

Document Information Form

Mine Number: C/015/015

File Name: Incoming

To: DOGM

From:

Person N/A

Company N/A

Date Sent: April 21, 1980

Explanation:

Fish and Wildlife Plan Consolidation Coal Company,  
Consol Mine Project.

cc:

File in: C/015, 015, Incoming

Refer to:

- Confidential
- Shelf
- Expandable

Date \_\_\_\_\_ For additional information

**RECEIVED**

30 CFR PARTS 780.16 and 784.21; FISH AND WILDLIFE PLAN  
APR 21 1980 CONSOLIDATION COAL COMPANY, CONSOL MINE PROJECT

Utah DIVISION OF  
OIL, GAS & MINING

Wildlife Resources provides the following recommendations in order to secure needed base line data and to minimize disturbances and impacts on wildlife and their habitats that could be impacted during mining and reclamation operations at the Consol Mine Project. The recommendations also address how enhancement of the wildlife resource and their habitats as discussed in 30 CFR, parts 779.20 and 783.20 can be achieved. These are consistent with the performance standards of 30 CFR, parts 816.97 and 817.97. In instances where it would be necessary to restore or could be beneficial to enhance high value habitats for fish and wildlife (30 CFR, part 816.97 d 4 and 817.97 d 4, 816.97 d 5 and 817.97 d 5); or that the primary or secondary postmining land use will be for wildlife habitat (30 CFR, parts 816.97 d 9 and 817.97 d 9) and rangeland seedings are to be used, recommended seed lists and rates of application are provided (30 CFR, parts 816.111 through 816.117 and 817.111 through 817.117; note 816.116 and 817.116; 816.116 b 3 IV and 817.116 b 3 IV; 816.117 c 2 and 817.117 c 2).

Although Utah's Division of Oil, Gas and Mining and the U.S. Fish and Wildlife Service have each been provided with a copy of the publication "Species List of Vertebrate Wildlife that Inhabit Southeastern Utah," it may be advisable for the company to secure the services of a qualified biologist to develop a list of wildlife species having potential to occur in certain areas. The list should include their relative abundance, population trend and preferred habitat use areas. All of this information will be used in the mine project under biogeographic areas "A" and "D" in the afore mentioned publication.

**File in:**

- Confidential
- Shelf
- Expandable

Refer to Record No. 0022 Date 4-21-80

In C/ 015, 015, Incoming

For additional information

**RECEIVED**

30 CFR PARTS 780.16 and 784.21; FISH AND WILDLIFE PLAN  
APR 21 1980 CONSOLIDATION COAL COMPANY, CONSOL MINE PROJECT

Utah DIVISION OF  
OIL, GAS & MINING

Wildlife Resources provides the following recommendations in order to secure needed base line data and to minimize disturbances and impacts on wildlife and their habitats that could be impacted during mining and reclamation operations at the Consol Mine Project. The recommendations also address how enhancement of the wildlife resource and their habitats as discussed in 30 CFR, parts 779.20 and 783.20 can be achieved. These are consistent with the performance standards of 30 CFR, parts 816.97 and 817.97. In instances where it would be necessary to restore or could be beneficial to enhance high value habitats for fish and wildlife (30 CFR, part 816.97 d 4 and 817.97 d 4, 816.97 d 5 and 817.97 d 5); or that the primary or secondary postmining land use will be for wildlife habitat (30 CFR, parts 816.97 d 9 and 817.97 d 9) and rangeland seedings are to be used, recommended seed lists and rates of application are provided (30 CFR, parts 816.111 through 816.117 and 817.111 through 817.117; note 816.116 and 817.116; 816.116 b 3 IV and 817.116 b 3 IV; 816.117 c 2 and 817.117 c 2).

Although Utah's Division of Oil, Gas and Mining and the U.S. Fish and Wildlife Service have each been provided with a copy of the publication "Species List of Vertebrate Wildlife that Inhabit Southeastern Utah," it may be advisable for the company to secure the services of a qualified private consultant to prepare a list of wildlife species having potential to occur on the mine plan and adjacent areas. The list should include their relative abundance, status, population trend and preferred habitat use areas. All of this information is provided for the mine project under biogeographic areas "A" and "D" in the afore mentioned publication.

The mine plan and adjacent areas are inhabited on occasion and during different seasons of the year by about 381 species of vertebrate wildlife. Use areas for the "high interest" species from this group of wildlife have been ranked into four levels of importance. The most valuable to an individual species or ecological assemblage are the crucial-critical areas followed in respective importance by high-priority, substantial value and limited value use areas. Each type of use area requires various and specific levels of protection from man's activities. Additionally, due to the variability of vegetation communities in each use area, various and specific technologies in reclamation will need to be evaluated for possible enhancements of wildland habitats or the required level of reclamation.

