SUMMARY RESPONSE TO COMMENTS AND QUESTIONS

South Carolina Department of Health and Environmental Control
Bureau of Land and Waste Management
Division of Mining and Solid Waste Management

Approval of Mine Operating Permit I-002329
Luck Stone Corporation
Fairfield I-77 Quarry
January 14, 2021

This Summary Report outlines specific issues, within the jurisdiction of the South Carolina Department of Health and Environmental Control (DHEC), considered in review of the application submitted for the Fairfield I-77 Quarry on Highway 34 in Fairfield County. This Summary Report is being provided to address many of the issues raised by DHEC's Public Notice initiated on April 15, 2021 and the Public Hearing held on August 05, 2021. This Summary Report is specific to DHEC's technical review for the Mine Operating Permit under the authority of the South Carolina Mining Act (Act).

In order to construct and operate the Fairfield I-77 and its associated process equipment, a National Pollutant Discharge Elimination System (NPDES) Permit, an Air Synthetic Minor Construction Permit, and a Mine Operating Permit are required by state law. A NPDES Permit (SCG731604) was issued by DHEC on January 13, 2021 and an Air Synthetic Minor Construction Permit (1000-0047-CA) was issued on January 14, 2021. DHEC accepted comments on the Draft Mine Operating Permit following the public hearing through August 20, 2021. The approved mine permit, maps, reclamation plan, and this Summary Report are available on DHEC's website at www.scdhec.gov/publicnotices.

General overview: DHEC's Mining and Solid Waste Division has approved the mine operating permit after careful review of all information submitted by the applicant, as well as all comments received from governmental agencies and interested persons. The permit will require the mine operator to comply with the South Carolina Mining Act and the South Carolina Code of Regulations.

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.

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.

Application for the Mine Operating Permit: DHEC received the Application for a Mine Operating Permit from Luck Stone Corporation for the proposed Fairfield I-77 Quarry on March 16, 2021. An *Intent to Mine* notice was published in *The Voice of Fairfield County* newspaper on April 15, 2021 and April 22, 2021. The notice was mailed to adjacent landowners, government

and regulatory agencies, and other interested parties, in accordance with R.89-100.

In response to the Intent to Mine notice, DHEC received multiple requests to hold a public hearing. DHEC acknowledged that a public hearing would be held at a later date and that notice of the hearing would be provided at least thirty (30) days prior to the hearing date. DHEC requested supplemental information from the applicant.

A public meeting was held by DHEC on July 22, 2021 and a public hearing was held by DHEC on August 05, 2021. The *Notice of Public Hearing* was mailed to interested parties on July 01, 2021. The *Notice of Public Hearing* was published in *The Voice of Fairfield County* newspaper on July 01, 2021 and July 08, 2021. The comment period was extended through August 20, 2021. In total, the public had 128 days to comment on the application package.

Permit Application Specifications: Luck Stone Corporation is permitted to mine granite/gneiss. The permitted area of this mine operation composes three tracts of land totaling 416.8 acres (Fairfield County TMS # 166-00-00-018, 166-00-00-028, and 166-00-00-030). The current topography of the permitted area is between approximately 450 - 600ft above mean sea level (msl). The operation is permitted to excavate to a maximum depth of +30ft msl or 485ft below ground surface (measured from the original ground surface elevation to final elevation at that location), pending future DHEC approval (see below).

Land within a mine operating permit is designated according to the permitted use (*Affected acres*, *Future Reserves,* and *Buffer Areas)*. The **416.8 acre *Permitted area*** comprises *Affected acres, Future Reserves,* and *Buffer Areas*. The following list provides an area description, type of activities, and designated acreage for each component of the Permitted area:

1**) Affected Area** – **259.5 acres**. The affected area comprises all lands to be disturbed by mining activities (pit, sediment basins, haul roads, berms, processing area, overburden storage piles, etc.). Of the 259.5 affected acres, 165.0 **acres are currently bonded and may be affected**. The affected area is subject to reclamation requirements.

