STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the Matter of an Application for Permit/Water Quality Certification, by:

APPLICANT
Tarmac America, LLC
455 Fairway Drive
Deerfield Beach, FL 33441

PROJECT NAME
Tarmac King Road Mine
File No. 0244771-002
County: Levy

AGENT
Albert Townsend, Director
Tarmac America, LLC
455 Fairway Drive
Deerfield Beach, FL 33441

NOTICE OF INTENT TO ISSUE
ENVIRONMENTAL RESOURCE PERMIT

The Department of Environmental Protection gives notice of its intent to issue an environmental resource permit under Part IV of Chapter 373, Florida Statutes (F.S.), and Title 62, Florida Administrative Code (F.A.C.) (draft copy of permit attached). Pursuant to Operating Agreements executed between the Department of Environmental Protection (Department) and the Water Management Districts, as referenced in Chapter 62-113, F.A.C., the Department is responsible for reviewing and taking final agency action on this activity.

This permit constitutes certification compliance with water quality standards under Section 401 of the Clean Water Act, 33 U.S.C. § 1344. This permit also constitutes a finding of consistency with Florida's Coastal Zone Management Program, as required by Section 307 of the Coastal Management Act. The proposed project does not require proprietary authorization for the use of sovereign submerged lands.

I. DESCRIPTION OF THE PROPOSED ACTIVITY

The applicant, Tarmac America, LLC, applied on October 20, 2008 to the Department of Environmental Protection for a permit/water quality certification to construct a surface water management system for a new limestone mine in Levy County. The applicant has a lease from Plum Creek Timberlands, LP, for mining and wetland mitigation within an approximately 4,750.5-acre Mine Site, and an option to purchase approximately 4,526.5-acre for mitigation, the Tarmac Mitigation Site (TMS). The total project area including mining and mitigation areas is approximately 9,277.0 acres.

The system will be capable of impounding 224 acre-feet and containing a 25-year, 24-hour storm. The system will include 2,756.9 acres of extraction for mining and 987.2 acres of other disturbances supporting mining operations. The maximum depth of mining will be to 120 feet below original ground surface. Tailings from the material processing area and overburden will be used to backfill mined-out areas to an upland grade above the water table. A total of approximately 1,439.9 acres of lakes and 48.7 acres of littoral zones will remain after reclamation is complete.

The proposed mining activities would impact up to 2,359.3 acres of wetlands and other surface waters, including 2,283.3 acres to be dredged or filled and 76 acres of potential secondary impacts in boundary setback and other areas where mining activities are not to occur. Approximately three-fourths of the wetlands to be dredged or filled have been converted to silviculture plantations. The remaining areas of wetlands have been impacted to varying degrees by the silvicultural operations, and the construction of ditches and roads. Wetland mitigation will include approximately 4,439.8 acres of restoration and preservation at the TMS and approximately 850.4 acres of restoration and preservation (No Mine areas) on the Mine Site. As part of mitigation there will be hydrologic enhancements of wetlands within the TMS by the installation of ditch blocks, replacement of crushed or blocked culverts, and the installation of low water crossings. Community structure will be enhanced within the mitigation areas of the Mine Site and TMS by the control of exotic and nuisance plant species, the final harvesting of commercial timber, and the selective reduction of pine density. Appropriate native plant species are required to be planted if natural recruitment of desired species is not successful. This enhancement will return these areas to a hydric hammock-mesic hammock ecosystem that existed prior to silviculture.

Mining will progress without dewatering. Approximately 5 acres of impervious areas will be constructed for support facilities. Additional wetland areas will be filled by the widening of King Road and the construction of three crossings through an unnamed wetland flow ways on the Mine Site. Culverts will be provided to pass the design storm.

Hydrologic monitoring will be provided within wetlands and other surface waters not directly dredged/filled and in wetland mitigation areas. Groundwater quality monitoring will be provided for the Mine Site. Surface water quality monitoring will be provided in the unnamed wetland flow ways within the Mine Site.

The postreclamation land use for the Mine Site will be silviculture and man-made lakes. The estimated life of the mine, including reclamation, is 110 years. The initial construction phase of the permit is 20 years.

The project is located approximately five miles north of Inglis, at the west end of King Road, in Sections 2, 3, 6 through 11, 14 through 23, 29 and 30, Township 16 South, Range 16 East, Section 31, Township 15 South, Range 16 East, Sections 1 through 3, 11 to 13 and 24, Township 16 South, Range 15 East and Sections 25 through 27, 34 through 36, Township 15 South, Range 15 East, in Levy County.

II. AUTHORITY FOR REVIEW

The Department has permitting authority under Part IV of Chapter 373, F.S., and Chapters 62-4, 62-302, 62-330 and 62-343, F.A.C. The activity is not exempt from the requirement to obtain an environmental resource permit. Pursuant to Operating Agreements executed between the Department and the water management districts, as referenced in Chapter 62-113, F.A.C., the Department is responsible for reviewing this application.

III. BACKGROUND

The project area consists of two regions. The Mine Site is located at the west end of King Road. This approximately 4,750.5-acre area is proposed for extraction areas, material processing areas, other mining support facilities, and wetland mitigation areas. The Tarmac Mitigation Site (TMS) is located west of Buckhead road and consists of approximately 4,439.8 acres of mitigation for impacts to wetlands and other surface waters. The project area is owned by the Plum Creek Timberlands, LP, which has consented to permitting. The project area is predominately used for timber production although it is managed as part of the Gulf Hammock Wildlife Management Area and is also used for hunting. The Mine Site will be leased to the applicant while the TMS will be acquired by the applicant.

The mining operations area and wetland mitigation area are located within a region that was historically dominated by hydric hammock. At one time this landform covered nearly 100,000 acres from the Withlacoochee River to State Road 24, and from behind the coastal marshes to just west of US 19/98. The region has a relatively flat topography with shallow soil over limestone. The near surface limestone outcrops in areas especially at sinks and along incised stream channels. The water table is near and often above the soil surface. The area drains from east to west and has a generally flat to slightly sloping topography that reduces the rate of surface water runoff after storms. The wet conditions contribute to a low risk of fire. The historic hydric hammock canopy consisted of a variety of hardwood tree species with few pines. The subcanopy was often well established. The groundcover was usually lacking except along exposed edges such as near sinks and streams.

Since the early 1800's the area has been selectively timbered for native species. More recently it has been converted to pine plantations. Some pine plantations have been intensively managed with raised beds, raised roads and ditches which altered hydrologic conditions for the benefit of commercial crops. Site preparation prior to planting and the planting density reduced native plant species that may compete with the commercial crop. Other pine plantations are less intensive in their impact on the native vegetation.

The Mine Site is approximately 4,750.5 acres. It is bounded by the Bertha and Punkin Roads on the north, Buckhead, King and Shirley Roads on the south, the Progress Energy powerline right of way on the east, and the west section line of Sections 8 and 17 on the west. Access to the site from US 19/98 is King Road. The operations area is on a slope. The highest area is near the southeast corner which is over 21 feet North American Vertical Datum of 1988 (NAVD88). The lowest point is in the southwest corner which is below six feet NAVD88. The overall slope is approximately four feet per mile; however, the steepest area is in the eastern sections which range from 9 to 21 feet NAVD88 with a slope of seven feet per mile.

Within the mining operations area, the Avon Park Limestone outcrops from a thin layer of soil, and extends to the depth of 300 feet. The Avon Park Limestone and the upper portions of the Lake City Limestone are the Floridan Aquifer System in this area. The thickness of the aquifer is approximately 700 feet in this area. Surface drainage is through unnamed streams. These streams intercept the Floridan aquifer during wet weather and act as shallow relief points for groundwater outflow. The streams are generally dry when the groundwater table drops below the soil surface. During dry periods the aquifer surface can naturally be 5 to 6 feet below the ground surface.

Surface runoff eventually flows into Withlacoochee Bay primarily through Smith Creek and a small portion of the project area drains to Spring Run. There are six minor springs known in the vicinity of the proposed mining operations area. Four of these springs are more than one-half mile upgradient to the northeast. Two springs are located more than one mile southwest of the mining operations area. Other unknown springs could possibly occur in the coastal streams.

Initial operations during the first 10 years will include the main aggregate plant to be constructed in the central eastern area of the mine along King Road and extraction within cells 1 through 5. The plant will consist of stock pile processing areas, storage and loading areas, administrative facilities and stormwater ponds. King Road will be upgraded to handle truck traffic. Extraction will occur within cells 6 through 8 in the second 10 years.

Within the Mine Site the overall slope falls approximately 4 feet per mile east to west; however, the steepest area is in the eastern sections where elevations range from 9 to 21 feet NAVD88 with a slope of seven feet per mile. Extraction on slopes has the potential to drain upgradient wetlands if a created water body lowers the upgradient water table and increases the rate of groundwater movement. This potential was addressed by the applicant in the design of the project. Through the life of the project, extraction will occur in 33 cells. As extraction progresses, tailings will be used to backfill some of the previously mined-out cells to above the water table to create uplands. It is estimated that it will take the extraction of 5.2 tons of rock to produce 3 tons of saleable material. Small rock fragments, overburden and fines that do not meet specifications will be used for backfill. Groundwater modeling indicates that the use of fine tailings in the backfill will retard the rate of groundwater movement. Between each cell (mine block) there will be unmined strips of at least 100 feet in width. The sequence of cell extraction in the steeper eastern area was selected to limit the acreage of contiguous water bodies during mining operations. Substantial areas of the Mine Site will not be extracted including the processing area, the preservation area, 100-foot wide set backs from the lease line, and the 100-foot wide areas between the extraction cells. Within the approximately 4,750.5-acre Mine Site, 2,756.9 acres will be extracted for mining, but only approximately 1,408.9 acres of extracted cells (approximately 30 percent of the Mine Site) will remain as lakes. Approximately 31 acres of additional lakes will also remain within the processing area after reclamation of the process water ponds.

During mining operations the extraction cells and processing area will be surrounded by berms capable of containing the 25-year, 24-hour storm. The containment berms will be stabilized fill with 3:1 (horizontal to vertical) slopes and a five-foot-wide crest in areas around the aggregate plant and a 10-foot-wide crest in areas around mine pits. At least three feet of freeboard will be provided.

The project includes the construction of roads within the Mine Site to move equipment and material within the mine, and to move product from the mine. A wetland crossing by King Road will be upgraded to improve access to US 19/98. Within the Mine Site the wetland flow ways will be crossed at three locations. Each of the three wetland crossings is divided into two sections - a temporary dragline crossing and an access road/utility crossing. All crossings are designed to be the minimum width necessary to access mining areas.

The temporary dragline crossings will be constructed 100 feet wide at their crests to accommodate movement of the dragline which has a footprint of 92 feet. The fill area will be approximately 108 feet at the base. The temporary dragline crossings will be removed and the area will be restored after the dragline has maneuvered across it. The

access road crossing will have to be constructed in advance of movement of the dragline to allow construction of required utilities to the mining area.

These access road/utility crossings will be parallel to the temporary dragline crossings. The access road crossings will have a maximum crest width of 56 feet and approximately 95 to 98 feet of fill at the base. This width will consist of 10 feet for pipelines, 10 feet for the conveyor, 27 feet of roadway, 8 feet for a swale and 1 foot for poles for power distribution. The roadway has been designed to a width of 25 feet to allow adequate clearance for a single 18 foot wide front end loader. An additional 2 feet had to be added (for a total of 27 feet) to maintain the 10 foot buffer (including the 8 foot swale) between the high voltage power lines and the roadway required by the Mine Safety and Health Administration. The swale adjacent to the wetlands will be constructed to contain stormwater runoff from the filled crossing. Culverts will be provided to pass stormwater along the wetland flow ways during the design storm. After the crossing is no longer required to support mining operations, the conveyors, pipelines and power lines will be removed. The width of the road/utility crossing will be reduced to a base width of 57.0 feet and a road width of 18 feet for use to support silviculture. The removed portions will be restored to forested wetlands.

The applicant does not propose to conduct dewatering activities. Dewatering activities refer to continuous pumping of water from an active extraction site of 24 continuous hours, or more, in order to maintain workable conditions. The plans for this project did not include a containment system for dewatering operations. Consumptive uses of water includes the pumping of 0.38 million gallons per day for the processing facility. Maximum drawdown in the immediate vicinity the processing facility at full mine out will be 0.50 feet. The maximum offsite drawdown may be close to 2.5 inches or less on properties nearest the Mine Site to the east. A Water Use Permit will be required from the Southwest Florida Water Management District prior to the start of pumping operations. The applicant has provided the Bureau with the application materials for its pending Water Use Permit.

The applicant will install staff gauges in the active mine pit, tailings disposal area, cells to be reclaimed as lakes, and in the plant pond. Also, piezometer/staff gauges will be installed in wetlands located within 500 feet of the active mine cut and tailings disposal area. Groundwater elevations will be recorded electronically up to six times a day. Wetland staff gauges will be monitored weekly.

The applicant installed ten wells which were used to determine ambient groundwater quality. Water samples were analyzed for a variety of parameters and the results was compared with the drinking water standards provided by Chapter 62-550, F.A.C.

Six wells (MW-1 through MW-6) were constructed to collect water from the upper 20 feet of the aquifer. Five wells (MW-2 through MW-6) showed iron levels above 0.3 mg/L which is the secondary drinking water standard. Two wells (MW-1 and MW-6) showed total dissolved solids above 500 mg/L which is the secondary drinking water standard. Four wells (MW-1, MW-2, MW-5 and MW-6) showed arsenic levels above 0.010 mg/L which is the maximum contaminant level for inorganic compounds. Wells M-2 through M-6 showed sulfate levels between 8.3 and 33 mg/L. Well MW-1 showed sulfate levels between at 120 and 150 mg/L. None of the shallow wells showed levels of sulfate near 250 mg/L which is the secondary drinking water standard.

Four wells (MW-7 through MW-10) were constructed to collect water from below 140 feet. Chloride was less than 50 mg/L to the depth of 200 feet. One well (MW-7) showed iron levels above the secondary drinking water standard. All four wells exceeded the secondary drinking water standard for total dissolved solids and sulfate (250 mg/L). The source of the sulfates is the gypsum deposits that occur naturally within the Lake City Limestone. Thus, natural background condition of the groundwater at depths below 50 feet is somewhat elevated in sulfate and total dissolved solids.

The depth of extraction will be up to 120 feet below original land surface. Therefore, the applicant submitted analysis of mining to that depth. Within the Mine Site the sulfate concentration naturally occurring in the Upper Floridan Aquifer approaches the equilibrium concentration of 1,300 mg/L at a depth of 145 feet, as determined by the ambient sampling. The applicant calculated the expected concentration of sulfate in the lake water as a result of mining operations. The calculations used various quantities for the average sulfate concentration in the groundwater, the percentage of sulfate in tailings that dissolves, and the percentage of high sulfate groundwater that enters the pit. Sulfate concentrations in the mine pits are expected to increase to between 300 mg/L and 700 mg/L as a result of upward seepage of the mineralized water and, to a lesser extent, crushing and washing of the limestone.

The Department issued an industrial wastewater permit (Permit No. FLA663492-001) on January 8, 2010 for this project, which authorizes a zone of discharge. The zone of discharge for this project extends horizontally to the facility's property (Mine Site boundary) line and vertically to the base of the Upper Floridan Aquifer. Groundwater must meet the water quality standards of Chapter 62-520, F.A.C., outside of the zone of discharge. The groundwater minimum criteria specified in rule 62-520.400, F.A.C., must be met within the zone of discharge. The industrial wastewater permit and the information supporting the industrial wastewater permit application have been reviewed by the Bureau; this information and additional information provided by the applicant and monitoring to be conducted provide reasonable assurance that the

foregoing conditions have been met and that there will be no adverse impact to surface or groundwater as a result of the mining operations.

The applicant will install a network of compliance, background, and intermediate wells at the Mine Site to monitor groundwater quality. The shallow wells will be screened from 15 to 35 feet below existing grade. The deep wells will be screened from 50 to 70 feet below existing grade. One set of background wells will be provided up gradient from the mining operations area. All monitoring wells will be installed prior to the start of any permitted construction. Upon commencement of mining operations, the applicant will begin sampling groundwater at monitoring wells in accordance with the industrial wastewater permit and the approved groundwater monitoring plan. The monitored parameters will be pH, conductivity, temperature, water level (relative to NAVD88), turbidity, total dissolved solids, chloride, sulfate, combined nitrate and nitrite, total recoverable arsenic, gross alpha, uranium, and combined radium 226 and 228. Prior to discharge, the applicant will characterize the groundwater quality by sampling each well identified in the industrial wastewater permit's approved groundwater monitoring plan, and submit the results to the Department's Northeast District Office and to the Bureau.

The applicant will also install surface water quality monitoring stations within the unnamed wetland flow ways of the Mine Site. The monitored parameters include pH, specific conductance, temperature, turbidity, chloride, sulfate, iron, and arsenic.

The wetlands to be impacted by construction have been altered as a result of years of silvicultural operations. Prior to topographic alterations for the pine plantation, surface water would sheet flow from east to west. As a result of land use practices, surface flows have been disrupted. In areas with a near surface water table, bedding was used to raise the ground to enhance slash pine production. Ditches and raised roads were also constructed to facilitate silvicultural operations. Some of the culverts through filled roads were found to be crushed and blocked. In many of the wetlands, native species (hardwood hammocks) have been replaced by commercial slash pine. Silvicultural operations also included the selective removal of native tree species of commercial value such as southern red cedar. It is expected that wetlands within the Mine Site and TMS will continue to be harvested and replanted for commercial timber production if the project does not occur.

Formal Determinations of boundaries of wetlands and other surface waters, FD-38-0244771-001, FD-38-0276624-001, FD-38-0276628-001, FD-38-0276629-001 and FD-38-0276630-001 were issued by the Department on November 16, 2009. These formal determinations were conducted within the Mine Site only. Informal wetland determinations were conducted through the ERP process for the TMS. Issuance of this

permit will incorporate the wetland and other surface water boundaries established in the formal determinations.