It is recommended that the company make significant efforts to educate all employees associated with their mine operation of the intricate values of the wildlife resource associated with the mine plan area, adjacent areas and the local area. Each employee should be advised not to unnecessarily or without proper permits harass or take any wildlife. (Apprehension of wildlife violators has increased by nearly 250 percent during recent years in the region). It is especially important that wildlife not be harassed during winter periods, breeding seasons and early in the rearing process. Exploration should be limited as much as possible during these crucial-critical periods.

During winter wildlife are always in a depleted condition. Unnecessary disturbance by man causes them to use up critical and limited energy reserves which, often times, results in mortality. In less severe cases, the fetus being carried by mammals may be aborted or absorbed by the animal, thus reducing reproductive success of a population.

During breeding seasons, disturbance by man can negatively affect the number of breeding territories for some species of wildlife. Disturbance can also interrupt courtship displays and preclude timely interactions between breeding animals. This could result in reduced reproductive success and ultimate reductions in population levels.

Early in the rearing process, young animals need the peace and tranquility normally afforded by remote wildlands. It is also during this period that young animals gain the strength and ability to elude man and other predators. This allows the young animal to develop in relatively unstressed situations and to utilize habitats that are secure from predators. Disturbance by man can compromise this situation and result in abandonment of the young by the female, increased accidents that result in mortality to young animals or increased natural predation. It is recommended that employees be cautioned against disturbing young animals or females with young if accidentally located.

Employees associated with mining operations should be instructed that when wildlife are encountered during routine work that they not stop vehicles for viewing purposes. Moving traffic is less disturbing

to wildlife than traffic that stops or results in out-of-the-vehicle activities. If viewing is desirable, the vehicle should only be slowed, but not stopped.

There are no recommendations for a wildlife plan that would enhance any game fisheries since none are associated with the company's mining operation. It is recommended that if waters of suitable quality for use by fishes or other wildlife are developed through the mining operation that appropriate permits be secured and the water discharged into local drainages.

If ultimate mine operations occur that physically or chemically damage any perennial stream beyond the impact of mere crossings, detailed reclamation plans will be required. Since no impacts are expected that would affect any game fishery, and no threatened or endangered fish species inhabit the company's mine plan or adjacent areas, reclamation plans need not address macrophytes. Macroinvertebrates would only need to be addressed from the position of a stream's "biological communities" (30 CFR, parts 816.57 and 817.57); such data and analysis would have to be secured through the services of a private consultant. If reclamation of a stream does become a consideration, the company would have to provide for measurement of the physical characters of the stream prior to disturbance. Such measurements should consider surface water information required in 30 CFR, part 779.16, data on stream velocity, gradient, width, depth, pool-riffle ratio and substrata types.

Reclamation that would achieve development of a stream channel similar in character to the channel that existed prior to mining would allow for natural reestablishment of macroinvertebrates, macrophytes and the

non-game fish population. This would adequately mitigate for disturbance and temporary loss of those resources. There would be no mitigation for displacement and possible loss of other wildlife species dependent upon the non-game fishes as a prey source. It is believed that impacts on these species would not be significant.

It is also recommended that adequate precautions be taken to keep all forms of coal from being inadvertently deposited in perennial stream channels or other drainages that would allow coal to be transported to a perennial stream during periods of run-off. This would include blow coal from haulage trucks, railroads or other transportation systems or storage piles along with larger particles from similar and other sources. If needed to control blow coal, haulage systems should be covered, or the surface of the coal appropriately sprayed in order to solidify it against wind movement or travel speeds reduced so that no coal is allowed to blow from the transportation system. The impacts of coal on aquatic ecosystems are many and varied; therefore, coal must be kept out of aquatic systems.

Utah Division of Wildlife Resources reaffirms all of the recommendations in 30 CFR, parts 816.44 and 817.44; 816.57 and 817.57; and 817.126 for protecting stream channels and their associated riparian and wetland zones. It is recommended that all natural wetlands and riparian vegetation along streams, drainage bottoms, or around seeps and springs be maintained. Roads and other facility developments should not destroy these limited, highly productive and specialized habitats. Roads crossing through those areas should do

so in a manner that is least damaging to the habitat. Wetlands and riparian habitats are ranked as crucial-critical habitats and are the most productive sites in terms of herbage and biota produced as compared to other local habitat types. It is probable that a majority of the vertebrate wildlife that inhabit the mine plan area make some use of riparian or wetland areas.

It is important to note that roads and other surface facilities to be constructed should as far as practicable be placed at sites where they will not compromise wildlife or their use areas. Also, surface facilities, including roads, should be screened if possible from wildlife use areas by vegetation or terrain.

