

Provisions Check List for Protection of the Environment and Resources of the State

Project: Twin Pines Minerals, LLC Saunders Demonstration Mine

Charlton County, Georgia

Date: February 17, 2021

GEORGIA AREA/CATEGORY	IS AREA AFFECTED?			IF AFFECTED, HOW SEVERELY?			
	NO	YES	UNKNOWN	MINOR	MEDIAN	MAJOR	UNKNOWN
1. Wetlands		X		X			
2. Flood Plain/River Corridor	X						
3. Water Supply	X						
4. Water Resources	X						
5. Groundwater Recharge	X						
6. Storm Water		X		X			
7. Waste Water		X		X			
8. Air Quality		X		X			
9. Solid Wastes	X						
10. Soil Stability/ Erodibility	X						
11. Protected Mountains	X						
12. Protected Species	X						
13. Critical Habitats	X						
14. Historical	X						
15. Archeological	X						
16. Parks/Recreation	X						
17. Energy Supplies	X						
18. Beaches	X						
19. Dunes	X						
20. Shoreline	X						
21. Coastal Marshland	X						
22. Forest Land		X		X			
23. Barrier Island	X						
24. Aquatic Life/Trout Streams		X		X			

Georgia Area/Category Information

1. WETLANDS - Will the action occur in a "wetlands" area?

The definition of wetlands is included in the Federal Regulation, 33 CFR 32.93. The DNR Rules for Environmental Planning, Chapter 391-3-16-03, incorporate the federal definition as well as both acceptable and unacceptable uses of wetlands. Under current federal law and state policy, alterations or degradations of wetlands should be avoided unless it can be demonstrated that there will be no long-term impacts or net loss of wetlands. A Federal Permit is required for most wetland activities.

2. FLOODPLAIN/RIVER CORRIDOR - Will the action occur in a floodplain or a river corridor?

Floodplains are designated areas of land that become flooded with water during periods of rainfall that increase the primary stream flow. Many floodplain areas are shown on Federal Floodplain Maps which have been prepared in support of the National Flood Insurance Program. Additional maps and information on floodplains are available from the DNR's Environmental Protection Division (EPD). Most proposed government actions that occur directly in a floodplain area or which may alter the size or character of the floodplain area are considered significant. Under H.B. 643, passed by the 1991 Session of the General Assembly, lands adjacent to major rivers are protected from certain types of development. DNR is charged with developing rules for the River Corridor protection program.

3. WATER SUPPLY - Does the proposed action have the potential for decreasing either the quality or quantity of water available for water supply?

Water supply means a source of water that is used for drinking water in addition to other consumptive purposes. The DNR Rules, Chapter 391-3-16, contain criteria for water supply watersheds. These criteria establish a basis to allow development in a water supply watershed without contaminating the water source to a point where it cannot be treated to meet drinking water standards. EPD can provide information to state agencies as to whether their proposed projects lie within water supply watersheds.

4. WATER RESOURCES - Will the proposed action result in large demand for water from the available water resources? Will the proposed action result in a degradation of the quality of waters of the state?

The waters of the state include surface and groundwater that is not wholly confined to a single privately owned piece of property. Water resources management is one of the most important issues facing Georgia now and in the future. A growing population and the potential for water shortages focus on the importance of adequate amounts of good quality water. The DNR Rules for Surface Water Withdrawals, chapter 391-3-6, provide the regulatory framework for withdrawal, diversion or impoundment of surface waters of the State. DNR Rules for groundwater Use, Chapter 391-3-2, establish regulatory framework for withdrawal, diversion or impoundment of surface waters of the State. DNR Rules for Groundwater Use, Chapter 391-3-2, establish regulatory procedures for withdrawing, obtaining or utilization of groundwaters of the state.

5. GROUNDWATER RECHARGE AREA - Will the action result in the disturbance or altering of a groundwater recharge area?

Groundwater recharge areas are those portions of the earth's surface where water infiltrates into the ground to replenish an aquifer. The Significant Recharge Areas of the state are those areas mapped by the DNR in Hydrologic Atlas 18 (1989 Edition). The DNR Rules for Environmental Planning Criteria, Chapter 391-3-16, contain specific criteria for protection of groundwater recharge areas.

