

MINING GENERAL PERMIT FOR THE EXCAVATION OF TOPSOIL OR SAND/CLAY

This Mining General Permit - GP1 (Permit) authorizes mining limited to excavations for topsoil or sand/clay fill material which do not require further processing in accordance with the conditions set forth herein. The entity issued approval under this permit shall conduct mining and reclamation in accordance with this Permit, the approved GP1 Reclamation Plan (Reclamation Plan) and the S.C. Mining Act S.C. Code §48-20-10 *et seq.*, (1976) (Act), and with Regulations 89-10 *et seq* (Regulations).

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Division of Mining and Solid Waste Management
Bureau of Land and Waste Management

Issued Date:	Permit No.:	GP1
Effective Date:		

This Permit replaces General Mine Operating Permit - GP1 issued January 15, 1999.

DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL BUREAU OF LAND AND WASTE MANAGEMENT DIVISION OF MINING AND SOLID WASTE MANAGEMENT MINING GENERAL PERMIT - GP1

SECTION I: COVERAGE UNDER THIS PERMIT.

A. Authorization

- 1. In accordance with S.C. Mining Act, S.C. Code Ann. 48-20-10, et seq., as amended, and Regulations S.C. Code Regs. 89-10 *et seq*, the South Carolina Department of Health and Environmental Control (Department) is responsible for administering the provisions and requirements of the Act and Regulations. This authority includes the process and issuance of mining permits, approval of reclamation plans, and collection of reclamation performance bonds. The Department has ultimate authority, subject to the appeal provisions of this chapter, over all mining, as defined in this chapter, and the provisions of this chapter regulating and controlling such activity.
- 2. Pursuant to §48-20-55, the Department may develop and implement general permits for the regulation of mining limited to excavations for topsoil or sand/clay fill material which do not require further processing.

B. Applicability

- 1. This permit allows for the excavation of sand/clay and topsoil affecting (disturbing) an area no greater than five (5) acres to a maximum depth of twenty (20) feet with no material processing. For operations not meeting this criteria, the operator must apply for an Individual Mine Operating Permit pursuant to §48-20-60 of the Act.
 - 2. For purposes of this permit, the operator is the entity requesting coverage under this permit.
- 3. The Department may limit the number of mines granted coverage under the Permit within a geographic area. For the purpose of this limitation, a geographic area is defined as the area within the same tract of land, the area on an adjacent tract of land, or the area on neighboring land with a mine granted coverage under this Permit. Applications for multiple mines within a geographic area may require evaluations under the individual mine permitting process.
- 4. Any entity issued coverage under the General Mine Operating Permit before the effective date of this Permit that has not met all reclamation standards will be subject to the conditions of this Permit. Operators must be in compliance with the requirements of this Permit within 60 days of its effective date. The Department may approve an extension upon submittal of a written request if the operator can demonstrate they are actively pursuing compliance with permit conditions.
- 5. For eligible mines located in the South Carolina coastal zone, which is compromised of the eight coastal counties Beaufort, Berkeley, Charleston, Colleton, Dorchester, Horry, Georgetown, and Jasper, this Permit has been certified consistent with the enforceable policies contained within the Coastal Zone Management Program (CZMP) document and coverage is provided herein. Coverage will not apply if the project site does not meet the conditions of this Permit and an individual certification will be required.
- 6. If the Department determines the mining and reclamation activities are failing to achieve the purpose and requirements of the Act and Regulations, the Department shall notify the operators of its intentions to

either modify the terms and conditions of this Permit pursuant to §48-20-150 or to require the operator obtain an Individual Mine Operating Permit pursuant to §48-20-60 .

C. Reclamation

- 1. The operator is required to complete reclamation of the mine in accordance with the Reclamation Plan approved by the Department. The operator is responsible for meeting the standards set forth in the Reclamation Plan and in R.89-330 until the operator has received written notice from the Department that reclamation at the site has been accepted and coverage of the mine under this Permit is cancelled.
- 2. Pursuant to §48-20-60 of the Act, "Termination of an operating permit does not relieve the operator of any obligations which he has incurred under his approved reclamation plan or otherwise. Where the mining operation itself has terminated, no operating permit is required in order to carry out reclamation measures under the reclamation plan."

