



South Carolina Department of Health and Environmental Control Summary Response to Comments

Buist Mine | I-002209 | Allston Farrell LLC
Charleston County, South Carolina

This summary is being provided in conjunction with the South Carolina Department of Health and Environmental Control's (DHEC) decision to approve the modification application and modification of the permit for the Allston Farrell LLC's Buist Mine located west of Salters Hill Road and north of Highway 162 in Hollywood, Charleston County, S.C. This modification is to reallocate 12.7ac of buffer area into affected area to mine sand and topsoil.

DHEC's mission is to protect and promote the health of the public and the environment. Through the passage of environmental statutes and regulations, the S.C. General Assembly has established the conditions and criteria that DHEC follows in the permitting process. DHEC's role is to ensure that a proposed project meets all regulatory requirements that have been established in order to be protective of human health and the environment. If it has been determined that an applicant or application has met all applicable regulatory requirements, DHEC does not have the authority to deny the modification of a permit.

As part of the permitting process, DHEC engages other state and federal agencies, the surrounding communities, and the general public prior to making a final permit decision in order to:

- 1) Provide information about the proposed permitted activities in the communities;
- 2) Give agencies, community members, and other interested parties an opportunity to submit relevant information to DHEC for consideration prior to making a final permit decision; and,
- 3) Provide an opportunity to submit other concerns to the attention of DHEC and the applicant.

Public meetings and public hearings are methods DHEC uses to hear concerns and receive comments during the permitting process. A public meeting is an informal conversation with DHEC staff, to include questions and answers. A public hearing is a formal opportunity for comments to be stated and recorded by a court reporter for inclusion in the official file.

DHEC held a public meeting on the proposed Buist Mine on July 28, 2022. A public hearing was also held on July 28, 2022. These events were conducted using a virtual platform in a live-event setting. Recordings of all DHEC virtual public events were posted on DHEC's webpage for the proposed mine site (www.scdhec.gov/BuistMine) prior to the end of the public comment period. DHEC also extended the period to accept written comments through August 12, 2022.

DHEC values all public comments received during the permitting process and is committed to addressing and considering all relevant information prior to making a final permit decision. Public input is an important part of the permitting process and can result in changes to permit conditions and operational practices if a permit is modified.

Contents

Section 1: The South Carolina Mining Act	2
Section 2: Additional Terms and Conditions	3
Section 3: Groundwater	3
Section 5: Wetlands	5
Section 6: Buffers, Setbacks, and Visual Impacts	5
Section 7: Noise.....	5
Section 8: Public Safety	5
Section 9: Traffic	5
Section 10: Air Quality.....	6
Section 11: Zoning.....	6
Section 12: Threatened or Endangered Species	6
Section 13: Cultural and Historic Sites	7
Section 14: Land and Property Value/Economic Impact.....	7
Section 15: Community/Quality of Life	7
Section 16: Operating Hours.....	7
Section 17: Inspections	7
Section 18: General Opposition	8

The following responses are being provided in response to comments received during the public comment period, the public meeting, and the public hearing for Buist Mine.

Section 1: The South Carolina Mining Act

The principal law governing mining in this state is Title 48 Chapter 20: The South Carolina Mining Act. The legislative purpose of the Act is to provide that: (1) the usefulness, productivity, and scenic value of all lands and waters involved in mining within the state receive the greatest practical degree of protection and restoration; and that (2) no mining may be carried on in the state unless plans for the mining include reasonable provisions for protection of the surrounding environment and for reclamation of the area of land affected by mining. A complete copy of the Act can be found here: <https://www.scstatehouse.gov/code/t48c020.php>

The Act provides specific criteria for review of mine permit applications by DHEC. The Act does not supersede local zoning ordinances. Issues related to zoning (i.e., property value and industrial development) are under the jurisdiction of county and municipal planning departments and governed by zoning and land use regulations. DHEC has not been given the authority to consider the effect of a mining operation on property values. DHEC is required to evaluate the application in a timely manner and to consider relevant environmental issues.

The Act allowed the development of regulations to establish minimum standards for mining operations. Regulations 89-10 through 89-350 became effective on June 24, 1983 and have been subsequently modified. These regulations outline the requirements for permitting the design, construction, operation, maintenance, reclamation, and closure of mine sites. The complete list of regulations can be found here: https://scdhec.gov/sites/default/files/Library/Regulations/R.89-10_89-350.pdf

In reaching the decision to approve the permit application and issuance of a permit for the Buist Mine, DHEC staff reviewed all information contained in the application, supplemental information submitted by the applicant, and all agency and public comments to ensure that the requirements of the Act and Regulations had been met. DHEC has determined that

the applicant has met the applicable requirements and is approved to construct and operate the mine in accordance with the conditions and limits set forth in Permit No I-002209.