During the design of the project, the applicant explored design modifications to reduce or eliminate adverse impacts to wetlands and other surface waters within the mining operations area. Using the Uniform Mitigation Assessment Methodology, required by Chapter 62-345, F.A.C., it was determined that most of the wetlands and other surface waters proposed for dredging or filling have a lower ecological value based on past, current, and expected future land uses. Areas of higher quality wetlands along and within the principal wetland flow ways will be preserved under the proposed plan. Within the Mine Site, a total of 541.46 acres of wetlands will be preserved and 2,359.2 acres of wetlands will potentially be impacted.

Wetland mitigation will be conducted within both the Mine Site and the TMS. The proposed mitigation plan includes wetland and upland enhancement and preservation.

Prior to the start of construction, approximately 850.4 acres within the Mine Site and approximately 4,526.5 acres within the TMS will be preserved by conservation easements. The reported acreage of preservation includes certain private roads within private access easements and certain potentially sovereignty submerged lands which are not considered part of the wetland mitigation for this project, but which will be included in the recorded conservation easements for ease of surveying and contiguity of the TMS areas to be preserved. Within the Mine Site, the wetland flow ways and adjacent uplands will be preserved and enhanced.

There are public and private road easements passing through or adjacent to the proposed preservation areas. The area of the road easements was not included in the wetland mitigation assessment for this project. Public roads will be excluded from the conservation easement area. Access to the private roads within the preservation areas will be controlled and limited to the landowner, access easement owner, and Department staff, and their invitees. The general public access will be controlled and limited to periods when hunting is allowed.

In addition to preservation, the wetland mitigation consists of hydrologic enhancement, cessation of silviculture land management practices, thinning of planted pines, exotic and nuisance species control, contouring, and supplemental planting as needed to ensure that hydric and mesic hammock communities are restored.

Prior to the end of mining, the TMS will be offered for fee simple transfer to the State of Florida as state conservation lands. The TMS is located immediately adjacent to the Waccasassa Bay State Preserve. The TMS is also inland from the Big Bend Seagrasses

Aquatic Preserve. The TMS is within the Gulf Hammock Florida Forever Project. The donation of the TMS will act as a publicly-owned buffer adjacent to the Waccasassa Bay State Preserve. The TMS will continue to provide opportunities to the public for hunting and other forms of recreation compatible with the conservation easement. The TMS and Mine Site preservation areas will contribute to a wildlife corridor between the coastal public lands and Goethe State Forest, which is located east of US 19/98.

The TMS is in a coastal area and includes some potentially sovereignty submerged lands, which are those areas waterward of the mean high water line beneath tidally influenced waters. Sovereignty submerged lands are lands owned by the State of Florida acquired by title on March 3, 1845, by virtue of statehood. The wetland mitigation assessment for this project excludes the potentially sovereignty submerged lands and did not consider the benefits of future state fee-simple ownership.

The TMS is approximately 4,526.5 acres. Within this area both wetlands and uplands have been altered by current land management practices. Approximately 1,900 acres of pine plantation occur on the TMS with stand ages from 1 to 30 years. The hydrology of the site has been altered by elevated roads, ditches and culverts. Several culverts were found to be crushed and blocked. Timber harvest and planting practices have altered species composition and density. It is expected that the TMS would continue to be harvested and replanted for commercial timber production if the area is not utilized as mitigation for the proposed project.

Prior to initiation of permitted activities, the applicant will acquire the TMS from Plum Creek Timberlands. The mitigation plan will eliminate commercial timber production within the TMS after the final harvest of pines as part of the mitigation work. The area provides opportunities to restore or enhance mesic and hydric hammocks, swamp forests, and embedded upland islands. This includes approximately 4,108.6 acres of wetlands and 331.2 acres of uplands. The TMS has a significant hydrologic connectivity with Waccasassa Bay and provides a hydrologic corridor for the Spring Run system. The hydrologic enhancement for the TMS includes the replacement of twelve blocked culverts along Buckhead Road, the creation of fifteen ditch blocks on the northern portion of the TMS, and the installation of two low water crossings.

Mitigation activities in the TMS include:

Wetlands:

- Restoration and preservation of 345.01 acres of hydric hammock from mature pine plantations.
- Restoration and preservation of 1,314.61 acres of hydric hammock from pine plantations less than 8 years age.

- Restoration and preservation of 43.13 acres of hydric hammock from cleared natural hammock.
- Preservation of 1,890.9 acres of existing freshwater forested wetlands.
- Preservation of 382.93 acres of existing coastal hydric hammock.
- Preservation of 24.25 acres of existing freshwater herbaceous wetlands and surface waters.
- Approximately 107.81 acres of existing saltwater marsh and tidal flats will be included in the preservation area, but was not included in the wetland assessment as they are presumed to be sovereignty submerged lands.

Uplands:

- Preservation of 78.90 acres of existing coastal mesic hammock.
- Restoration and preservation of 35.49 acres of coastal mesic hammock from mature pine plantation.
- Preservation of 47.53 acres of existing mesic hammock.
- Restoration and preservation of 136.03 acres of mesic hammock from mature pine plantations.
- Restoration and preservation of 33.23 acres of mesic hammock from harvested pine plantations.

Mitigation areas will be enhanced by the selective harvest of naturally occurring commercial wood-producing species and pine plantation activities. Herbicides will be used to treat mitigation areas for nuisance vegetation to limit the spread of nuisance species during mitigation work. On the TMS, planted pine areas will be selectively thinned to less than 5 percent of the canopy cover. In the remaining pine areas, loblolly pine will be preferred as a natural, although a minor component of the native forested communities of the area. If natural recruitment does not trend toward the target forest type, then one-gallon nursery material will be used for supplemental planting. Regular herbicide treatments and monitoring will be conducted until mitigation areas meet release conditions.

The applicant will be responsible for the management and financial assurance mechanism for the wetland mitigation work.

From 2005 through 2008 the TMS was surveyed for wildlife use. The listed species observed include the little blue heron, white ibis, American alligator, American bald eagle, wood stork, limpkin and snowy egret.

Silvicultural practices typically harvest trees before they are fully mature and select for certain commercially valuable species. The density of very mature trees and cavity

trees are reduced within even-aged stands of planted pine. This in turn reduces the variety and quantity of fruit and nut production to support animal species. The restoration and preservation in the TMS are expected to benefit wildlife by replacing pine production areas with a mosaic of native Florida habitats. Over time the forests are expected to consist of trees at a variety of species and ages that can support a greater variety of animal species. The Fish and Wildlife Conservation Commission has identified the TMS area as a proposed Strategic Habitat Conservation Area for the Gulf salt marsh mink, American bald eagle, little blue heron, one-toed amphiuma, limpkin, Florida pine snake, swallow-tailed kite, and eastern indigo snake. The TMS will increase the amount of native habitat preserved adjacent to Waccasassa Bay. The larger preservation area will allow for larger, more stable populations of species.

Within the Mine Site, the wetland flow ways will be preserved with a conservation easement and enhanced. Approximately 850.4 acres on the Mine Site will be permanently preserved. The conservation easement will not include the three wetland crossings (#1, #2, and #3); however, wetland mitigation includes the removal and restoration of these crossings. The enhancement and preservation of the wetland flow ways within the Mine Site will contribute to a wildlife corridor between the coastal preserves and areas to the east through the reclaimed mining operations area and help maintain surface water flows across the site. Herbicides will be used to treat the mitigation site for nuisance vegetation to limit the spread of nuisance species during mitigation work.

In 2006, Panamerican Consultants, Inc., (PCI) conducted a cultural resource assessment survey on the mining operations area. Based on the results of the fieldwork, PCI recommended that no historic sites or properties will be affected by the proposed mining activities. The Division of Historical Resources reviewed the report and concurred with PCI's recommendation.

Florida History, LLC, conducted a cultural resource assessment of the TMS. Three known archeological sites were identified within the TMS. Beetree Slough (8LV110) is a prehistoric cemetery and habitation site of the Weeden Island Period (400 to 1200 A.D.). Crackerville (8LV468) contained numerous Woodland Stage artifacts that indicate a transition between the Deptford (500 B.C. to 500 A.D.) and Weedon Island Periods. The site has been previously impacted by erosion, logging, and a jeep trail. Turtle Creek North (8LV532) is a Weedon Island midden. There was insufficient information available to make a determination regarding eligibility for the National Register of Historic Places. Florida History, LLC, recommended that all three sites, which are potentially significant, be avoided or tested prior to impact. Due to the proximity of these portions of the project area to previously recorded resources, it was recommended that archaeological testing occur on any open ground surface, and archaeological

monitoring by a professional archaeologist take place during the early part of any ground disturbing activities in proximity to these sites. The Cultural Resource Management Plan was reviewed by the Department of State, Division of Historical Resources (DHR). The DHR requested subsurface testing on 10 percent of the medium probability areas. The project does not propose alteration or disturbance of the area in the vicinity of these archeological sites.

IV. BASIS FOR ISSUANCE

The project will not adversely affect the quality of receiving waters such that the water quality standards set forth in Chapters 62-4, 62-302, 62-520, 62-522 and 62-550, F.A.C., including any antidegradation provisions of rules 62-4.242 (1)(a) and (b), 62-4.242(2) and (3), and 62-302.300, F.A.C. The mining operating areas will be within a surface water management system that will contain the 25-year, 24-hour storm. Best management practices, including silt screens and hay bale barriers, will also be employed to minimize erosion and protect any on-site wetlands from turbid water and sediment. To prevent secondary impacts to habitat functions of wetlands adjacent to activities conducted in uplands, a buffer of at least 25 feet in width will be provided between preserved or avoided wetlands and any mining activities. No chemicals, except water conditioners or pH adjusters which have been approved by the Department as not adversely affecting the quality of the water contained in the mine, will be added to the process water used for transporting, washing or processing of the material. During mining, groundwater quality will be analyzed for the field parameters pH, temperature, specific conductance, turbidity and water level (relative to NAVD). The laboratory parameters are chloride, sulfate, total dissolved solids, combined nitrite and nitrate, total recoverable arsenic, gross alpha, uranium and combined radium 226 and 228. The maximum depth of mining may be limited based on the results of the groundwater quality monitoring program. Surface waters within the preserved wetland flow ways within the Mine Site will be monitored for pH, specific conductance, turbidity, temperature, chloride, sulfate, iron, and arsenic. A water quality screening program for blasting by-products will be conducted. The reclaimed mine lakes will not connect to the preserved, avoided or offsite wetlands during storms less that the 25-year, 24-hour storm.

The project will not violate any special standards for Outstanding Florida Waters and Outstanding National Resource Waters set forth in rule 62-4.242(2) and (3), F.A.C. No Outstanding Florida Waters or Outstanding National Resource Waters are in the project area. Waccasassa Bay State Preserve and Big Bend Seagrasses Aquatic Preserve include Outstanding Florida Waters, but are more than a mile from the Mine Site. Groundwater quality monitoring and surface water quality monitoring in the vicinity of the mining operations are included in this project.

Ambient water quality at depth does not meet groundwater quality standards for sulfate. A zone of discharge for sulfate and other parameters was granted for the industrial waste water permit to the facility's mine site boundary line. All groundwater quality standards must be met at the project boundary line.

The applicant has provided reasonable assurance that the construction, alteration, operation, maintenance, removal or abandonment of the surface water management system will not cause adverse flooding to on-site or off-site property. The project will not cause adverse water quantity impacts to receiving waters or adjacent lands. Two-thirds of the mined-out extraction areas will be backfilled with tailings to limit the rate of groundwater seepage from adjacent wetlands. The operating areas will be able to contain a 25-year, 24-hour storm. There is no special basin or geographic area criteria established in this area by Chapter 40D-4, F.A.C. This project does not include the pumping of water (dewatering) to lower the water table to provide access to the limestone. On-site wetlands that will not be dredged or filled will be protected by 25-foot-wide buffers. Hydrologic monitoring in mitigation and avoided wetlands is required. No adverse secondary impacts to water resources are expected. The construction and final design, as presented in the application, are expected to be capable, based on generally accepted engineering and scientific principles, of being performed and of functioning as proposed. The project includes the reclamation of areas mined and disturbed by mining operations consistent with the requirements of 62C-36, F.A.C.

The project is not expected to cause adverse impacts to existing surface water storage and conveyance capabilities, or impacts to the maintenance of surface or groundwater levels. The constructed wetland crossing at King Road and the three crossings of the unnamed wetland flow ways within the Mine Site will provide culverts sufficient to pass the design storm. The ditch blocks, culvert replacements and low water crossings on TMS will enhance water levels within the TMS by restoring a more historic hydrologic regime.

Reduction and elimination of impacts to wetlands were considered in the design of the project. The wetlands to be dredged or filled have been adversely impacted by years of silvicultural operation, and by the construction of roads and ditches. The dredge, fill and mitigation areas were evaluated using the Uniform Mitigation Assessment Method prescribed by Chapter 62-345, F.A.C. After considering current condition, proposed conditions, risk and time lag, it was determined that the project will not result in a net loss of wetland functions if the mitigation is performed as proposed. The entire life of mine (110 years) was analyzed, and the applicant has demonstrated there will be no unmitigated adverse impacts to wetlands or other surface waters, including cumulative

and secondary impacts. All remaining unavoidable wetland impacts will be mitigated. Wetland mitigation will occur within the same basin as the wetland impacts.

As mitigated, this project is not expected to adversely impact the value of functions provided by wetlands and other surface waters to fish, wildlife, listed species or their habitats. The wetlands to be dredged or filled provided limited habitat values as a result of previous silvicultural practices and road and ditch construction. The wetland enhancement areas, upland enhancement and preservation areas, created lake and littoral zones are expected to provide better quality habitat than presently exists on site. A minimum 25-foot wide upland buffer area will prevent secondary impacts from construction adjacent to preserved or avoided wetlands. The conservation easement over the wetland mitigation areas will prevent secondary impacts to wetland functions from future uses of the property. The TMS is adjacent to extensive preserved native habitat within the Big Bend Seagrasses Aquatic Preserve and Waccasassa Bay State Preserve. This is expected to prevent adverse impacts to the preserves from the proposed construction. The preservation areas will contribute to wildlife corridors and provide a permanent preserved connection to public lands.

The project will be conducted by an entity with the financial, legal, and administrative capability of ensuring that the activity will be undertaken in accordance with the terms and conditions of the permit and a mineral lease for the Mine Site. The project will not involve works of the District. Potentially sovereignty submerged lands on TMS were not included in the wetland mitigation assessment for this project, and no sovereign submerged lands occur on the Mine Site. Public and private access easements through and adjacent to the proposed preservation areas were not included in the wetland mitigation for this project. Tarmac America, the permittee, will be responsible for the operation and maintenance of the proposed surface water management system and the submittal of record drawings for the project. The permittee will provide acceptable financial assurances for wetland mitigation prior to the start of construction. The current landowner, Plum Creek Timberlands, has granted access and authority to the permittee for the construction and operations phase for the entire project area. Tarmac America has a purchase agreement for the TMS.

The proposed permit will have a duration of greater than five years from the date of issuance in order to allow completion of the project. The initial construction phase is 20 years. The applicant has provided data and analysis to assess impacts for the entire life of the mine, 110 years. The applicant has provided reasonable assurance that the impacts of the activity can be and have been accurately assessed and offset where appropriate, and the terms of the permit can be met for the duration of the permit. Water levels in mitigation wetlands will be monitored during mining operations. Sampling and analysis will be conducted annually at all wells for the field parameters

pH, temperature, specific conductance, turbidity and water level (relative to NAVD). The laboratory parameters are chloride, sulfate, total dissolved solids, combined nitrite and nitrate, total recoverable arsenic, gross alpha, uranium and combined radium 226 and 228. Sampling and analysis will be conducted quarterly at all wells for pH, specific conductance, turbidity, water level, sulfates, total dissolved solids, combined nitrite and nitrate, and arsenic.

The project will not adversely affect significant historical and archaeological resources under the provisions of section 267.061, F.S. Historical or archeological sites were not located within the Mine Site. Within the TMS, areas in the vicinity of known archeological sites will not be disturbed by the proposed project. The Department of State, Division of Historical Resources found that the project will not impact any significant historical and archaeological resources.

The project will not impact navigation or the flow of water, or cause harmful erosion or shoaling. The project is not located in, adjacent to or in close proximity to Class II waters or located in Class II waters or Class III waters classified by the Department as approved, restricted or conditionally restricted for shellfish harvesting, as set forth and incorporated in Chapter 16R-7, F.A.C. The project does not include vertical seawalls in estuaries or lagoons. The project is not expected to cause adverse secondary impacts to the water resources. There are expected to be no offsite activities, very closely linked and causally related to the proposed project. The applicant is not known to be in violation of any Department rules adopted pursuant to sections 403.91 through 403.929, F.S. (1984 Supp.), as amended, or any District rules adopted pursuant to Part IV, Chapter 373, F.S., relating to any other project or activity and efforts taken by the applicant to resolve these violations.

The public health, safety, or welfare or the property of others is not expected to be adversely affected. Public and private wells are well outside the zone of discharge. Public and private access easements will not be closed. Wetlands adjacent to the mining operations area will be monitored for any water quantity and quality changes.

Through the above and based on the general/limiting and specific conditions to the permit, the applicant has provided affirmative reasonable assurance that the construction and operation of the activity, considering the direct, secondary and cumulative impacts, will comply with the provisions of Part IV of Chapter 373, F.S., and the rules adopted thereunder, including the Conditions for Issuance or Additional Conditions for Issuance of an environmental resource permit, pursuant to Part IV of Chapter 373, F.S., Chapters 62-330, and sections 40D-4.301 and 40D-4.302, F.A.C. The construction and operation of the activity will not result in violations of water quality

standards and will not degrade ambient water quality in Outstanding Florida Waters, pursuant to rule 62-4.242, F.A.C.

