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:      September 15, 2020

Mosaic Fertilizer, LLC- Bartow Chemical Plant NPDES Permit Renewal

On June 25, 2018, the Department of Environmental Protection (“DEP”) received a National Pollutant Discharge Elimination System (“NPDES”) permit renewal application (Permit No. FL0001589-024) (the “Permit”) from Mosaic Fertilizer, LLC (“Mosaic”). The Permit, which is a renewal of an existing permit, authorizes the continued operations of Mosaic's existing Bartow Chemical Plant (“Facility” or “Bartow Facility”), 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 Facility. The Permit addresses the operation of wastewater treatment systems for the treatment and discharge of process wastewater, non-process wastewater, and stormwater. This Permit also includes an authorization for Mosaic to receive process water from its Plant City Facility (FL0000078), subject to DEP's approval of a truck unloading station at an appropriate location at the Bartow Facility. This Permit does not include any new discharges or expansions of the existing discharges, but does impose additional monitoring and other requirements.
The 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 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.

On April 28, 2020, DEP issued its notice of intent to approve the renewal of the NPDES Permit for the Bartow Facility. The Permit includes treatment requirements and discharge limits for the process water to protect waterbodies, including the Alafia and Peace River Systems. In addition to the existing permit’s requirements, this Permit includes new, additional NPDES and non-NPDES monitoring requirements for surface water and groundwater protection, and also requires Mosaic to complete corrective measures associated with repairing concentrated seepage from the Facility’s active phosphogypsum stack (see below for a summary/status of the leak), and to comply with associated post-repair operation and monitoring requirements. Additionally, the Permit provides that two Consent Orders (OGC Files No. 90-1541 and 12-1207) associated with the site continue to be in effect to address any groundwater impacts from the Facility, and specific monitoring requirements to track the adequacy of the corrective actions have been incorporated in the Permit.

Subsequent to the notice of intent to approve the NPDES Permit renewal, two petitions were filed challenging the proposed agency action of approval. The petitions were sent to the Division of Administrative Hearings (“DOAH”) to be assigned to an administrative law judge to conduct an administrative hearing, but were voluntarily dismissed by both petitioners prior to going to hearing, and the DOAH case files were closed and jurisdiction relinquished back to DEP.
On August 10, 2020, DEP gave notice of its issuance of the Permit, constituting the final agency action on the Permit.

**Mosaic Fertilizer, LLC- Bartow Facility Leak**

In October 2019, Mosaic discovered a leak and a crack in the outer slope of a pond at its Bartow Facility, a phosphate fertilizer manufacturing 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 10, 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.

On January 30, 2020, Mosaic submitted a site-specific water management plan (“SSWMP”) (pursuant to applicable rules, permit conditions and a DEP consent decree) for its operating phosphogypsum management system at the Bartow Facility, and stated that the SSWMP demonstrates that the site’s process water management system has adequate capacity to accommodate the projected rainfall for all modeled scenarios. Additionally, on February 12, 2020, Mosaic submitted a letter to DEP agreeing to the conditions outlined in DEP’s “Mosaic Fertilizer, L.L.C., Bartow South Phosphogypsum Stack Permit No. FL0001589 Concentrated Seepage Outbreak” letter dated February 12, 2020, which included weekly reporting requirements, required updates on the status of corrective measures (such as seepage drain 1 and 2 installations), and required Mosaic to perform various weekly and daily inspections and monitoring. In March 2020, Mosaic completed the corrective measures for the seepage drain 1 installation, and the same was
completed for seepage drain 2 in May 2020. As explained above, the proposed NPDES renewed permit also contains conditions requiring Mosaic to complete corrective measures associated with repairing seepage from the Facility and to comply with post-repair operation and monitoring requirements.