2) **Future Reserves** – **77.9 acres.** Prior to the initiation of activity in future reserves, the operator shall submit detailed mine and reclamation plans to DHEC for approval.

3) **Buffer area – 79.4 acres.** Buffer is land not to be disturbed by mine activity. Buffers are used to lessen potential effects to surrounding land (setbacks to property boundaries, public roads, wetlands, wildlife, etc.). Any land disturbance not consistent with accepted silviculture practices in the buffer areas would require the Mine Operating Permit to be modified *prior* to any such disturbance. Appropriate silviculture practices may be utilized to manage upland buffer areas allowing the thinning of timber under the direction of a SC Licensed Professional Forester.

Mine Reclamation: The Act defines reclamation as the reasonable rehabilitation of affected land (mined or otherwise disturbed) to a useful purpose and the protection of natural resources in surrounding areas. The Act does not require the land disturbed by mining to be returned to its original state. Reclamation of the mine to a specific land use is based on many factors; including, but not limited to: the method of mining, the material mined, the geology and topography of the area, size, surrounding land uses, and the desired use for the former mine site. Lakes or ponds, grassland, woodland, cropland, parks or recreational developments, or residential or commercial developments may be acceptable reclamation objectives.

Luck Stone Corporation is currently permitted to affect 259.5 acres. A reclamation bond has been

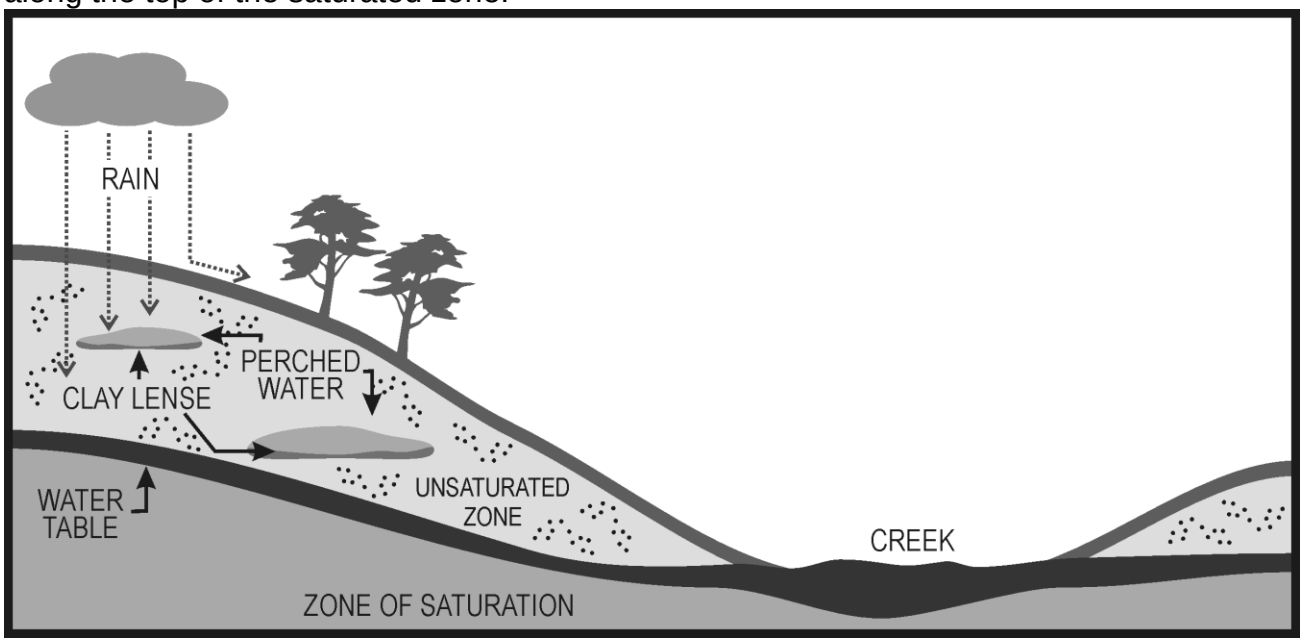
submitted based on the requirements of the Act (Section 48-20-110) and Regulations (R.89-200). The reclamation bond will remain in effect with DHEC until the mine site has been reclaimed to regulatory standards and released. Reclamation bonds are in place to ensure proper reclamation of disturbed areas (it does not serve as financial assurance for potential off-site impacts).

