

***PEACE RIVER MANASOTA REGIONAL WATER SUPPLY AUTHORITY
BOARD OF DIRECTORS MEETING
March 31, 2021***

**ROUTINE STATUS REPORTS
ITEM 7**

Peace River Basin Report

MEMORANDUM

TO: Board Members and Pat Lehman
FROM: Doug Manson, Laura Donaldson, and Paria Shirzadi Heeter
RE: Peace River Basin Report
DATE: March 15, 2021

Mosaic Fertilizer, LLC- Bartow Chemical Plant NPDES Permit Renewal

On September 8, 2020, the Department of Environmental Protection (“DEP”) received an application for a National Pollutant Discharge Elimination System (“NPDES”) permit major modification from Mosaic Fertilizer, LLC (“Mosaic”) to establish a pipeline corridor (“Pipeline Corridor”) and associated conveyance systems connecting the Bartow Chemical Plant facility complex (“Bartow Facility”) (NPDES Facility ID FL0001589; PA File No. FL0001589-025) to the lined North Phosphogypsum Stack at the Mosaic’s Green Bay Facility (NPDES Facility ID FL0000752). The Bartow Facility consists of a phosphate fertilizer manufacturing facility—the Bartow Chemical Plant—and associated phosphogypsum stack system. The major modification request includes modification of the Bartow South Gypsum Stack for the Pipeline Corridor, reactivation of the Green Bay North Gypsum Stack, gypsum transfer pumps and pipelines from the Bartow Facility to the Green Bay Facility, process water return pumps and pipelines from the Green Bay Facility to the Bartow Facility and interconnection with the regional process water storage pond for process water handling.

On October 7, 2020, DEP issued, and on October 20, 2020 Mosaic responded to, an Initial Request for Additional Information (“RAI”) asking for additional information regarding the following issues: discrepancies in flow numbers provided for the permitted outfalls; outfall design discrepancies; and various discrepancies in the figures identifying/depicting the existing and proposed pipelines and their paths. On November 19, 2020, DEP deemed the application complete and, on February 24, 2021, issued a notice of draft permit—substantial revision (FL0001589-025-IW1S/RA). The notice of draft permit was published on March 1, 2021.

The existing permit, renewal of which was issued in August 2020, authorizes the continued operations of Mosaic’s existing Bartow Chemical Plant, South Phosphogypsum Stack system, process water treatment pond system, and sewage treatment plant, associated with the management and disposal of phosphogypsum and associated wastewater, and the monitoring of authorized discharges from the Bartow Facility. The existing permit also addresses the operation of wastewater treatment systems for the treatment and discharge of process wastewater, non-process wastewater, and stormwater. This permit revision does not change the characteristics of the effluent for the existing two NPDES outfalls (D-001, D-002), nor the quantity discharged or groundwater monitoring requirements of the existing permit for the Bartow Facility.

The Bartow Facility itself is located at 3200 State Road 60 West in Polk County, at the boundary line of the Peace River watershed and over 50 miles away from the Peace River Regional Water Supply Authority Facility. However, one of the Bartow Facility’s outfalls (Outfall D-002) discharges treated process wastewater, non-process wastewater, and stormwater to an unnamed ditch that flows to Six Mile Creek, which ultimately enters the Peace River.

Mosaic Fertilizer, LLC- Green Bay & Bartow Facilities

On March 3, 2020, Mosaic submitted an application (FL0000752-020-IW1S/RA) to DEP for a major modification of the wastewater discharge permit for its Green Bay Facility. The Green Bay Facility permanently discontinued all manufacturing activities and was idled in 2006, and plant closure was initiated in 2012. This application proposes reactivation of the of the currently inactive lined Green Bay Lined North Gypsum Stack (“Lined North Gypstack”) to re-initiate or resume its use to accommodate ongoing phosphate manufacturing. This application for resuming operation of the Lined North Gypstack is limited to the dimensions that were previously permitted for construction by DEP (under PA File No. FL0000752-003-IW1N/RA). The project includes modifications to specific operations to incorporate the transfer of phosphogypsum from the Bartow Facility for use at the Green Bay Facility (operations of the Bartow Facility are authorized under Permit No. FL0001589 and summarized earlier). The application and supporting documents provide information about the reactivation of the Lined North Gypstack, the proposed Pipeline Corridor (for the transfer of process water and reverse osmosis water) between the Bartow Facility and Green Bay Facility (authorization for the proposed pipeline corridor is set forth in the separate, but related, permit revision explained above), and the interconnection with the regional process water storage pond for process water handling.