V. PUBLICATION OF NOTICE

The Department has determined that the proposed activity, because of its size, potential effect on the environment or the public, controversial nature, or location, is likely to have a heightened public concern or likelihood of request for administrative proceedings. Therefore, pursuant to subsection 373.413(4), F.S., and paragraph 62-343.090(2)(k), F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue. The notice is required to be published one time within 30 days, in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. The applicant shall provide proof of publication to:

Department of Environmental Protection
Bureau of Mining and Minerals Regulation
2051 East Paul Dirac Drive
Tallahassee, Florida 32310-3760

The proof of publication shall be provided to the above address within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time shall be grounds for denial of the permit.

VI. RIGHTS OF AFFECTED PARTIES

Under this intent to issue, the permit is hereby granted subject to the applicant's compliance with any requirement in this intent to publish notice of this intent in a newspaper of general circulation and to provide proof of such publication in accordance with section 50.051 of the Florida Statutes. This action is final and effective on the date filed with the Clerk of the Department unless a sufficient petition for an administrative hearing is timely filed under sections 120.569 and 120.57 of the Florida Statutes as provided below. If a sufficient petition for an administrative hearing is timely filed, this intent to issue automatically becomes only proposed agency action on the application, subject to the result of the administrative review process. Therefore, on the filing of a timely and sufficient petition, this action will not be final and effective until further order of the Department. When proof of publication is provided, if required by this intent, and if a sufficient petition is not timely filed, the permit will be issued as a ministerial action. Because an administrative hearing may result in the

reversal or substantial modification of this action, the applicant is advised not to commence construction or other activities until the deadlines noted below, for filing a petition for an administrative hearing or request for an extension of time, have expired and until the permit has been executed and delivered. Mediation is not available.

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received by the clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000.

Under rule 62-110.106(4) of the Florida Administrative Code, a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, before the applicable deadline. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon. If a request is filed late, the Department may still grant it upon a motion by the requesting party showing that the failure to file a request for an extension of time before the deadline was the result of excusable neglect.

If a timely and sufficient petition for an administrative hearing is filed, other persons whose substantial interests will be affected by the outcome of the administrative process have the right to petition to intervene in the proceeding. Intervention will be permitted only at the discretion of the presiding officer upon the filing of a motion in compliance with rule 28-106.205 of the Florida Administrative Code.

In accordance with rule 62-110.106(3), petitions for an administrative hearing by the applicant must be filed within 21 days of receipt of this written notice. Petitions filed by any persons other than the applicant, and other than those entitled to written notice under subsection 120.60(3) of the Florida Statutes must be filed within 21 days of publication of the notice or within 21 days of receipt of the written notice, whichever occurs first. Under subsection 120.60(3) of the Florida Statutes, however, any person who has asked the Department for notice of agency action may file a petition within 21 days of receipt of such notice, regardless of the date of publication.

The petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition for an administrative hearing within the appropriate time period shall constitute a waiver of

that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 of the Florida Statutes.

A petition that disputes the material facts on which the Department's action is based must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name, address, and telephone number of the petitioner; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests are or will be affected by the agency determination;

(c) A statement of when and how the petitioner received notice of the agency decision;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;

(e) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action;

(f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action; and

(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts on which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301. Under paragraphs 120.569(2)(c) and (d) of the Florida Statutes, a petition for administrative hearing must be dismissed by the agency if the petition does not substantially comply with the above requirements or is untimely filed.

The Department has determined that the proposed activity, because of its size, potential effect on the environment or the public, controversial nature, or location, is likely to have a heightened public concern or likelihood of request for administrative

proceedings. Therefore, pursuant to subsection 373.413(4), F.S., and rules 62-110.106(5), (7), (9), and (11) and 62-343.090(2)(k), F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue. The notice is required to be published one time, within 30 days of the date of entry of this intent, in the legal advertisements section of a newspaper of general circulation meeting the requirements of sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Within seven days of publication, the applicant must provide proof of publication in the form prescribed by section 50.051, F.S., to:

Department of Environmental Protection
Bureau of Mining and Minerals Regulation
2051 East Paul Dirac Drive
Tallahassee, Florida 32310-3760

Failure to publish the notice and provide proof of publication within the allotted time shall result in denial of the permit.

This intent to issue constitutes an order of the Department. Subject to the provisions of paragraph 120.68(7)(a) of the Florida Statutes, which may require a remand for an administrative hearing, the applicant has the right to seek judicial review of the order under section 120.68 of the Florida Statutes, by the filing of a notice of appeal under rule 9.110 of the Florida Rules of Appellate Procedure with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within 30 days from the date when the order is filed with the Clerk of the Department. The applicant, or any party within the meaning of paragraph 373.114(1)(a) or section 373.4275 of the Florida Statutes, may also seek appellate review of the order before the Land and Water Adjudicatory Commission under subsection 373.114(1) or section 373.4275 of the Florida Statutes. Requests for review before the Land and Water Adjudicatory Commission must be filed with the Secretary of the Commission and served on the Department within 20 days from the date when the order is filed with the Clerk of the Department.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at the Department of Environmental Protection, Bureau of Mining and Minerals Regulation, 2051 East Paul Dirac Drive, Tallahassee, Florida 32310-3760.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Richard W. Cantrell

Richard W. Cantrell, Deputy Director
Division of Water Resource Management
2051 East Paul Dirac Drive
Tallahassee, Florida 32310-3760
850/488-8217

Copies furnished to:

USACOE, Pensacola (Application No. SAJ-2007-05537)
DEP, Northeast District, Environmental Resource Permitting
DEP, Northeast District, Industrial Wastewater Section
DEP, Div of State Lands, Off of Env Sev, Paula L. Allen
DEP, Div of Rec and Parks, B of Natural and Cultural Resources, Parks Small
DEP, Div of Rec and Parks, Northeast District 2, District Biologist
DEP, Div of Rec and Parks, Waccasassa Bay Preserve State Park
DEP, Div of Rec and Parks, Crystal River State Preserve
DEP, CAMA, Lee Edmiston
DEP, CAMA, Melissa Charbonneau
DEP, Springs Coordinator, Connie Bersok
FWLCC, Mary Ann Poole
FWLCC, Tim King
SWFWMD, Permitting
SWFWMD, Policy and Planning, Coastal Zone
Levy County, Development Department, Rob Corbitt
Levy County, Road Department
Plum Creek Timberlands, LP
Lampl Herbert Consultants, Inc., Gregory M. Hitz
Mitigation Marketing, LLC, Lynn M. Zenczak
Withlacoochee Area Residents, Inc., Dan Hilliard
File

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this permit, including all copies, was mailed before the close of business on June 18, 2010 to the above listed persons.

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to 120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Marjane C. Monahan 6/18/10
Clerk Date

107 pages attached.

Type of Permit:	Individual Environmental Resource
Type of Authorization:	N/A
County:	Levy
District:	Mining and Minerals Regulation
Permit/Authorization No.	0244771-002
Applicant:	Tarmac America, LLC
Applicant Address:	455 Fairway Drive Deerfield Beach, FL 33441
Agent:	Albert Townsend, Director
Agent Address:	Same as above
Owner	Plum Creek Timberlands, LP
COE No.	SAJ-2207-05537
Chapters (F.S.):	Part IV of 373
Chapters (F.A.C.):	62-4, 62-302, 62-330, 62-343
Public Law:	92-500
Sections (F.S.):	373.413 and 373.414
Application Date:	October 20, 2008
Name of Project:	Tarmac King Road Mine
Acres Owned:	0
Project Acreage:	9,277.0

PROJECT DESCRIPTION

The applicant, Tarmac America, LLC, applied on October 20, 2008 to the Department of Environmental Protection for a permit/water quality certification to construct a surface water management system for a new limestone mine in Levy County. The applicant has a lease from Plum Creek Timberlands, LP, for mining and wetland mitigation within an approximately 4,750.5-acre Mine Site, and an option to purchase approximately 4,526.5-acre for mitigation, the Tarmac Mitigation Site (TMS). The total project area including mining and mitigation areas is approximately 9,277.0 acres.

The system will be capable of impounding 224 acre-feet and containing a 25-year, 24-hour storm. The system will include 2,756.9 acres of extraction for mining and 987.2 acres of other disturbances supporting mining operations. The maximum depth of mining will be to 120 feet below original ground surface. Tailings from the material processing area and overburden will be used to backfill mined-out areas to an upland grade above the water table. A total of approximately 1,439.9 acres of lakes and 48.7 acres of littoral zones will remain after reclamation is complete.

The proposed mining activities would impact 2,359.3 acres of wetlands and other surface waters. Approximately three-fourths of the wetlands to be dredged or filled

have been converted to silviculture plantations. The remaining areas of wetlands have been impacted to varying degrees by the silvicultural operations, and the construction of ditches and roads. Wetland mitigation will include approximately 4,439.8 acres of restoration and preservation at the TMS and approximately 850.4 acres of restoration and preservation on the Mine Site. As part of mitigation there will be hydrologic enhancements of wetlands within the TMS by the installation of ditch blocks, replacement of crushed or blocked culverts, and the installation of low water crossings. Community structure will be enhanced within the mitigation areas of the Mine Site and TMS by the control of exotic and nuisance plant species, the final harvesting of commercial timber, and the selective reduction of pine density. Appropriate native plant species are required to be planted if natural recruitment of desired species is not successful. This enhancement will return these areas to a hydric hammock-mesic hammock ecosystem that existed prior to silviculture.

Mining will progress without dewatering. Approximately 5 acres of impervious areas will be constructed for support facilities. Additional wetland areas will be filled by the widening of King Road and the construction of three crossings through an unnamed wetland flow ways on the Mine Site. Culverts will be provided to pass the design storm.

Hydrologic monitoring will be provided within wetlands and other surface waters not directly dredged/filled and in wetland mitigation areas. Groundwater quality monitoring will be provided for the Mine Site. Surface water quality monitoring will be provided in the unnamed wetland flow ways within the Mine Site.

The postreclamation land use for the Mine Site will be silviculture and man-made lakes. The estimated life of the mine, including reclamation, is 110 years. The initial construction phase of the permit is 20 years.

LOCATION

The project is located approximately five miles north of Inglis, at the west end of King Road, in Sections 2, 3, 6 through 11, 14 through 23, 29 and 30, Township 16 South, Range 16 East, Section 31, Township 15 South, Range 16 East, Sections 1 through 3, 11 to 13 and 24, Township 16 South, Range 15 East and Sections 25 through 27, 34 through 36, Township 15 South, Range 15 East, in Levy County.

GENERAL CONDITIONS

1 All activities shall be implemented as set forth in the plans, specifications and performance criteria as approved by this permit. Any deviation from the permitted

activity and the conditions for undertaking that activity shall constitute a violation of this permit.

2. This permit or a copy thereof, complete with all conditions, attachments, exhibits, and modifications, shall be kept at the work site of the permitted activity. The complete permit shall be available for review at the work site upon request by Department staff. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.

3. Activities approved by this permit shall be conducted in a manner which does not cause violations of state water quality standards. The permittee shall implement best management practices for erosion and a pollution control to prevent violation of state water quality standards. Temporary erosion control shall be implemented prior to and during construction and permanent control measures shall be completed within 7 days of any construction activity. Turbidity barriers shall be installed and maintained at all locations where the possibility of transferring suspended solids into the receiving waterbody exists due to the permitted work. Turbidity barriers shall remain in place at all locations until construction is completed and soils are stabilized and vegetation has been established. Thereafter the permittee shall be responsible for the removal of the barriers. The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources.

4. Water quality data for the water discharged from the permittee's property or into the surface waters of the state shall be submitted to the Department as required by the permit. Analyses shall be performed according to procedures outlined in the current edition of Standard Methods for the Examination of Water and Wastewater by the American Public Health Association or Methods for Chemical Analyses of Water and Wastes by the U.S. Environmental Protection Agency. If water quality data are required, the permittee shall provide data as required on volumes of water discharged, including total volume discharged during the days of sampling and total monthly volume discharged from the property or into surface waters of the state.

5. Department staff must be notified in advance of any proposed construction dewatering. If the dewatering activity is likely to result in offsite discharge or sediment transport into wetlands or surface waters, a written dewatering plan must either have been submitted and approved with the permit application or submitted to the Department as a permit prior to the dewatering event as a permit modification. A water use permit may be required prior to any use exceeding the thresholds in Chapter 40D-2, F.A.C.

6. Stabilization measures shall be initiated for erosion and sediment control on disturbed areas as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased.

7. Off site discharges during construction and development shall be made only through the facilities authorized by this permit. Water discharged from the project shall be through structures having a mechanism suitable for upstream stages.

8. The permittee shall complete construction of all aspects of the surface water management system, including wetland compensation (grading, mulching and planting), water quality treatment features, and discharge control facilities prior to beneficial occupancy or use of the development being served by this system.

9. The following shall be properly abandoned or removed:

    a. Any existing wells in the path of construction shall be properly plugged and abandoned by a licensed well contractor.

    b. Any existing septic tanks on site shall be abandoned at the beginning of construction.

    c. Any existing fuel storage tanks and fuel pumps shall be removed at the beginning of construction.

10. All surface water management systems shall be operated to conserve water in order to maintain environmental quality and resource protection; to increase the efficiency of transport, application and use; to decrease waste; to minimize unnatural runoff from the property; and to minimize dewatering of offsite property.

11. At least 48 hours prior to commencement of activity authorized by this permit, the permittee shall submit to the Department a written notification of commencement indicating the actual start date and the expected completion date.

12. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the occupation of the site or operation of site infrastructure located within the area served by that portion or phase of the system. Each phase or independent portion of the system

must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of that phase or portion of the system to a local government or other responsible entity.

13. Within 30 days after completion of construction of the permitted activity, the permittee shall submit a written statement of completion and certification by a registered professional engineer or other appropriate individual as authorized by Sections 373.117 or 403.0877, or Chapters 471, 472, 481, or 492, F.S., utilizing the required Statement of Completion and Request for Transfer to Operation Entity Form 62-343.900(7), effective July 4, 1995, and adopted by reference in Rule 62-343.900, F.A.C. Additionally, if deviations from the approved drawings are discovered during the certification process the certification must be accompanied by a copy of the approved permit drawings with deviations noted.

14. This permit is valid only for the specific processes, operations and designs indicated on the approved drawings or exhibits submitted in support of the permit application. Any substantial deviation from the approved drawings, exhibits, specifications or permit conditions, including construction within the total land area but outside the approved project area(s), may constitute grounds for revocation or enforcement action by the Department, unless a modification has been applied for and approved pursuant to Rule 62-343.100, F.A.C. Examples of substantial deviations include excavation of ponds, ditches or sump areas deeper than shown on the approved plans.

15. The operation phase of this permit shall not become effective until the permittee has complied with the requirements of the conditions in subsection (1) above, the Department in accordance with subsections 2.6 through 2.6.3 of the BOR for Environmental Resource Permit Applications within the SWFWMD adopted by reference in Rule 40D-4.091, F.A.C., determines the system to be in compliance with the permitted plans, and the entity approved by the Department accepts responsibility for operation and maintenance of the system. The permit may not be transferred to the operation and maintenance entity approved by the Department until the operation phase of the permit becomes effective. Following inspection and approval of the permitted system by the Department, the permittee shall request transfer of the permit to the responsible operation and maintenance entity approved by the Department, if different from the permittee. Until the permit is transferred pursuant to subsection 2.6.1 of the BOR for Environmental Resource Permit Applications within the SWFWMD adopted by reference in Rule 40D-4.091, F.A.C., the permittee shall be liable for compliance with the terms of the permit.

16. Should any other regulatory agency require changes to the permitted system, the Department shall be notified in writing of the changes prior to implementation so that a determination can be made whether a permit modification is required.

17. This permit does not eliminate the necessity to obtain any required federal, state, local and special Department authorizations including a determination of the proposed activities' compliance with the applicable comprehensive plan prior to the start of any activity approved by this permit.

18. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the permit and Chapter 40D-4 or 40D-40, F.A.C.

19. The permittee shall hold and save the Department harmless from any and all damages, claims, or liabilities which may arise by reason of the activities authorized by the permit or any use of the permitted system.

20. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding unless a specific condition of this permit or a formal determination under Rule 40D-4.042, F.A.C., and subsections 3.4 through 3.4.6 of the BOR for Environmental Resource Permit Applications within the SWFWMD adopted by reference in Rule 40D-4.091, F.A.C.

21. The permittee shall notify the Department in writing within 30 days of any sale, conveyance, or other transfer of ownership or control of the permitted system or the real property at which the permitted system is located. All transfers of ownership or transfers of a permit are subject to the requirements of Rule 62-343.130, F.A.C. The permittee transferring the permit shall remain liable for any corrective actions that may be required as a result of any permit violations prior to such sale, conveyance or other transfer.

22. Upon reasonable notice to the permittee, Department authorized staff with proper identification shall have permission to enter, inspect, sample and test the system to insure conformity with Department rules, regulations and conditions of the permits.

23. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the Department and the Florida Department of State, Division of Historical Resources.

24. The permittee shall immediately notify the Department in writing of any previously submitted information that is later discovered to be inaccurate.

SPECIFIC CONDITIONS

1. **Superseded Permits.** This permit supersedes and replaces the environmental resource permit (Permit No. 44029159.000, which was issued by the Southwest Florida Water Management District (SWFWMD) on February 22, 2006 for a prospecting lake and environmental resource permit No. 44029159.001, which was issued by SWFWMD on August 16, 2007 for a 9.69-acre equipment storage and assembly area. The terms and conditions of the new permit incorporate appropriate terms and conditions of the existing permit and thereby terminates the effectiveness of the existing permit.