The approved reclamation plan states the site will be reclaimed to pond/lake, grassland, and/or commercial development. Slopes will be vegetated and no steeper than a 3H:1V gradient. The pond will be excavated to a depth greater than 4ft on, at least, 50% of the water surface. Other disturbed areas (e.g., plant, processing area) will be graded and vegetated as grassland or developed as commercial business sites. Once all mining has ended and the site meets reclamation standards, the mining permit would be canceled; at that time the Mining & Reclamation Program has no further jurisdiction over land use.

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.



Groundwater Availability: DHEC considers the potential effects of mining activities on the quantity of groundwater available to nearby water supply wells and lakes/ponds. The Town of Ridgeway's Public Water Supply Well and several individual residential wells and ponds are located in the

vicinity of the mine site area. The pumping of water from the water table is expected at Fairfield I-77 Quarry.

Regulation 89-120 (Terms and Conditions of Permit) Part C(3) specifically addresses dewatering measures and states:

(a) In areas of documented groundwater-related impacts from dewatering activities or potential significant impact as determined by the Department, the Department may require the operator to install a groundwater monitoring system to evaluate pre-mining groundwater conditions.
(b) In areas of documented groundwater related problems or potential significant impact as determined by the Department, the operator may be required to keep accurate records of the time and rate of groundwater pumping, groundwater elevations in the pit or groundwater elevations in observation wells during mining.
(c) Information collected from a pre-mine groundwater monitoring system and during mining will be used by the operator and Department to determine provisions which meet the requirements for the protection and/or restoration of surface water or groundwater impacted by mine dewatering.

Per R89-120C(3)(a), DHEC has conditioned the permit to require the operator to install a groundwater monitoring system to evaluate pre-mining groundwater conditions. *AT&C #7: Prior to any mining activities, a minimum of four (4) groundwater monitoring wells and one (1) calibration well shall be constructed in the areas delineated on the mine map SM-2329-1V1. These monitoring wells shall be constructed prior to the initiation of dewatering activities. One year of monitoring results shall be completed and submitted to DHEC prior to the devleopment of the granite pit sump and subsequent dewatering. If, in the future, DHEC determines additional monitoring wells should be installed, the operator shall comply with DHEC's request.*