Section 2: Additional Terms and Conditions

In response to information contained within the application, as well as by comments received by other agencies and the communities during the public comment period, DHEC incorporated additional terms and conditions in the final permit. These additional terms and conditions are as follows:

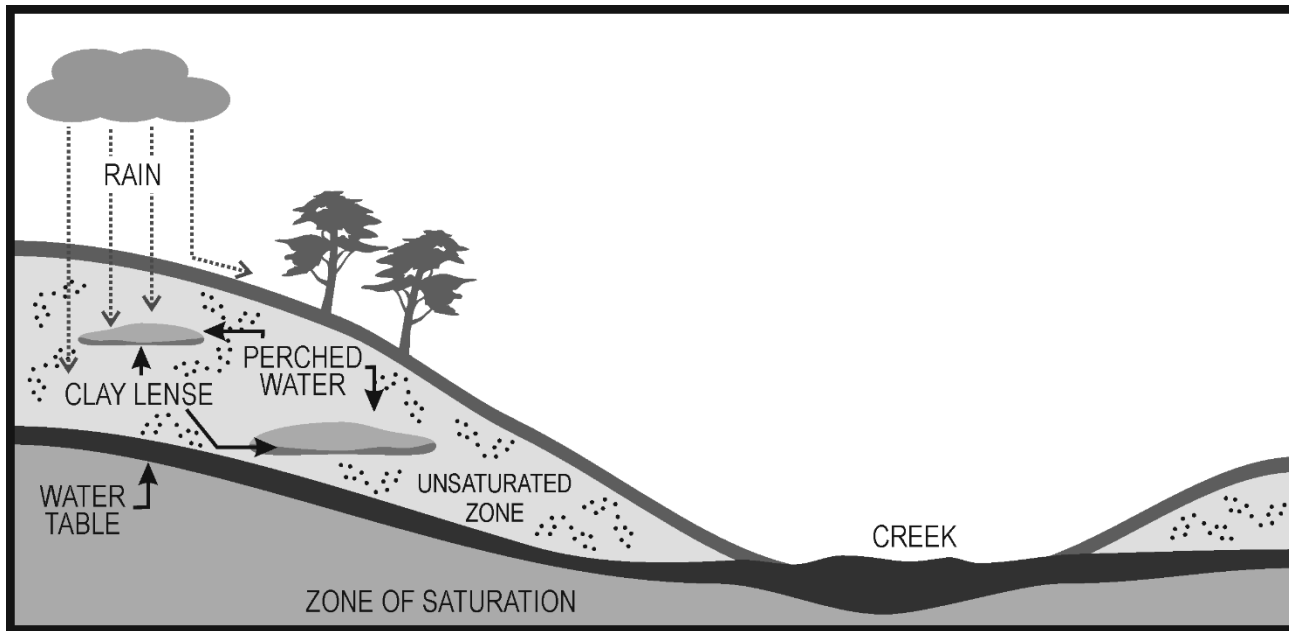
1. If archaeological materials are encountered prior to or during the construction of mine facilities or during mining, the S.C. Department of Archives and History and DHEC should be notified immediately. Archaeological materials consist of any items, fifty years or older, which were made or used by humans. These items include, but are not limited to, stone projectile points (arrowheads), ceramic sherds, bricks, oyster shell, worked wood, bone and stone, metal and glass objects, human skeletal remains, and concentrations of charcoal and stones below the ground surface. These materials may be present on the ground surface and/or under the surface of the ground.
2. Temporary or permanent placement of refuse and debris (e.g., concrete, brick, asphalt) from off-site locations is prohibited without approval by DHEC. Topsoil fill approved by DHEC may be brought in from off-site sources only for the purposes of mine land reclamation.
3. In the future, if determined to be necessary by DHEC, an appropriate fence will be installed around the affected area.
4. The operator shall maintain a minimum 50ft. undisturbed buffer between all land disturbance activity and any USACE jurisdictional wetlands. This buffer shall be permanently flagged prior to the initiation of any mine activity. The flags shall be maintained throughout the active mine operation of the site. The operator is allowed to discharge accumulated stormwater—that meets NPDES permit limits—into wetlands through a regulated NPDES outfall.
5. The operator shall comply with the approved Coastal Zone Consistency Determination issued under the SC Coastal Zone Management Program by SCDHEC's Office of Ocean and Coastal Resource Management (OCRM). See Appendix B.