SECTION II: FINANCIAL ASSURANCE

- A. Coverage under this Permit does not become effective until the operator has deposited with the Department an acceptable financial assurance mechanism to §40-20-110.
 - B. Financial assurance shall be submitted as outlined in §48-20-110 and R. 89-180.
- C. Financial assurance must be conditioned upon the faithful performance of the requirements of the Act and Regulations. Liability under the financial assurance must be maintained until the operator has received written notice from the Department that reclamation meets the minimum standards.
- D. If at any time the financial assurance lapses for a reason other than a release by the Department, and the financial assurance is not replaced by the operator within thirty (30) days after notice of the lapse, the operation to which it pertains must be suspended until such time as the reason for the suspension is corrected and written documentation is provided to the Department.

SECTION III: APPLICATION SUBMITTAL REQUIREMENTS.

- A. Applicant may request to operate under the authority of the General Permit by providing the following:
 - 1. One hard copy and one electronic copy of the completed application packet
 - 2. A Notice of Intent using a form provided by the Department
 - 3. An application fee as set forth in the Regulation
 - 4. Appropriate financial assurance mechanism
 - 5. A SC highway map showing the location of the mine
- 6. A vicinity map showing the areas adjacent to the mine to include schools, residences, hospitals, day cares, streams, lakes, etc.
- 7. A mine map certified by a licensed land surveyor or South Carolina Professional Engineer. The map shall include criteria as required in Section IV and the following:
 - a. Proposed dimensions of the pit and distances to adjacent property lines;

b. All proposed haul roads, gates, fences, natural barriers, or other means of restricting public

access;

- c. Proposed stockpile storage areas
- d. Proposed sediment basins and other storm water control measures
- 8. Additional information as requested by the Department.
- B. An operator may not begin operating until they receive written approval from the Department.

SECTION IV: SITING AND OPERATIONAL CRITERIA

A. Siting Criteria

Unless otherwise approved by the Department, any mine operating under this Permit shall adhere to the following siting criteria:

- 1. Mining shall not occur in rivers, streams, creeks or wetlands. All references to wetlands include jurisdictional and non-jurisdictional wetlands as determined by the Army Corps of Engineers (ACOE) and defined by hydrology, soils, and vegetation;
- 2. The edge of the pit, berms, stockpiles, erosion BMPs, and haul roads shall maintain a fifty (50) foot undisturbed buffer from rivers, streams, creeks, ponds, lakes, and wetlands;
- 3. Mine access crossing streams and/or wetlands is not authorized under this Permit. If access through these areas is necessary, approval from Army Corps of Engineers (ACOE) and/or the SCDHEC Office of Ocean & Coastal Resource Management (OCRM) may be required prior to constructing an access road.
- 4. A minimum setback of fifty (50) feet must be maintained between the edge of the pit and adjacent properties;
- 5. An undisturbed buffer of at least twenty (20) feet in width is required along all property lines. No part of the mining operation (e.g. berms, roads) may infringe upon this buffer;
- 6. The operator shall not locate the mine in an area known to have significant historical or cultural resources. If archaeological materials are encountered, the SC Department of Archives and History (SCDAH) and the Department must be notified immediately. Archaeological materials consist of any items fifty (50) years or older which were made or used by humans. These items include, but are not limited to, stone projectile points (arrowheads), ceramic shards, bricks, worked wood, bone and stone, metal and glass objects, human skeleton remains, and concentrations of charcoal and stones.
- 7. Mining operations shall not be located within environmentally sensitive habitats or where threatened or endangered species are known to exist.
 - 8. The Act does not supersede local zoning ordinances.

B. Operational Criteria

- 1. No mining associated activities, including site preparation, may start until the Department issues a letter granting coverage to operate under this Permit.
- 2. The mining operation shall not affect (disturb) an area greater than five (5) acres. Affected area includes access road, pit, haul roads, sediment control features or any other land disturbed by mine activity.

