state of utah

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DIVISION OF WILDLIFE RESOURCES

DOUGLAS F. DAY
Director

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Reply To SOUTHEASTERN REGIONAL OFFICE
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April 17, 1980

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DIVISION OF
OIL, GAS & MINING

Mr. Ron Hughes, Permit Coordinator
Consolidation Coal Company
2 Inverness Drive East
Englewood, CO 80110

Dear Mr. Hughes:

I want to take this opportunity to extend thanks for the assistance Steve Dole and Larry Hayden-Wing provided Larry Dalton in becoming familiar with existing and planned surface facilities on the mine plan area encompassed by Consolidation Coal Company's Consol mine project. I believe that you will find the enclosed information helpful at filing a mine and reclamation plan.

In response to your request for wildlife resources information (30 CFR, parts 779.20 and 783.20) and the Division's recommendations concerning a wildlife plan (30 CFR, parts 780.16 and 784.21) to accompany your permit application, the attached map delineating high value habitats for wildlife and supporting narrative for those use areas and other high interest wildlife species are provided. Since the primary or secondary premining and assumed postmining use of the mine plan area was and will be agricultural tracts and wildlands inhabited by wildlife, suggested vegetative species (seed list along with potential material supply sources for seed and seedlings) for use in enhancement and/or reclamation work that would benefit wildlife are included (30 CFR, parts 816.97 d 4 and 817.97 d 4; 816.97 d 5 and 817.97 d 5; 816.97 d 9 and 817.97 d 9; 816.116 b 3 IV and 817.116 b 3 IV; and 816.117 c 2 and 817.117 c 2). Also, note that Utah's Division of Oil, Gas and Mining is the regulatory authority for approval of the mining and reclamation plan.

Thank you for an opportunity to assist Consolidation Coal Company in complying with OSM's permanent regulatory program and the state's proposed program for surface mining and reclamation and the resultant protection of Utah's wildlife resources. If the scientific name or other information relative to status of any wildlife species referenced is needed, please consult the Division publication

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78-16 "Species List of Vertebrate Wildlife that Inhabit Southeastern Utah" that was earlier provided to Mr. Larry Hayden-Wing.

If we can be of any further service, please contact Larry Dalton (phone - 801-637-3310) as appropriate.

Sincerely,

Larry J. Wilson, Supervisor
Southeastern Region

LJW:LBD:ah

Attachment

cc: Darrell Nish, Chief Resource Analyst
Ron Hodson, Emery County Conservation Officer
Clark Johnson, Coal Coordinator, U.S. Fish and Wildlife Service
Samuel Rowley, Area Manager, Bureau of Land Management
Cleon B. Feight, Director, Division of Oil, Gas and Mining

30 CFR, PARTS 779.20 and 783.20; FISH AND WILDLIFE RESOURCE INFORMATION
CONSOLIDATION COAL COMPANY, CONSOL MINE PROJECT

General Wildlife Resource Information--All Species of Vertebrate Wildlife

The mine plan area for the Consol Mine Project encompasses a portion of the Wasatch Plateau and San Rafael Swell and Desert in Emery County, Utah. This area drains into the Muddy Creek, which flows into the Dirty Devil River and ultimately into Lake Powell. The Division publication No. 78-16 "Species List of Vertebrate Wildlife that Inhabit Southeastern Utah" represents a low level of study and adequately identifies occurrence, relative abundance, status, population trend and habitat use areas for wildlife species that inhabit the Wasatch Plateau and San Rafael Swell and Desert. Generally speaking, the biogeographic areas in which the mine plan and adjacent areas lie are inhabited on occasion and during different seasons of the year by about 381 species of vertebrate wildlife (11 fish species, 8 amphibian species, 20 reptile species, 243 bird species and 99 mammal species). Some of these species are considered to be of high interest for the habitats and local area represented. It is interesting to note that 84 percent of these species are protected. High interest wildlife are defined as all game species; any economically important species; and any species of special aesthetic, scientific or educational significance. This definition would include all federally listed, threatened and endangered species of wildlife.