6. STORMWATER - Will the project result in increasing the amount of storm water runoff for downstream property owners?

The primary concern related to storm water is the creation of impervious surfaces that contribute to an increase of the amount of storm water runoff to the point where there is damage or a threat to downstream property owners. Another very important issue is the potential contamination of stormwater through increased contact with contaminants.

7. WASTEWATER - Will the project produce wastewater that is discharged to a surface stream?

Wastewater means contaminated water (sewage or other contaminants) that must be treated and disposed of either by direct discharge to a surface stream or indirect discharge to an existing municipal sewer system. Even if the wastewater from a state project is to be discharged to a municipal sewer system, the effect can be significant if that wastewater causes the municipality to expand its sewage treatment system.

8. **AIR QUALITY - Will the action result in a release or discharge of contaminants into the ambient air?**

Any action that results in the release or discharge of contaminants into the air such that existing ambient air quality may be diminished is a significant action. All discharges or releases may be subject to regulation under the Georgia Air Quality Control Act and/or the U.S. Clean Air Act.

9. **SOLID WASTES - Will the project result in the generation of solid wastes for disposal, or will the proposed actions occur near or in an active or closed landfill?**

Solid waste is defined in the Georgia Comprehensive Solid Waste Management Act. It includes different categories of wastes which exist in a solid form (household garbage, demolition material, land clearing debris, commercial non-hazardous waste material, etc). Whereas the amount of solid waste generated that requires disposal is of concern, another primary issue relates to a land disturbing activity in the vicinity of an active or closed landfill.

10. **SOIL STABILITY/ERODIBILITY - Will the action displace soils that will be carried off site and pose a threat to surface waters or property?**

Under the Georgia Soil, Erosion and Sedimentation Act, local governments which have authorized management programs under the Act establish control procedures and permit the project. If the action takes place in a county or municipality that does not have such authorization, EPD is the regulating agency. In either case, a technical guidance book is available from either the local government or EPD.

11. **PROTECTED MOUNTAINS - Will the project involve the alteration of lands with high elevations and steep slopes?**

Under House Bill 643, which was passed by the 1991 Session of the General Assembly, land which lies above 2,200 feet in elevation and has slopes of twenty-five (25%) or more, are identified as Protected Mountains. In accordance with the Act, DNR is charged with promulgating Rules for implementation of a "Mountain Protection" program.

12. **PROTECTED SPECIES - Will the proposed action harm or reduce the population of protected species?**

Endangered species is used in both the generic sense for protected species and in a more narrow definition sense under the U.S. Endangered Species Act. Protected species includes those plant and animal species protected by the State in accordance with Georgia Wildflower Preservation Act of 1973 and the Georgia Endangered Wildlife Act of 1973. DNR Rules, Chapter 391-4-10, provide more detailed criteria for the state's protected species.

13. **CRITICAL HABITATS - Is the proposed action expected to involve any critical habitats?**

Critical habitats are those sites on which the State's protected species are dependent for their survival. They also include U.S. Forest lands, U.S. Wildlife Refugees, Wilderness Areas, and Wild or Scenic Rivers.

14. **HISTORICAL - Will the proposed action involve disturbance of any historic property?**

Applicant will need to consider any structure on or adjacent to the mine with the National Register of Historic Places.

15. **ARCHEOLOGICAL - Will the proposed action involve disturbance of any archeological property?**

Archeological properties are the physical remains of the past that can be studied by archaeologist and other scholars to answer questions about prehistory and history. In addition, the regulations of the President's Advisory Council on Historic Preservation (36 CFR 800) which implements Section 106 of the National Historic Preservation Act contains definition and criteria of adverse effect for the protection of historic properties.

