Report Incident - Discovery of a release of an estimated 4 million gallons (estimated flow of 4 mgd for 24 hours) of turbid stormwater that discharged off-site to Long Branch on September 9, 2022. There are no other indicated contaminants.
  - This incident was caused overflow of water from a recently reclaimed lake. A perimeter berm intended to prevent overflow was found to have a gap that was opened for equipment access during reclamation and was not re-established following completion of the reclamation work. Discharge was stopped promptly upon discovery by restoration of the perimeter berm. Additional corrective actions will include re-vegetation of the berm as soon as conditions allow.
  - **Resulted in FDEP issuing Warning Letter No. WL23-020 on January 24, 2023, (please see Additional Issue #6).**



# EPA Enforcement Action - RCRA-04-0210-4250: Consent Order regarding Management of Phosphogypsum Stack Systems

- On December 10, 2009, PCS notified FDEP of a sinkhole formation in the Swift Creek Phosphogypsum stack system resulting in the unauthorized discharge of 84 million gallons of wastewater to the Florida Aquifer.
- On June 2, 2010, PCS entered into an Administrative Order on Consent with the U.S. EPA - Region 4 pursuant to Section 7003(a) of RCRA, Docket No. RCRA-04-0210-4250.
  - Dorr-Oliver Phosphogypsum Storage Stacks – Suwannee Complex
    - NWS submitted work plans and schedules for closure of the Dorr-Oliver Phosphogypsum Stack and the surge pond to U.S. EPA on August 17, 2016.
    - These plans were approved by EPA on November 20, 2016.
  - CTC Phosphogypsum Storage Stacks - Suwannee Complex
    - NWS cancelled the proposed new, lined PGSS immediately north of the existing CTC PGSS.
  - Swift Creek Phosphogypsum Storage Stacks – Swift Creek Complex
    - The existing Swift Creek PGSS is scheduled for closure in 2022; consists of installation of a top-liner, final grading, and revegetation; with post-closure care beginning in 2023.
    - Closure of the existing CTC cooling pond is scheduled to be completed in 2030.
    - Nutrien constructed a new, lined PGSS immediately north of the existing Swift Creek PGSS.



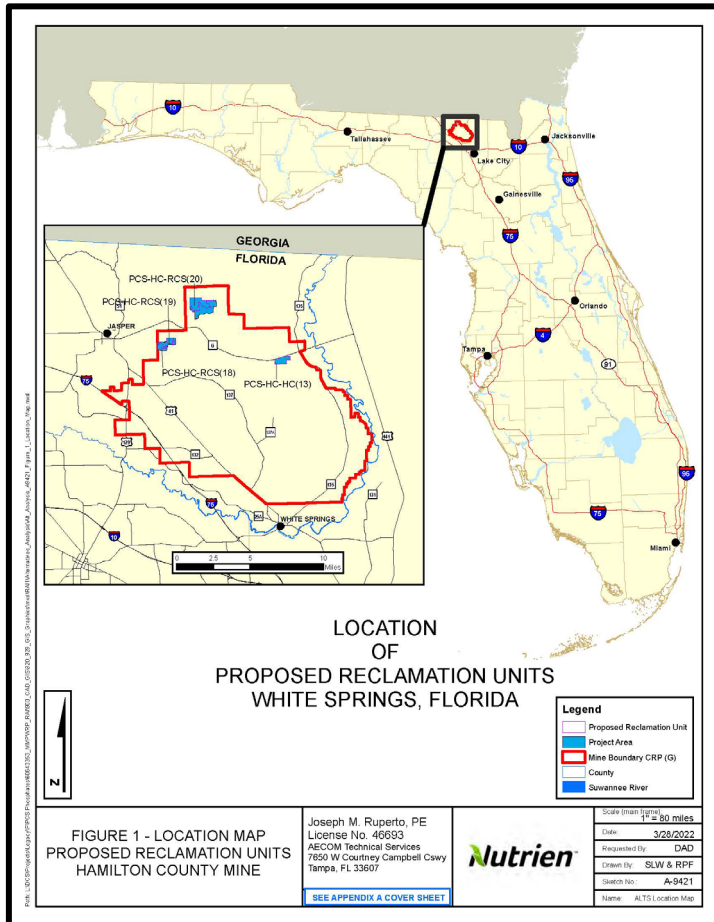
# Other Permits (no significant compliance issues)