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." Data from low level or high level studies should be included with the mining permit application. The company will likely need the services of a qualified, private consultant in order to assimilate such data once it is secured through the various agencies and/or original field work.

A ranking and display (figure 1) of vertebrate, terrestrial and aquatic wildlife use areas has been developed. Crucial-Critical wildlife use areas followed in respective importance by High-Priority, Substantial Value and Limited Value wildlife use areas require various levels of protection from man's activities and developments.

Crucial-Critical wildlife use areas are "sensitive use areas" necessary to sustain the existence and perpetuation of one or more species of wildlife during critical periods in their life cycles. These areas are limited and lie within high-priority wildlife use areas. All stream sections, reservoirs, lakes and ponds identified by Utah Division of Wildlife Resources as Class 1 or 2 are classified as being crucial-critical. Biological intricacies dictate that significant disturbances cannot be tolerated by the members of an ecological assemblage on crucial-critical sites. Professional opinion is that disturbance to crucial-critical use areas or habitats will result in irreversible changes in species composition and/or biological productivity of an area.

High-priority wildlife use areas are "intensive use areas" for one or more species of wildlife. "Intensive use areas" are not limited and in conjunction with limited value use areas form the substantial value distribution for a wildlife species. All stream sections, reservoirs, lakes and ponds identified by Utah Division of Wildlife Resources as Class 3 are classified as being of high-priority. In addition, wildlife use areas where

surface disturbance or underground activities may result in subsidence that could interrupt underground aquifers and could result in a potential for local loss of ground water and decreased flows in seeps and springs should be considered as being of high-priority to wildlife.

Substantial value wildlife use areas are "existence areas" for one or more species of wildlife. "Existence areas" represent a herd or population distribution and are formed by the merging of high-priority and limited value wildlife use areas for a species. All stream sections, reservoirs, lakes and ponds identified by Utah Division of Wildlife Resources as Class 4 are classified as being of substantial value.

Limited value wildlife use areas are "occasional use areas" for one or more species of wildlife. "Occasional use areas" are not limited and are part of the substantial value wildlife use area for a species. All stream sections, reservoirs, lakes and ponds identified by Utah Division of Wildlife Resources as Class 5 or 6 are classified as being of limited value.

MAPPING

Vegetation

It is recommended that the company's primary effort be placed on identifying species of vegetation in each habitat association within the wildlife use areas for purposes of reclamation. Identification of each vegetation association on

appropriately scaled maps along with supportive narration will probably be required as part of the demands of state and federal regulations for a mine permit application.

It is believed that if satisfactory reclamation is achieved and man's disturbance does not contine or become a factor, that most species of wildlife displaced from the mine plan area will return. Without doubt, the key to success for enhancing or restoring wildlands will be development of habitats so that the postmining condition as compared to the premining condition will have similar species, frequency and distribution of permanent plants in each vegetative type that will allow for natural plant succession.

Wildlife Use Areas

Figure 1 displays mapable, high value habitat use areas for high interest wildlife on and adjacent to the mine plan area. This display includes stream sections and bodies of water used by high interest fish species and known seeps, springs, wetlands, and riparian zones. It should be noted that there are high interest wildlife distributions that are so broad that they cover the entire map and therefore are not illustrated. However, all vertebrate species of high interest wildlife and their distributions are discussed in the following narrative. The narrative also identifies the need, if any, for studies that would be recommended in order to prepare and evaluate a Fish and Wildlife plan for 30 CFR, parts 780.16 and 784.21.

Water

Due to demands of state and federal regulations, the company will probably be required to identify and monitor all surface waters for potential impacts from subsidence. This information should be plotted on the same map with the wildlife use area distributions due to the value of water to wildlife.

Fish and Wildlife Inventory

Aquatic Use Areas

Macrophytes

Since no species of high interest fish inhabit the mine plan or adjacent areas, there is no reason for information relative to macrophytes to be addressed by the mine permit application from a position of the aquatic wildlife resource. It is believed that macrophytes will naturally reinvade disturbed sections of the perennial streams (Christiansen Wash, Miller Wash, Quitchupah Creek and Ivie Creek) when they are reclaimed. If desired, information relative to macrophytes would have to be secured through the services of a private consultant, since it is not generally available.