Some of these conditions are also detailed in subsequent sections.

Section 3: Groundwater

Groundwater is water that collects or flows below the soil surface. The main source for groundwater is rainfall. Runoff from rainwater can go directly into water bodies or seeps into the ground. When water soaks (infiltrates) into the ground, gravity pulls the water down through the spaces between the soil particles and rocks until it reaches a depth where all of the spaces are filled with water, or saturated. The water level where the soils are saturated is called the water table. The area above the water table is called the unsaturated zone, the area below the water table is the saturated zone.

As shown in the following diagram, the water table is not always at the same depth below the land surface - the level moves up or down depending on rainfall and the rate water is removed (e.g., irrigation, industry, well). The unsaturated zone may contain pockets (lenses) of tightly bound clayey soils that do not allow the water to infiltrate. In this situation, the water will collect (perch) on the top of these impermeable lenses. This is "perched water" and is not the true water table along the top of the saturated zone.



Dewatering the groundwater creates what hydrologists call a “Cone of Depression”, where the water level can drop to varying degrees. Many factors can contribute to how far out and to what depth the groundwater can be affected, but the predominate factor is the type of material the water is flowing through. Given the limited depth of the pit, distances from the proposed pit to neighboring properties, and our observations at similar sand mines in the Low-Country setting, it is not anticipated that dewatering will have a noticeable effect on surrounding properties. If a water supply well complaint is received, DHEC is responsible for determining if dewatering activities at the mine have caused the problem. If DHEC determines the mine caused the problem, the operator is responsible for repairing, deepening, or re-drilling the affected well(s) and to supply the affected household(s) with bottled water until access to groundwater is restored.

To summarize, we do not anticipate that dewatering activities in the pit will affect wells outside the permit boundary. However, if they do, the permit gives us the authority to require the operator to fix the problem at no cost to the landowner.

Section 4: Surface Water

Discharge Monitoring and Sediment Control: The operator is permitted to discharge wastewater and stormwater through an outfall in accordance with the *NPDES General Permit for Discharges Associated with Nonmetal Mineral Mining Facilities (SCG731407)*. All discharges will be routed northwest into an unnamed drainage to Mellichamp Branch to Wallace Creek to Rantowles Creek to Stono River. Discharges from the outfall will be subject to numeric effluent limits (total suspended solids and pH) and other permit requirements that are protective of human health and the environment. Should the operator be unable to meet the requirements of the NPDES permit, DHEC’s Bureau of Water would initiate their compliance and/or enforcement procedures, accordingly.

Stormwater will be routed into the pit then pumped into the sump in Segment 1 in order to capture sediment runoff. This sediment will be allowed settle out of the stormwater prior to being discharged offsite. The NPDES permit requires the operator to have proper Best Management Practices (BMPs) and a Stormwater Pollution Prevention Plan (SWPPP) in place. Furthermore, the operator shall operate the site in accordance with the *Erosion and Sediment Control Plan – Initial Phase* (Rev. 1 dated March 23, 2021) and the approved mine maps.

Potential for Flooding: The mine operating permit is conditioned such that “Active pumping and discharge of water shall cease if the dewatering discharge causes flooding conditions to property downstream of the mine site”. At no time will the operator be allowed to flood neighboring properties.

Section 5: Wetlands

The operator shall maintain a minimum 50ft. undisturbed buffer between all land disturbance activity and any USACE jurisdictional wetlands. This buffer shall be permanently flagged prior to the initiation of any mine activity. The flags shall be maintained throughout the active mine operation of the site. The operator shall install silt fencing around all wetland buffers within the mine.

Section 6: Buffers, Setbacks, and Visual Impacts

Buffer areas are areas that will not be disturbed beyond the pre-mine natural state, and provide distance between the mining operation and the neighboring properties and wetlands. The Act and Regulations do not have specific requirements for buffer areas, so they are developed on a case-by-case basis. The size of the buffer and setback from the permit boundary is dependent on the nature of the mine, the neighboring land use, and the purpose of the buffer area.

The operator has designated 38.4 ac as buffer. The operator shall maintain a minimum 50 ft undisturbed perimeter buffer between mining activity and all property lines for the majority of the site. Additionally, a minimum 50 ft buffer will be maintained between mining activities and any wetlands.

The vegetation in the buffer will remain in its current state or be enhanced to provide for visual screening. Appropriate silviculture practices may be utilized to manage buffer areas that will allow thinning of timber under the direction of a S.C. licensed Professional Forester. Any land disturbance not consistent with accepted silviculture practices in the buffer areas will require the Mine Permit to be modified prior to such disturbances.