On May 21, 2020, Mosaic submitted additional information in response to DEP’s April 2, 2020 RAI regarding numerous issues, including but not limited to: why laboratory tests were not performed on the Lined North Gypstack; the sensors for detecting leaks of process water or gypsum slurry along the West Pipeline Corridor; the submitted hydrologic and hydraulic analysis and stability analysis; the test borings performed on the perimeter dike; the submitted updated

groundwater modeling plans; surface water flow conditions; the Pipeline Corridor design; the technical report on the subsurface surveys performed; and the submitted water balance modeling and groundwater quality information. Additional information and clarification responses were submitted by Mosaic on June 16, 2020 and July 13, 2020, and DEP deemed the application complete on August 18, 2020.

On February 24, 2021, DEP issued a notice of draft permit (FL0000752-020-IW1S/RA), and the notice was published on March 1, 2021. Neither this permit modification or the above related permit revision (FL0001589-025-IW1S/RA) change the expected quantity or quality of surface water discharged at either facility. Additional groundwater monitoring requirements are included in this permit modification for the Green Bay Facility as part of the facility reactivation.

The Green Bay Facility is located in Bartow, Polk County, just outside of the Peace River watershed and the Bartow Facility is located in Bartow, Polk County at the boundary line of the Peace River watershed. The receiving waters for some of the Bartow Facility project's outfalls are located within the Peace River watershed.

Mosaic Fertilizer, LLC- Bartow Facility Leak/Crack

In October 2019, Mosaic discovered a leak and a crack in the outer slope of a pond at its Bartow Facility. Mosaic workers set up a waterproof dam around the seepage area and set up a pump to collect the water and channel it to a nearby pond, where it would normally go. Mosaic reported the leak and crack to DEP, repaired the crack in November 2019, and has been providing frequent updates to DEP on the status of conditions at the Bartow Facility. The January 2020 update stated that collected monitoring and sampling data indicated that there were no offsite impacts or detrimental effects to surface or drinking water detected, and that the gypsum stack structure itself

remained structurally unaffected. In June 2020, DEP approved a repair plan for the crack (“Repair Plan”), which provided that the repair was to be performed in three stages, with the submittal of construction completion reports within 30 days of each repair stage, and biweekly progress reports on the status of the repairs activities until the repairs were completed in accordance with the Repair Plan. On February 17, 2021, Mosaic submitted a report to DEP titled “*Completion of the Crack Repair for the Northwest Wall, Bartow South Phosphogypsum Stack, Bartow Facility, Mosaic Fertilizer, LLC., Polk County, Florida*” (Crack Repair Completion Report). On March 3, 2021, DEP issued a letter finding that (based on a review of the Crack Repair Completion Report, biweekly progress reports, and February 25, 2021 site inspection observations), the repairs have been completed in accordance with the Repair Plan and that Mosaic was no longer required to submit biweekly progress reports.

The Bartow Facility is located at 3200 State Road 60 West in Polk County, at the boundary line of the Peace River watershed, but over 50 miles from the Peace River Manasota Regional Water Supply Authority’s Facility. The receiving waters for some of the Bartow Facility project’s outfalls are located within the Peace River watershed.

Mosaic Fertilizer, LLC- Bartow Facility Gypsum Slurry Release

On July 10, 2020, Mosaic discovered and reported a release of phosphogypsum slurry at the Bartow Facility due to a ruptured phosphogypsum slurry pipeline crossing under SR 60. Gypsum slurry deposits were documented in areas north and south of SR 60, at locations subsequently confirmed to be Mosaic’s property. On July 16, 2020, pond water was found to be flowing from a location just east of the substation on the north side of Hwy 60 (inside of Mosaic’s fence) into the

excavated area to the east and was believed to be associated with the original event that occurred on July 10, 2020.