- SRWMD - Consumptive Use Permit  
No. 2-84-00703.004
- FDEP – Domestic Wastewater Permit No.  
FLA011633, FLA011626, FLA011627, and  
FLA187712
- FDEP – Ambient Air Quality and Point Source  
Emissions Permits
- USACE- Federal Wetlands Permit No. 198404652  
(IP-RHL)

# Review of Additional Issues

1. Application of G Lands into FDEP Wetlands Resource Permit No.144913
2. CY2020 Annual Inspection of Waste Clay Settling Area Dikes
3. Sale of Bienville Plantation (2015 to Present)
4. Nutrien Ltd. – A Merger between Agrium and PotashCorp (2016)
5. Final Slopes and Heights of Phosphogypsum Stacks during Closure and Post-closure
6. *January 24, 2023, FDEP Warning Letter No. WL23-020*

# Issue 1 - Application of G Lands into FDEP Wetlands Resource Permit No.144913



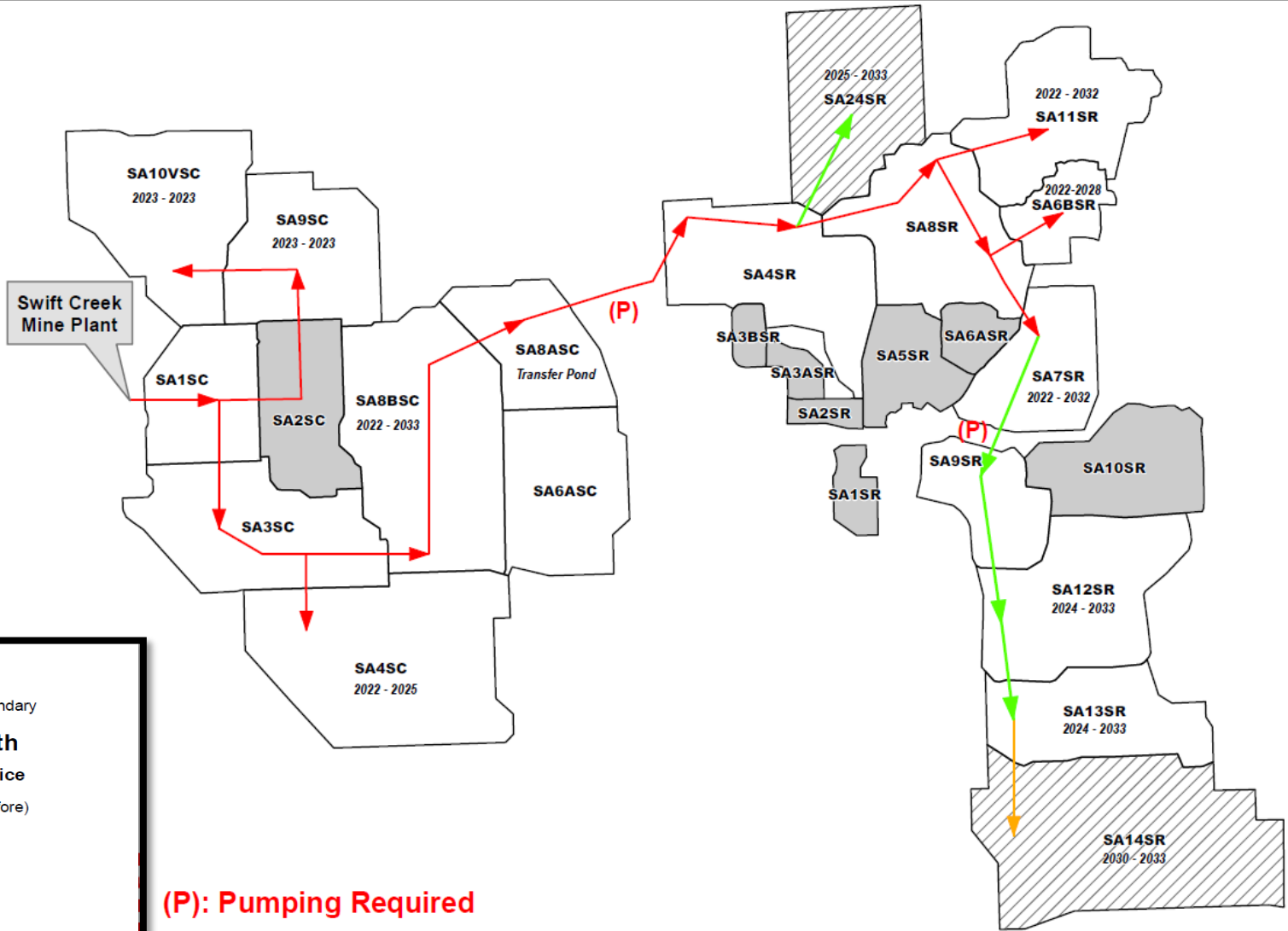
- Consist of four individual proposed Reclamation Units
- Totaling 986.7 acres
- Nutrien has applied for and FDEP is reviewing the ERP and State 404 individual permits
- Hamilton County amended the Master Mining Plan
- Wetlands Resource Permit No.144913 still in RAI review at FDEP