- 3. The limits of the pit should be clearly marked throughout the operational life of the mine. The operator shall install and maintain two (2) permanent survey monuments or control points within the permitted area at least 100 feet apart.
 - 4. An adequate amount of topsoil is required to be stockpiled for reclamation of the affected area.
- 5. Processing plants are not allowed. Screens set to remove roots from topsoil are not considered to be processing.
 - 6. Blasting operations are not allowed under this Permit.
- 7. Unless otherwise approved by the Department, the total depth of mining is limited to twenty (20) feet. Total depth is measured from the highest elevation of the original ground surface to the lowest elevation of the pit.
- 8. During active mining, the operator shall mine the pit on a slope not steeper than 3:1 (horizontal: vertical) or will minimize vertical highwalls to a height not greater than ten (10) feet.
 - 9. When and where appropriate, safety measures must be instituted to:
- a. Limit access to the site; if conditions warrant, the operator shall erect fencing around the site and/or maintain a locking gate at the entrance to discourage unauthorized entry;
 - b. Provide adequate warning (e.g., signs, berms, fencing, etc.);
 - c. Minimize vertical high walls to ten (10) feet or less in height; and,
 - d. Eliminate other potential safety hazards.
- 10. For sites located within 1,000 feet of an obvious place for children (e.g., schools, playgrounds, day cares, etc.), the entire perimeter of the affected area must be fenced and have a locking gate across the access road.
- 11. For mines within 500 feet of residential houses, commercial properties, recreational areas, and/or public roads, the operator must leave and maintain natural vegetation of sufficient width to visually screen the mine. If adequate natural vegetation is not present to provide screening, the operator may be required to construct an earthen berm with a minimum height of four (4) feet. The berm must be placed such that the required twenty (20) foot undisturbed buffer from adjacent properties is met provided. The berm is required to be well constructed, seeded immediately and maintained throughout the life of the mine.
- 12. The operator shall use Best Management Practices (BMPs) to minimize noise from the mine site. The BMPs should include proper maintenance of mufflers on equipment, construction/ maintenance of earthen berms and consideration of the location of pumps and special buffering measures if pumps are used during nighttime hours.
- 13. The mine operator must use appropriate measures (e.g., water truck, dust suppressants, etc.) to control fugitive dust. As soon as feasible, vegetation shall be established in affected areas not being used.
- 14. Where the access road meets a paved public road, the operator shall construct a crushed stone "mud mat" and use other best management practices to prevent accumulation of sediment/soil on public roads carried by trucks and/or vehicles exiting the mine site. The mud mat shall extend the width of the road and a

minimum of one hundred (100) feet in length. Any accumulations of sediment/soil onto the public road by vehicles exiting the mine site shall be removed by the operator on a daily basis.

- 15. Operators shall establish a protected area and/or procedures to minimize fuel spillage or incidental spillage of other petroleum products. Materials contaminated by contact with petroleum products must be removed from the site and properly disposed.
- 16. Dewatering of the mine must not cause downstream flooding or adverse hydrologic alterations to aquatic sites including streams and/or wetlands.
- 17. Dewatering of the mine shall not adversely impact a neighboring water supply well. If a complaint concerning potential impacts to a well is received, the operator must notify the Department Mining Section within forty-eight (48) hours of receiving the complaint. Within five (5) days of the complaint, the operator will follow-up on the verbal notice in writing and outline the concerns of the complaint. If mining operations are responsible for adversely impacting a water supply well, the operator must repair, deepen, or drill a new well. The operator must also supply potable water to the owner of the impacted well (e.g. providing bottled water for drinking, provisions for laundry service) until the permanent water supply is functional.