On July 15, 2020, Mosaic submitted a report providing additional information regarding the specific pipeline that was the source of the release and outlining the progress of ongoing recovery and cleanup actions. The report also clarified that the release did not migrate off Mosaic's property, and that containment berms were placed as a proactive measure to ensure containment of the release onsite. DEP performed follow up site visits on July 16 and 31, 2020, to observe the status of clean-up operations and found that over 90 percent of the gypsum slurry in impacted areas on the North and South of SR 60 had been removed and the underlying soil was being treated by lime prior to placement of clean soil and reseeded for soil stabilization. On July 24, 2020, DEP issued Warning Letter #WL 20-001PM53WRM advising Mosaic that the gypsum release may have resulted in possible violations of Florida statutes and DEP rules and that a conductivity system (installed between the inner and outer pipes for detecting potential leaks of the inner phosphogypsum slurry line) appears to not have been properly operated or maintained in accordance with conditions of the facility's wastewater permit.

On December 23, 2020, following Mosaic's submittal of an initial groundwater assessment and notice that the slurry line repairs were completed, DEP approved Mosaic's request to terminate the weekly reporting. On January 20, 2021, Mosaic submitted a summary report ("Gypsum Line Release Summary Report") that reported on key aspects of Mosaic's investigation of the gypsum line failure incident findings and identifying corrective actions. On February 25, 2021, DEP published notice of agency action of entering into a Consent Order (OGC File No. 21-0104) with Mosaic addressing the violations resulting from the slurry line release. The Consent Order requires

Mosaic to complete all remaining corrective actions as listed in the Gypsum Line Release Summary Report within 180 days of the Consent Order's effective date, and to provide a final report documenting the results of the investigation and the completion of all corrective actions within 240 days of the Consent Order's effective date. The Consent Order also requires Mosaic: to submit a groundwater quality monitoring plan to document and evaluate groundwater quality in the affected areas north and south of where the gypsum pipelines pass beneath SR 60; to submit monthly progress reports; pay \$13,000 in civil penalties and for DEP costs/expenses; and pay stipulated penalties of \$1,000/day for violations of the Consent Order's requirements.

The Bartow Facility is located at 3200 State Road 60 West in Polk County, at the boundary line of the Peace River watershed, but over 50 miles from the Peace River Manasota Regional Water Supply Authority's Facility. The receiving waters for some of the Bartow Facility project's outfalls are located within the Peace River watershed.

Mosaic Fertilizer, LLC- Bonnie Mine Facility

On February 4, 2019 Mosaic submitted a NPDES permit renewal application to DEP for the Bonnie Mine Facility (FL0000523) ("Bonnie Facility"). On February 2, 2021, Mosaic submitted supplemental information seeking authorization to transport (accept) first-stage lime treated water from the Bartow Facility, for further treatment and discharge at the Bonnie Facility. The February 2021 submission states that it supplements the information in the 2019 application, and requests that it be incorporated into that application. On March 1, 2021, Mosaic submitted a metals analysis for the single-lime treated water that has been stored in the Bartow Facility's ponds (which will be transferred to the Bonnie Facility for additional lime treatment during 2021), and explained that the additional stage of lime treatment at the Bonnie Facility will further reduce metal

concentrations in the water. Mosaic's March 1 correspondence stated that the submittal completes the additional information that Mosaic has prepared in support of the proposed project to transfer water from the Bartow Facility to the Bonnie Facility.

On March 4, 2021, Mosaic agreed to DEP's requested waiver of the 30-day application review period and granted an additional thirty days for DEP to complete the required review (through April 2, 2021). Bonnie Mine is located at 2501 Bonnie Mine Rd in Bartow, Florida, near the western boundary of the Peace River watershed.