Macroinvertebrates

The comments provided for macrophytes represent the same situation and recommendations that should be considered for macroinvertebrates. However, the perennial streams may support "biological communities" (30 CFR, parts 816.57 and 817.57) which could necessitate designation of stream buffer zones Studies for determination of "biological communities" will have to be secured by the company through the services of a private consultant.

Fish--High Interest Species

Quitchupah Creek, Ivie Creek, Miller Wash and Christiansen Wash all support nongame fishes. Quantity of flow and water quality in each of these streams limit the potential for any game fishery. Therefore, streams on the mine plan area are ranked as having only limited value to Utah Division of Wildlife Resources' fishery management program. As many as 11 species of nongame fishes, all of which are protected (reference the "Species List of Vertebrate Wildlife that Inhabit Southeastern Utah"), may be found in the streams on or adjacent to the mine plan area. Due to their low potential as a sport fishery, none of the streams have been classified in the state's water plan--Class 1 streams are the best blue ribbon waters and Class 6 streams are dewatered during portions of the year.

It is not recommended that the company provide for any high level fishery studies. Utah Division of Wildlife Resources has already conducted low levels of study in the biogeographic areas in which the project lies; these are sufficient since species occurrence, relative abundance, status, population trend and preferred habitat use areas are documented in the afore mentioned publication.

If mine operations are planned that would alter, destroy or discharge effluents into any perennial streams, appropriate state and federal permits along with reclamation plans would be required of the company. Achievement of reclamation would demand detailed studies of stream velocity correlated to flow, representatives of the stream channel profile, gradient, pool-riffle ratio, substrata types identifying percent representation of each type and surface water information required for 30 CFR, part 779.16. If modification of flows is anticipated, instream flow requirements must be considered to meet the needs of the existing nongame fisheries,

"biological community" and maintenance of existing riparian or wetland zones. Such base line information would allow for development of mitigation or reclamation plans that would allow for maintenance or reestablishment of unique habitat types. This information is not generally available and would necessitate the services of a private consultant.

It is important to note that no federally listed threatened or endangered fish species inhabit the mine plan or adjacent areas. The endangered humpback chub and Colorado squawfish inhabit the Colorado River. Additionally, the humpback (razorback) sucker and the bonytail chub also inhabit the Colorado River. It is likely that these species will one day be listed as threatened and endangered, respectively. It is not believed that implementation and operation of the company's project will impact these species.

Terrestrial Use Areas

Unique Habitat Types

The riparian zones associated with drainage bottoms (ephemeral or intermittent), or perennial streams (30 CFR, part 701.5), seeps, springs, wetlands and flood plains are ranked as being crucial-critical to all aquatic and terrestrial wildlife species. These areas are highly productive in terms of herbage produced and use by wildlife as compared to surrounding areas. These unique habitat types must be identified in the permit application as crucial-critical wildlife use areas. Figure 1 displays unique habitat types that are currently known; however, the applicant must identify and protect all such use areas on the mine plan and adjacent areas.

Amphibians

Eight species of amphibians, all of which are protected, are known to inhabit the biogeographic area in which the mine plan and adjacent areas are located (reference the "Species List of Vertebrate Wildlife that Inhabit Southeastern Utah"). None of these amphibians are federally listed as threatened or endangered species. It is not recommended that the company provide for any studies concerning amphibians. Utah Division of Wildlife Resources has already conducted low levels of study on the project area; these are sufficient since species occurrence, relative abundance, status, population trend and preferred habitat use areas are documented in the afore mentioned publication.