Haulage of coal between the mine project area and a market or distribution plant should be planned so that impacts to wildlife are lessened; of special concern is haulage of coal through wintering areas for big game. It is recommended that the company advise personnel involved with coal haulage to use extreme caution so that accidental collisions between motor vehicles and big game are reduced. Without doubt, a reduction in speed across winter ranges would alleviate this problem during the period when big game are physically present between November 1 and May 15 each year.

There are no specific recommendations for enhancement of habitats for amphibians and reptiles. However, any enhancement of habitat that provides a greater diversity of vegetation will also benefit amphibians and reptiles. It is important to note that all of these species are protected

by Utah law. It is urged that individual specimens not be destroyed. This is especially true for snakes since they are a valuable component of the ecosystem.

Snake dens are ranked as being crucial-critical to the population and are protected by law. If a den is located, it should be reported to the Utah Division of Wildlife Resources. Snake dens can be moved, but only with intensive efforts that may take a year or more (snakes are caught and removed in the spring and fall). Thus, construction of facility developments may take place in denning locations if there is sufficient lead time to relocate the occupants.

No specific procedures are recommended for purposes of determining mitigation, enhancement projects or reclamation techniques relative to potential loss of pheasant habitat. Where practicable, it is recommended that agricultural lands not be impacted by coal development due to their value as wildlife habitat and the limited local acreage.

It is recognizable that development and operation of a mining project will in some cases negatively impact many wildlife species through physical destruction of habitats and continual disturbance that makes other habitats unavailable or less desirable to an individual animal. It is also true that impacts that are negative to one species may be beneficial to another species. In the instance of avifauna, it is recommended that the company

plant native and/or ornamental berry producing shrubs around surface facilities. This will provide food and cover for many of the smaller species of birds, resulting in enhancement of their substantial value and high-priority habitats. This action would also mitigate for disturbances and destruction of avifauna habitats at other sites on the mine plan and adjacent areas.

No studies concerning small birds, mourning doves or waterfowl are recommended for purposes of determining mitigation, enhancement projects or reclamation techniques.

It is important to note that the nests of all birds (except the house sparrow, starling and ferral pigeon) when active and their eggs are protected by federal (Federal Migratory Bird Treaty Act) or state laws (Utah Code 23-17-1 and 23-17-2).

Several species of raptors inhabit the mine plan area. To date, location of most raptor nests and other parameters concerning their populations in the project area are not known. As a result, the company must provide for a one-season, intensive inventory of raptor breeding territories and identification of aerie sites. This inventory should not extend beyond a one kilometer radius of proposed surface mine operations, portal facilities, load-out sites or any other facility development that will result

in continual or significant disturbances during the raptor breeding season (February through June). It is suggested that this study be conducted prior to any development and that it discuss potential impacts from the proposed project and planned mitigation relative to raptor use of habitats proximal to disturbed sites. The services of a qualified raptor biologist will need to be secured.

If located, nests when active should not be disturbed and abandoned stick nests of raptors are never to be damaged during inactive periods. Every effort should be made to eliminate man's disturbance within visual sight or one-half kilometer of an active raptor nest. This effort is demanded in the instance of golden eagles and cliff nesting falcons since they are sensitive to disturbance and could abandon the nest. Termination of man's use of a site would not be required if eagles or falcons constructed the nest after mining had been initiated, since it would demonstrate the bird's willingness to tolerate mining activities and the associated disturbance by man. Disturbance that would come from above and within view of a raptor nest should be precluded if possible for a distance of at least one kilometer.

Roost trees for eagles, if located, must not be disturbed.

As a general comment, whenever active raptor nests are observed or roost trees located, they should be reported to the Utah Division of Wildlife Resources and the U.S. Fish and Wildlife Service.

Design and construction of all electrical power lines and other transmission facilities shall be designed in accordance with guidelines set forth in "Environmental Criteria for Electric Transmission System" published by the USDA and USDI in 1970 and/or the REA Bulletin 61-10 "Powerline Contacts by Eagles and Other Large Birds." It is also recommended that placement of utility poles be planned so that they are out of view of roads or at least 100 meters away from any roads. This will lessen opportunity for illegal killing of these valuable birds.

Several species of big game and small game animals inhabit the project area. There are no recommendations to lessen impacts on game mammals except those suggestions made earlier and recommended reclamation that will be discussed later.

No studies concerning game mammals are recommended for purposes of determining mitigations, enhancement projects or reclamation techniques.

The mine plan and adjacent areas provide habitats for several of Utah's furbearers and a multitude of non-game animals. For all of these species, there are no recommendations to lessen impacts except those suggestions made earlier and recommended reclamation that will be discussed later.

No studies concerning furbearers and non-game animals are recommended for purposes of determining mitigations, enhancement projects or reclamation techniques.