2. **Project Area.** The project area consists of two regions identified in this permit and as shown on Figure 2-3, "2009 Aerial":

    a. The Tarmac Mitigation Site/Parcel (TMS) consists of a conservation easement/wetland mitigation areas.

    b. The Mine Site/Parcel consists of extraction areas, material processing areas, other mining support facilities, and conservation easement/wetland mitigation areas.

3. **Permit Compliance.** The purpose of this permit is to authorize the creation of a surface water management system on certain described lands within the jurisdiction of the Department. In exchange for this authorization, the permittee is obligated to perform certain acts that are described herein. A material part of the reasonable assurances the Department is relying upon in issuing this permit is that the permittee will timely and completely implement all of the conditions of this permit. The permittee understands that its failure to completely and timely comply with all of the conditions of this permit may result in a revocation or suspension of the permit and, if appropriate, that the area be restored.

4. **State Lands.** The permittee is hereby advised that Florida law states: "No person shall commence any excavation, construction, or other activity involving the use of sovereign or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund or the Department of Environmental

Protection under Chapter 253, F.S., until such person has received from the Board of Trustees of the Internal Improvement Trust Fund the required lease, license, easement, or other form of consent authorizing the proposed use." Pursuant to Chapter 18-14, F.A.C., if such work is done without consent, or if a person otherwise damages state land or products of state land, the Board of Trustees may levy administrative fines of up to $10,000 per offense.

5. **"Good Cause Rule".** The permittee is hereby advised that rule 62-343.100(1)(c), F.A.C., provides that for good cause and after notice to the permittee, the Department may require the permittee to conform to new or additional conditions to this permit. Circumstances that constitute "good cause" shall include any of the situations listed in the referenced rule.

6. **Formal Wetland Determination.** Formal Determinations, FD-38-0244771-001, FD-38-0276624-001, FD-38-0276628-001, FD-38-0276629-001 and FD-38-0276630-001 were issued by the Department on November 16, 2009. The formal wetland determinations were conducted on the Mine Site only. This statement identified the landward extent of wetlands and other surface waters throughout the Mine Site included in this Permit No. 0244771-002.

Construction

7. **Drawing Conflicts.** The project shall be conducted in compliance with the permit drawings, plans, figures, and narratives which identify location, schedule, notification, and reclamation and mitigation activities. If the approved permit drawings conflict with the specific conditions, then the specific conditions shall prevail.

8. **Historical or Archaeological Sites.** Three archaeological sites are located on and adjacent to the northwest quadrant of the TMS. Proposed earth disturbing activities are not authorized in the vicinity of the known archaeological sites.

9. **Listed Species.** Permits shall be obtained from the Florida Fish and Wildlife Conservation Commission prior to the "taking" of any listed animal species. Listed animal species are those animal species listed in rules 68A-27.003, 68A-27.004, and 68A-27.005, F.A.C. Taking means: taking, attempting to take, pursuing, hunting, molesting, capturing, or killing any listed species, their nests or eggs, by any means, whether or not such actions result in obtaining possession.

10. **Dredging and Filling Limits.** All wetland and surface water areas to be dredged or filled shall be in accordance with the attached permit drawings and shall not

exceed the locations, areas and depths indicated on those drawings. Approximately 2,359.3 acres of wetlands and other surface waters at the Mine Site may potentially be dredged/filled or secondarily impacted, as shown on Figure 2-6, "FLUCFCS Map." Within the Mine Site dredging and filling are not authorized within the 100-foot setbacks along the lease/boundary lines, the preservation areas, and areas designated as "Not Disturbed" on the figure titled, "Mine Project Acreages."

11. **Fill Material.** All material used as fill in wetlands or other surface waters shall be clean overburden, sand, rock or shell material and shall not be contaminated with vegetation, garbage, trash, tires, hazardous, toxic waste or other materials that are not suitable for road construction within waters of the state as so determined by the Department.

12. **Extraction Limits.** Expansion of the extraction areas beyond the limits identified for extraction areas (mine blocsk), as shown on Sheet S-2, "Site Plan," is not authorized.

13. **Excavation Depth.**

    a. In no case shall excavation extend to depths greater than 120 feet below original land surface anywhere within the project area. In no case shall excavation extend to depths where chloride levels equal or exceed 225 mg/L, or where the combined radium 226 and radium 228 levels equal or exceed 5 picocuries per liter, or the gross alpha levels equal or exceed 15 picocuries per liter. The depths are absolute limits for excavation and do not authorize over dredging.

    b. Water quality at depth shall be determined through an exploratory drilling program prior to mining. In addition to the water quality data previously collected as a function of depth at Monitoring Wells MW-8, MW-9, and MW-10, water samples shall be obtained prior to commencement of mining in Mine Blocks 1, 2, 3, 4 and 5 shown on Sheet S-2, "Site Plan." Groundwater samples shall be collected at 10-foot intervals to the expected mining depth at the locations of proposed Monitor Wells MW-15, MW-17, MW-19 and MW-21, as shown on Figure MP-11, "Groundwater Monitoring Plan." If chloride levels exceed 100 mg/L in any of these wells above elevation -120 North American Vertical Datum of 1988 (NAVD88), additional exploratory wells shall be drilled prior to commencing mining within each of the remaining Mine Cells. These additional exploratory borings, if needed, shall be drilled at a frequency of one exploratory well per each additional 75 acres of proposed mining. The results

of the pre-extraction screening shall be provided to the Department at least one month prior to the start of blasting operations and extraction. Should chloride levels equal or exceed 225 mg/L in any sample, or the combined radium 226+radium 228 levels equal or exceed 5 picocuries per liter, or the gross alpha levels equal or exceed 15 picocuries per liter, the permittee shall not excavate to the affected depth without prior approval (permit modification) of the Department.

14. **Stormwater Containment.** Mining and mining related activities shall be conducted at all times within a stormwater system capable of containing a 25-year, 24-hour storm. All construction, operation, and maintenance of the stormwater system shall be as set forth in the plans, specifications, and performance criteria contained in the Department file and approved by this permit.

15. **Hazardous Materials Containment.** A separate containment area for equipment maintenance and the storage of petroleum and hazardous substances shall be constructed on site to retain surface water from entering the mine pit. The containment area shall be built to confine stormwater to the volumetric requirements of Section 5.2 of the BOR for Environmental Resource Permit Applications within the SWFWMD.

16. **Surface Water Storage Structures.**

    a. On-site berms, including stormwater ponds, dredge pond dikes, or tailings disposal area dikes shall not store flowable liquid more than four feet above natural grade.

    b. All water management structures shall be constructed of clean fill, devoid of materials or vegetation that could allow water to be piped through the structure. Earthen material should be placed in lifts no greater in depth than one foot and compacted until the density meets or exceeds 95 percent of the Standard Proctor maximum density. A minimum of three feet of freeboard should be provided above the expected high water level within the containment system. Tops of containment berms should provide a five-foot top width around the aggregate plant area and a ten-foot top width around the mining pits, and should be sloped downward at one to two percent toward the interior of the containment system. Interior and exterior sides of berms should be sloped no steeper than three horizontal to one vertical.

    c. Vegetated surface water containment structures shall be mowed annually to control woody vegetation.

d. Topsoil storage piles or berms constructed as safety barriers for mobile equipment or vehicles shall not be utilized to store flowable liquid, but may be used to divert stormwater to sumps. Water deeper than one foot above grade shall be pumped away from these structures as expeditiously as possible.

17. **System Changes.** No modifications or additions shall be made to this facility which could alter the stormwater management and storage characteristics of the facility without prior modification of this permit. The stormwater treatment facility shall at all times be maintained in good working order and operate as efficiently as practicable. All installed treatment facilities shall be operated to achieve the highest practical level of treatment.

18. **Groundwater Seepage.** The project is in a region where the creation of large lakes has the potential to increase in the westward rate of groundwater seepage. An increase in the rate of groundwater seepage could adversely drain up gradient wetlands.

    a. The permittee shall control the rate of groundwater seepage by backfilling certain extraction areas with clean overburden and/or tailings from the processing of limestone. The backfilled mine cells, as shown on Sheet S4, "Final Site Plan," shall be filled to an upland elevation as shown on Sheet D4, "Proposed Mining & Reclamation Sections." The final ground surface elevations shall be how enough to prevent wetlands or other surface waters from becoming established within these areas.

    b. The permittee shall maintain unmined strips between adjacent cells (mine blocks) as represented on Sheet S-4, "Final Site Plan," that shall be a minimum of 100 feet in width.

19. **Training.** The permittee shall provide permit compliance training.

    a. Training shall be provided to the staff of the permittee and contractors who will be supervising construction, modification, alteration, or removal of the surface water management system, or conducting inspections of the surface water management system.

    b. Training shall be conducted for newly hired staff or contractors within the first three months of their starting date.

c. Refresher training shall be conducted annually for all permittee staff and contractors who supervise construction, modification, alteration, or removal of the surface water management system, or permittee staff and contractors responsible for conducting inspections of the surface water management system.

d. The training shall explain the design, construction methods, operation, maintenance, inspection, and reporting requirements for the surface water management system.

e. The permittee shall maintain a list of individuals trained. The list shall include the training date and a brief identification of the individual's responsibility with regards to the surface water management system. The list shall be provided to the Department upon request.

20. **Offsite Flooding.** The permittee shall take all reasonable steps necessary to eliminate the risk that there will be flooding on lands not controlled by the permittee caused by silting or damming of stream channels, channelization, slumping or debris slides, uncontrolled erosion, or intentional spoiling or diking, or other similar actions within the control of the permittee.

21. **Erosion and Sediment Control.** Immediately prior to, during construction, and for the period of time after construction to allow for stabilization of all disturbed areas, the permittee shall implement and maintain erosion and sediment control best management practices, such as silt fences, erosion control blankets, mulch, sediment traps, polyacrylamide (PAM), temporary grass seed, permanent sod, and floating turbidity screens to retain sediment on-site and to prevent violations of state water quality standards. These devices shall be installed, used, and maintained at all locations where the possibility of transferring suspended solids into the receiving waterbody exists due to the permitted work, and shall remain in place at all locations until construction is completed and soils are permanently stabilized. All best management practices shall be in accordance with the guidelines and specifications described in *The Florida Stormwater, Erosion, and Sediment Control Inspector's Manual,* Florida Department of Environmental Protection and Florida Department of Transportation, Sixth Impression, (April 2006), and the *State of Florida Erosion and Sediment Control Designer and Reviewer Manual* (prepared for the Florida Department of Transportation and Florida Department of Environmental Protection by HydroDynamics in cooperation with Stormwater Management Academy (June, 2007). The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources as soon as practicable.

22. **Construction Adjacent to Wetlands or Other Surface Waters.** Prior to stockpiling material, waste, overburden, etc., in the vicinity of a wetland or other surface waters; or conducting any other earth-disturbing activity in the vicinity of a wetland or other surface waters, the permittee shall implement measures to protect on-site and off-site wetlands and other surface waters from turbidity and sediment.

    a. The permittee shall instruct all personnel associated with the project that earth-disturbing activities, including the stockpiling of material or waste, shall not occur within wetlands or other surface waters, nor adjacent to wetlands or other surface waters, where turbidity and sediment control devices are not present.

    b. To prevent secondary impacts to habitat functions of wetlands adjacent to activities conducted in uplands, the permittee shall maintain an upland buffer with a minimum width of 25 feet abutting each wetland that will not be dredged or filled. Earth-disturbing activities, (including land clearing, mining, materials berm construction, and waste stockpiling), shall not be conducted within the buffers or the limits of any un-permitted (avoided) wetlands or other surface waters. Adjacent to any earth-disturbing activities or material/waste piles, the boundary of the upland buffer shall be clearly identified in the field with stakes and flagging at a 50-foot or shorter interval, or with sediment and turbidity control structures.

    c. Best management practices for turbidity and erosion control shall be implemented and maintained, during earth-disturbing activities adjacent to wetlands or other surface waters, to prevent siltation and turbid discharges in excess of state water quality standards pursuant to Chapter 62-302, F.A.C. Staked filter cloth, staked hay bales, or other turbidity and sediment control devices shall be installed, where appropriate. The toe of each staked filter cloth shall be buried and panels shall have at least a three-foot staked overlap area. All turbidity and sediment control devices shall be installed prior to the disturbance. All turbidity and sediment control devices shall be maintained until disturbed areas have sufficiently stabilized and vegetated to prevent water quality violations, or the movement of sediment.

    d. All wetland areas or other surface waters which are adjacent to the specific limits of construction authorized by this permit shall be protected from erosion, sedimentation, siltation, scouring, excess turbidity or dewatering. All exposed and disturbed land surfaces up gradient from wetlands or other surface waters shall be stabilized with sod, seed or mulch immediately following completion of final grades to prevent erosion. Land surfaces up gradient from wetlands or

other surface waters shall be stabilized at all times during and after construction so as to prevent any erosion, sedimentation, siltation, or scouring. A vegetative cover that stabilizes and prevents erosion of the material shall be established within 60 days of final grading. (Upon establishment of a substantial vegetative cover, all turbidity barriers/erosion control devices may be removed.)

e. Although not reasonably anticipated, should any of the preserved or avoided wetlands be degraded by activities, additional wetland mitigation shall be required.

23. **Construction within Wetlands or Other Surface Waters.** The project includes dredging or filling activities adjacent to mitigation and avoided wetlands or other surface waters. The permittee shall implement measures to protect the avoided portions of wetlands and surface waters from turbidity and sediment.

a. The permittee shall instruct all personnel associated with the project that earth-disturbing activities, including the stockpiling of material or waste, shall not occur within wetlands or other surface waters, nor adjacent to wetlands or other surface waters, where turbidity and sediment control devices are not present.

b. Prior to dredging or filling, the limits of the proposed dredge or fill areas shall be clearly flagged and staked by the permittee. All construction personnel shall be shown the location(s) of all wetland areas outside of the construction area to prevent encroachment into these areas.

c. Prior to the initiation of any work authorized by this permit within wetlands or other surface waters, staked filter cloth, staked hay bales, floating turbidity screens with weighted skirts that extend to the bottom, or other turbidity devices, where appropriate, shall be placed adjacent to the approved dredge or fill area. These devices shall be maintained and shall remain in place for the duration of the project construction to ensure that turbidity levels outside the construction area do not exceed 29 Nephelometric Turbidity Units (NTU's) above background levels. The permittee shall be responsible for ensuring that turbidity control devices are inspected daily and maintained in good working order so that there are no violations of state water quality standards outside of the turbidity screens. Turbidity shall be monitored as described in the monitoring portion of this permit.

d. Best management practices for turbidity and erosion control shall be implemented and maintained, during earth-disturbing activities adjacent to wetlands or other surface waters, to prevent siltation and turbid discharges in excess of state water quality standards pursuant to Chapter 62-302, F.A.C. Staked filter cloth, staked hay bales, or other turbidity and sediment control devices shall be installed, where appropriate. The toe of each staked filter cloth shall be buried and panels shall have at least a three-foot staked overlap area. All turbidity and sediment control devices shall be installed prior to the disturbance. All turbidity and sediment control devices shall be maintained until disturbed areas have sufficiently stabilized and vegetated to prevent water quality violations, or the movement of sediment.

e. All wetland areas or other surface waters which are adjacent to the specific limits of construction authorized by this permit shall be protected from erosion, sedimentation, siltation, scouring, excess turbidity or dewatering. All exposed and disturbed land surfaces up gradient from wetlands or other surface waters shall be stabilized with sod, seed or mulch immediately following completion of final grades to prevent erosion. Land surfaces up gradient from wetlands or other surface waters shall be stabilized at all times during and after construction so as to prevent any erosion, sedimentation, siltation, or scouring. A vegetative cover that stabilizes and prevents erosion of the material shall be established within 60 days of final grading. Upon establishment of a substantial vegetative cover, all turbidity barriers/erosion control devices may be removed.

f. Although not reasonably anticipated, should any of the preserved or avoided wetlands be degraded by activities additional wetland mitigation shall be required.

24. **Road Construction.** Sheet S6, "Temporary Road Plan," shows the general location of roads to be constructed interior to the project area. The roads will cross through wetlands and other surface waters authorized for dredging or filling. During construction and operation of the roads, the mitigation and avoided wetlands shall be protected from turbidity and sediment. Swales will be provided to control stormwater runoff from roads.

25. **Construction Adjacent to Property/Lease Lines.** Where the permittee does not own or control adjacent parcels, prior to conducting earth-disturbing activity (including grubbing, berm construction, stockpiling material, etc.) in the vicinity of a property/lease line, the permittee shall implement measures to protect adjacent property from sediment or other material.

a. The permittee shall instruct all personnel associated with the project that earth-disturbing activities, including the stockpiling of material or waste, shall not occur adjacent to property/lease lines where turbidity and sediment control devices are not present.

b. A minimum setback distance of 100 feet shall be maintained between any earth-disturbing activities and the property/lease line.

c. The permittee shall utilize turbidity and sediment control devices to prevent earthen materials, wastes, debris, etc., from migrating off of the property.

26. **Wetland Crossing Construction.** The project includes the construction or modification of four crossings over the wetland flow ways of the Mine Site, as depicted on Sheet S3, "10-Year Mining Plan." The four wetland crossings are shown in plan view on Sheets L1, L2 and L3, "Wetland Crossing Layout."

a. The wetland crossing along King Road will be upgraded to improve access to US 19/98, as shown on Sheet L1, "Wetland Crossing Layout," and Cross Section R on Sheet D9, "Wetland Crossing Sections and Details." It is anticipated that the crossing will be constructed at the start of mining operations and will remain in place after reclamation.

b. To minimize adverse impacts to wetland resources of the wetland flow ways, no crossing shall be constructed until necessary to relocate the dragline to other areas of the Mine Site. Wetland Crossing #1 shall not be constructed until after extraction has started in Mine Blocks 1 through 3. Wetland Crossing #2 shall not be constructed until after extraction has started in Mine Blocks 4 through 15. Wetland Crossing #3 shall not be constructed until after extraction has started in Mine Blocks 16 through 23.

c. Wetland Crossings #1, #2 and #3 are divided into two sections - a temporary dragline crossing and an access road/utility crossing.