Reptiles

Twenty species of reptiles, all of which are protected, are known to inhabit the biogeographic area in which the mine plan and adjacent areas are located (reference the "Species List of Vertebrate Wildlife that Inhabit Southeastern Utah"). None of those reptiles are federally listed as threatened or endangered species. It is not recommended that the company provide for any studies concerning reptiles. Utah Division of Wildlife Resources has already conducted low levels of study on the project area; these are sufficient since species occurrence, relative abundance, status, population trend and preferred habitat use areas are documented in the afore mentioned publication.

To date no snake dens, which are protected, have been identified on or adjacent to the mine plan area.

Birds

Two hundred forty-three species of birds, all of which are protected, are known to

inhabit the biogeographic area in which the mine plan and adjacent areas are located (reference the "Species List of Vertebrate Wildlife that Inhabit Southeastern Utah"). For all of those species of avifauna, Utah Division of Wildlife Resources has already conducted low levels of study on the project area; these are sufficient since species occurrence, season of inhabitation, relative abundance, status, population trend and preferred habitat use areas are documented in the afore mentioned publication. In many instances, the Division already has sufficient data concerning high interest species of birds. The existing, needed data is provided in later discussions. Therefore, it is recommended that the company only provide for intensive surveys of breeding raptors and high priority habitat for birds having high federal or state interest. These studies and existing data will be addressed in the following discussions.

Agricultural areas and adjoining wildlands associated with the mine plan and adjacent areas provide year-long, substantial value habitats for ring-necked pheasants. Due to the pheasants dependancy on agricultural systems, all cultivated fields are ranked as being of crucial-critical importance to the birds. Pheasants initiate nesting as early as mid-April and continue into mid-July. This period of time and successful nesting activities is of crucial-critical importance to the maintenance of the pheasant population. The applicant need not provide additional data in the mine permit application concerning pheasants.

Mourning doves are of high interest to the state of Utah and normally inhabit the entire mine plan and adjacent area (substantial value use area) between May 1 and September 15 each year; they nest throughout most of this period. Successful nesting activities and any water sources are crucial-critical to maintenance of the

mourning dove population. The applicant need not provide additional data in the permit application concerning doves.

The mine plan and adjacent areas provide substantial value habitats for waterfowl, all of which are of high interest to the state. Stock ponds and all perennial streams can become locally important as high-priority habitat use areas during peak migration periods in the spring (March 15 to May 15) and fall (August 15 to October 15). To a lesser extent, the perennial streams with their associated wetland and riparian habitats represent high-priority use areas for brooding of a limited number of young waterfowl and the moulting process for low numbers of adult birds between July 16 and August 15 each year. Additionally, these areas represent crucial-critical nesting to the few waterfowl inhabiting the areas between March 15 and July 15 each year. The applicant need not provide additional data in the permit application concerning waterfowl.

The mine plan and adjacent areas provide habitats for turkey vultures, bald and golden eagles, four species of falcons, eight species of hawks, osprey and nine species of owls. Many of these species are of high federal interest pursuant to 43 CFR, 3461.1 (n-1). All of these species are of high interest to the state of Utah. Nesting habitat exists on the mine plan or adjacent areas for many of these species. Each species has a specific crucial-critical period for which their aerie needs protection from disturbance. Generally speaking, aeries need protection from significant or continual disturbance within a radius of one-half kilometer of the nest, but only during the period of time that the nest is occupied. Species specific protective stipulations are available from the Utah Division of Wildlife Resources and the U.S. Fish and Wildlife Service.

It is important to note that golden eagles are year-round residents of the mine plan and adjacent areas. It is possible that they nest on the mine plan or adjacent areas, but to date no inventory of breeding territories or aerie sites has been conducted. An eagle aerie would be extremely sensitive to disturbance within a one-half kilometer radius when active between the period of April 15 and Jule 15. The one-half kilometer buffer zone may need to be increased to one kilometer if the disturbance originates from above and in direct line of sight to the eagle aerie.

The endangered bald eagle is a winter resident (November 15 to March 15) on the mine plan and adjacent areas. As a result, the area represents a substantial value, winter use area for bald eagles. There are no known or suspected high-priority concentration areas or crucial-critical roost trees for bald eagles on or adjacent to the mine plan area. Utah Division of Wildlife Resources has and continues to maintain a constant vigilance concerning use areas for bald eagles. Therefore, it is not currently recommended that the company provide for any studies relavent to bald eagles.