SECTION V: GENERAL PERMIT CONDITIONS

- A. Mine coverage under this Permit remains valid unless coverage terminates pursuant to R.89-270 or coverage is revoked in accordance with §48-20-160 (Act) and Regulation R.89-280.
- B. At all times the operator shall comply with all of the conditions of this permit, the approved Reclamation Plan, the Act and Regulations, and the application.
- C. The operator is required to have the right to access the property to be mined and maintain that right until reclamation has been accepted by the Department. The Department must be notified immediately if the right to enter the property is denied.
- D. The operator shall notify the Department in writing within 30 days of any change in company contact and/or contact information (e.g. company address, e-mail address, telephone, etc.).
- E. The operator shall grant the Department and/ or it's duly appointed representatives access to the permitted area for inspection.
- F. All records required by the Department shall be kept on site or at the office identified for receipt of official mail for a minimum of three (3) years. The operator shall furnish copies of the records upon request by the Department.
- G. The appropriate NPDES permit is required to conduct mining activities. It is the responsibility of the operator to obtain the NPDES permit prior to initiating any activity at the site.
- H. Reclamation shall be conducted simultaneously with mining whenever feasible and in any event shall be initiated at the earliest practicable time, but no later than within 180 days following termination of mining on any segment of the mine and shall be completed within two years after completion or termination of mining on any segment of the mine.
- I. The Department may declare a mining operation or a segment of a mining operation terminated when no mineral has been excavated or overburden removed for a period of twenty-four (24) months.

- J. The operator is required to submit an Annual Reclamation Report and the Annual Operating Fee prior to July 31 of each year. These items are required for all mines which have not been fully reclaimed and coverage cancelled in writing by the Department prior to June 30.
- K. The operator shall notify the Department in writing when all mining has been completed and only reclamation activities (e.g., grading, fertilizing, seeding) remain.
- L. The operator shall notify the Department in writing upon completion of final reclamation on the mine site.

SECTION VI: TRANSFER OF PERMIT

- A. The Department may, upon written request, transfer coverage to a new operator. The following items are required to be submitted to the Department:
 - 1. A transfer of coverage form as provided by the Department
 - 2. Transfer fee as set forth in the Regulation
 - 3. Any outstanding annual operating fees
 - 4. Appropriate financial assurance mechanism.

SECTION VII: COMPLIANCE

- A. The operator shall comply with all conditions of this Permit, the Reclamation Plan, the Act and Regulations. Non-compliance with these items could lead to enforcement actions pursuant to §48-20-160 and §48-20-220.
- B. In accordance with §48-20-230, "an operator who engages in mining in wilful violation of the provisions of this chapter or of regulations promulgated under it or who wilfully misrepresents a fact in an action taken pursuant to this chapter or wilfully gives false information in an application or report required by this chapter is guilty of a misdemeanor and, upon conviction, must be fined not less than one hundred dollars nor more than one thousand dollars for each offense. Each day of continued violation after written notification is a separate offense."
 - C. The operator is responsible for all mining activity on the permitted mine site.

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL BUREAU OF LAND AND WASTE MANAGEMENT DIVISION OF MINING AND SOLID WASTE MANAGEMENT

RECLAMATION PLAN for MINING GENERAL PERMIT - GP1

As required in Section §48-20-90 of the South Carolina Mining Act, "An operator shall submit with his application for an operating permit a proposed reclamation plan. The plan must include as a minimum each of the elements specified in the definition of 'reclamation plan' in Section 48-20-40 and information required by the department. The reclamation plan must provide that reclamation activities, particularly those relating to control of erosion, to the extent feasible, must be conducted simultaneously with mining operations and be initiated at the earliest practicable time after completion or termination of mining on a segment of the permitted land. The plan must provide that reclamation activities be completed within two years after completion or termination of mining on each segment of the area for which an operation permit is requested unless a longer period specifically is permitted by the department." This reclamation plan and regulation are the criteria for mine reclamation under the general mine operating permit.

I. <u>FINAL LAND USE RECLAMATION STANDARDS</u> The approved land use on final reclamation must meet the minimum standards as set in R89-330. The following are criteria for achieving suitable land uses in final reclamation under the Permit.