Section 7: Noise

The majority of noise generated with mining activity is associated with motorized vehicles and equipment. The level of noise perceived at residences is usually related to the distance from the source of the sound, weather conditions, topography, and the type and condition of the equipment. Equipment such as trucks, dozers, and loaders usually has an average noise level determined by the manufacturer. The majority of the equipment averages 75 to 90 decibels (db) at a distance of fifty feet. Sound decreases (attenuates) with distance at the rate of about 3 to 5 db each time the distance between the source and the person hearing it is doubled. Additionally, the mine operating permit requires the operator to maintain equipment (e.g., mufflers on trucks, trackhoes, pumps) to minimize noise from the site.

The combination of undisturbed vegetated buffers, maintenance of equipment, and distance from the operation will consequently reduce the potential for sound heard offsite. There may be instances when the sound of equipment (back up alarms, trucks, etc.) can be heard, but the decibel levels should not be excessive.

Although no state standards exist for noise emitted from this type of industry, the Mine Safety & Health Administration (MSHA) does have noise standards applicable for worker safety to protect hearing. Therefore noise, limited at the source to protect workers, has the added benefit of limiting noise beyond the permit area.

Section 8: Public Safety

Public safety around a mine site is always a concern. A primary method to ensure public safety is controlling access to the mine property. A gated entry and warning signs will minimize physical hazards to persons and adjoining land uses. Additionally, natural barriers (e.g., streams, wetlands, vegetation) provide a deterrent for accidental entry into a mine site. The combination of these barriers and site characteristics will limit public exposure to the operations at the site.

Section 9: Traffic

A common concern expressed is the increase of truck traffic hauling mined material. The SC Mining Act only authorizes DHEC to regulate truck traffic on roads *inside* the permit boundary. DHEC can only evaluate impacts to public roads as it pertains to the physical effects from the mining operation (e.g. undermining). It does not give DHEC the authority to regulate or restrict vehicle traffic outside the permit boundary or deny a permit based on the potential increased use of such roads.

Other concerns with road systems, including use of the roads or general wear-and-tear issues, are under the jurisdiction of S.C. Department of Transportation (SCDOT), S.C. Public Service Commission, or Charleston County Department of Public Works.

Section 10: Air Quality

Dust: Fugitive dust emissions from the proposed mining activities has been a concern with this proposed mine. The Division of Mining and Solid Waste Management is responsible for regulating dust emissions from a mining site. Sources of dust include: moving equipment, handling of the mineral resource and overburden, truck traffic, and wind erosion.

At active sites, the major contributors of dust are equipment and truck traffic. Properly constructed access roads with dust suppression methods (e.g., water trucks, sprinklers) is the most effective way to manage dust from traffic. The operator will use a watering truck. The frequency of watering will depend on weather conditions and volume of traffic.

Wind erosion of areas stripped of vegetation and material stockpiles are also sources for potential dust. The operator, where feasible, shall establish vegetation in non-active mine areas barren of vegetation to stabilize the soil and reduce potential for wind erosion and dust emissions. The combination of minimizing land disturbance and re-vegetation will lessen the potential for windblown dust.

Health Risks with Dust Exposure: Health risks are mitigated by controlling the dust at the source. Source control measures include best management practices, such as water trucks, dust suppressants, sprinklers, etc.

MSHA is responsible for protecting the health of workers at mine operations. As part of their duties, MSHA monitors exposure of workers to dust. Results from monitoring show the risk is greatest within work environments involving processing (crushing/grinding) and operating equipment. If a problem concerning overexposure exists, MSHA would require the company install some type of engineering control to eliminate the concern at the source.

Meeting MSHA requirements to control dust in the immediate work area will further minimize any exposure risk outside the permitted area. No elevated exposure risk is anticipated from the mine beyond the property line.

We are exposed on a daily basis to dust from non-industrial sources such as dirt roads, fields, and bare lots. Although the proposed mining operation does not add any new hazards, engineering and administrative controls have been designed to minimize the production of airborne dust. Based on the proposed controls at the mine (natural buffers, distance from property lines, controls on the haul road), an increase in the exposure to silica or other materials beyond the property line is not anticipated.

Information on air monitoring in South Carolina is available on DHEC's Bureau of Air Quality website at <http://www.scdhec.gov/HomeAndEnvironment/Air/AmbientAir/>.