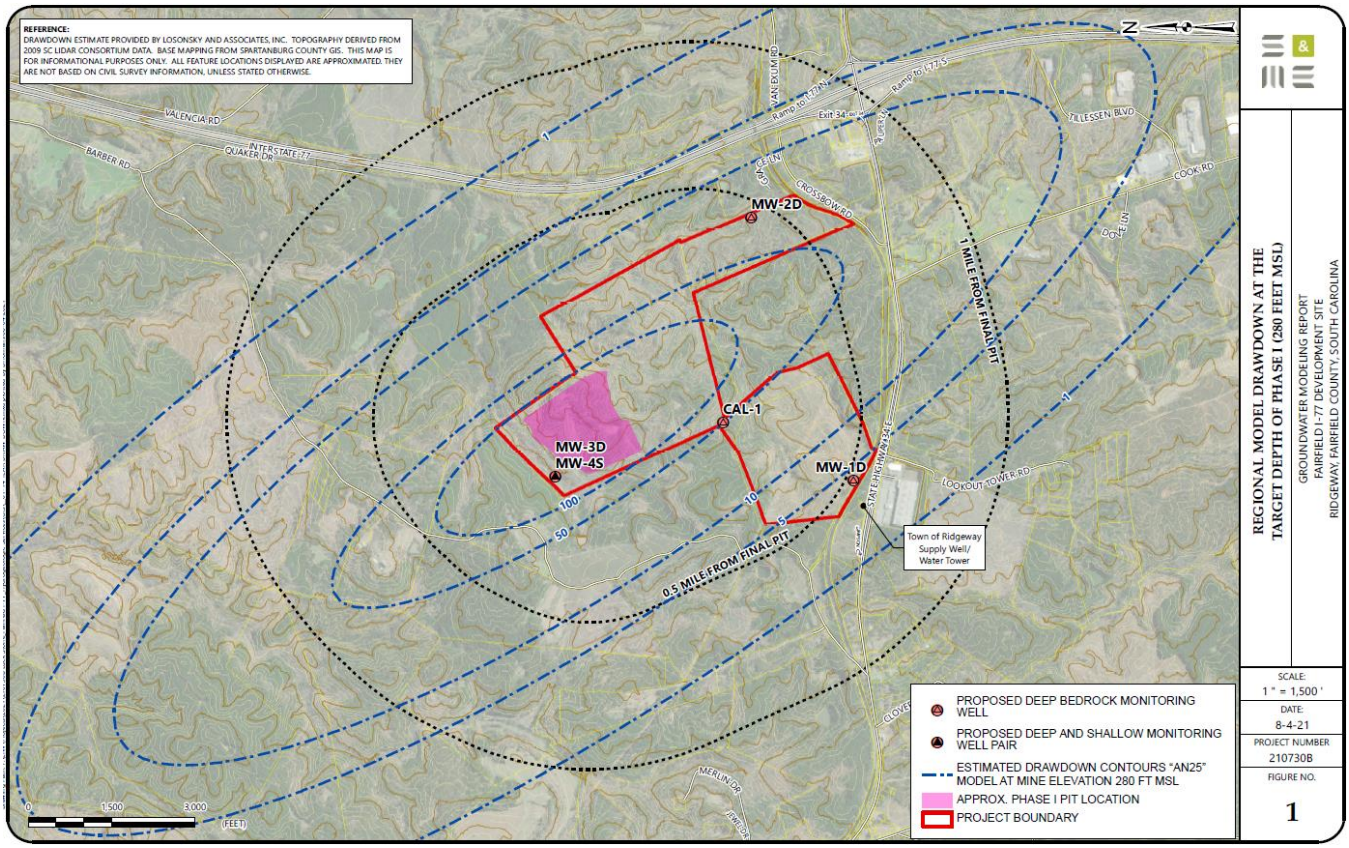
Per R89-120C(3)(b), DHEC has conditioned the permit to require the operator to keep accurate records of groundwater elevations in the observations wells during mining and these records can be available to the public through the Freedom of Information Act. *AT&C #7 (con't): Groundwater monitoring wells shall be measured monthly. Groundwater elevations shall be normalized to mean sea level, and hydrographs plotted for each monitoring well. This data shall be submitted quarterly to the Division of Mining and Solid Waste Management by the 28th of the first month of the next quarter. The report should include a record of daily precipitation measurements, with monthly rainfall totals.*

Per R89-120C(3)(c), DHEC will use information collected from the groundwater monitoring system to determine provisions of the permit which will meet the requirements for the protection and/or restoration of surface water or groundwater impacted by mine dewatering. *AT&C #8: At Mine Year 5, the groundwater model shall be recalibrated using data from the monitoring wells; this new information shall be used to determine what impacts—if any—are predicted to occur at the public water supply well or individual wells in the area, and to adjust the mine plan accordingly.*

Additionally, the operator shall be required to submit updated groundwater models 90 days prior to any excavations below 235ft below ground surface (or +280ft relative to mean sea level) or any subsequent depth limits imposed by DHEC. DHEC shall then use these updated models and monitoring data to approve lower depth limits or adjust mine plans accordingly.

The maximum depth of allowed excavation (i.e., dewatering) is initially set at 235 feet below ground level (+280 ft msl). This depth limit is based on the water drawdown model produced by

S&ME, which predicts that a minimal drawdown between 1 – 5ft would occur at the Town of Ridgeway Water Supply Well. This depth will also limit the lateral extent of the cone of depression, narrowing the area of influence.