Lake or Pond:

- 1) In no event shall the operator allow small pools of water that are, or are likely to become, noxious, odious, or foul to collect or remain on the mined land. Lakes, ponds, wetlands or marshlands shall be considered adequately reclaimed lands when approved by the South Carolina Department of Health and Environmental Control (Department).
- 2) Suitable drainage ditches, conduits or surface gradient shall be constructed to avoid collection of noxious, odious or foul pools of water.
- 3) Those portions of the reclamation plan involving lakes and ponds shall be approved if:
- a) A supply of water sufficient to maintain the approximate design pool elevation in accordance with the reclamation plan is available. In all cases, a sufficient water supply shall be available to maintain a minimum water depth of four feet (4') on at least fifty percent (50%) of the surface area of the lake or pond unless the lake or pond is to be used for aquaculture;
- b) Side slopes no steeper than 3H: 1V to the anticipated low water level; for safety, the 3:1 slope must extend beneath the expected low pool level of pond to a depth of four feet (4');
- c) Structures impounding a lake or pond conform to standards set forth in requirements promulgated under the Dams and Reservoirs Safety Act or designed by a Professional Engineer;
- d) All waters shall conform to standards set forth by the Department for surface waters in South Carolina.
- e) Waters designated for fishing lakes shall have at least twenty percent (20%) of the total surface area less than six feet (6') deep, with an average minimum depth of three feet (3');
- f) Water designated for use in water contact sports shall meet the following conditions: all areas within five feet (5') of the lowest expected water level shall be cleared of all stumps, logs, and other debris, and there shall be no sudden drop offs or deep holes. A three-foot deep shelf around the shore line is permissible for control of aquatic vegetation;
- g) Water designated to be used as waterfowl areas shall have a means of controlling the water level so that at least fifty percent (50%) of the area can be either drained or flooded, unless otherwise approved by the Department;
- h) Water areas designated for other uses, such as for aesthetics, irrigation, stock watering, aquaculture, marshlands, or wetlands, shall be considered adequately reclaimed upon approval by the Department.

Grassland: The operator shall establish on a continuing basis the vegetative cover and soil stability appropriate to the area. Conservation practices essential for controlling both on-site and off-site erosion and siltation must be established. A minimum of seventy-five percent (75%) vegetative ground cover, with no substantial bare spots, must be established and maintained into the second growing season.

Agriculture: Slopes and the condition of the surface must be such that commonly used farm machinery can cultivate, maintain and harvest the area safely. Conservation practices essential for controlling erosion and sediment must be established.

Woodland:

- 1) The operator shall establish on a continuing basis the vegetative cover and soil stability appropriate to the area. Conservation practices essential for controlling both on-site and off-site erosion and siltation must be established.
- 2) Areas reclaimed to woodland must be planted or seeded with respect to species selection, spacing, and ground preparation, according to the recommendations of the South Carolina Forestry Commission (SCFC) or a registered forester.
 - a) Survival meeting the recommendations of the SCFC or a registered forester with no substantial bare spots must be achieved through one full growing season;
 - b) Ground cover or other conservation practices shall be required in areas where erosion will be active until the trees or shrubs establish a ground cover from their own litter. Ground cover may be annual or perennial vegetation, or mulching. The requirement for ground cover may be omitted in sandy areas if the reclaimed area has a closed drainage system as long as temporary measures are used to prevent significant erosion and siltation within such areas.

Development (Residential/ Commercial)-: At a minimum, the operator must secure, where applicable, zoning approval and building permit from local government, and applicable stormwater permits from the Department. Once construction on building foundation begins, reclamation as mined land will be considered complete and the operator will be released from requirements under the Permit and the Reclamation Plan. Construction activities will be regulated by applicable local ordinances and state stormwater permits.

II. SAFETY AND ENVIRONMENTAL PROTECTION THROUGH RECLAMATION

1. Final maximum surface gradient (slope) on land mined under the Permit.

Final maximum surface gradients under the Permit must not be steeper than 3H:1V. If a 3:1 slope is not stable, the operator must reclaim the site to a more gentle slope to provide for stability at the completion of reclamation.

2. Methods to achieve re-vegetation or other surface treatment of affected area(s).

Operator shall establish perennial vegetation for final reclamation. Grass species, seeding, fertilizer and mulching rates should be as recommended by appropriate technical manuals or qualified consultants.

3. Method of reclaiming overburden stockpiles.

Due to the limited size and typically small amount of overburden associated with sand/clay and topsoil mining, any overburden shall be backfilled into the pit on final reclamation. No overburden stockpiles shall be left above the original (pre-mine) surface elevation.