The endangered peregrine falcon is a year-round resident of Emery County. No sightings are known to have been made on or adjacent to the mine plan area; however, their occasional presence would not be unlikely. Additionally, no aeries are known or suspected to be on or adjacent to the mine plan area.

Currently, litti e is known concerning numbers of raptor breeding territories or locations of aerie sites on or adjacent to the mine plan area. Due to the extreme sensativity of many of these birds to disturbance, high levels of study to be provided for by the applicant are recommended. Results from such a study must be included with the mine permit application. It is not recommended that the company be required

to conduct extensive raptor studies over the entire mine plan or adjacent areas. It is recommended, however, that they provide for a base line intensive inventory of raptor breeding territories and identification of aerie sites within a one kilometer radius of proposed surface mining 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). These types of studies can be accomplished by contracting Utah's Division of Wildlife Resources, the U.S. Fish and Wildlife Service, or a qualified, private consultant.

Seven nonraptorial species of avifauna having high federal interest pursuant to 43 CFR 3461.1 (n-1) may inhabit the mine plan and adjacent areas (great blue heron, common; long-billed curlew, uncommon; band-tailed pigeon, uncommon; sandhill crane, limited; black swift, uncommon; and Western blue bird, uncommon; also, Scott's oriole, uncommon). If mining operations will physically impact any of these birds, interfere significantly with any population's behavioral processes or destroy portions of their high-priority habitat use areas, high levels of study are recommended. However, it is not believed that this mine operation will impact nonraptorial birds having high federal interest. Therefore, data other than that presented in later paragraphs need not be included with the mine permit application.

A review of literature will help assess potential impacts, if any, from the planned mining operation on any birds having high federal or state interest. If significant impacts are potential, the company should provide through a qualified consultant for an on-the-ground verification of the presence of the birds or their high-priority habitats. After which, the applicant must identify potential impacts and mitigative measures that would be implemented. This data must be included as part of the

application for a mine permit. If sufficient mitigation as determined by the regulatory authority through consultation with the U.S. Fish and Wildlife Service and the Utah Division of Wildlife Resources could not be achieved the planned activity should be disallowed.

Great blue herons are summer residents of the biogeographic areas in which the project lies. They feed on fish, amphibians, reptiles, mollusks and macroinvertebrates. On occasion, an individual or low numbers of great blue herons visit the mine plan or adjacent areas and feed along the perennial streams. There are no known rookeries on or adjacent to the mine plan area.

Long-billed curlews have only been observed as transients during migration periods (fall, August 15 to October 15; spring, March 15 to May 15) in the Emery area. They rest and feed along the mud flats and wetlands associated with perennial streams and may utilize agricultural areas.

An occasional individual or small flock of band-tailed pigeons has been observed during the summer and migration periods (March 15 to October 15) along the Wasatch Plateau. None have been recorded in the Emery area.

Although sandhill cranes have been observed as transients during migration periods (Fall, August 15 to October 15; Spring, March 15 to May 15) along the Wasatch Plateau and in the San Rafael Swell and Desert, none have been recorded in the Emery area.

Black swifts are a summer resident on the Wasatch Plateau; they display a southward migration with the onset of winter. The black swifts preferred habitat use area is the open sky in mountainous areas. Their nesting sites are always on a moist cliff and usually at high altitudes in the mountainous regions. This species

has not been documented from the Wasatch Plateau adjacent to the Emery area even though it cruises many miles from its nest site. It is important to note that no suitable nesting sites or other significant use areas for black swifts exist on or adjacent to the mine plan area.

Western bluebirds are a summer resident of the lower mountain habitats and pinion-juniper communities of the Wasatch Plateau and San Rafael Swell and Desert. They migrate to the lower valleys and away from the Plateau during winter. The Western bluebird's preferred habitat use areas are openings where mountain meadows or similar habitats are interspersed with loose stands or single coniferous trees. They always nest in natural cavities of trees or in bird boxes provided by man. The elevation and amount of precipitation on the mine plan and adjacent areas are lower than the normal for use areas for Western blue bird in Southeastern Utah.