However, if a water supply well complaint is received, a contingency plan (Appendix B of the mine operating permit) will go into effect and 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 provide water to the affected household until such time as a permanent source is reestablished. If anyone suspects that the mining operation may be affecting their groundwater, please contact DHEC's Division of Mining and Solid Waste at 803-898-1362 and ask for the Mining and Reclamation Manager or the Quarry Inspector.

Groundwater Usage: DHEC received several comments regarding a 100,000 gallon per day usage requirement for this operation, and the public was concerned that this amount would be pumped from the ground each day. This is an estimate that came from Luck Stone Corporation's Chester Quarry application, and represents the *maximum* amount of water that would be required for a similarly sized operation, like Fairfield I-77 Quarry. In reality, the day-to-day water usage of this operation may be significantly less than this amount. Additionally, the water used at this operation (primarily for the processing plant and dust suppression) is kept in a closed-loop system and is reused over and over again in this process. During site preparation, the operator will construct a total of nine ponds scattered across the site. These ponds perform multiple functions, including as storage capacity for stormwater (water introduced to the site from precipitation) to be used in this closed-loop system.

Public Water Supply Well/Source Water Protection Zone: The Town of Ridgeway has a public water supply well in the vicinity of the proposed mine site. In April 2003, DHEC's Bureau of Water

created a Source Water Assessment for this site, which delineated a 2,180ft-radius Source Water Protection Zone around it. Information on how this zone was determined can be found in the Source Water Assessment Report. The information provided in the report was intended to be the foundation of a *local effort* (e.g., Town of Ridgeway, Fairfield County) to provide better protection of this drinking water source. This report identified one existing Potential Contaminants Source (PCS): Sunbelt Beverage, which is now Breakthru Beverage South Carolina. This PCS had two categories of contaminant: PCSs with volatile organic compounds (VOCs) and PCSs with petroleum products. This PCS is less than 500ft from the public water supply well.

Alternatively, the majority of the proposed mine site is outside of this Source Water Protection Zone, including the entirety of the pit, the initial plant area, the northeast overburden storage area, and the Future Impact Area 2. The Mine Operating Permit requires the operator to "*…establish a protected area or establish procedures to minimize fuel spillage or incidental spillage of other petroleum products during storage, refueling of equipment or in the performance of routine maintenance on equipment. Contaminated materials resulting from contact with petroleum products shall be removed from the site and disposed of properly to prevent contamination to ground and surface water resources.*" AT&C#9 states, "*In order to minimize the potential for contamination of the public water supply well, the operator shall construct any fueling areas and maintenance shops outside of the 2,180ft.-radius Source Water Protection Zone*."

It was requested that a comprehensive Source Water Protection Plan for the public supply well be developed by DHEC or required to be developed by the operator. It is DHEC's position that the local community should form a local team of volunteers to create management measures and contingency planning. More information on this topic can be viewed at https://scdhec.gov/environment/your-water-coast/source-water-protection and https://www.epa.gov/sourcewaterprotection/resources-source-water-protection#tab-1

Surface Water:

Discharge Monitoring and Sediment Control: Fairfield I-77 Quarry is permitted to discharge wastewater and stormwater through outfall 001 in accordance with the *NPDES General Permit for Discharges Associated with Nonmetal Mineral Mining Facilities (SCG731604).* All discharges will be routed northeast into Dutchman's Creek, which flows into Lake Wateree, approximately 11 miles away from the permitted site. 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.

The operator has indicated that during operations, water from the processing plant will be routed in a closed circuit system through the collection pond where the clarified water is then reused in the processing plant. Under normal rainfall conditions, this closed circuit system will operate without discharging into waters of the state. However, in extreme or prolonged rainfall events, there is a potential for the water volume to exceed the capacity of the wash circuit system. Under these circumstances any excess water may be discharged into waters of the state through the regulated outfall.