On March 4, 2020, a follow-up inspection of the Facility revealed the presence of several additional cracks in the vicinity of the initial crack (discovered in October 2019). Mosaic reported that the cracks appeared to be related to the initial crack, and that the additional cracks do not impact the overall structural integrity of the stack or pose a risk to the environment. Mosaic submitted a repair plan to DEP for the cracks located in the NW corner of the South Gypsum Stack (“Repair Plan”), which DEP provided comments/questions on and, in response, Mosaic submitted additional information on June 4, 2020. On June 17, 2020, DEP issued correspondence explaining that the additional information sufficiently addressed DEP’s questions and requiring that Mosaic: submit biweekly reports on the status of the repair activities (until the repair is completed in accordance with the Repair Plan); and submit construction completion reports within 30 days of completion of each repair stage of the Repair Plan. On July 8, 2020, Mosaic notified DEP of the re-initiation of single lime treatment at the Bartow Facility, explaining that the duration of treatment is estimated to be six weeks and that it treat approximately 130 million gallons. Mosaic’s July 28, 2020 biweekly report explained that: Repair Plan Stage I (rerouting of rim ditch) was completed in May 2020 and that the rim ditch system in this area is in normal operation; and Repair Plan Stage II (temporary repair work) was completed as of July 28, 2020; Repair Plan Stage III (permanent repair work) has field work planning currently underway in preparation to start the project and work in this area is scheduled to start by August 20, 2020.
Additionally, on July 10, 2020, Mosaic discovered a gypsum line release during routine inspection rounds. The pipe was shut down and Mosaic reported the incident to DEP, the National Response Center, and the Florida Division of Emergency Management’s State Watch Office, with the incident resulting in a release of phosphoric acid above the applicable reporting standards. 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 (upon discovery, a liner was laid down to prevent the water from hitting the ground and a vac truck was used to recover the material), and was believed to be associated with the original event that occurred on July 10, 2020. On August 12, 2020, a meeting was held between DEP and Mosaic to discuss a warning letter for the July 10th incident. At the meeting, it was explained that: on the south side of Hwy 60, all visible gypsum that was released has been removed, the accessible soil in the area where gypsum was released has been removed, lime has been disked into the areas where soil was removed, and final grading has been completed; and on the north side of Hwy 60, all visible gypsum that was released has been removed, but that due to work on the #1 gypsum line in the area, the remaining soil in the areas where gypsum was deposited had not yet been removed. The remaining incident review will focus on: 1) a leak detection system (evaluation of administrative and engineering controls); and gypsum lines #1 and #3 materials of construction (evaluation of pipeline engineering, materials, and suitability of system for current pumping configuration). In addition to the foregoing, Mosaic will perform groundwater evaluations and identify/implement corrective actions.

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 North Stack NPDES**

On April 27, 2020, Mosaic submitted an application for renewal of an NPDES permit (No. FLA276911-008) (the “application”) for its Bartow Closed North Phosphogypsum Stack, which is currently set to expire on October 24, 2020. This application is specific to the Closed North Phosphogypsum Stack system and is only for groundwater monitoring and long-term care operations. A separate NPDES permit addresses the operations at the active South Phosphogypsum stack and cooling pond system (FL0001589—summarized above), and the surface water drainage from the land areas north of the Bartow Facility and associated stormwater discharges from the Closed North Phosphogypsum stack are addressed in a separate “Multi-Sector Generic Permit for Stormwater Discharge Associated with Industrial Activity” (FLR05B883).

On May 27, 2020, DEP issued a Request of Additional Information (“RAI”) regarding the application. The RAI requests additional information regarding the following issues: inventory of wells within a one-mile buffer zone of the facility; the monitoring and maintenance plan for Steel Lake; assessment of existing groundwater quality; and monitoring well data indicating an increase in manganese concentration. Mosaic has requested two extensions of time to submit its response to the RAI, explaining that field investigation work requires additional time to fully address the RAI. DEP has approved the extensions, and the response to the RAI is now due to DEP no later than September 25, 2020.

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- Green Bay/Bartow Facilities**

On March 3, 2020, Mosaic submitted an application (FL0000752-020-IW1S/RA) 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 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 Green Bay (operations of the Bartow Facility are authorized under Permit No. FL0001589).