In situations where wildland habitats have been or will be disturbed, reclamation is required. Also, there are sites where enhancement of wildland habitats through vegetation treatments and/or seedings and transplants of seedlings could benefit wildlife. The attached tables (1 through 10) depict recommended seed lists for several vegetative associations and application rates for rangeland seedings that would benefit wildlife. If seed for a plant species is not available, suitable alternates are also listed. For some vegetation associations, plant species are recommended that will assist in erosion control of special sites such as roadbanks. Seedling transplants from nursery stock or nearby rangelands would also be acceptable for enhancement or reclamation of wildlands. In either instance, tables 1 through 10 provide lists of vegetation species by habitat association that would benefit wildlife.

Temporary control of rodents may be required to ensure a successful rangeland treatment. It is recommended that the county agent be consulted in this area of concern. Poisoned oats are the most common and acceptable method for rodent control; however, only licensed persons may apply the treatment.

Currently, there are some new concepts in methodology for revegetation that are being successfully implemented in other parts of the nation and world. One promising method is a procedure where a large scoop removes,

from a natural and stabilized site, a small area of earth intact with vegetation and subsurface soils for placement on a site to be reclaimed. This same procedure can be utilized when disturbing pristine sites, except that the native vegetation is stored for use in latent reclamation. Another meritorious method for stimulating natural revegetation, in combination with other reclamation techniques, is to plan facility developments so that islands of natural, native vegetation remain. This will allow for natural vegetation to spread from the islands. These techniques can also be useful for enhancement of poor quality sites that currently exist on the mine plan area.

Encapsulation of seed and fertilizer for several releases over a period of years after a single application is a new and possibly advantageous procedure. This technique along with soil stabilizing structures has been successfully used in South Africa. Dr. J. Van Wyk in the Department of Botany at Potchefstroom University in South Africa could provide additional information on this new technique.

There are also new specialized techniques coming to the forefront for stabilization of problem sites such as roadbanks and steep slopes. It is important that these sites be promptly and permanently revegetated in order to reduce siltation into local riverine systems. This will mitigate for damage to aquatic wildlife populations and habitats from siltation. Enhancement of existing problems, sites or reclamation of disturbed sites can mitigate for salt loading of local river systems. It is believed

that natural, nonpoint sources represent 50 percent of the salinity in the upper basin of the Colorado River system into which this mine plan area drains.

It is recommended the company make numerous contacts with appropriate agencies, institutions and persons to ensure that enhancement or reclamation projects achieve the required degree of permanency, plant diversity, extent of cover and capability of regeneration to ensure plant succession. Generally speaking, seeding should be accomplished as late in the fall as possible. Seedling transplants need to be coordinated with local soil moisture conditions. It is paramount that suitable vegetation be maintained and/or reestablished if the life requirements of wildlife are to be satisfied in the postmining period. Success in this area of concern along with cessation of man's disturbances will likely result in a natural reinvasion and the resultant inhabitation by most wildlife species of an impacted site.

It is important to note that enhancement or reclamation projects that are to benefit wildlife must be properly designed so that all the life requirements of the target species are considered in conjunction with forage. Water must be provided or be present and thermal cover along with escape and hiding cover has to be in abundance. Loafing areas and travelways between the many types of use areas must also be provided. In order to meet these goals, a considerable degree of consultation will be required between the company and Utah Division of Wildlife Resources.

As a service and also to ensure that the needs of wildlife are met, the various expertise within the Division of Wildlife Resources are available to the company for consultation. For the most part, Larry Dalton, Resource Analyst, for the Southeastern Regional office at 455 West Railroad Avenue in Price, Utah 84501 (phone 637-3310) will coordinate any needed contacts. Richard Stevens, Wildlife Biologist, at the Great Basin Research Center, Box 704, in Ephraim, Utah 84627 (phone 283-4441) is available for consultation and site specific analysis concerning species for vegetation plantings, timing and techniques to achieve the best results.

In instances where revegetation projects are to be planned over coal waste areas, heavy metal uptake by the plants must be evaluated. It is recommended that the company initiate an appropriate long-term monitoring program to determine the magnitude and resolutions, if needed, for this problem.

There is also some concern for the effects that subsidence may have on sources of water that support existing wildlife populations and their habitats. If hydrologic monitoring shows a significant reduction or total loss of ground and/or surface waters, the company should immediately consult the Division of Wildlife Resources and the U.S. Fish and Wildlife Service on emergency procedures if needed. A significant local loss of water may demand temporary or permanent alternative sources of water to be established by the company for use by wildlife.

It is recommended that persistent pesticides not be utilized on the mine plan area. Other alternate pesticides or forms of control should be

utilized. Additionally, all hazards associated with the mine operation should be fenced or covered to preclude use by wildlife; of special concern would be toxic materials.

Hunting and other state and federal wildlife regulations must be adhered to by sportsmen utilizing the mine plan area.