

FISH AND WILDLIFE ENHANCEMENT AND PROTECTION PLAN

880-X-8F-.18 (880-X-8I-.18)

(1) Areas of Special Concern

(a) Wetlands:

1. List any wetlands, ponds, lakes, streams, rivers, etc., that have been identified by the [U. S. Department of Interior Fish and Wildlife Service 1 of 2](#), [U. S. Department of Interior Fish and Wildlife Service 2 of 2](#), and [Alabama Department of Conservation and Natural Resources](#) as area of special concern.

There were no Wetlands identified by the U.S Fish and Wildlife Service (USFWS) and Department of Conservation and Natural Resources (DCNR).

2. Identify any direct or indirect impacts which could occur as a result of the proposed mining operation.

If mining and reclamation operation are successfully completed, there should be no direct impacts on areas of special concern. Indirect impacts as a result of this mining operation, would be limited to: the temporary changes in the quantity of water entering the receiving streams during the construction of silt fences and rock check dams and water entering open pits, minor amounts of sedimentation during the construction of incidental facilities such as haul roads, sediment control structures, etc., the temporary destruction of small, insignificant, and undetected water holding depressions during mining operations, etc.

3. List the measures to be taken to avoid, protect, or minimize impacts.

All required buffer zones or setbacks, as set forth in the regulations, will be honored to avoid, protect and minimize impacts of areas of special concern. Silt fences and rock check dams will be utilized to maintain water quality standards entering the receiving stream(s). Diversion ditches will be constructed to control and direct all disturbed drainage through approved sediment control structures. Hay dams, silt fences, rock check dams, etc., will be used to control minimal offsite drainage, such as haul roads, out slopes of sediment basins, etc., not entering the sedimentation basins. Disturbed areas will be regraded and revegetated in a timely manner, as outlined in Part IV of this application, to provide fish and wildlife habitat closely resembling premining conditions, where applicable.

4. If direct or indirect impacts are unavoidable, describe in detail the measures to be used to restore the area to pre-disturbance conditions and to enhance it.

The temporary destruction of small, insignificant, and undetected water holding depressions during mining operations will be restored during the reclamation process by regrading the mined area in such a manner as to create numerous small water holding depressions approximately 1/4 acres in size of maximum depth of 2 feet to enhance the area for fish and wildlife.

When approved by the landowner, sediment basins will be left as permanent water impoundments, if applicable, to provide watering for wildlife and fish habitat.

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5. Is any disturbance of wetland areas proposed which requires approval of the U.S. Army Corps of Engineers?

(XX) Yes () No

If Yes, provide necessary written approval.

See approval from [U.S. Army Corps of Engineers](#).

(b) Endangered/Threatened Species and Critical Habitats:

1. Identify any endangered or threatened plant or animal species or their critical habitat which may be directly or indirectly impacted by the proposed mining operation.

The [Alabama Department of Conservation and Natural Resources](#) (DCNR) listed no endangered species as occurring in proposed permit area.

The [U. S. Department of Interior Fish and Wildlife Service](#) (USFWS) listed the Black Warrior waterdog, flattened musk turtle, ovate clubshell mussel, finelined pocketbook mussel, triangular kidneyshell mussel, red-cockaded woodpecker, bald eagle, and Mohr's Barbara button as endangered or threatened plant or animal species or their critical habitat possibly existing within the proposed permit or adjacent areas which may be directly or indirectly impacted by the proposed mining operation. See [U. S. Department of Interior Fish and Wildlife Service 1 of 2](#), [U. S. Department of Interior Fish and Wildlife Service 2 of 2](#) (USFWS) comments. See attached [Habitat Study](#).

2. Describe the potential impact on any endangered or threatened plant or animal species or their critical habitat within the proposed permit or adjacent areas.

The U. S. Department of Interior Fish and Wildlife Service reports that if sound Best Management Practices (BMPs) were implemented and maintained that there would be minimal or no impact to endangered or threatened plant or animal species or their critical habitat within adjacent areas.

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3. Describe in detail the measures which will be taken to prevent any adverse impact on any endangered or threatened plant or animal species or their critical habitat within the proposed permit or adjacent areas.

The U. S. Department of Interior Fish and Wildlife Service reports that if sound constructed sedimentation ponds were constructed and maintained, that there would be minimal impact to endangered or threatened plant or animal species or their critical habitat within adjacent areas.

(c) Other Areas of Special Concern:

1. Identify the area of special concern.

No other areas of special concern were listed in the reports from the U. S. Department of Interior Fish and Wildlife Service, the Alabama Heritage Database, or the Alabama Department of Conservation and Natural Resources other than listed above.

2. Describe the potential impact on any other areas of special concern.

No other areas of special concern were listed in the reports from the U. S. Department of Interior Fish and Wildlife Service, the Alabama Heritage Database, or the Alabama Department of Conservation and Natural Resources other than listed above.

3. Describe in detail the measures which will be taken to prevent any adverse impact on any other areas of special concern or any endangered or threatened plant or animal species or their critical habitat within the proposed permit or adjacent areas.

No endangered or threatened plant or animal species or their critical habitat exists within the proposed permit or adjacent areas that may be directly or indirectly impacted by the proposed mining operation other than listed above.

No other areas of special concern were listed in the reports from the U. S. Department of Interior Fish and Wildlife Service, the Alabama Heritage Database, or the Alabama Department of Conservation and Natural Resources other than listed above.

(2) General Provision for Enhancement and Protection of Fish and wildlife

- (a) Describe those measures which will be taken during the active mining phase of the operation to minimize or prevent impacts to fish and wildlife.

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All required buffer zones or setbacks, as set forth in the regulations, will be honored to avoid, prevent and minimize impacts of areas of special concern. Silt fences and rock check dams will be utilized to maintain water quality standards entering the receiving stream(s). Diversion ditches will be constructed to control and direct all disturbed drainage through approved rock check dams. Hay dams, silt fences, rock check dams, etc., will be used to control minimal offsite drainage, such as haul roads, out slopes of diversion ditches, etc., not entering the rock check dams. Disturbed areas will be regraded and revegetated in a timely manner, as outlined in Part IV of this application, to provide fish and wildlife habitat closely resembling premining conditions, where applicable.

- (b) Describe the measures to be implemented during the reclamation process to enhance fish and wildlife.
1. During the reclamation process the disturbed area will be regraded in such a manner to create numerous small water holding depressions approximately 1/4 acres in size of maximum depth of 2 feet to enhance the area for fish and wildlife.
 2. At the proposed mine site, all sediment basins, if approved by ASMC, will be left as permanent water impoundments to provide watering for wildlife and fish habitat.
 3. Various herbaceous species including, but not limited to, Browntop Millet, Kobe and Sericea Lespedeza, Hairy Vetch, Ryegrass and Wheat may be planted in scattered and random locations to provide food and cover for wildlife that closely resemble pre-mining conditions. These plants will be added in addition to the vegetation proposed in Part IV of this application.
 4. As determined by the post mining land use, all reclaimed areas greater than fifty (50) acres will be broken up by vegetation types to provide maximum variation of vegetation.