Section 11: Zoning

Appropriate or compatible land use is determined by local government. DHEC has no authority regarding zoning in Charleston County. Specifically, the S.C. Mining Act states in Section 48-20-250, "*No provision of this chapter supersedes, affects, or prevents the enforcement of a zoning regulation or ordinance within the jurisdiction of an incorporated municipality or county or by an agency or department of this State, except when a provision of the regulation or ordinance is in direct conflict with this chapter.*" DHEC recognizes that each county and municipality across the state has different priorities and unique requirements. DHEC relies on county and municipal governments, through zoning and other ordinances, to regulate where residential, commercial, and industrial zones may occur.

Section 12: Threatened or Endangered Species

The S.C. Mining Act and Regulations do not allow an undue adverse effect on wildlife or freshwater, estuarine, or marine fisheries. The Mining and Reclamation program has interpreted an "undue" effect as an effect on a federally recognized

endangered or threatened species that cannot be properly mitigated for. The operator has created a Protected Species Assessment for this site area and did not identify any federally endangered or threatened species. The S. C. Department of Natural Resources (DNR) provided comments that did not indicate threatened or endangered species either. Similarly, U.S. Fish and Wildlife was also requested to comment on this application and did not state any concerns over threatened or endangered species. Therefore, it is DHEC's opinion that there will be no undue adverse effects on wildlife based on this modification.

Section 13: Cultural and Historic Sites

The State Historic Preservation Office reviewed this application and determined that there is a low probability of any cultural or historic sites in this area and confirmed that a survey was not required for this site. If archaeological materials are encountered prior to or during the construction of mine facilities or during mining, the S.C. Department of Archives and History and DHEC shall be notified immediately. Archaeological materials consist of any items, fifty years or older, which were made or used by humans. These items include, but are not limited to, stone projectile points (arrowheads), ceramic sherds, bricks, oyster shell, worked wood, bone and stone, metal and glass objects, human skeletal remains, and concentrations of charcoal and stones below the ground surface. These materials may be present on the ground surface and/or under the surface of the ground.

Section 14: Land and Property Value/Economic Impact

Comments were received regarding the impact to property values and possible economic impacts. All zoning decisions are made at the local level by a city or county zoning authority, usually before a permit request is received (see Section 11). DHEC cannot dictate where a facility locates or factor property value impacts into our permitting decision. We encourage residents to contact their local city or county council representatives for more information on how to get involved in local zoning and planning issues.

Section 15: Community/Quality of Life

Comments were received regarding the potential impacts of the proposed mine on the local community's way of life. DHEC is committed to fulfilling the agency's responsibilities to protect and promote the health of the public and the environment. Through the exercise of those responsibilities, DHEC works to improve the quality of life of individuals and communities. However, the agency may only act within the limits of its statutory and regulatory authority. Through statutes and regulations, the General Assembly has established conditions and criteria the agency uses to ensure public health and environmental protection. DHEC is required to make its permit decision based only on technical review of the permit application and the Act and Regulations in place at the time of DHEC's review.

Section 16: Operating Hours

DHEC does not have the authority to regulate operating hours at mine sites.

Section 17: Inspections

S.C. Mining Act 48-20-130 and Regulation 89-240 allow DHEC to conduct inspections and investigations of the permitted area at any reasonable time for the purposes of determining whether the operator has complied with the reclamation plan, requirements of the Mining Act, any rules and regulations promulgated thereunder, or the terms and conditions of the operating permit. The Mining Program will conduct routine site inspections and compliance inspections, as needed.

The Bureau of Water's monitoring program includes documentation of quarterly visual inspections, an annual comprehensive site inspection, quarterly benchmark sampling, an impaired waters assessment (TMDL sampling if discharging to an impaired water), monthly effluent limitations monitoring (if required), and other aspects like employee training, spill/leak assessments and documentation, and a Best Management Practices Plan. Compliance Evaluation Inspections (CEIs) are randomly conducted at permitted facilities approximately once every 5 years, unless a follow up is needed at a particular facility due to non-compliance with permit guidelines; in such cases, a facility may be inspected at the Departments discretion in order to assess and/or enforce permit compliance. DHEC staff may also respond to complaints about a facility.

Section 18: General Opposition

DHEC received several comments requesting denial of a permit. While DHEC appreciates all comments received, it is important to recognize that we do not have the authority to make permitting decisions based on community, business, employee, or customer approval or disapproval of a proposed operation. DHEC is required by law to make a decision based only on the technical review of an application and the regulatory requirements in place at the time of that review. In 48-20-70 of the Act, DHEC is required to grant an operating permit to the applicant if there are no technical reasons to deny the permit.