1) The temporary dragline crossings will be constructed with a 100-foot crest width to accommodate the dragline which has a footprint of 92 feet, as shown on Cross Section L on Sheet D6, "Post Mining and Construction Sections." The temporary dragline crossings will be removed and the area will be reclaimed immediately after the dragline has maneuvered across it. The area disturbed by the temporary dragline crossing shall be

recontoured to the predisturbance grade, and stabilized to prevent erosion and facilitate revegetation by native plant species.

2) The access road/utility crossing will be constructed parallel to the temporary dragline crossings, with a maximum width of 56 feet at their crests as shown on Cross Section F, of Sheet D2, "Proposed Ming and Construction Sections," Cross Section N on Sheet D7, "Future Wetland Crossing Sections," and Cross Section Q on Sheet D8, "Future Wetland Crossing Sections." A swale adjacent to the wetlands shall be constructed to contain stormwater runoff from the filled crossing. Culverts shall be provided to pass stormwater along the wetland flow ways during the design storm.

d. Construction within the wetland flow ways of the Mine Site shall be conducted during dry or low flow conditions. When water is present, turbidity monitoring shall occur daily 50 feet upstream and 50 feet downstream until fill areas are stabilized, as required by Specific Condition No. 56.

e. Best management practices for turbidity and erosion control, as outlined in General Condition No. 3 and Specific Condition Nos. 21 and 23, shall be used and maintained at all times beginning prior to construction and through crossing removal and stabilization.

f. Geotextile fabric shall be installed over the crossing area prior to fill placement. Clean sand or other suitable fill material shall be compacted over the crossing area, and the side slopes sodded within 48-hours to stabilize the crossing area and prevent turbid runoff. Protective riprap shall be installed on the upstream face at the transition of the slope and at the culvert discharge areas to prevent erosion.

g. All culverts shown on the plans shall be installed and maintained to function, as shown on Sheets D4, D7, D8 and D9.

h. Stormwater swales shall be constructed along the length of one downslope shoulder of each crossing, as shown in Sheets D2, D7, D8, and D9. Stormwater runoff from the crossing surface, up to the first inch of rain, shall be directed to a stormwater basin for containment and treatment.

i. Certified as-built engineering drawings for the dragline and utility crossings shall be submitted to the Department within 30 days of completion of construction.

j. After completion of extraction in a region of the mine site, a temporary dragline crossing will be reconstructed to maneuver the dragline to the next region. To minimize adverse impacts to wetlands resources of the wetland flow ways no temporary wetland crossing shall be reconstructed until necessary relocate the dragline to other mining regions. The area disturbed by the temporary dragline crossing shall be recontoured to the predisturbance grade, and stabilized to prevent erosion and facilitate revegetation by native plant species.

k. Pursuant to the Final Site Plan, as shown in Sheet S4, when the crossings are no longer required to support mining operations, the crossings shall be minimized and restored consistent with the Post Reclamation Wetland Road Cross Section, as shown on Sheet D6, "Proposed Mining and Construction Sections:"

1) Wetland Crossing #1 shall be restored as part of the release of reclaimed lands within Mine Blocks 5 through 15. Wetland Crossing #2 shall be restored as part of the release of reclaimed lands within Mine Blocks 16 through 20. Wetland Crossing #3 shall be restored as part of the release of reclaimed lands within Mine Blocks 24 through 33.

2) Within the restored portions of each crossing, all fill, geotextile fabric, culverts and structures shall be removed and the area contoured to elevations matching the adjacent wetland flow way areas as shown on Sheet D6. All exposed soil shall be seeded and mulched, or sodded within 72 hours after final contouring.

l. The final contours of the restored crossing area shall be surveyed in accordance with general survey procedures utilizing a 50-foot grid and showing elevations to 0.1 foot. Within 60 days of final grading, both a cross section and a topographic map of the crossing site extending the width of the 25-year floodplain, showing sampled points and 0.5-foot contours referenced to NAVD, and certified by a land surveyor or professional engineer registered in the state of Florida, shall be submitted to the Department for approval. All topographic maps shall meet the minimum technical standards as set forth in Chapter 472, F.S.

m. Revegetation shall be done in accordance with the attached, "Planting List for Restoration of Temporary Crossings," and Specific Condition Nos. 41., 42. and 45.

27. **Pipe Lines.** Pipelines will be used to transport tailings within the project area.

    a. All transport pipelines shall be located within the surface water containment system for mining operations, as shown on Sheet D6, "Proposed Mining and Construction Sections." Pipelines shall not be placed along slopes in a manner that can direct surface water flows which can cause erosion of the slope.

    b. Pipelines for transport of materials over wetland crossings shall be double walled, i.e., each pipe shall be fully encased in steel or HDPE pipe. The sleeve encasement shall extend 50 feet beyond the wetland on both ends. The encasement conduits shall extend to and direct any released materials to retention basins lying entirely within the surface water containment system of the mining operations area as shown on Sheets L1, L2 and L3, "Wetland Crossing Layout."

    c. Pipelines shall be protected from damage by equipment. This may include providing flagging and protected vehicle crossings where needed. The movement of abrasive material through pipes is expected to cause wear. Sections of pipe that could discharge to wetlands or other surface waters shall be inspected periodically, and rotated or replaced as needed to prevent failure and discharge.

    d. All pipelines shall be inspected at least once each day of pumping operation. Each inspection shall be documented and kept on file at the facility office. Each inspection report shall contain, as a minimum: date, name of inspector, as-found condition of major system features, and nature and extent of maintenance/repair performed. The reports shall be provided to the Department upon request.

28. **Process Water Treatment.** No chemicals, except water conditioners or pH adjusters which have been approved by the Department as not adversely affecting the quality of the water contained in the mine, shall be added to the process water used for transporting, washing or processing of the sand or limestone.

29. **Dewatering.** The permittee does not propose dewatering. Dewatering activities refer to continuous pumping of water from an active extraction site of 24 continuous hours, or more, in order to maintain workable conditions. The plans for this project did not include a containment system for dewatering operations. The permittee shall obtain a permit modification authorizing dewatering prior to initiation of any dewatering activities. A water/consumptive use permit may be

required prior to any use exceeding the thresholds set by the water management district.

30. **Blast Site Preparation.** When preparing a new location for blasting the permittee shall ensure that the site is free of all spilled fuels, lubricants, solvents, or any other groundwater pollutants. Prior to the initiation of drilling, all drilling equipment shall be inspected for leaks, and shall be maintained in a manner that minimizes ground contamination. If any leaks or spills are found within the blast area, these shall be collected and disposed of in accordance with state law prior to detonation. Blasting agents shall use mineral oil or other material that is low in benzene as compared to fuel oil.

31. **Upland Reclamation.** Within the Mine Site, upland contouring and revegetation (other than for wetland mitigation) shall be established in the following manner:

    a. Contouring activities shall be initiated as soon as practical and be completed no later than one year after the calendar year in which an area becomes available for reclamation and would not interfere with mining operations.

    b. Upland slopes shall be contoured to the standards of Chapter 62C-36, F.A.C.

    c. Vegetation activities shall be initiated as soon as practical and completed no later than one year after the calendar year in which the final contours are established in an area and revegetation activities would not interfere with mining operations. Upland revegetation shall at least meet the standards of Chapter 62C-36, F.A.C.

    d. Mulching, contouring, and other suitable techniques shall be used to enhance stabilization. Should washes or rills develop after revegetation and before final release of the area, the permittee shall repair the eroded areas and stabilize the slopes.

    e. Reclamation activities through revegetation shall be completed within three years of the final cessation of mining operations at the mine.

32. **Shoreline Reclamation.** The lake shorelines are not considered part of the wetland mitigation. The lake littoral zone wetlands shall be created in the following manner:

    a. The contouring for the treatment of final shorelines using stockpiled overburden material shall be initiated and completed no later than one year

after the calendar year in which the length and final location of the shoreline is established and other mining operations have ceased in the area. The permittee may request a waiver of this requirement for any reasonable length of time when necessary to prevent the unacceptable contamination of the resource being extracted.

b. Lake shorelines shall be contoured to the slopes shown on Cross Section H on Sheet D4, "Proposed Mining & Reclamation Sections." Each like shall be surrounded by a berm capable of containing the 25-year, 24-hour storm.

c. Vegetation activities shall be initiated as soon as practical and completed no later than one year after the calendar year in which the final contours are established in an area and revegetation activities would not interfere with mining operations.

d. Littoral zone revegetation shall at least meet the standards of Chapter 62C-36, F.A.C. Appropriate species are those species that are identified as obligate or facultative wet species, as defined by Chapter 62-340, F.A.C., and are native to Levy County.

e. Exotic and nuisance species shall be controlled until the release of the shoreline reclamation. Exotic plant species include, but is not limited to those species listed as Category I or Category II, on the Florida Exotic Plant Council's List of Invasive Species. Nuisance species shall mean those species of flora whose noxious characteristics or presence in sufficient number, biomass, or areal extent may reasonably be expected to prevent, or unreasonably interfere with, the designated use of the waters under consideration, as defined in rule 62-302.200, F.A.C. Nuisance species include but are not limited to: *Azolla caroliniana* (mosquito fern), *Ludwigia leptocarpa* (water-primrose), *Mikania scandens* (climbing hemp vine), *Salvinia rotundifolia* (water spangles), and *Typha* spp. (cattails).

f. Mulching, contouring, and other suitable techniques shall be used to enhance stabilization. Should washes or rills develop after revegetation and before final release of the area, the permittee shall repair the eroded areas and stabilize the slopes.

g. The permittee may use natural recruitment for the revegetation of shorelines; however, erosion shall be controlled and repaired, nuisance and exotic species shall be controlled, and the revegetation of the shorelines shall be completed to meet reclamation standards.

h. Reclamation activities through revegetation shall be completed within three years of the final cessation of mining operations at the mine.

Wetland Mitigation

33. **Wetland Mitigation Summary.** The target habitat types for wetland mitigation to be implemented as part of the reasonable assurances are shown on Figure 3-2, "Mitigation Target Communities" and consists of:

a. Tarmac Mitigation Site (TMS) (approximately 4,332.0 acres)

Wetlands:

- Restoration and preservation of 345.01 acres of hydric hammock from mature hydric pine plantations.
- Restoration and preservation of 1,314.61 acres of hydric hammock from harvested hydric pine plantations.
- Restoration and preservation of 43.13 acres of hydric hammock from cleared natural hammock.
- Preservation of 1,890.9 acres of existing hydric hammock and forested wetlands.
- Preservation of 382.93 acres of existing coastal hydric hammock.
- Preservation of 24.25 acres of existing freshwater herbaceous wetlands and surface waters.

Uplands:

- Preservation of 78.90 acres of existing coastal mesic hammock.
- Restoration and preservation of 35.49 acres of coastal mesic hammock from mature pine plantation.
- Preservation of 47.53 acres of existing mesic hammock.
- Restoration and preservation of 136.03 acres of mesic hammock from mature pine plantations.
- Restoration and preservation of 33.23 acres of mesic hammock from harvested pine plantations.

b. Mine Site (approximately 850.4 acres)

- Restoration and preservation of 156.37 acres of hydric hammock from mature and harvested hydric pine plantation.
- Preservation of 385.08 acres of hydric hammock and forested wetlands.

- Restoration and preservation of 251.00 acres of mesic hammock from mature and harvested pine plantation.
- Preservation of 57.94 acres of mesic hammock.
- Preservation of open water channels associated within the wetland flow ways.

Also at the Mine Site, outside of the preservation area, approximately 13.4 acres of temporary flow way crossings will be partially restored to the preproject elevations and forested wetlands. An 18-foot-wide access roadway with a 57-foot-wide filled and culverted base will remain for silvicultural purposes, as shown on the cross section, "Typical Post Reclamation Wetland Crossing Road," on Sheet D6, "Proposed Mining & Construction Sections."

34. **Preservation Areas.** Prior to the start of any construction authorized by this permit, the permittee shall provide acceptable recorded conservation easements over the following areas, as shown on the attached figures titled, "Mitigation Area Property Owners Map" (4,526.5 acres) and "Mine Parcels" (850.4 acres). The acreage provided is the minimum area for preservation for each parcel.

a. The figures titled, "Mine Parcel - Easements" and "Mitigation Parcel - Easements," show in yellow the roads that pass adjacent to the preservation areas that will remain open to the public or third parties. This includes access easements granted to Levy County. The acreage of these road easements are not considered part of the wetland mitigation assessment for this project.

b. The Mine Site preservation area includes existing roads that were used for the silviculture operation. These roads will remain in place and will be used to access the on-site preservation area for the mitigation activities.

c. The figure titled, "Mitigation Site - Easements," shows in blue roads that pass through or adjacent to the preservation areas that are private, individual easements that are not open to the public. Access to these roads within the preservation areas shall be controlled and limited to the permittee, landowner, access easement owner, Department staff and invitees. The general public access will be controlled and limited to periods when hunting is allowed. The acreage of these road easements are not considered part of the wetland mitigation assessment for this project.

d. The TMS acreage includes some submerged lands that are potentially sovereignty lands because they lie beneath tidally-influenced waters waterward of the mean high water line. Sovereignty submerged lands are lands owned by

the State of Florida acquired by title on March 3, 1845, by virtue of statehood. The wetland mitigation assessment for this project did not include 107.8 acres of saltwater marsh and tidal flats that potentially may be sovereignty submerged lands. It is expected that the surveyed property line will encompass the potentially sovereignty submerged lands to simplify boundary lines. There are no sovereignty submerged lands on the Mine Site.

35. **Preservation Areas.** Construction activities authorized by this permit shall not begin until after the permittee has provided to the Department an acceptable recorded conservation easement over all preservation areas listed in Specific Condition No. 34. and, to the extent necessary, an acceptable recorded access easement over the Mine Site. The preservation areas are shown on the figures titled, "Mine Parcels," and "Mitigation Area Property Owners Map."

    a. The conservation easement shall meet the requirements of section 704.06, F.S. and section 3.3.8 of the BOR of the SWFWMD. Prior to recording the conservation easement, the permittee shall provide to the Department the following documents in draft form for review and approval. Prior to preparing the draft documents the permittee shall request from the Department guidance as to form and contents for the documents. The Department will direct the recording of the conservation easement and, if necessary, the access easement when the following documents have been satisfactorily completed.

        1) The conservation easement.

        2) A title commitment prior to issuance and title insurance after issuance which shall be updated to the date of conveyance. The title commitment shall not contain easements or other encumbrances that conflict with the purposes of the preservation, other than the private road easements identified in figure, Mitigation Parcel – Easements, which were excluded from the wetland mitigation assessment.

        3) Copies of deeds for any encumbrance listed in the title commitment.

        4) A Title, Possession and Lien Affidavit to resolve standard exceptions and other encumbrances listed in the title commitment.

        5) A Subordination Agreement requiring the mortgage holder to subordinate its interest to the terms and conditions of the conservation easement.

6) A copy of the most current county property appraiser's tax statement for the property on which the conservation easement is to be placed. This will be the basis for the amount of title insurance.

7) A boundary survey or special purpose survey of the conservation easement, certified by a Florida registered professional, showing all existing easements and encumbrances, with placement of monuments at corners and reference points of the boundary line. The survey must include visible above-ground manmade structures or other improvements, or include a note that none exist. The survey must include below ground utility easements and other encroachments identified in the title work. Each survey must be prepared according to the Minimum Technical Standards specified in Chapter 61G17-6, F.A.C. This information shall be submitted in recordable form (8 1/2 by 11 inch) and digital form.

8) A Baseline Documentation Report describing the ecological and physical condition of the conservation easement property, and all disturbances and improvements.

9) The access easement providing access to the preservation areas within the Mine Site from King Road to allow Department staff to conduct compliance inspections of the preservation areas after completion of mining and reclamation.

b. The boundary of the conservation easement shall be posted on 100- to 150-foot intervals with signs identifying it as a conservation area for the Department of Environmental Protection and referencing the Department's permit number. This posting shall be completed prior to initiation of mining activities and maintained throughout the construction and operation phases.

c. The TMS conservation easement will prevent timber harvesting, other than the reasonable control of exotic and nuisance species, or selected removal of silvicultural species, as part of land management or habitat restoration. The TMS conservation easement may allow hunting and fishing.

36. **Release of Preservation.** If the project for which this permit was obtained cannot be accomplished for some reason, then pursuant to the provisions of subsection 704.06(4), F.S., the conservation easements and any access easement shall be released by the grantee. In order to receive the release the permittee acknowledges that this permit is no longer required, none of the authorized work has occurred, and must formally request to surrender the permit. The permittee must waive, in writing, all

rights under the permit in exchange for the release. The release will be effective as a part of the surrender. The release shall be provided in recordable form. If part of the dredging/filling activities for which this permit was obtained cannot be accomplished, then the grantor shall be entitled to a partial release of the conservation easements based on a wetland mitigation assessment in accordance with Chapter 62-345, F.A.C.