16. **PARKS/RECREATION - Will the proposed action involve disturbance or otherwise have a significant impact on the State's cultural resources?**

In addition to the archeological or historic value, cultural resources may also include park lands, preserves, and other public lands or areas of recognized scenic and/or recreational value.

17. **ENERGY SUPPLIES - Will the proposed action have significant impact on the reduction in the available energy supplies?**

This primarily refers to the source of energy (electrical, gas/oil, solar, etc) that will be consumed by the project in relation to the total available in the area.

18. **BEACHES - Will the proposed action involve the disturbance of any ocean beach area?**

The Georgia General Assembly has found that ocean beaches provide an unparalleled recreation resource which is vitally lined to the economy of Georgia's Coastal Zone and to that of the entire state. They are also part of the sand-sharing system which provides habitats and acts as a protective buffer for other areas. This natural resource system is costly, if not impossible to reconstruct or rehabilitate once adversely affected by man-related activities. Therefore, any action in these areas should be considered highly significant.

19. **DUNES - Will the proposed activity alter coastal sand dunes?**

Coastal sand dunes, beaches, sandbars, and shoals, comprise a vital natural resource system, known as the "sand-sharing system", which acts as a buffer to protect real and personal property and natural resources from the damaging effects of floods, winds, tides, and erosion. The coastal sand dunes are the most inland portion of the sand-sharing system and because they are a fragile product of shoreline evaluation, they are easily disturbed by action harming their vegetation or inhibiting their natural development. they are protected under the Georgia Shoreline Assistance Act of 1979.

20. **SHORELINE - Will the project involve activities in the Georgia Coastal shoreline area or in areas covered under the river corridor protection requirements of Georgia House Bill 643?**

In accordance with DNR Rules, Chapter 391-2-2, protective measures and procedures are provided for the implementation of the Georgia Shoreline Assistance Act. Construction, erection, or engaging in any shoreline engineering activity or land alteration which alters the natural topography or vegetation of any area is highly regulated under the Act. In addition, the 1991 General Assembly passed House Bill 643 which also provides for the protection of coastal river corridors. DNR is authorized to promulgate Rules for the implementation of House Bill 643 and they are currently being developed.

21. **COASTAL MARSHLANDS - Will the proposed action alter the Georgia coastal marshlands environment?**

Georgia's coast contains the saltwater marshes. These marshes have been identified as one of the most extensive and productive marshland systems in the United States. Georgia's marshes, sands and near-shore ocean water produce more food and energy than any other estuaries zone on the eastern seaboard. They are also an essential life support system for Georgia's multi-million dollar seafood industry. Any activities that affect this area are closely regulated under the Georgia Coastal Marshlands Protection Act.

22. **FOREST LAND - Will the proposed action involve changes in forested areas?**

Please include the harvesting of five acres or more of trees over two inches in diameter at breast height. The secondary effects of tree removal as well as other land disturbing activities that may impact a forested area are of concern. Depending on the type of harvesting methods, tract locations and other variable criteria, there may exist a potential for erosion and sedimentation, habitat alteration, and other changes of concern. Manuals on Best Management Practices (common sense forestry associated practices which minimize the impact on the environment) are available from the Georgia Forestry Commission. These practices were developed by statewide task force, appointed by the Governor, with input from all aspects of forestry in Georgia.

23. **BARRIER ISLAND - Will the proposed action involve activity on or near a barrier island?**

Along the Georgia Coast, an extensive system of salt marshes, tidal estuaries, and sounds separate a chain of eight major and several smaller barrier islands from the mainland. Two-thirds of Georgia Barrier Islands are parks, refuges, or preserves. Sand beaches and dunes protect the islands from erosion and flooding. The islands shelter the marshes from the force of storms. Any proposed action that involves the barrier islands should be considered highly significant.

24. **AQUATIC LIFE/TROUT STREAMS - Will the proposed action involve an action that significantly impacts freshwater aquatic life?**

Georgia has an abundance of freshwater lakes, streams, and bodies of water that support aquatic life. The freshwater fisheries are important for the total food chain. Primary and secondary trout streams should be protected.