4. Method of reclaiming settling and/or sediment ponds.

Sediment basins must remain functional until soil erosion and the potential for off-site sedimentation from the mine reclamation area is controlled. Sediment ponds or sediment traps used during mining under the GP1 must be completely removed, graded and re-vegetated according to the grassland and/or woodland surface treatments requirements.

5. Method of restoration or establishment of stream channels, stream banks and site drainage to a condition minimizing erosion, siltation and other pollution.

As established in the Permit, such areas are to be avoided and protected with proper undisturbed buffers from the mining operation.

6. Maintenance plans to insure that the reclamation practices established on the affected land will not deteriorate before released by the Department.

Areas of the mine under reclamation must be inspected periodically to ensure seed germination, growth and soil stability. Should seeds fail to germinate or soil erosion occurs, reseeding and/or other corrective measures must be taken as quickly as feasibly possible. Such corrective measures may include but are not limited to the following: re-grading, reseeding, fertilizing and mulching.

Inspections of the site will be periodic. However, to ensure any damaged areas can be re-vegetated, inspections must be conducted by the operator after severe rain storms or prolonged dry spells.

7. Methods or practices to be used to provide for safety to persons and to adjoining property in all excavations.

Operator must slope the unconsolidated sand/clay to a slope no steeper than 3:1. No areas will be left with a vertical highwall requiring fencing as a safety measure. A 3:1 slope will provide stability for most soil types to prevent landslides. However, if the operator should encounter unstable soils at a 3:1 slope, the slope must be graded to a more gentle slope to achieve stability.

For safety in mines reclaimed to ponds, the 3:1 slope must extend beneath the expected low pool level of the pond to a depth of four feet (4').

Sites reclaimed to commercial or residential development may have final slopes steeper than 3:1 if such slopes are: an integral part of the development; stable; approved by the local authority permitting the development of the commercial or residential property; and, the operator submits appropriate documentation, upon request, that such a slope will be stable.

8. What provisions will be taken to prevent noxious, odious, or foul pools of water from collecting and remaining on the mined area?

Mines reclaimed to a pond must meet the requirement of having a minimum water depth of four feet (4') on at least fifty percent (50%) of the pond surface area. Mines reclaimed to other land uses must be properly graded to allow for gravity drainage.

9. Structures (e.g., buildings, roads) allowed to remain after final reclamation.

Temporary structures built or placed during mining operations must be removed from the site unless it is an integral part of the final reclamation of the site and meet local building codes and land use requirements.

Temporary access roads through U.S. Army Corps of Engineers (USACOE) jurisdictional wetlands must be removed at the end of mining and as final reclamation of the mine site. All fill material placed in the wetlands for the access road must be removed and the original pre-mine ground elevations re-established. All culverts or any other structures must be removed and disposed properly and the original hydrology re-established to pre-mine conditions. Access roads that have been properly permitted through the USACOE and the Office of Ocean & Coastal Resource Management (OCRM) may remain as permanent structures.

10. Methods to limit significant adverse effects on known significant cultural or historic sites within the proposed permitted area.

Known significant cultural or historic sites are not authorized to be disturbed under this Permit. Known sites must be avoided and a minimum fifty feet (50') undisturbed buffer zone must be established for protection of these areas.

11. Method to comply with State air quality and water quality standards as established by the Department.

At final reclamation, air quality must be protected by establishing vegetation to prevent wind blown fugitive dust. No mineral processing that will create adverse air emissions is authorized under this Permit.

Water quality at final reclamation must be protected by: 1) the establishment of vegetation on a continuous basis to stabilize the soil to prevent erosion; 2) the removal of all mine related refuse and debris; and, 3) any soils contaminated by fuel or other petroleum products must be removed and disposed in an appropriate solid waste disposal site.

12. Practices used to protect adjacent resources such as roads, wildlife areas, woodland, cropland and others resources after mining.

Operator must use accepted conservation practices to reclaim the mine land in a manner to eliminate pollution that could affect surrounding resources. The operator must grade the mined land to a stable slope for safety and suitable future land uses and stabilize the soil with vegetation to prevent erosion and off-site sedimentation.