# Issue 2 - CY2020 Annual Inspection of Waste Clay Settling Area Dikes

- On September 23, 2021, Ardaman & Associates, Inc., prepared the 2020 Annual Inspection of Waste Phosphatic Clay Settling Area Dikes.
  - This report recommended areas where “prompt remedial actions should be implemented” and “other areas where less-pressing measures are recommended.”
- On a December 7, 2021, Nutrien provided FDEP a series of responses and/or actions to the Ardaman report. See next slide.
- After investigating the matter and reviewing the periodic inspection reports for 2021, FDEP staff concluded “*we did not find any evidence of actual release or harm to the environment through this review (email from April 21, 2022)*”.
- In May 2022, FDEP Inspectors visited and inspected the sites. Based on follow-up calls with Tom Kallemeyn, Program Administrator, and Dung Vo, Professional Engineer, with the FDEP Permitting Program, and they said that Nutrien has satisfied FDEP regarding the concerns raised during the 2020 Annual Inspection.

# Issue 2 - Summary of 2020 “CY2020 Annual Inspection of Waste Phosphatic Clay Settling Area Dikes” Ardaman & Associates Field Inspection Notes with Nutrien Responses provided December 7, 2021.

Ardaman & Associates Inspection Notes	Nutrien Response and/or Action
Settling Area 8 SRM – Spillway 24 will need to be renovated or sealed if Area 8 continues to be used for water management or clay slurry disposal. Alternatively, a cofferdam can be built behind the spillway but it must be constructed so that it is capable of remaining safely stable in the event of the Spillway or of the partition dike.	A cofferdam was constructed around Spillway 24 in October 2021.
Settling Area 1 SCM – Measures ought to be taken to prevent the two pipes penetrating through the west dike of Area 1 near the clay launder chute from being submerged, even partially. The water level in the area has to be lowered below the invert of the pipes.	The pipes in question have been in place for several years. The ground elevations in the area prevent their presence from being a safety concern. Previous inspections have not found the pipes to be a safety issue.
Settling Area 1 SCM – The stilling basin area should have a dedicated dredge to extricate the current buildup of sand in the basin and maintain the liquid level against the west wall not higher than elevation 159.5 feet (NGVD).	As noted in the 2019 EOY Annual Inspection, the dam was raised to 164.0 ft. with an approved operating level of 161.0 ft. The dredging of the basin is a regular channel maintenance activity and was last conducted in 2019. Nutrien has ready access to dredging services if needed, making a dedicated dredge unnecessary.
Settling Area 4 SCM – Spillway 14 should be abandoned and sealed with concrete as soon as practicable.	Spillway 14 was abandoned and sealed with concrete in September 2021.
Settling Area 6A SCM – The fluid level in Area 6A was at design maximum level at the time of inspection. A dredge should be kept in Area 6A to transfer clay slurry to other available settling areas and to aid in preventing the fluid level in Area 6A from exceeding the design maximum.	An additional dredge is not necessary to accomplish this objective. At the time of inspection, material from other settling areas was being dredged and pumped to SA 6A in order to fill SA 6A to its maximum capacity with thickened clay. Dredging activity has ceased to SA 6A and the fluid elevation fluctuates with Settling Area 8A.