37. **Fee Simple Land Transfer.** This project anticipates and includes the phased fee simple transfer of lands within the TMS from the permittee to the Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees). The wetland mitigation assessment for this project excludes the potentially sovereignty submerged lands and did not consider the benefits of future state ownership.

    a. Prior to completion of all authorized dredging and filling within the Mine Site, the permittee shall offer to transfer fee title to the TMS to the Board of Trustees. The Board of Trustees may choose to accept or refuse to accept the proposed transfer of fee title of the Tarmac Mitigation Site. If the Board of Trustees chooses to accept the proposed transfer of title, then any and all conservation easements recorded on the TMS shall merge with and be extinguished by conveyance of fee title.

    b. To the extent that all authorized dredging and filling within the Mine Site does not and will not occur, the Department and the permittee may agree to transfer only a portion of the TMS to the Board of Trustees commensurate with the authorized dredging and filling actually undertaken.

    c. Any instrument transferring fee title to the Board of Trustees shall identify the lands for use as conservation lands pursuant to Chapter 259, F.S.

    d. Prior to acceptance of transfer, the permittee shall prepare a draft management plan for the TMS that is consistent with Chapter 259, F.S., and section 253.032, F.S. The management plan shall be submitted to the Department and Board of Trustees for review and editing. Prior to any conveyance of fee title to the Board of Trustees, the applicant shall create and deposit funds into a perpetual management escrow account or trust fund accessible to and for use by the managing entity at the direction of the Board of Trustees. The funds shall be used solely for the control of nuisance and exotics species on the TMS. The amount of funds so deposited shall be mutually agreed upon by the Department and permittee.

e. If the Board of Trustees chooses to refuse to accept the proposed transfer of title, then any and all conservation easements recorded on the TMS shall remain perpetual, and no transfer shall occur. In no event may the Board of Trustees' decision to accept or refuse to accept the proposed transfer of title negatively impact the mitigation value of the TMS, or any wetland or mitigation scoring done pursuant to the Uniform Mitigation Assessment Method.

38. **Mitigation Supervisor.** In order to ensure that the wetland mitigation site is completed in accordance with the requirements of this permit, the permittee shall retain a qualified mitigation supervisor to oversee all aspects of the mitigation site implementation, management, monitoring and corrective actions required in this permit.

a. The mitigation supervisor shall be on site during all mitigation implementation activities and has the responsibility to ensure that the mitigation is conducted in accordance with the permit.

b. Not less than 30 days prior to commencing any wetland mitigation activities authorized in this permit, the permittee shall submit for approval the name of the mitigation supervisor retained to oversee the mitigation site implementation and supporting documentation demonstrating that the mitigation supervisor is qualified to oversee the mitigation. The permittee has the responsibility to ensure that the mitigation supervisor has the requisite experience to oversee the mitigation prior to submitting their name for approval. The mitigation supervisor must be approved prior to commencement of the mitigation work.

c. Within 30 days of the discharge of any approved mitigation supervisor, the permittee shall submit the name and supporting documentation of a new mitigation supervisor to the Department for its review and approval. Note that the mitigation supervisor must be on site during all mitigation implementation activities.

d. The mitigation supervisor must have documented experience in successful mitigation of the type required in this permit. In some cases a mitigation supervisor may be approved if they have less than the specified experience if it can be demonstrated that they have sufficient other professional experience which demonstrates that they should be able to successfully oversee the implementation of the mitigation.

39. **Wetland Mitigation Schedule.** The mitigation shall be implemented as summarized here, to provide Relative Functional Gains (RFG) in relation to the projected timing of Functional Loss in a timely manner. The expected release years are described below, and shown on Figure 5-3, "Release Year Map," and Figure 5-4, "Release Year Map." During construction, changes in the timing of the Functional Loss in relation to the timing of the Relative Functional Gains may result in reassessment of the wetland mitigation plan.

Year 1	558.58 RFG from 850.4 acres of preservation at the Mine Site, 4,332.01 acres of preservation (excluding 107.8 acres of saltwater marsh and tidal flats) in the TMS.
Year 3	103.18 RFG from completion of 2,299.9 acres of hydrologic enhancements on the TMS.
Year 15	238.41 RFG from 445.05 acres of hydric hammock and 455.76 acres of mesic hammock restoration.
Year 24	64.82 RFG from 244.85 acres of hydric hammock restoration with a six year time lag applied.
Year 27	38.86 RFG from 129.55 acres of hydric hammock restoration with a three year time lag applied.
Year 28	48.41 RFG from 155.40 acres of hydric hammock restoration with a two year time lag applied.
Year 29	32.49 RFG from 101.60 acres of hydric hammock restoration with a two year time lag applied.
Year 30	231.58 RFG from 782.70 acres of hydric hammock restoration.

40. **Hydrologic Enhancement.** The permittee shall enhance hydrologic conditions within the TMS, in order to enhance wetland functional values, and suppress upland and exotic plant species within these areas.

    a. Work related to this hydrologic enhancement is shown on Figure 11., "Hydrologic Improvement Map," Sheet 1, "Proposed Ditch Block Detail" and Sheet 1, "Low Level Crossing Detail." This hydrologic enhancement, and wetland restoration work includes the replacement of 12 blocked culverts along Buckhead Road, the creation of 15 ditch blocks on the northern portion of the TMS and the installation of two low-level crossings, at locations shown on Figure 11., "Hydrologic Improvement Map."

    b. Construction of the hydrologic enhancements shall begin within six months of the start of authorized dredging or filling. All hydrologic enhancement construction shall be completed no later than the end of the third year of mining.

c. Cut and fill areas shall be graded to adjacent natural grade or, when apparent, to the native soils. Care shall be taken to leave a surface area that has appropriate soils for colonization by native plants and that blends seamlessly with the surrounding areas.

d. Culverts used to replace blocked existing culverts shall be reinforced concrete, high density polyethylene (HDPE), or a similar material that resists corrosion and crushing. Culverts shall have concrete mitered ends.

e. Construction within wetlands or other surface waters shall occur during dry or low flow conditions. Construction in or adjacent to wetlands or other surface waters shall be conducted up gradient to turbidity and sediment control structures. Turbidity shall be monitored daily until disturbed soils have vegetated and stabilized.

41. **Source for Wetland Plants.**

a. Wetland plants used within wetland mitigation areas shall be obtained from a nursery, from natural recruitment from adjacent areas, or onsite wetlands authorized for dredging or filling.

b. Plants used in wetland mitigation areas shall originate from within the same U.S. Department of Agriculture (USDA) hardiness subzone as the mitigation site.

c. Muck or topsoil may be used as a suitable growing medium and a source of vegetation material. In order to maximize the viability of the seed bank and other propagules, the excavated organic soil shall be distributed over the mitigation site to achieve final grade within three weeks or less.

42. **Wetland Mitigation Area Planting.**

a. Prior to any required planting, the graded and prepared areas shall be surveyed to ensure that the ground and water elevations, site preparation and soils are appropriate for the proposed vegetation, and to determine whether any modifications to the permitted construction or planting plans are warranted.

b. Supplemental planting shall be provided in areas where there are less than 400 tree stems per acre or less than 200 shrub stems per acre to meet the

minimum requirements. Supplemental planting shall also occur if less than 80 percent of the species in the target community type (listed in attached Table D-1) are detected, with a focus on those species that are most under represented. These focal species shall be planted in loose groupings of from 10 to 12 individual plants to ensure that all planted obligate out crossing species will be pollinated. Tree locations shall be staggered to avoid establishing straight rows of trees. The goal of this latter effort is to inoculate the community type with a broad spectrum of representative species that can successfully reproduce and colonize the remainder of the plant community in the future.

c. The permittee may substitute other desirable wetland species with prior approval of the Department. Desirable species are those species that are identified as obligate or facultative wet species, as defined by Chapter 62-340, F.A.C., appropriate for the target habitat type, and are native to Levy County.

43. **Mitigation Vegetation Enhancement.** Upland and wetland areas identified as wetland mitigation areas shall be enhanced by the removal of vegetation inappropriate for the habitat type.

a. Remove exotic and nuisance species from the enhancement areas at least quarterly to meet the requirements of the permit. Exotic plant species include, but is not limited to those species listed as Category I or Category II, on the Florida Exotic Plant Council's List of Invasive Species. Nuisance species shall mean those species of flora whose noxious characteristics or presence in sufficient number, biomass, or areal extent may reasonably be expected to prevent, or unreasonably interfere with, the designated use of the waters under consideration, as defined in rule 62-302.200, F.A.C. Nuisance species include but are not limited to: *Azolla caroliniana* (mosquito fern), *Ludwigia leptocarpa* (water-primrose), *Mikania scandens* (climbing hemp vine), *Salvinia rotundifolia* (water spangles), and *Typha* spp. (cattails). Vegetation shall be disposed in a manner that will not cause the spread of seeds or propagules to wetlands.

b. Loblolly pine (*Pinus taeda*) and slash pine (*Pinus elliottii*) shall be removed from the mitigation site to less than 5 percent of the aerial coverage. Of the two species, loblolly pine will be preferred as a natural, although a minor component of the native forested communities of the area.

44. **Planted pine removal**. Planted pine may be harvested or otherwise removed from wetland mitigation areas. Within one year of commencing authorized dredging or filling, all of the planted pine shall be cut and removed, or herbicided in place using Best Management Practices (BMPs) for Silviculture and any additional precautions to

minimize disturbance of groundcover and non-target vegetation. Harvesting shall occur using low-impact equipment so that there is minimum soil disturbance.

45. **Mitigation Vegetation Maintenance.** The purpose of the periodic management of the mitigation site is to ensure that the desired species will survive and thrive. As part of ongoing management of the mitigation site, the permittee shall do the following in upland and wetland areas identified for wetland mitigation:

    a. Remove exotic and nuisance species from the mitigation site at least quarterly to meet the requirements of the permit. Exotic plant species include, but is not limited to those species listed as Category I or Category II, on the Florida Exotic Plant Council's List of Invasive Species. Nuisance species shall mean those species of flora whose noxious characteristics or presence in sufficient number, biomass, or areal extent may reasonably be expected to prevent, or unreasonably interfere with, the designated use of the waters under consideration, as defined in rule 62-302.200, F.A.C. Nuisance species include but are not limited to: *Azolla caroliniana* (mosquito fern), *Ludwigia leptocarpa* (water-primrose), *Mikania scandens* (climbing hemp vine), *Salvinia rotundifolia* (water spangles), and *Typha* spp. (cattails).

    b. Removed exotic and nuisance vegetation shall be disposed in a manner that prevents the spreading of seeds and propagules to other wetland areas.

    c. The permittee shall replant bare areas as needed to meet the release criteria. In forested areas, replant trees when the density falls below 400 total trees per acre. The permittee shall replant at least as many trees of the appropriate species as needed to meet the release criteria.

    d. Mulching, contouring, and other suitable techniques shall be used to enhance stabilization. Should washes or rills develop after revegetation and before final release of the area, the permittee shall repair the eroded areas and stabilize the slopes.

    e. If necessary, the permittee shall fence the mitigation area to trap or otherwise exclude animal species that inhibit the timely achievement of release conditions for the mitigation area.

    f. If during the initial establishment phase site conditions become abnormally dry, supplemental irrigation to assist in the successful establishment of the vegetation is suggested. Supplemental irrigation cannot take the place of the site's hydrology for purposes of a success determination.

g. The permittee shall maintain, repair or replace fences, signage, monitoring devises, benchmarks, surface water management structures, etc. when necessary to facilitate successful completion of wetland mitigation.

46. **Herbicide Use.** The maintenance of wetland mitigation areas may require the use of approved herbicides to control nuisance and exotic plant species. Herbicides shall be stored, mixed, transported, and applied in accordance with manufacturer's label instructions and in a manner that does not cause water quality violations. The permittee is responsible to train and supervise workers handling herbicides.

47. **Prescribed Fire.** Prescribed fire shall be used for habitat enhancement in the areas of the TMS with heavy accumulations of logging slash. A fire management plan shall be developed in accordance with appropriate statutes and rules. The permittee shall obtain appropriate state and local approvals prior to starting the burns. Prescribed fire shall only be used when appropriate climatic conditions exist, the initial burn shall be conducted in a manner to optimize fuel management, enhancement of appropriate vegetation and eradication of nuisance or inappropriate woody shrubs. After the removal of heavy accumulations of logging slash, prescribed fire is not a recurring management tool for the wetland mitigation areas.

Monitoring and Reporting

48. **Submittals.** Unless otherwise specified, all notices, plans, draft easements, reports or other documents or information required by this permit to be submitted to the Department shall be provided to:

    Florida Department of Environmental Protection
    Bureau of Mining and Minerals Regulation
    2051 East Paul Dirac Drive
    Tallahassee, Florida 32310-3760
    (850) 488-8217, facsimile (850) 488-1254

49. **Reporting.** Failure to submit reports in a timely manner constitutes grounds for revocation of the permit.

50. **Agent Change.** The permittee shall notify the Department in writing within 14 days of any change in agents, address or telephone number for the permittee or project.

51. **Oil and Hazardous Substances.** Florida law requires reporting of oil and hazardous substances spills. Immediately report such spills to the Department's Division of Law Enforcement, Bureau of Emergency Response, State Warning Point: (850)413-9911, (800)320-0519, 24 hours. The discharge of less than 25 gallons of petroleum or petroleum products onto a pervious surface is not reportable, as long as the discharge is removed and properly treated or disposed, or otherwise remediated, pursuant to the applicable provisions of rule 62-770.300, F.A.C., so that no contamination from the discharge remains on-site.

52. **Serious Conditions.** The permittee shall within 12 hours of discovery notify the Department by telephone whenever a serious problem occurs at this facility.

    a. Serious conditions are, but are not limited to, unauthorized situations that have or have the potential to adversely affect preserved or avoided wetlands or other surface waters, water quality, listed species, public health, safety, or welfare, or the property of others.

    b. During regular business hours notification shall be made to the Department by telephone. If an emergency occurs outside regular business hours, the permittee shall submit notification by fax.

    c. Within seven days of notification, the permittee shall submit a written report explaining the extent of the problem, its cause, and what actions have been or will be taken to correct the problem. The report shall include the results of water quality monitoring if the incident included discharges to wetlands or other surface waters.

    d. In the event of any accident resulting in the submergence of any equipment (such as machinery and vehicles) or containers containing petroleum or hazardous materials into the mine pit, the permittee shall submit a written closure report within seven days of the completion of recovery and clean-up operations. The report shall include photographs and shall describe the clean-up and recovery, providing details on the methods employed to limit water pollution.

53. **Historical or Archaeological Sites.** If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately stop all activities which disturb the soil in the vicinity of the artifacts, and notify the Department and the Florida Department of State, Bureau of Historic Preservation, R. A. Gray Building, 500 South Bronough Street, Tallahassee, Florida, 32399-0250, (850)487-2333, facsimile (850)922-0496.

54. **Human Remains.** In the event that human remains are encountered anywhere on the subject property, all work associated with the area of the remains shall cease. The district medical examiner shall be immediately notified, in accordance with section 872.05, F.S. The Department is to be notified following notification of the proper authorities. Work shall not recommence until the Department receives verification from the appropriate authorities that the permittee may continue activities authorized by this permit.

55. **Quality Assurance.** In order to assure minimum field and laboratory quality assurance, methodological and reporting requirements, all field sampling shall follow the applicable collection and quality control protocols and requirements described in Chapter 62-160, F.A.C., and the appropriate Department of Environmental Protection Standard Operation Procedures.

56. **Turbidity Monitoring.** Water quality monitoring shall occur at each dredging or filling location adjacent to preserved or avoided wetlands, or other surface waters.

    a. Water quality monitoring stations shall be installed in the preserved or avoided wetland or other surface water areas, 25 to 50 feet down gradient from the areas that will be dredged or filled. Background water quality monitoring stations shall be provided 50 feet up gradient.

    b. Daily monitoring of turbidity shall be conducted at each station during all phases of the construction until the disturbed areas have vegetated and stabilized. Daily monitoring of turbidity shall be conducted at each station during all phases of the removal of structures until the disturbed land surfaces have been vegetated and stabilized.

    c. Each inspection shall be documented and kept on file at the facility office. Each inspection report shall contain, as a minimum: date, name of inspector, as-found condition of major system features, turbidity levels, and nature and extent of maintenance/repair performed. A summary of the reports shall be provided to the Department when requested.

    d. If monitoring reveals turbidity levels at the monitoring station greater than or equal to 29 Nephelometric Turbidity Units (NTU's) above the average turbidity levels measured in that location prior to construction, the requirements of Specific Condition No. 58., shall be implemented.

57. **Surface Water Quality Monitoring.** Water quality shall be monitored within the mitigation wetland flow ways of the Mine Site.

    a. Water samples shall be collected from each of the monitoring sites identified on Figure 1, "Water Monitoring Location Map." Samples shall be collected at least quarterly. Samples shall be collected from each monitoring site on the same day.

    b. The first water quality monitoring samples shall be collected at least six months prior to the start of permitted activities within the Mining Site. Surface water quality monitoring shall continue until all mining operations, including reclamation activities, have ceased.

    c. Water samples shall be analyzed for turbidity, pH, temperature, specific conductance, total dissolved solids, chloride, iron, arsenic, and sulfate.

58. **Surface Water Quality Violations.** The following measures shall be taken immediately by the permittee if the water quality at a monitoring station, or any water leaving the project area, violates state water quality standards established pursuant to Chapter 62-302, F.A.C.:

    a. Cease all work contributing to the water quality violation.

    b. Modify the work procedures that were responsible for the violation, and repair any non-functioning containment devices.

    c. Within 12 hours of identifying the violation notify the Department of the time the violation is first detected, the extent of the violation, and the corrective measures that have been and will be implemented.

    d. Continue water quality monitoring at eight-hour intervals until samples no longer violate water quality standards.

59. **Zone of Discharge.** Permit No. FLA663492-001 authorizes a zone of discharge to groundwater to the facility's property line. All groundwater quality criteria specified in Chapter 62-520, F.A.C., shall be met at the edge of the zone of discharge. The zone of discharge for this project extends horizontally to the facility's lease line and vertically to the base of the Upper Floridan Aquifer. The groundwater minimum criteria specified in Rule 62-520.400, F.A.C. shall be met within the zone of discharge. Discharges consistent with the industrial wastewater permit and zone of discharge shall not be considered a surface or groundwater

violation or a serious condition as defined by Special Condition No. 52. Groundwater quality monitoring wells are indentified in Permit No. FLA663492-001 and are shown on Figure MP-11, "Groundwater Monitoring Plan."