Stormwater will be routed into the pit or any of the nine (9) sediment basins throughout the site, 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 Fairfield I-77 Quarry in accordance with the *Erosion and Sediment Control Plan – Initial Phase* (Rev. 1 dated March 23, 2021) and the approved mine maps.

The NPDES general permit requires that stormwater outfalls have appropriate BMP's to minimize the discharge of pollutants. The permit also requires benchmark monitoring of stormwater discharges. Benchmark monitoring involves collecting a quarterly sample during the first 30 minutes of the stormwater discharge and analyzing it for Total Suspended Solids. If the average of the four quarterly benchmark samples is greater than 100 mg/l Total Suspended Solids, then the operator must either improve their BMP's or document that it is not feasible to improve their BMP's. If the average of the four quarterly benchmark samples is less than 100 mg/l Total Suspended Solids, benchmark sampling is no longer required during this permit term for that outfall.

Lake Wateree: Lake Wateree is approximately 11mi east of the Fairfield I-77 Quarry site. With 13,025ac of open water, it is the largest of the Catawba-Wateree Lakes in South Carolina. Based on the U.S. Geological Survey's StreamStats program, it's fed by a watershed basin approximately 3,033,600ac in area, and extends well into North Carolina, including the city of Charlotte and all of its associated industries. Comparatively, the area of Fairfield I-77 Quarry affected by mining totals 259.5ac, or less than one-hundredth of one percent of the total Lake Wateree watershed basin. Given the distance from the lake, the relative proportion of the site compared to the entirety of the watershed basin, and the low potential as a source of pollution, it is not anticipated that this activity will have any noticeable effect on Lake Wateree.

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.

The Old Homer Baptist Church cemetery is located to the west, greater than 700ft from the nearest affected area (i.e., West Overburden Berm and Storage). This overburden storage area will be sloped and ditched to capture any stormwater runoff before it leaves the site and route it back to a sediment basin. This water will be allowed to clarify and then discharged into nearby wetlands, where it will travel east, away from the cemetery.

Wetlands Delineation / Impacts and Stream Buffers:

Wetlands: S&ME, a consultant for Luck Stone Corporation, submitted a Request for Jurisdictional Determination with the U.S. Army Corps of Engineers (USACE). This request identified approximately 3.11ac of Jurisdictional Waters of the U.S. (JWOTUS) (i.e., streams and wetlands) on this site. The mine plan proposes to directly impact approximately 0.68ac of JWOTUS. This would require additional permitting through the USACE and the Mine Operating Permit requires the operator to obtain, maintain, and update, as appropriate, all necessary State and Federal permits in order to construct and operate the mine. Additional Term and Condition #5 of the Mine Operating Permit specifies that the appropriate federal permitting from the USACE is required before any impacts are made to JWOTUS. A minimum 75ft – 100ft buffer shall be maintained between mining activities and any wetlands not appropriately mitigated for.

Buffers, Setbacks, and Visual Impact: 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. 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.

Fairfield I-77 Quarry has 79.4ac designated as buffer. The operator shall maintain a minimum 50ft undisturbed perimeter buffer between mining activity and all property lines for the majority of the site. Additionally, a minimum 75ft buffer will be maintained between mining activities and any wetlands. Based on concerns received from SC DNR and the community, wetland buffers have been increased to a minimum of 100ft in all non-pit areas, as shown on the mine map.

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 SC 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.

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.

Another factor used to buffer noise is topography. Overburden will be used to construct berms to block the direct path of sound. 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, earthen berms, 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.

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) and constructed berms 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.

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. blasting, undermining, etc.). 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.

Based on community concern, a condition of the mine operating permit prevents the operator from constructing an entrance/exit onto Barber Road, in order to preserve access to the Old Homer Baptist Church cemetery. Another concern regarded the potential inclusion of Highway 34 to a State Scenic Byway. Given the distance between Highway 34 and any proposed disturbance on the site, coupled with the existing vegetation screening the site from view, it is not anticipated that this operation would have any impact on the designation of this highway as a state scenic byway.

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 Fairfield County Department of Public Works.