Mosaic Fertilizer, LLC- New Wales Phase III Gypsum Stack Extension

The New Wales Facility manufactures solid ammoniated phosphate fertilizers and animal feed ingredients. On October 25, 2019, Mosaic submitted a construction/operation permit application to DEP for its New Wales Phase III Gypsum Stack Extension ("Phase III extension") and on December 2, 2019, DEP issued its first RAI to Mosaic regarding its application for the Phase III extension. The Phase III extension adds 231 acres (205 acres of which were previously mined lands) to the existing New Wales South Gypsum Stack. The Phase III extension is comprised of: 1) a lined area of 167 acres; 2) 24 acres of perimeter earthen dikes; and 3) 40 acres of stormwater drainage ditches and access roads. The first RAI required Mosaic to provide additional information regarding: hydrogeological, geophysical, or geotechnical investigations evaluating the subsurface beneath the site; the hydraulic modeling; and a recommended protocol for reporting to DEP monitoring results for the foundation drainage system so that any detected changes can be timely identified to prevent development of subsurface conditions that may threaten the proposed gypsum stack. On January 23 and January 29, 2020, Mosaic submitted its responses to the first RAI.

On March 11, 2020, DEP issued a second RAI to Mosaic requesting additional information regarding: the subsurface investigative efforts performed at the site; several items in the report (on the seismic investigations performed and anomalies identified at the site) submitted with the first RAI response; the features discovered during initial subsurface investigations; additional approaches to further characterize the subsurface to identify potentially unstable areas; construction sequencing plans; and a seepage and stability analyses. Mosaic submitted its response to the second RAI on May 11, 2020, and following discussion with DEP, Mosaic submitted supplemental information on June 10, 2020. On September 22, 2020, Mosaic submitted additional supplemental information to the second RAI response. In November of 2020, Mosaic submitted a report titled “Addendum to Ardaman’s Response to the FDEP Second Request for Additional Information – Supporting Data for Remaining DT Features,” as well as a stabilization plan to DEP. The stabilization plan recommends engineering measures to address the paleosink feature that was identified in the area of a former topographic depression (designated Area 111-2) within the proposed Phase III extension. The engineering measures are designed to provide reasonable assurance that the stabilized subsurface conditions within Area 111-2 will be adequate to support the Phase 111 gypsum stack extension without adversely affecting the performance of the stack liner system.

During a December 16, 2020 conference call between DEP and Mosaic, additional questions came up regarding the seismic features and stabilization plan for the Phase III extension area and, on December 22, 2020, Mosaic submitted to DEP a report prepared by Ardaman and Associates, Inc. to address these questions/concerns. The correspondence from Mosaic on December 22, 2020 submitting this report also stated that Mosaic now considered its application complete.

Since the December 2020 submittal, and as of the date of this report, no additional documents have been posted on DEP's online database for this permit other than an inquiry (regarding the application documents) from an employee of Gurr Professional Services, Inc. submitted to DEP on January 22, 2021 that stated that they are in the process of conducting a third party review for Polk County regarding Mosaic's proposed Phase III extension.

The New Wales Facility is located on County Road 640 West, southwest of Mulberry, in Polk County near the Hillsborough County line. A sinkhole developed in the Phase II West Area of the South Gypsum Stack in August 2016. A consent order was issued by DEP on October 24, 2016, and remediation of the sinkhole and groundwater recovery was undertaken in accordance with the consent order.

Mosaic Fertilizer, LLC- Hookers Prairie Mine

On January 13, 2021, DEP issued, and on January 21 Mosaic published, a notice of draft NPDES permit (FL0033294-025) renewal for Mosaic's Hookers Prairie Mine. On February 12, 2021, Mosaic submitted several comments to DEP regarding the draft permit.

Mosaic applied for this renewal of its existing NPDES permit for Hookers Prairie Mine in November 2018. The permit authorizes Mosaic to continue ongoing reclamation activities including the abandonment of Clay Settling Areas (CSAs) and the discharge of excess mine re-circulation water, recovered groundwater and stormwater through four permitted outfalls: two of the outfalls discharge into Hookers Prairie, a tributary of the South Prong Alafia River; one discharges via a system of reclaimed mine pits (generally known as Dream Lakes) into Whidden Creek, a tributary of the Peace River; and one flows into a segment identified as Bryants Branch, a tributary of the Peace River. The permit also: authorizes the transfer of mine circulation water, as needed, to

Mosaic's South Pierce Chemical Complex and Duke Energy-Hines Energy Complex thorough the operation and maintenance of Mosaic owned infrastructure, i.e. pipelines and pumps utilized for the conveyance of the water; and authorizes the facility to accept treated reclaimed water from the City of Bowling Green wastewater treatment plant.