60. **Mine Pit Water Quality Monitoring.** Water sampling and analysis shall be conducted for each open mine pit where extraction occurred within the previous 12 months.

    a. On a monthly basis sampling parameters shall include chloride, sulfate, pH, temperature, and specific conductance. Samples shall be collected near mid-depth of the mine pit.

    b. On a quarterly basis sampling parameters shall include pH, specific conductance, chloride, sulfate, phosphorus, total dissolved solids, arsenic, cadmium, copper, iron, mercury, selenium, gross alpha, uranium and combined radium 226 and radium 228. Samples shall be collected within five feet of the pit bottom.

    c. The monitoring report detailing the results of all the sampling along with the certified laboratory analysis work sheets shall be submitted with the annual narrative report. If at any time analytical results show concentrations in the mine pit water above the groundwater maximum contamination levels provided by Chapter 62-550, F.A.C., to the extent these concentrations are not authorized by the industrial wastewater permit (FLA663492-001), the analytical report and a letter describing the results shall be provided to the Department within one week of becoming aware of or receiving the results, or other monitoring. The monitoring may be discontinued after all extraction has ended on the site.

61. **Groundwater Quality Monitoring.** At least six months prior to the start of permitted activities within the Mine Site:

    a. Install and sample groundwater quality monitoring wells as shown on Figure MP-11, "Groundwater Monitoring Plan." At each well location there shall be one shallow well casing screened from approximately 15 to 35 feet below land surface and one deep well casing screened from approximately 50 to 70 feet below land surface.

    b. Complete the baseline water quality sampling at all wells (shallow and deep). Baseline sampling parameters shall include the field parameters of pH, temperature, specific conductance, turbidity and water level (relative to

NAVD88). The laboratory parameters shall include chloride, sulfate, total dissolved solids, combined nitrite and nitrate, and total recoverable arsenic, gross alpha, uranium, and combined radium 226 and 228.

c. Thereafter, sampling shall be conducted on an annual basis at all wells for chloride, gross alpha, uranium and combined radium 226 and 228. Sampling for the field parameters listed above and for sulfate, total dissolved solids, combined nitrite and nitrate, and total recoverable arsenic shall be conducted on a quarterly basis. The monitoring report detailing the results of all the sampling along with the certified laboratory analysis work sheets shall be submitted with the annual narrative report. The monitoring may be discontinued after all extraction has ended on the site.

d. The applicant shall give at least 72-hours notice to the Department prior to the installation of any monitoring wells. Prior to construction of groundwater monitoring wells, a soil boring shall be made at each monitoring well location in order to properly determine the well depth and screen interval. Within 30 days after installation of a monitoring well, the applicant shall submit to the Department detailed information on the well's location and construction on DEP Form 62-520.900(2), Monitor Well Completion Report.

62. **Groundwater Quality Protection.**

a. At each water quality monitoring well, the permittee shall establish a baseline value for each monitored parameter by calculating average measured values at each of the two depth intervals. The baseline value for each depth interval at each well shall be calculated as the upper end of the 95 percent confidence interval for the average determined from the first four quarterly readings.

b. After the first year of monitoring, measured values of each parameter at each depth interval at each well cluster shall be compared to the baseline values determined from the first four quarterly readings. If baseline values are exceeded for more than two consecutive quarters for any parameter other than sulfate, total dissolved solids, and specific conductance, the permittee shall contact the Department within seven days of the analysis.

c. At the shallow monitoring wells, if any value for any parameter other than sulfate, total dissolved solids, and specific conductance exceeds or is trending toward exceeding the standards set in rule 62-520.420(1), F.A.C., the permittee shall contact the Department within seven days of the analysis.

d. The Department shall review the data at each well location, and determine a remedial course of action, if warranted. Possible remedial actions may include additional monitoring at new well locations, restrictions on mining depth or on mining locations, or the suspension or revocation of the permit with restoration of the disturbed areas. Remedial actions shall not be required if the groundwater values are consistent with the limits contained in the industrial wastewater permit.

63. **Other Water Quality Reports.** If any federal, state, or local permit requires water quality monitoring, the permittee shall provide copies of the monitoring reports to the Department. The permittee shall provide to the Department copies of permits which will involve water quality monitoring.

64 **Water Quality Screening.** Water quality within the active mine pits shall be screened at each blasting location, prior to and after the blast. The water samples shall be collected adjacent to the blasting location, at a depth of 10 feet below the elevation of the mining bench. At each planned blasting location:

a. The permittee shall collect pre-blast water quality samples, no more than 24 hours prior to the start of the loading of the explosive material.

b. The permittee shall collect post-blast samples within 24 hours after the blast.

c. Each sample shall be tested for the following constituents: total nitrogen, combined nitrate-nitrite, and benzene.

The water quality samples shall be promptly analyzed and reported to the Department. The data shall be compiled into a monthly blasting report letter which shall be submitted within 28 days of the last day of the month. The monthly blasting report shall provide the following information:

- A description of the blasting agents used during the month,
- the number and dates of blasting events during the month,
- the date, locations, and ultimate fate of blasting agents for any borehole locations where detonation did not occur on an initial firing or attempt, and
- a location map for the sampling sites.

If the monthly reports indicate potential surface or groundwater quality concerns, the Department may require corrective steps, including additional monitoring or other new or additional conditions, in accordance with rule 62-343.100(1)(c), F.A.C. After this screening requirement has been completed for not less than 12 monthly

reports with screening results, the permittee may request a minor modification to the permit to remove this condition.

65. **Bottom Depth.**

a. The permittee shall install and maintain one or more permanent bench marks at known elevations. These bench marks shall be located such that survey crews can use the bench marks to determine the pit bottom elevations. The bench marks may be periodically replaced as the operations area expands.

b. The permittee shall provide pit bottom elevations referenced to NAVD88 within the areas of the pit where extraction occurred during the previous calendar year. The pit bottom elevations shall be measured on a 100-foot grid via depth finder. The survey shall include a statement testifying to accuracy, signed and sealed by an appropriate Florida licensed registered professional. This survey shall be provided with the annual narrative and monitoring report.

c. The permittee shall allow the Department access to the pit area to verify pit bottom elevations.

66. **Stormwater System Inspections.** A stormwater management system shall be constructed which prevents discharge of stormwater into avoided or offsite wetlands and other surface waters up to the 25-year, 24-hour storm. The stormwater management system shall be inspected as set forth herein.

a. Turbidity, sedimentation and erosion control devices, slopes and exterior sides of berms, immediately upgradient from property/lease lines, avoided wetlands, and other avoided surface waters, shall be inspected daily until the area has been stabilized and vegetated. Thereafter, inspections shall occur weekly and after each rainfall event that is greater than one inch in a 24-hour period until the area has been reclaimed through revegetation. Should washes or rills develop, the permittee shall repair the eroded areas and stabilize the slopes within 48 hours. Where the possibility of cascading failure exists, upgradient dikes and berms must also meet this requirement.

b. Pumps in the water collection areas shall be inspected daily when running to ensure correct operation.

c. Each inspection shall be documented and kept on file at the facility office. Each inspection report shall contain, as a minimum: date, name of inspector, as-found condition of major system features, and nature and extent of

maintenance/repair performed. A summary of the reports shall be provided to the Department when requested.

d. If the stormwater management system is not functioning as designed and permitted, operational maintenance must be performed immediately to restore the system. If operational maintenance measures are insufficient to enable the system to meet the design standards, the permittee must either replace the system or construct an alternative design. Based on the above, the permittee must submit a permit modification application within 60 days of the date the system was determined to be design deficient.

67. **Rain Gauge Report.** An on-site rain gauge shall be installed and maintained. The permittee shall report the data from rain gauge on an annual basis in the Hydrologic Report required by Specific Condition No. 69.

68. **Tailings and Overburden Management Report.** In order to control the rate of groundwater movement through the project area to avoid secondary impacts to preserved and avoided wetlands, the permittee shall backfill specific extraction areas as shown on Sheets S4, "Final Site Plan," and D-4, "Proposed Mining & Reclamation Sections." In order to ensure a sufficient supply of tailings and overburden to timely and effectively fill extraction areas, the permittee shall provide a Tailings and Overburden Management Report.

a. The report shall be provided every five years with the annual narrative report. The report shall describe site conditions at the end of the calendar year included in the annual narrative report.

b. The report shall:

1) Identify each extraction cell (mine block) where extraction has occurred since the start of mining operations.

2) For each mine block where mining became complete since the start of mining, provide the estimated volume (cubic yards) of material excavated including limestone and overburden and the in-place volume of fill materials placed for reclamation purposes.

3) Provide for each mine block a projected quantity for the space available (in cubic yards) for tailing and overburden material that would be required to backfill the volume to a depth that could support predominately upland species or, for proposed lakes, to complete reclamation.

4) Identify the status of each mine block as, mining in progress, mining complete, backfilling in progress, or backfilling complete.

5) The report shall provide cumulative total fill volumes placed to date; and projected quantities of tailings and overburden materials expected to be generated for reclamation purposes and projected quantities needed to complete reclamation.

69. **Wetland Hydrological Monitoring.** This permit has a duration of greater than five years from the date of issuance in order to allow for the completion of the project. The permittee shall do the following as part of the reasonable assurance that the impacts of the activity, considering its nature, the size of the system, and any required mitigation, can be accurately assessed and offset where appropriate, and the terms of the permit can be met for the duration of the permit. The permittee shall monitor water levels within preserved and avoided wetlands as set forth below.

a. Staff gauges and piezometers shall be installed at the locations shown on Figure 1, "Water Monitoring Locations Map," and Figure MP-11, "Groundwater Monitoring Plan."

b. The baseline hydrologic conditions in the preserved and avoided wetlands shall be described within the first year of the start of construction. The baseline conditions shall include a map of the preserved and avoided wetland depicting the proposed sampling locations and fixed photographic stations. The baseline conditions shall include a description of hydrologic indicators and an analysis of surface water elevation and duration at each station, and canopy, subcanopy and groundcover by type (upland, facultative, facultative wet, obligate).

c. Water level elevations shall be monitored on a weekly frequency at all piezometers.

d. Wetland conditions shall be verified by annual visual inspections. If preserved or avoided wetlands show signs of stress due to changes in hydrology, the permittee shall notify the Department in writing and shall include recommended corrective action. Signs of stress may include changes in hydrologic indicators or a change in the type (upland, facultative, facultative wet, obligate) or coverage of canopy, subcanopy or groundcover species.

e. Record observations of fauna utilization of the wetlands.

f. A Hydrologic Report summarizing the hydrologic monitoring results since the start of monitoring shall be provided with the annual narrative report. All water level elevations will be compared tabularly and graphically with the daily rainfall data collected at the on-site rainfall station. The presence/absence/change of hydric indicators, flora, fauna, etc., will be included. The Hydrologic Report shall be signed-sealed-dated by a Florida licensed professional.

g. Although adverse impacts are not reasonably anticipated, the permittee shall mitigate adverse hydrologic impacts to preserved or avoided wetlands.

70. **Karstic Features.** If during the mining operations the permittee becomes aware of a probable breach of an underground cave, cavity, or other solutional feature, that may cause turbidity or sediment to enter into waters of the state, the permittee shall notify the Department immediately. The permittee shall take any and all measures necessary to prevent violations of state water quality standards, especially for turbidity parameters. Such measures may include the temporary and/or permanent cessation of mining operations; the plugging and/or backfilling of the solutional feature with neat, bentonite grout or other Department approved materials; turbidity or water quality monitoring; replacement of affected water wells; physical, chemical and/or bioremediation of the contaminant, etc.

71. **Springs Protection.** This project is upgradient of the potentiometric surface of two known springs and possibly other unidentified springs. One spring is located on Spring Run and the other is on Demory Creek, as shown on the figure titled, "Drainage Basins and Springs Location Map." Adverse impacts to those springs are not reasonably anticipated; however, the project shall include the following measures to protect the water quality at springs.

a. If during the mining operations the permittee becomes aware of a probable breach of an underground cave, cavity, or other solutional feature that may cause turbidity or sediment to enter into surface waters of a spring or other avoided or offsite waters of the state, the permittee shall notify Department immediately.

b. The permittee shall maintain a current environmental emergency plan. This plan shall describe actions that will be taken by the permittee if the Department determines that there may be a connection between the mine pit and surface waters such that water quality standards have been violated. The environmental emergency plan shall be submitted for review and approval to

the Department prior to initiation of mining operations. The permittee shall provide the Department with a copy of the plan any time the plan is amended. At a minimum, the plan shall include:

1) A cover page indicating the permittee name, project name, and permit number. Just below the title, the certification of the following statement by the individual who supervised preparation of the plan: "**This plan represents a true and accurate description of activities to be conducted when the Department of Environmental Protection determines that there may have been a water quality violation resulting from a connection between a mine pit and off-site surface waters. A copy has been provided to each responsible person identified in the plan.**"

2) A list of officers, agents, contractors, and other responsible persons that will act for the permittee, and a description of their roles within the plan. Each person shall be identified by name, title and telephone number.

3) Identification, by name, address and telephone number, of one or more individuals or companies qualified to conduct hydrogeologic studies that can determine whether or not a connection exists between the mine pit and nearby surface waters.

4) A description of the hydrogeologic studies that may be used to determine whether or not a connection exists between the mine pit and nearby surface waters.

5) A description of actions that will be taken if the permittee is notified by the Department that surface water quality standards have been violated in nearby surface waters, and that a connection may exist between the mine pit and the surface waters. At a minimum:

    a) All mining activities within the mine pit shall immediately cease. This includes, but is not limited to activities related to drilling, blasting, extraction, and deposition of waste water. Permitted activities elsewhere within the project area may continue as long as material within the mine pit is not disturbed, and additional material or wastes do not enter the pit.

    b) Within 48 hours the permittee shall begin to conduct appropriate hydrogeologic studies that can determine whether or not a connection exists between the mine pit and nearby surface waters.

c) Activities shall not resume within the mine pit until the Department has reviewed the results of the hydrogeologic studies and has determined that mining activities can resume.

6) A description of actions that will be taken, and the responsible individuals, if the permittee is notified by the Department that surface water quality standards have been violated in nearby surface waters as a result of activities conducted within the mine pit. At a minimum:

a) Conduct an environmental survey of the impacted surface waters to identify plant and animal species, mapping of vegetation coverage by species and density, the identification of dead or moribund plants, benthic macroinvertebrates, and other animal species. The survey shall also include an estimate of the extent and depth of deposition of sediments. Include an estimated time table for the start of the field survey and the submittal of the survey report.

b) Within 24 hours of the Department's notice, the permittee shall begin a water quality monitoring program within the impacted surface waters to the extent that the permittee is able to obtain access to the surface water. Water samples shall be collected daily at each point where mine pit water enters the waterbody, if feasible. Turbidity and sulfates shall be measured and reported. Water shall also be collected from at least one background location. The permittee shall also monitor and report the daily rainfall in the vicinity of the mine. The results of the water quality analysis and rainfall monitoring shall be provided to the Department weekly.

c) Within 24 hours of the Department's notice, the permittee shall implement measures to prevent sediment and turbidity from entering the mine pit from the surrounding surfaces. Silt screens, hay bales, berms and other control structures shall be installed and maintained in accordance with Specific Condition No. 21.

72. **Listed Species Surveys for Long-Duration Permit.** This permit has a duration of greater than five years from the date of issuance in order to allow for the completion of the project. The permittee shall do the following as part of the reasonable assurance that the impacts of the activity, considering its nature, the size of the system, and any required mitigation, can be accurately assessed and offset where appropriate, and the terms of the permit can be met for the duration of the

permit. Beginning five years after issuance of this permit, the permittee shall have a biologist survey the Mine Site for listed species. Listed animal species are those animal species listed in rules 68A-27.003, 68A-27.004, and 68A-27.005, F.A.C., and those plant species listed in 50 Code of Federal Regulation 17.12, when such plants are found to be located in a wetland or other surface waters. The report shall identify listed species that could occur within the type of habitats in the wetland and identify those species located directly or through indicators. The survey shall be conducted during the time of the year and time of day that listed species that could occur within the habitats, can be observed or detected. The survey methods shall be described including the time of day, dates, weather conditions, transects, traps, and other methods. This report shall be provided with the annual narrative report.

73. **Mitigation Hydrologic Monitoring.** Hydrologic monitoring shall be conducted within the created, restored and hydrologically enhanced wetlands within the TMS, as set forth herein.

    a. Hydrologic monitoring shall be conducted at six reinstalled culvert locations with a pair of staff gauges, one upstream and one downstream, as shown on Figure 2, "Staff Gauge Locations Map."

    b. Piezometers and staff gauges shall be installed after completing the ditch plugs, the installation of culverts and the low level crossing. The elevations of the monitoring stations shall be surveyed in by a Florida registered professional. All benchmarks shall be clearly identified.

    c. Hydrologic monitoring shall begin immediately after the monitoring stations have been surveyed in, and shall continue until the Department determines that the mitigation meets the release criteria. Water levels shall be recorded daily to the nearest 0.01 foot at each staff gauge.

    d. Daily rainfall shall be monitored at the TMS, or the nearest representative rainfall monitoring station.

    e. A Hydrologic Report summarizing the hydrologic monitoring results since the start of monitoring shall be provided with the annual narrative report. All water level elevations will be compared tabularly and graphically with the daily rainfall data collected at the on-site rainfall station. The presence/absence/change of hydric indicators, flora, fauna, etc., will be included. The report shall provide an assessment as to whether the inundation

is sufficient for the target habitat type. The Hydrologic Report shall be signed-sealed-dated by a Florida registered professional.