13. Methods to limit significant adverse effects on adjacent surface water and groundwater resources.

The primary potential sources of pollutants from sand/clay mining are petroleum products and sediment. Consequently, the operator must always handle fuel for equipment and lubrication products in an acceptable manner to prevent contamination of soils and surface water or groundwater resources. On final reclamation all debris and scrap equipment must be removed and properly disposed in a permitted solid waste facility. Any petroleum contaminated soils must be removed from the site and treated or disposed in a permitted facility. Revegetation of the mined land according to minimum standards will stabilize the soil to prevent off-site sedimentation.

Temporary or permanent placement of refuse and debris from off-site locations is prohibited. Topsoil, free of debris and contaminants and as defined in Regulation 89-10D, may be brought in from off-site sources, but only for the purposes of mine land reclamation.

14. Method to prevent or eliminate conditions that could be hazardous to animal or fish life in or adjacent to the permitted area after mining is terminated.

The greatest hazard to fish or other aquatic animals from a mine permitted under the GP1 is sedimentation in neighboring water bodies caused by erosion on the mine site. To prevent this hazard, the operator must establish appropriate permanent vegetation on a continuous basis to prevent erosion and off site sedimentation.

Terrestrial wildlife will be protected by the 3:1 sloping requirements. Grade to remove vertical walls and sudden drops; therefore, eliminating a primary hazard.

15. Section 48-20-40(16)(1) of the S.C. Mining Act requires a, "time schedule, including the anticipated years for completion of reclamation by segments." This time schedule should meet the requirements of Section 48-20-90 of the Mining Act.

SCHEDULE FOR IMPLEMENTING CONSERVATION AND RECLAMATION PRACTICES

Conservation and Reclamation Practices	EMENTING CONSERVATION AND RECLAMATION PRACTICES Comments
Install survey control markers;	Install and maintain survey control markers until site reclaimed
Flag pit area	Prior to land disturbance activities, flag pit area and maintain until site reclaimed
Install appropriate Best Management Practices	Prior to any land disturbance, install any sediment control structures (e.g., silt fences, brush barriers, stone rip rap) to control erosion and off-site sediment
Construction of haul road/ mud mat	The haul road shall be located within the 5 acres covered under the Permit. If the haul road exits to a paved public road, operator shall construct a crushed stone mud mat the width of the haul road and extending 100' in length. The mud mat shall be constructed prior to mining and be maintained throughout the life of the operation.
Clear ground	Minimize the amount of disturbed acreage to reduce potential for adverse erosion/ offsite sedimentation.
Stockpile topsoil	Stockpile topsoil for use in reclamation; stockpiles shall be located within the 5 acres covered under the permit
Excavate	Minimize the amount of disturbed acreage. Depth of mining is limited to 20'. The pit either shall be mined on a slope not steeper than 3H:1V or vertical highwalls must be less than 10' feet.
Stockpile material	Material stockpiles shall be located within the 5 acres covered under the permit
Grade/ topsoil/ fertilize/ seed; Inspection / maintenance	Reclamation of mined out areas should be initiated within 180 days of termination of mining in those areas or earlier if grading/ soil preparation/ seeding is feasible. Reclamation/ vegetation shall be inspected on a regular basis and corrective measures taken to prevent erosion of final slopes
Submit Annual Reclamation Report, Annual Operating Fees	By July 30; Annual Reclamation Reports and Annual Operating Fees are required until mine reclamation has met minimum standards and the Permit coverage has been cancelled by the Department
Notify the Department mining has ceased	The operator shall notify the Department when mining has been completed.
Grade/ spread-topsoil/ fertilize/ seed stockpile areas, access road(s), sediment basin/trap(s)	Reclamation/ vegetation shall be inspected on a regular basis and corrective measures taken as necessary
Notify the Department when reclamation practices are completed	
Maintain reclamation work	Inspect and repair erosion damage, re-seed when necessary. until mine reclamation has met minimum standards and the permit coverage has been cancelled by the Department