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 a separate permit revision No. FL0000752-019-IW1S/RM issued earlier this year, which also authorizes Mosaic to perform other enhancements to their process water treatment system), 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 Gypsum stack; 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 submitted on the subsurface surveys performed at the site; and the submitted water balance modeling and groundwater quality information. Additional clarification responses were submitted by Mosaic on June 16, 2020, and on July 13, 2020, Mosaic submitted a letter prepared by Ardaman & Associates, Inc. containing additional information on monitoring of the deep Floridan Aquifer at the site (an engineering report submitted previously for this application had proposed the installation of three deep wells to monitor the deep Floridan aquifer system downgradient from the proposed phosphogypsum stack reactivation) and presenting the results of modeling for potential recovery wells at the site.

On August 18, 2020, the application was deemed complete by DEP and a draft permit is expected to be issued to Mosaic on or around October 16, 2020.

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- New Wales Gypsum Stack Phase III Extension**

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
New Wales Facility manufactures solid ammoniated phosphate fertilizers and animal feed ingredients. The Phase III extension adds 231 acres (205 acres of which were previously mined lands) to the existing New Wales South Gypsum Stack. The 231-acre 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 and hydrogeological, geophysical, or geotechnical investigations evaluating the subsurface beneath the Phase III extension site to assess potentially unstable areas and evaluate the suitability of the foundation to support the proposed facility;

- additional information regarding the hydraulic modeling (due to the fact that the storm event modeling shows the water level within the cooling pond rising above the maximum emergency water elevation); and

- a recommended initial protocol for reporting to DEP the 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 facility.

On January 23, 2020, Mosaic submitted a partial response to DEP’s RAI and, on January 29, 2020, Mosaic submitted a report that completed Mosaic’s prior partial RAI response. Mosaic explained that the report, which is an addendum to a prior technical report on the Phase III extension subsurface site investigation and 3D seismic survey, was not yet complete at the time the partial response was submitted. 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 Mosaic’s first RAI response; the features discovered during initial subsurface
investigations; additional geotechnical, geophysical, or other 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. Following discussion with DEP, Mosaic submitted supplemental information on June 10, 2020. On June 12, 2020, Mosaic informed DEP that, as follow-up to the June 10th supplemental information and based on discussions with DEP staff, Mosaic would be submitting additional supplemental information no later than June 22, 2020. As of the date of this report, no additional information was available in the permit file in the DEP online permitting database. However, there was a supplemental site map of Phase III submitted on August 25, 2020, which was attached to correspondence from Mosaic explaining that the map was being provided in response to a request made at a meeting with DEP that day.

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- Fort Green Mine**

On August 17, 2020, Mosaic submitted an application requesting modification of its existing environmental resource permit ("ERP") No. MMR_0142476-009, known as the Manson Jenkins (Southeast) Tract in Manatee County. The original ERP for the project was first issued to IMC Phosphates, Inc., now Mosaic, on November 25, 2002 for phosphate mining and associated activities. A modification was issued to Mosaic in 2011 that brought the ERP into substantial
conformance with the Fort Green Mine conceptual plan that was issued at about the same time. The 2011 modification reflected a substantial reduction of wetland impacts, mitigation changes, and the sale of a small parcel within the original project area. The approved ERP, as modified, authorized impacts to 296.3 acres of wetlands and other surface waters and required mitigation. The ERP is currently set to expire on December 31, 2021.

This application requests the following modifications to the ERP: changes in mitigation to reflect the actual shapes of constructed, delineated, or future constructed wetlands; shifting of some planned mitigation located within the access corridors and West Fork of Horse Creek (“WFHC”) crossing to other areas within project boundary to not delay mitigation construction; and all impact and mitigation acres for WFHC crossing are included in the overall mitigation acreage balance, with most already constructed. This application also request an extension of the permit expiration date for an additional 15 years, to December 31, 2036.

The Fort Green Mine is located in Manatee County, adjacent to Duette Road, and within the Horse Creek and Gum Swamp Branch sub-basins in the Peace River watershed.