The Hookers Prairie Mine is divided into three drainage basins, the South Prong of the Alafia, and Whidden Creek and Little Payne Creek, which are both tributaries of the Peace River. The facility is located at 110 Agricola Mine Rd., Bradley, Florida 33835 in Polk County.

E.R. Jahna Industries, Inc./Nola Land Company, Inc.—Haines City Sand Mine

On February 5, 2021, E.R. Jahna Industries, Inc. and Nola Land Company, Inc. submitted an environmental resrouce permit ("ERP") modification application to DEP for the Haines City Sand Mine (ERP0225818). The proposed ERP modification involves the expansion of the existing Haines City Sand Mine (the property is owned by Nola Land Company, Inc. and leased to E.R. Jahna Industries, Inc. for mining purposes) and modification of the existing ERP operated by E.R. Jahna Industries, Inc., and located at 4910 E. State Road 544 in Haines City, Florida. The application states that adjacent wetlands and other surface waters will be avoided and offset by a buffer to eliminate any impacts to these systems and that there will be no groundwater impacts. There are no stormwater discharges proposed in the ERP modification (as the extraction project creates storage where the mining operation takes place). The existing permitted mine encompasses an area of approximately 693.5 acres, with a proposed expansion of an additional 577.3 acres, for a total area of 1270.8 acres. The site lies approximately 0.6 miles west of Lake Marion within Haines City. Portions of Haines City are within the northern boundary of the Peace River watershed.

Mosaic Fertilizer, LLC- Water Use Permit (No. 9741.021)

On February 23, 2021, SWFWMD issued its final agency action approving an application for a water use permit (“WUP”) modification (No. 9741.021) from Mosaic for agricultural uses in Manatee, DeSoto, and Sarasota Counties. The water use is located in the Peace River and Manasota Basins and Southern Water Use Caution Area. The modification slightly increases the authorized annual average quantity from 1.831 million gallons per day (“mgd”) to 1.939 mgd and the peak month quantity from 8.905 mgd to 9.862 mgd, due to the addition of 130 acres of irrigated citrus.

Mosaic Fertilizer, LLC- Water Use Permit (No. 11400.030)

On January 12, 2021, SWFWMD issued a WUP letter modification (No. 9741.021) to Mosaic for industrial/commercial and mining/dewatering uses in Hillsborough, Hardee, Polk, Manatee, DeSoto, and Sarasota Counties. The water use is located in the Peace River, Alafia River, and Manasota Basins, and Southern Water Use Caution Area. The modification does not change the overall water allocation of 69.6 mgd annual average and 87 mgd peak month, but grants a temporary 6 month increase in withdrawals from one well from 15,000 gpd to 120,000 gpd for construction-related activities, and adds two new wells at Mosaic’s Green Bay Facility.

Kelly Family Holdings, LLC—Water Use Permit

On February 11, 2021, SWFWMD issued its final agency action approving a WUP modification (No. 2588.013) to Kelly Family Holdings, LLC for agricultural and landscape/recreation uses in Charlotte County. The water use is located in the Peace River Basin and the Southern Water Use Caution Area. The modification increases the authorized annual average quantity from 1.043 mgd to 1.201 mgd and the peak month quantity from 1.074 mgd to 2.608 mgd, due to an increase in acreage. The environmental review from SWFWMD staff stated

that the increased annual average quantity was input into a groundwater model showing no drawdowns of concern beneath any surface water features and/or wetlands.

Lennar Homes- Water Use Permit

On February 10, 2021, SWFWMD received an application for a new WUP (No. 20950.000) from Lennar Homes for landscape/recreation uses located in Charlotte County, within the Peace River Basin and the Southern Water Use Caution Area. The application requests an authorized annual average quantity of 0.369 mgd and peak month quantity of 0.408 mgd.