Blasting: Surface blasting requirements are regulated in R.89-150. All blasting is required to be performed by a S.C. licensed blaster and be within 1.0 inch per second peak particle velocity (PPV) at the closest inhabited structure, which is considered more than adequate to protect the structure's integrity.

Per Regulation 89-150.I., to provide for adequate public safety, DHEC is required to establish a minimum distance between blasting and any structure not owned by the operator. Typically, for a new ("green-site") quarry, we set that distance no closer than 1,000ft. The applicant has indicated on the MR-400 that they will observe at least 1,500ft from blasting to the nearest inhabited structure, in order to satisfy that part of the Regulation.

Ground vibrations, due to blasting, may be felt outside of the permit boundary. Federal guidelines on surface blasting state that a PPV of 2.0ips is considered safe for structures; South Carolina goes one step further and limits PPV to 1.0ips (Regulation 89-150.E.) at the closest structure for an additional measure of safety. So, while ground vibrations may be felt offsite as an annoyance, it is not considered intense enough to cause damage to structures or roads. Additionally, the air blast from a quarry may be heard off-site, but would not be strong enough to produce damage to residential structures.

R.89-150.A. requires the operator to perform a Pre-Blast Survey of inhabited structures that are within one-half mile of any blasting at the landowners' approval. A copy of this report will be given to the operator, the landowner, and DHEC.

The blasting emulsion that Luck Stone Corporation proposes to use is mostly water insoluble, which would minimize any nitrate leeching that might occur into the groundwater. Additionally, the pit is entirely outside the Source Water Protection Zone for the public water supply well.

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 proposed operational plan for the Fairfield I-77 Quarry involves segmental mining - overburden will be stripped from the areas to be mined first and soil stabilization measures installed as soon as practical. 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/*.

Zoning: Appropriate or compatible land use is determined by local government. DHEC has no authority regarding zoning in Fairfield 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 received a request to review its policies and consider adoption of location standards for mining activities. The S.C. Mining Act and Regulations do not currently require location standards for mining activities. DHEC recognizes that each county across the state has different priorities and unique requirements. Therefore, DHEC relies on county and municipal governments, through zoning and other ordinances, to regulate where residential, commercial, and industrial zones may occur.

Endangered or Threatened 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. S&ME 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 threaten or endangered species. Therefore, it is DHEC's opinion that there are no undue adverse effects on wildlife.

Cultural and Historic Sites: S&ME, a consultant for Luck Stone Corporation, conducted a reconnaissance-level Cultural Resource Report on the land within the permit boundary, as well as within a half-mile search radius. This report identified several potential resources within the permit boundary, but indicated that they were not eligible for inclusion in the National Register of Historic Places (NRHP). The State Historic Preservation Office (SHPO) reviewed this report and concurred with the findings. In response to several requests from the community, S&ME conducted an intensive-level survey of the area. While they did find a few more sites, it was determined by S&ME, and later confirmed by SHPO, that these sites were also not eligible for inclusion in the NRHP.

In order to address some public concerns, the operator has voluntarily agreed to add Additional Terms and Conditions #10 and #11 to their Mine Operating Permit, which makes them fully enforceable. AT&C #10 requires the operator to offer the Vaughn's Stage Coach Stop structure a pre-blast survey, and to monitor at least six (6) months of blasting data with a locally placed seismograph. AT&C#11 restricts the operator from constructing a vehicle entrance/exit directly onto Barber Road, so it will not impact accessibility to the nearby Old Homer Baptist Church Cemetery.

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. 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.

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.

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

Community Interest Engagement Group: Luck Stone Corporation has committed to work with the community to establish a Community Interest Engagement Group (CIEG). The offered CIEG will be comprised of residential entity representation (Homeowner Association/HOA or equivalent) within a two mile radius of the subject property and individual adjoining property owners. This group will meet at minimum on a quarterly basis or as determined by the CIEG. The CIEG will focus discussions on ongoing activities, future development planning, and to mutually share community opportunities for collaboration.

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.

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.