74. **Wetland Vegetation Monitoring.** The purpose of monitoring is to determine likelihood of the success of mitigation by periodic sampling using established sampling methods. The permittee shall monitor each upland and wetland mitigation site as follows:

a. Within 30 days of completion of planting, the permittee shall submit to the Department for approval, a map of each mitigation site depicting the proposed sampling locations, fixed photographic stations, the mitigation wetland area, and the locations of the plants planted. Attachment C, "Mitigation Monitoring Plan," provides the vegetative monitoring procedures.

b. The monitoring shall be started upon the completion of initial enhancement activities such as ditch block and low water crossing installation, culvert replacement, exotic and nuisance species removal, contouring and supplemental planting of the mitigation site. The permittee shall continue to monitor and take photographs annually until the mitigation site is released by the Department. Monitoring shall collect information necessary to determine whether the mitigation site meets the release conditions.

c. The Annual Vegetation Monitoring Report shall be provided with the Annual Narrative Report. The report shall include:

1) The mitigation site location, target wetland type, and description. A map is the most useful way to show this information.

2) Methods used to collect the information including monitoring dates, jurisdictional acreage determination, vegetation cover, hydrologic indicators, soils, and other supplemental information.

3) Results of the monitoring including jurisdictional acreage determination, vegetation cover, hydrologic indicators, soils, and other supplemental information. Ensure that the results section of the report includes:

a) A copy of the permit drawing which depicts the proposed jurisdictional boundaries of the mitigation site with the actual jurisdictional boundaries superimposed on the figure, including the date that the jurisdictional determination was made.

b) Photographs of the mitigation sites taken from the same permanent stations.

c) Supplemental information as required, or as submitted by the permittee. Provide data, photographs or other information that depicts the presence of hydrologic indicators in support of the determination of jurisdiction limits at the mitigation site, wildlife observations, especially for fauna that depend on the target community type. Other information may be submitted by the permittee at their discretion.

4) A discussion of the results including an evaluation of the progress of the wetland mitigation toward the target habitat type, work proposed for the next year, and recommendations.

75. **Financial Assurances for Wetland Mitigation.** This permit has a duration of greater than five years from the date of issuance in order to allow for the completion of the project. The permittee shall do the following as part of the reasonable assurance that the impacts of the activity, considering its nature, the size of the system, and any required mitigation, can be accurately assessed and offset where appropriate, and the terms of the permit can be met for the duration of the permit.

a. The permittee shall provide an updated wetland mitigation cost estimate at least 90 days prior to the initiation of mining activities on the Mine Site and shall periodically provide revised wetland mitigation cost estimates. The revised cost estimates shall be provided with the first annual narrative report submitted after the fifth, tenth, fifteenth, etc., year from the date of permit issuance. The revised mitigation costs shall meet all requirements of section 3.3.7 through 3.3.7.9, BOR of the SWFWMD.

b. The permittee shall provide an approved financial responsibility mechanism at least 30 days prior initiation of any authorized dredging of filling. Throughout the life of the permit the permittee shall maintain an approved financial responsibility mechanism, as required by section 3.3.7 through 3.3.7.9, BOR. The initial amount of the financial assurance is $3,576,903, which is 110 percent of the estimated mitigation cost of $3,251,730. The amount of the financial assurance mechanism shall be increased or decreased as necessary, based on revised mitigation costs and completion of mitigation.

c. The permittee shall notify the Department by certified mail of the commencement of a voluntary or involuntary proceeding under Title XI

(Bankruptcy), U.S. Code naming the permittee as debtor within 10 business days after the commencement of the proceeding. The notification shall identify the bankruptcy court, case number, and shall include a copy of the bankruptcy petition.

d. A permittee who fulfills the requirement of sections 3.3.7 through 3.3.7.9 BOR by obtaining a letter of credit or performance bond will be deemed to be without the required financial assurance in the event of bankruptcy, insolvency or suspension or revocation of the license or charter of the issuing institution. The permittee must reestablish in accordance with s sections 3.3.7 through 3.3.7.9 BOR a financial responsibility mechanism within 60 days after such event.

e. When transferring a permit in accordance with section 62-343.130, F.A.C., the new owner or person with legal control shall submit documentation to satisfy the financial responsibility requirements of sections 3.3.7 through 3.3.7.9 BOR. The prior owner or person with legal control of the project shall continue the financial responsibility mechanism until the Department has approved the permit transfer and substitute financial responsibility mechanism.

76. **Narrative and Monitoring Reports.** Annual narrative and monitoring reports shall be submitted to the Department on or before March 1 of each year. The reports shall continue to be submitted until all work authorized has been completed. The first annual narrative report shall be provided March 1, 2011. Each report shall be provided on the Environmental Resource Permit Annual Status Report Form (Form 62-343.900(4), F.A.C.) and shall include the following information:

a. The cover page shall indicate the permit number, project name and the permittee name. Just below the title, the certification of the following statement by the individual who supervised preparation of the report: **"This report represents a true and accurate description of the activities conducted during the period covered by this report."**

b. the date activity began;

c. a brief description and drawings showing the extent of the work completed during the previous calendar year;

d. a brief description and drawings showing the work anticipated during the current calendar year;

e. dates of monitoring inspections, observations made during the inspections, and corrective actions implemented or proposed, if any;

f. the Hydrologic Monitoring Report;

g. the Vegetation Monitoring Report;

h. the Listed Species Monitoring Report; and

i. the Wetland Mitigation Financial Assurance Report.

Release

77. **Lake/Surface Water Separation**. The reclaimed lakes shall not connect to off-site wetlands or other surface waters below the 25-year, 24-hour storm. Surface water quality standards will not apply to the reclaimed lakes to the extent they remain under one ownership. If any portion of the lake surface waters becomes subdivided into more than one ownership, or the berms shown on Cross Section H, on Sheet D4, "Proposed Mining & Reclamation Sections," are removed, the lakes will be waters of the state and will be required to meet all water quality standards for surface waters at that time. Based on the proposed lake design, it is expected that the surface waters within deeper portions of the lakes may not meet water quality standards for dissolved oxygen at depth during the summer months.

78. **General Release.** All lands disturbed by mining and reclamation activities shall meet the following standards:

a. All lands shall be reclaimed to a neat, clean condition by removing or adequately burying, where allowed by law, all visible debris, litter, junk, worn-out or unusable equipment or materials, as well as all poles, pilings, and cables.

b. Large rocks and boulders shall be pushed into the lakes or placed in common locations at the mine surface or buried to a minimum depth of four feet.

c. All temporary buildings, pipelines, and other man-made structures shall be removed with the exception of those that are of sound construction with potential uses that are compatible with the reclamation goals.

79. **Upland Release.** In addition to the general release standards provide by Specific Condition No. 78., upland areas shall at least meet the following reclamation standards:

    a. Uplands, shall at least meet the slope and revegetation standards of rule 62C-36.008, F.A.C.

    b. The planting of native trees within the uplands to meet the reclamation performance standards of Chapter 62C-36, F.A.C., will not be inconsistent with this permit.

80. **Littoral Zone Release.** The wetlands within the created lake shorelines are not considered wetland mitigation for dredging or filling activities associated with this permit. In addition to the general release standards provide by Specific Condition No. 78., lake shorelines shall at least meet the following reclamation standards:

    a. Shorelines shall at least meet the design and revegetation standards of rule 62C-36.008, F.A.C.

    b. Lake shorelines shall be contoured to the slopes shown on Cross Section H on Sheet D4, "Proposed Mining & Reclamation Sections." Each lake reclaimed shall be within a berm capable of containing the 25-year, 24-hour storm.

    c. The planting of native trees within the littoral zones to meet the reclamation performance standards of Chapter 62C-36, F.A.C., will not be inconsistent with this permit.

81. **Wetland Mitigation Areas.** Wetland restoration and enhancement sites shall be successful when all of the following criteria have been continuously met for a period of at least one growing season, without intervention in the form of irrigation, dewatering, removal of undesirable vegetation, or replanting of desirable vegetation.

    a. The Department has determined that the required minimum acreage of the mitigation site is jurisdictional pursuant to section 373.421, F.S. Specific Condition No. 33., lists each mitigation site, the minimum required acreage for each site, and the target habitat.

    b. Each site shall have hydroperiods and depths of inundation based on field measurements that are within the range of conditions for the target community type. The headwater wetlands should be storing and releasing water to the

downstream wetlands and to the tributary in a manner approximating that of the reference wetlands of that community type.

c. The plant species and coverage is similar to what would be expected for the target habitat type. Pines shall be less than five percent of the aerial cover.

d. Percent cover by all appropriate species is 80 percent or more, and the plants are reproducing naturally, either by normal, healthy, vegetative spread (in ways that would be normal for each wetland species) or through seedling establishment, growth and survival. Appropriate species are those species that are identified as obligate or facultative wet plant species, as defined by Chapter 62-340, F.A.C., and are native to Levy County.

e. Exotic and nuisance species are limited to five percent or less of the total cover.

f. For forested wetlands, an average of at least 400 total appropriate trees per acre shall be growing above the herbaceous and shrub stratum. The appropriate canopy tree cover exceeds 33 percent of the mitigation wetland area and in no area of an acre in size is the desirable canopy tree cover less than 20 percent total cover.

82. **Upland Areas For Wetland Mitigation.** Upland enhancement mitigation areas shall be deemed successful when the following criteria have been continuously met for a period of at least one growing season, without intervention in the form of irrigation, dewatering, removal of undesirable vegetation, or replanting of desirable vegetation.

a. The plant species and coverage is similar to what would be expected for the target habitat type. Pines shall be less than five percent of the aerial cover.

b. Percent cover by all appropriate species is 80 percent or more, and the plants are reproducing naturally, either by normal, healthy, vegetative spread (in ways that would be normal for each wetland species) or through seedling establishment, growth and survival. Appropriate species are those species that are native to Gulf Hammock area.

c. Exotic and nuisance species are limited to five percent or less of the total cover.

d. For forested uplands, an average of at least 400 total desirable trees per acre shall be growing above the groundcover and sub-canopy strata. The desirable canopy tree cover exceeds 33 percent of the mitigation wetland area and in no

area of an acre in size is the desirable canopy tree cover less than 20 percent total cover.

83. **Water Quality.** Water within all wetlands and waterbodies shall be of sufficient quality to allow recreation or support fish and other wildlife.

84. **Operation Phase.** This permit is for the construction, alteration, maintenance and operation of a surface water management system for mining operations, and for the removal of all or part of the system as part of mine reclamation. General Condition No. 15 provides requirements for the transfer of the permit to the operation phase.

    a. Within 30 days after completion of reclamation of the permitted system, or independent portion of the system, the permittee shall submit a written statement of completion and certification by a registered professional engineer or other appropriate individual as authorized by law, utilizing Form 62-343.900(5), Environmental Resource Permit As-Built Certification by a Registered Professional. The statement of completion and certification shall be based on on-site observation of construction (conducted by the registered professional engineer, or other appropriate individual as authorized by law, or under his or her direct supervision) or review of as-built drawings for the purpose of determining if the work was completed in compliance with approved plans and specifications. If the statement of completion is for a portion of a larger system, the statement shall be accompanied with plans clearly showing the portion of the system that is complete.

    b. When the completed system which will remain after reclamation differs substantially from the permitted plans, any substantial deviations shall be noted and explained and two copies of as-built drawings submitted to the Department. As-built drawings shall be the permitted drawings revised to reflect any changes made during construction. Both the original and any revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawing. All surveyed dimensions and elevations shall be certified by a registered surveyor.

    c. The following information, at a minimum, shall be verified on the as-built drawings:

        1) dimensions and elevations of all discharge structures including all weirs, slots, gates, pumps, pipes, and oil and grease skimmers;

2) locations, dimensions, and elevations of all filter, exfiltration, or underdrain systems including cleanouts, pipes, connections to control structures, and points of discharge to the receiving waters;

3) dimensions, elevations, contours, or cross-sections of all treatment storage areas sufficient to determine stage-storage relationships of the storage area and the permanent pool depth and volume below the control elevation for normally wet systems, when appropriate;

4) dimensions, elevations, contours, final grades, or cross-sections of the system to determine flow directions and conveyance of runoff to the treatment system;

5) dimensions, elevations, contours, final grades, or cross-sections of all conveyance systems utilized to convey off-site runoff around the system;

6) existing water elevation(s) and the date determined;

7) elevation and location of benchmark(s) for the survey; and

8) elevation of berms surrounding reclaimed lakes, as shown on Cross Section H, on Sheet D4.

d. Submittal of the completed form shall serve to notify the Department that the system is ready for inspection. The permittee shall afford Department personnel the opportunity to schedule and conduct enough on-site inspections to determine whether the permit conditions have been met. After the on-site inspection, the Department shall notify the permittee that:

1) The permit conditions have been completed and the surface water management system has been built in accordance with the approved plans; or

2) The permit conditions have not been completed, identifying specifically those elements that do not meet the conditions; or

3) The permit conditions cannot be determined at this time, identifying specifically the information lacking that prevents the determination from being made.

e. Following inspection and approval of the permitted system by the Department, the permittee shall request transfer of the permit to the approved responsible operation and maintenance entity, if different from the permittee, using Form 62-343.900(7), Request for Transfer of Environmental Resource Permit Construction Phase to Operation Phase.

AGENCY COMMENTS

Florida Department of Community Affairs, Intergovernmental Coordination and Review - "We have reviewed the subject application, per your request, and have no objections to the proposed project."

Florida Department of State, Division of Historical Resources - "The project is consistent with the historic preservation aspects of Florida's Coastal Management Program."

OBJECTORS/PARTIES REQUESTING NOTICE

Withlacoochee Area Residents, Inc.

LIST OF ATTACHMENTS

The following figures are hereby attached to, and become part of this permit:

Sheet 1 of 1	Proposed Ditch Block Detail, from the Mitigation Parcel Hydrologic Enhancement Plan, February 2010
Sheet 1 of 1	Low Level Crossing Detail, from the Mitigation Parcel Hydrologic Enhancement Plan, February 2010
Attachment C	Mitigation Monitoring Plan, as received on June 11, 2010 (4 pages)
Table D-2	Target tree and shrub species abundance based on literature review and on-site sampling for hydric hammocks, as provided on June 11, 2010
	Planting List for Restoration of Temporary Crossings, as received on June 11, 2010
Figure 1-1	Location Map, as received on June 11, 2010
Figure 2-3	2009 Aerial, as received on June 11, 2010

	Drainage Basins and Springs Location Map, as received on June 15, 2010
Figure 2-6	FLUCFCS Map, as received on June 14, 2010
	Mine Project Acreages, as received on June 17, 2010
Figure 3-2	Mitigation Target Communities, as received on June 17, 2010
	Mine Parcels, as received on May 18, 2010
	Mitigation Area Property Owners Map, as received on June 8, 2010
	Mitigation Parcel - Easements, as received on May 20, 2010
	Mitigation Parcel - Easements, as received on June 4, 2010
Figure 11	Hydrologic Improvement Map, from the Mitigation Parcel Hydrologic Enhancement Plan, February 2010, received June 11, 2010
Figure 5-3	Release Year Map, as received on June 15, 2010
Figure 5-4	Release Year Map, as received on June 11, 2010
Figure 1	Water Monitoring Locations Map, as received on March 25, 2010
Figure 2	Staff Gauge Locations, as received on March 25, 2010
Figure MP-3	Groundwater Montoring Plan, from the Groundwater Monitoring Plan for Proposed King Road Mine, as signed and sealed on January 28, 2010
Sheet C1 of 1	Cover Sheet, as signed and sealed on June 11, 2010
Sheet S1 of 8	Existing Conditions, as signed and sealed on June 11, 2010
Sheet S2 of 8	Site Plan, as signed and sealed on June 15, 2010
Sheet S3 of 8	10-Year Mining Plan, as signed and sealed on June 15, 2010

Sheet S4 of 8	Final Site Plan, as signed and sealed on June 15, 2010
Sheet S5 of 8	Aggregate Plant Layout, as signed and sealed on June 15, 2010
Sheet S6 of 8	Temporary Road Plan, as signed and sealed on June 15, 2010
Sheet S7 of 8	20-Year Mining Plan, as signed and sealed on June 15, 2010
Sheet S8 of 8	Overburden Plan, as signed and sealed on June 15, 2010
Sheet L1 of 3	Wetland Crossing Layout, as signed and sealed on June 11, 2010
Sheet L2 of 3	Wetland Crossing Layout, as signed and sealed on June 11, 2010
Sheet L3 of 3	Wetland Crossing Layout, as signed and sealed on June 11, 2010
Sheet D1 of 10	Proposed Mining & Construction Sections, as signed and sealed on June 11, 2010
Sheet D2 of 10	Proposed Mining & Construction Sections, as signed and sealed on June 11, 2010
Sheet D3 of 10	Proposed Mining & Construction Sections, as signed and sealed on June 15, 2010
Sheet D4 of 10	Proposed Mining & Construction Sections, as signed and sealed on June 17, 2010
Sheet D5 of 10	Proposed Mining & Construction Sections, as received on June 17, 2010
Sheet D6 of 10	Proposed Mining & Construction Sections, as signed and sealed on June 15, 2010
Sheet D7 of 10	Future Wetland Crossing Sections, as signed and sealed on June 11, 2010
Sheet D8 of 10	Future Wetland Crossing Sections, as signed and sealed on June 11, 2010

Sheet D9 of 10	Wetland Crossing Sections and Details, as signed and sealed on June 11, 2010
Sheet D10 of 10	Crossing Ponds Sections and Details, as signed and sealed on June 11, 2010
Sheet E1 of 4	Erosion Control Plan, as signed and sealed on June 15, 2010
Sheet E2 of 4	Erosion Control Notes, as signed and sealed on June 11, 2010
Sheet E3 of 4	Erosion Control Details 1, as signed and sealed on June 11, 2010
Sheet E4 of 4	Erosion Control Details 2, as signed and sealed on June 11, 2010