Settling Area 8A – It is emphasized that Area 8A (as well as Area 8B) was not being safely operated at the time of the inspection in accordance with Rule 62-672, F.A.C., insofar as the combined areas 6A, 8A, and 8B system with it's (sic) very large catchment area does not have sufficient surge capacity to manage operational flow and runoff generated by a design rain event generating a precipitation depth of 12 inches in 24 hour period, all the while maintaining a minimum freeboard of 5 feet. The pond level must be lowered sufficiently to allow these settling areas to conform to safe operation in accordance with the rule.	As the owner and operator of this system, we strongly dispute the statement that these settling areas were ever being operated in an unsafe manner. The water elevations in Nutrien's clay settling area are managed on a daily basis in full consideration of weather forecasts, the capacity of discharge spillways, and the ready ability to redirect clay slurry to other settling areas if needed. The combination of those management strategies ensure that we have sufficient surge capacity. Nutrien standard operating procedure is to lower the water elevations in settling areas prior to storm events by discharging water to the approved NPDES outfalls. Hydrological modeling is performed annually based on current conditions to determine maximum operating levels appropriate to meet the conditions in Rule 62-672, F.A.C.
Settling Area 8A – Increase dredge capacity in Area 8A to prevent continue overflow of waste clays through Spillway 22 into the return water ditch and to increase surge capacity in settling area.	At the time of the inspection, an additional dredge was operating, providing increased capacity to help prevent overflow of waste clay through Spillway 22. This system continues to operate and has been effective in preventing the overflow of clay through SW 22.
Settling Area 8A – Waste clays sedimented in the return water ditch ought to be dredged out immediately in order to re-establish the flow capacity of the ditch and recovery the minimum required freeboard and return to safe operation of the return ditch.  Settling Area 8B – Waste clays sedimented in the return water ditch ought to be dredged out in order to re-establish the flow capacity of the ditch and to recovery the minimum required freeboard.  Settling Area 9 - Waste clays sedimented in the return water ditch ought to be dredged out in order to re-establish the flow capacity of the ditch and to recovery the minimum required freeboard.  Settling Area 10V - Waste clays sedimented in the return water ditch ought to be dredged out in order to re-establish the flow capacity of the ditch and to recovery the minimum required freeboard.	The periodic dredging of the return water ditch is normal maintenance practice. Dredging maintenance in the return water ditch is on-going and will continue in 2022.