**R&D Cattle Ranch, L.L.C.- Bermont Mine**

On May 8, 2020, DEP gave notice of its receipt of an application submitted by R&D Cattle Ranch, L.L.C. (“R&D Cattle”) for an environmental resource permit (“ERP”) (MMR_0342229-002) to excavate fill dirt, sand, and shell resources and to wash and screen sand and shell products at the Bermont Mine. More specifically, this application requests an ERP from DEP authorizing it to: construct and operate a surface water management system that will contain all stormwater and operations process water for washing and screening mine material; 2) update the construction of the ditch and berm systems to provide protection of wetlands and surface waters off-site; 3) add a
conveyor system and stormwater pipe on the unnamed tributary of Shell Creek crossing; and 4) bring the Bermont Mine into compliance as required by Consent Order OGC File No. 19-0305¹.

The on-site agricultural activity has operated with a water use permit (“WUP”) issued by the Southwest Florida Water Management District (“SWFWMD”) since 1990, and the current WUP was issued in 2015 to include mine dewatering in conjunction with the agricultural operation. The WUP² will remain in effect for the duration of the life of the mine, but this ERP will supersede the existing ERP and the management of surface water (“MSSW”) permit issued by SWFWMD within the project boundary. The application addresses conversion of the permitted borrow pit to a mine producing sand shell products, fill dirt, and top soil, and explains that no impacts to wetlands beyond those authorized by the SWFWMD ERP are proposed. The SWFWMD MSSW permit for the site was issued in 1990 (authorizing construction of a surface water management system to support 1,190 acres of citrus groves) and the SWFWMD ERP for the site was issued in 2008 (which approved construction of the R&D Cattle Excavation Project measuring 585.34 acres within which topsoil, sand, and shell were authorized to be extracted from 248.17 acres). The mine project area will be reduced to 580.21 acres (from 585.34 acres) and approximately 8.9 acres have been identified for disturbance outside of the original mine footprint to provide flood storage. The acres added are improved pasture on

¹ On July 10, 2019 a Consent Order OGC Case No. 19-0305 was entered into with R&D Cattle for the unauthorized discharges of stormwater and mine process water to the Shell Creek Drainage basin. The corrective action required by the Consent Order, directed R&D Cattle to update the ERP and facility to bring the site into compliance and prevent any further unauthorized discharges.

² On June 19, 2020, a Letter of Non-Compliance was sent by SWFWMD to R&D Cattle for failing to provide hydraulic re-charge within the northern mining operation and not conducting required hydrologic monitoring in accordance with the SWFWMD WUP. A meeting was held between SWFWMD, DEP, and R&D Cattle on July 23, 2020 regarding this issue, and the meeting notes stated that the operator’s representatives were responsible for getting the WUP modified to bring the operation into compliance and having monitoring wells, staff gauges, and hydraulic recharge ditches installed and in-place.
the south side of Shell Creek. No wetlands or surface waters will be disturbed to provide flood storage and the flood storage area will be returned to improved pasture when mining is complete.

On June 4, 2020, DEP issued an RAI to R&D Cattle, which R&D Cattle responded to on June 22, 2020, regarding additional information on the following issues: mining depths; drainage figure reports; post-reclamation land uses and acreages; berm elevations; post-reclamation plan drawings; the proposed groundwater quality monitoring plan; and floodwater compensation concerns. The application was deemed complete on July 21, 2020 and on September 4, 2020, DEP gave notice of its intent to issue the ERP to R&D Cattle.

The Bermont Mine is located at 37390 Bermont Road (a.k.a. County Road 74) in Charlotte County. The ERP application area measures 822 acres, the project boundary measures 571 acres, and the total mine excavation area measures 249.66 acres. Shell Creek, a tributary to the Peace River, borders the ERP area and project areas to the north. The Bermont Mine is located entirely south of Shell Creek and consists of a south mining area and north mining area that are separated by an unnamed tributary to Shell Creek. The south mining area (87.51 acres) is nearly completely excavated and the north mining area (162.15 acres) is being, or will be, excavated. Mine development work in 2020 and future years will principally occur in the north mining area and will consist of: extending the internal haul road network to encompass all eight of the mine cells; installation of a sand and shell conveyor belt system to transport sand and shell from the north mine cells to the washing and screening facilities; and completion of the perimeter recharge ditch system.