The Scott's oriole is an uncommon summer resident of pinion-juniper woodlands, oak slopes or cottonwood trees associated with canyons in the San Rafael Swell and Desert. This species apparently migrates as far south as Mexico with the onset of winter. Little else is known concerning this species and none have been observed in the Emery area.

Mammals

Ninty-nine species of mammals, of which 24 percent are protected, are known to inhabit the biogeographic area in which the mine plan and adjacent areas are located (reference the "Species List of Vertebrate Wildlife that Inhabit Southeastern Utah"). For all of those species of mammals, Utah Division of Wildlife Resources has already conducted low levels of study. Species occurrence, relative abundance, status, population trend and preferred habitat use areas are

documented in the afore mentioned publication. Those studies along with data provided in later paragraphs are sufficient; therefore, it is recommended that the company not provide any additional data in the permit application concerning mammals.

Mule deer (herd units 36,45 and 29 and elk (Manti herd unit) normally utilize the high-priority summer ranges between May 16 and October 31 each year. These ranges are quite distant (13 miles west) to the mining operation. The limited value use areas for deer in each of these herds are utilized year-round. (Figure 1)

Fawning and rearing processes for deer take place between May 16 and June 15. (Figure 1)

In the instance of moose, their population on the Wasatch Plateau is low and most numerous in the drainages of Scofield Reservoir. The substantial value year-long use area for moose located 6 miles northwest of the mine plan area will not be impacted by the mining project (Figure 1).

Each year, elk and mule deer inhabit high-priority and crucial-critical winter ranges (November 1 to May 15) that lie adjacent to the entire mine plan area. They migrate away each year to utilize the traditional high-priority summer ranges.

Agriculture areas associated with the mine plan and adjacent areas are utilized year-long by mule deer. Their use is sometimes intensified during the winter and spring periods.

It should be noted that the entire lease area provides substantial value, year-long habitat for an occasional cougar. The big game winter ranges support a significant cougar population, since mule deer are their primary prey source. Most, if not all, of the cougar move to the high-priority summer ranges when the big game migrate away from winter range.

Crucial-critical periods for cougar are when females are accompanied by their young.

It is unlikely that black bear would ever frequent the mine plan or adjacent areas. They are common, but not numerous in the higher elevation summer ranges.

The entire mine plan and adjacent areas provide substantial value, year-long habitats for cottontail rabbits (mountain cottontail above 7,000 feet elevation and desert cottontail below 7,000 feet elevation). The young are born between April and July each year. This is a crucial-critical period for maintenance of the population.

The mine plan and adjacent areas provide substantial value habitats for bobcat and kit fox; both are high interest species of wildlife. Almost nothing is known of their population dynamics and habitat use areas on or adjacent to the mine plan area. Generally speaking, bobcats inhabit all terrestrial habitats (substantial value use area) on the entire mine plan and adjacent areas. The substantial value use area for kit fox includes all of the low elevation desert shrub and agricultural areas and extends into the pinion-juniper type. Without doubt, a crucial-critical period for both species is when they are rearing young. Dens while being inhabited are also crucial-critical use areas.

Portions of the mine plan and adjacent areas provide substantial value habitats for several of Utah's furbearer--beaver, ermine, long-tailed weasel, mink, badger, striped skunk, spotted skunk and muskrats (note the muskrat is not a furbearer but is a high interest species). For all of these species, their breeding/rearing seasons, dens and lodges are of crucial-critical value to maintenance of the populations.

Currently, there are no other known high interest wildlife species or their habitat use areas on or adjacent to the mine plan area. It is not unreasonable to

to suspect that in the future, some additional species of wildlife may become of high interest to the local area, Utah or the Nation. If such is the case, the required periodic updates of mine and reclamation plans can be adjusted and appropriate recommendations made.