**(P): Pumping Required**



**MATERIALS MANAGEMENT  
CSA FLOW PATHS BY YEAR  
HAMILTON COUNTY MINE**

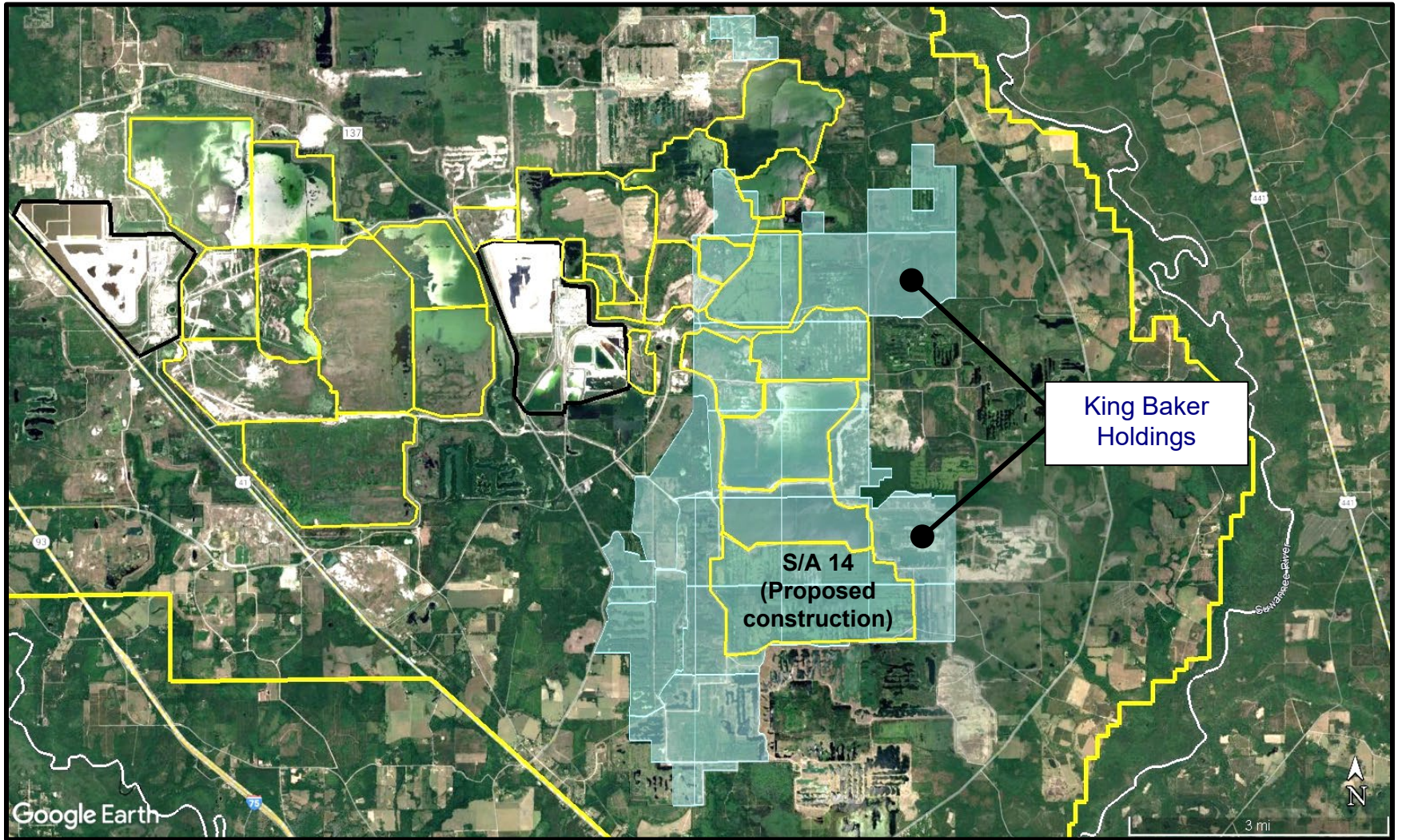


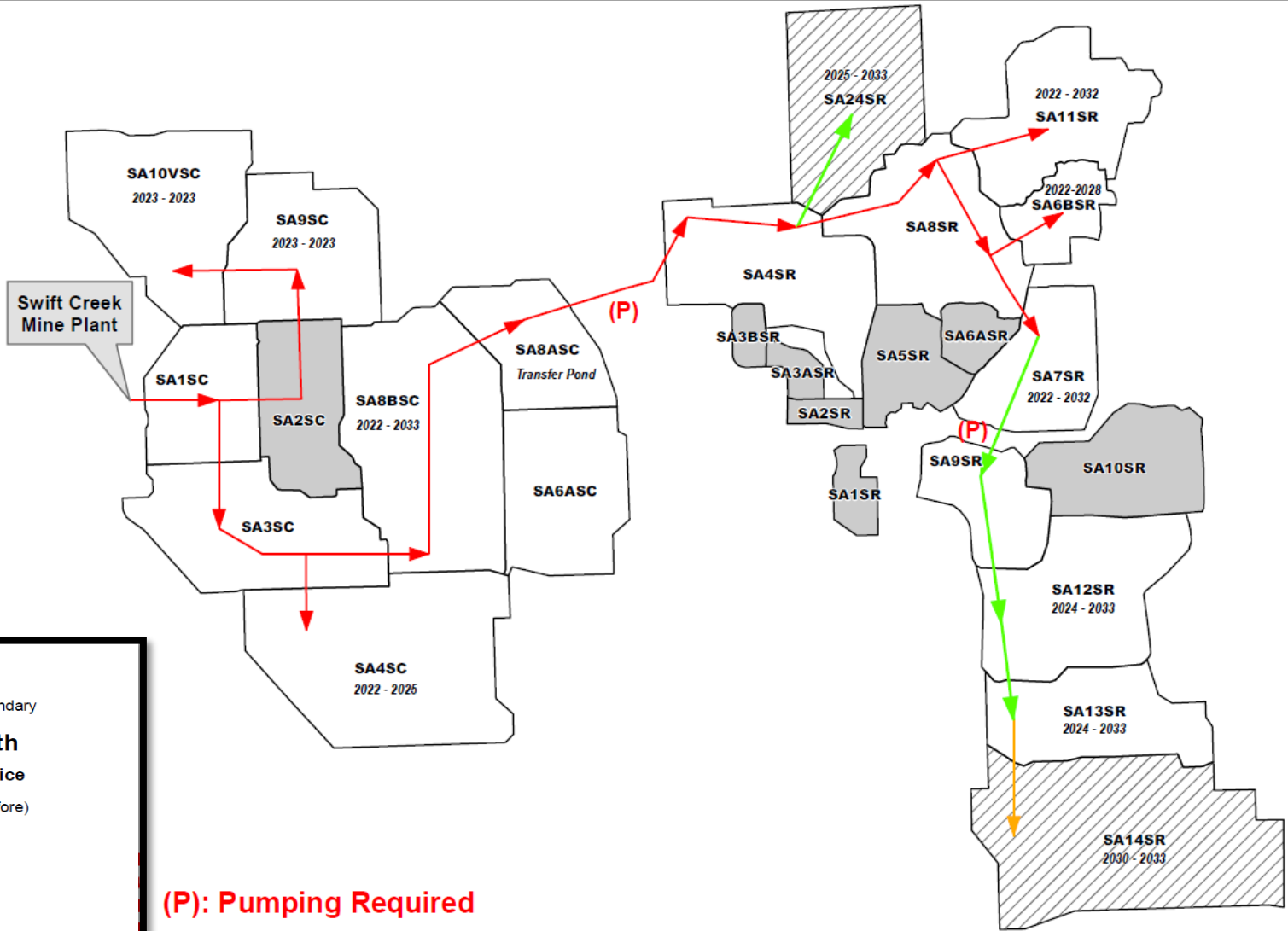
# Issue 2 - CY2021 Annual Inspection of Waste Clay Settling Area Dikes

- On December 28, 2022, Ardaman & Associates, Inc., prepared the 2021 Annual Inspection of Waste Phosphatic Clay Settling Area Dikes.
- On a December 30, 2022, Nutrien provided FDEP a series of responses and/or actions to the Ardaman report.
  - There were no findings of critical conditions requiring immediate corrective action
- Nutrien hired the following team of consultants:
  - AECOM – surface water modeling.
  - PennPro – structural engineering firm to prepare recommendation for repairs, alterations, and replacements of dam structures.
  - FDD (Florida Dredge and Dock) – dredging to open and maintain flow paths and remove sedimentation.

# Issue 3 - Sale of Bienville Plantation (2015 to Present)

- Bienville Plantation, a 15,000-acre parcel previously owned by Glawson Investments Corporation, was located entirely within the Conceptual Mining Plan boundary of Nutrien–White Springs.
- In 2015, Glawson Investments sold their holdings to various groups:
  - Bienville 75, LLC,
  - Roaring Creek Plantation, LLC,
  - Suwanee Valley Plantation, LLC, and
  - Westport Capital Partners, LLC.
- Subsequently, in February 2021, Westport Capital Partners, LLC, sold property to King Baker Holdings, LLC.
  - Mr. Chris King, Managing Partner, King Baker Holdings, indicated concerns was the future construction of clay settling area S/A-14 and the impact it would have on his fishing lakes and resort business.