**Mosaic Fertilizer, LLC– Water Use Permit**

On March 13, 2020, SWFWMD received an application for a water use permit 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 mgd to 1.939 mgd and the peak month quantity from 8.905 mgd to 9.862 mgd. On March 26, 2020, SWFWMD issued a RAI, and Mosaic submitted partial responses on April 9, April 28 and May 1, 2020. On August 24, 2020, SWFWMD issued a letter to Mosaic stating that if all of the additional information requested on March 26, 2020 is not received by September 3, 2020, the application will be considered incomplete and SWFWMD staff may begin processing the application for denial. To date, there are no additional documents in the permit file since the August 24th letter.

**Jones Potato Farm Inc.– Water Use Permit**

On May 5, 2020, SWFWMD received an application for a water use permit (“WUP”) modification (No. 10541.006) from Jones Potato Farm, Inc. for agricultural uses in Manatee County. The water use is located in the Manasota Basin and the Most Impacted Area within the Southern Water Use Caution Area. The requested modification includes a transfer of permitted quantities from an existing WUP3 (No. 20003847.014) (“WUP No. 3847”), addition of 840 acres, and an increase in the authorized annual average quantity from 0.688 mgd to 2.259 mgd and the peak month quantity from 2.119 mgd to 4.987 mgd. On May 13, 2020, SWFWMD issued a RAI and Jones Potato Farm, Inc. submitted its response on July 8, 2020. On July 27, 2020, SWFWMD issued a letter requesting clarification of the received information (“CLAR letter”). The CLAR letter requests the following: clarification of the numerous discrepancies between what is currently permitted on WUP No. 3847 and what is being requested to be transferred to this WUP, including providing supporting calculations for all requested quantities if there are any changes from WUP No. 3847; clarification

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3 An application was also submitted for a letter modification to WUP No. 3847 to reduce the quantities being requested to be transferred onto this WUP.
of the request to transfer a well to this WUP Application modification (as the well is already associated with the existing version of this WUP); clarification on the ownership of the additional 840 acres requested to be added to this WUP; and although SWFWMD has received a letter modification application for WUP No. 3847 to reduce the quantities being requested to be transferred onto this WUP, both applications will have to agree with reductions and additions before either application can be deemed complete.

**City of Davenport- Water Use Permit**

On July 31, 2020, SWFWMD deemed the City of Davenport’s application for renewal of its water use permit (No. 5750.010) complete. The permit is for public supply uses located in Polk County, the Peace River and Green Swamp Basins, and is not within any water use caution area. The renewal increases the authorized annual average quantity from 1.001 mgd to 2.164 mgd and the peak month quantity from 1.756 mgd to 2.684 mgd.

**Brevard-Harbor Edge LLC- Water Use Permit**

On July 28, 2020, SWFWMD received an application for a new water use permit (No. 20902.000) from Brevard-Harbor Edge, LLC. Although this is a new permit, the permit is for property that was previously covered by another water use permit and the property has now been purchased by Brevard-Harbor Edge, LLC. The permit is for agricultural uses in Charlotte County, in the Peace River Basin, and is within the Southern Water Use Caution Area. The application requests an annual average quantity of 1.694 mgd and a peak month quantity of 4.191 mgd.

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4 Brevard-Harbor Edge, LLC purchased a portion of property that is currently authorized under Williams Farms Partnership’s WUP No. 20009687.010 and desires to separate their purchased acreage and withdrawal facilities to this new WUP. The application also notes that Williams Farms Partnership will submit an application for the formal modification of WUP No. 20009687.010 in order to remove the sold acreage and withdrawal facilities.