

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 Department of Conservation and Natural Resources (DCNR) or U.S. Fish and Wildlife Service (USFWS) as area of special concern.

See attached [USFWS Comments 1](#), and [Comments 2](#)

See attached [ADCNR Comments 1](#), [Comments 2](#) and [Comments 3](#)

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.

FISH AND WILDLIFE ENHANCEMENT AND PROTECTION PLAN (continued)
880-X-8F-.18 (880-X-8I-.18)

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.

There is 0.07 acres of jurisdictional wetlands in the NW/SE of Section 22 T20S- R7W. (a portion of Revision Item 8). [See ACOE Concurrence](#)

The remaining permit areas will require no ACOE permit.

See [ACOE Concurrence 10-3-13](#) [See ACOE Concurrence 10-31-13](#)

(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.

Comments from the U.S. Department of Interior Fish and Wildlife Service and Alabama Department of Conservation are forthcoming.

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.

See attached [USFWS Comments 1](#), and [Comments 2](#)

See attached [ADCNR Comments 1](#), [Comments 2](#) and [Comments 3](#)

FISH AND WILDLIFE ENHANCEMENT AND PROTECTION PLAN (continued)
880-X-8F-.18 (880-X-8I-.18)

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.

(c) Other Areas of Special Concern:

1. Identify the area of special concern.

Any areas of special concern will be listed in the reports from the U. S. Department of Interior Fish and Wildlife Service, the Alabama Heritage Data Base, or the Alabama Department of Conservation and Natural Resources.

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

Any areas of special concern will be listed in the reports from the U. S. Department of Interior Fish and Wildlife Service, the Alabama Heritage Data Base, or the Alabama Department of Conservation and Natural Resources.

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.

Any areas of special concern will be listed in the reports from the U. S. Department of Interior Fish and Wildlife Service, the Alabama Heritage Data Base, or the Alabama Department of Conservation and Natural Resources.

(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.

FISH AND WILDLIFE ENHANCEMENT AND PROTECTION PLAN (continued)
880-X-8F-.18 (880-X-8I-.18)

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.