**Legend**

Project Boundary

**Clay Flow Path**

- First Year In Service**
- 2019 (or before)
  - 2021 - 2022
  - 2024 - 2025
  - 2032

- Clay Settling Area**
- Existing
  - Future
  - Reclaimed/Under Reclamation



**MATERIALS MANAGEMENT  
CSA FLOW PATHS BY YEAR  
HAMILTON COUNTY MINE**

# Issue 4 - Nutrien Ltd. – A Merger between Agrium and PotashCorp (2016)

- September 2016, Agrium and PotashCorp (Parent company of Nutrien–White Springs) agreed to join as a “merger of equals”.
- January 02, 2018, the merger created new company, Nutrien Ltd.
- This merger did not impact the Corporate Guarantee under the County Financial Responsibility.
- Effective December 7, 2022, Nutrien switched to an irrevocable standby letter of credit as its demonstration of financial responsibility under the County Mining Ordinance.

# Issue 5 - Final Slopes and Heights of Phosphogypsum Stacks during Closure and Post-closure

- County officials have previously expressed concerns regarding the final disposition of
  - The Dorr-Oliver and CTC phosphogypsum stacks at the Suwannee River Chemical Complex
  - The lined and unlined Swift Creek phosphogypsum stacks the Swift Creek Chemical Complex.
- Of interest are the angles of the side slopes and the heights of these stacks

# Issue 6 – FDEP Warning Letter No. WL23-020, NPDES, FL0000655

- September 8, 2022
  - FDEP Compliance Evaluation Inspection conducted at Nutrien facility.
- September 9, 2022
  - Nutrien files a FDEP Release Report Incident - Discovery of a release of an estimated 4 million gallons (estimated flow of 4 mgd for 24 hours) of turbid stormwater that discharged off-site to Long Branch.
- December 22, 2022
  - LHC ended Five-year review period.
- January 24, 2023
  - FDEP issued Warning Letter to Nutrien following CEI inspection.
- February 08, 2023
  - Nutrien provides response to FDEP Warning Letter.
- February 22, 2023
  - Nutrien files *Interim Process Water Management Plan for Phosphogypsum Stack Systems*
- *LHC awaiting FDEP response(s)*

# Issue 6 – Nutrien responds to FDEP Warning Letter No. WL23-020, NPDES, FL0000655

FDEP Issues - January 24, 2023	Summary of Nutrien Response - February 08, 2023
There was no pass/fail indicator on the pH calibration logs at the time of inspection.	A pass/fail indicator added to the pH calibration logbook
The facility failed to submit a bioassay laboratory report for routine tests within 30 days after the last test to the Department.	Nutrien included completed bioassay reports for 2021 and 2022.
The facility failed to submit the monthly Part B of the Discharge Monitoring Report (DMR).	Part B not required for NPDES FL0000655. Nutrien submitted Part B for Domestic Wastewater permits.
There were exceedances for Total Ammonia Nitrogen, Total Phosphorus, pH, Total Radium 226 + Radium 228, and Total Recoverable Arsenic between the period of September 2018 and August 2022.	<p>Total Ammonia Nitrogen (TAN) - exceedances correlated with temperature, not caused by discharges.</p> <p>Total Phosphorus (TP) – exceedances driven by excessive rainfall. Lakes and wetlands flooded increasing flow through outfalls.</p> <p>pH – natural tannic acid from forested wetland systems lower pH levels.</p> <p>Total Radium 226 + Radium 228 –Nutrien developed a Plan of Study (POS) to address exceedances.</p> <p>Total Recoverable Arsenic - Nutrien prepared an Arsenic Study and concluded the arsenic concentrations are naturally occurring due to minerals in clay deposits.</p>
Turbid stormwater was observed discharging into the Long Branch surface waters	Turbid water was caused by a breach in the containment berm after a significant rainfall event. Nutrien reported the event to FDEP and repaired the berm.



# Conclusions

- Based on review of these documents and interviews with program managers and representatives of environmental regulatory agencies, Lampl Herbert Consultants concludes that **Nutrien–White Springs operations are in compliance with the provisions of Hamilton County Resolution No. 2003-05 and Special Permit 03-1.**

# Recommendations

- Nutrien–White Springs maintain a Point-of-Contact with Hamilton County
- Nutrien–White Springs establish a Point-of-Contact with Private Landowners
- Nutrien–White Springs continue to provide a Status Update on EPA Consent Order 04-2010-4250
- Nutrien–White Springs present Topics for discussion at the Technical Working Group

# Questions and Comments

End of Presentation