RECORD OF DECISION

Ark Land Company Year 2001 Coal Exploration Plan On Federal Coal Lease UTU-76195

USDA Forest Service, Intermountain Region
Manti-La Sal National Forest
Sevier County, Utah
April, 2001

I. INTRODUCTION

A. Project Description

This project was initiated in response to a Coal Exploration Plan submitted to BLM by Ark Land Company in September 1999, proposing to drill three coal exploration holes on Federal Coal Lease UTU-76195 (Pines Coal Lease) during the year 2001 field season.

Bore holes would be drilled at three locations for stratigraphic correlation and coal quality assessment. The Coal Exploration Plan submitted by Ark Land Company in September 1999 included five exploration holes. However, two of the holes (00-11-1 and 00-14-1) have subsequently been deleted by the applicant. The three remaining holes are 00-11-2, 00-11-3, and 00-23-1. The total depth of each exploration hole is expected to be between 1200–1300 feet. Two cores will be retrieved from each exploration hole, one from the Upper Hiawatha Coal Seam and one from the Lower Hiawatha Coal Seam. The three exploration holes will be abandoned following completion. Abandonment procedures will consist of pressure grouting the casing by the use of a tremie pipe from the bottom of the casing along its entire length to ground surface. The top of the casing will be cut off just below ground surface. A second hole will be drilled at each location 20-30 feet from the exploration hole for the installation of a piezometer (for monitoring groundwater levels). The piezometer borings will be advanced to the base of the Castlegate Sandstone or just below. Expected depth of the piezometer borings is approximately 200 feet. At each drill site a 100 ft X 60 ft drill pad will be constructed. Earth excavation will primarily be accomplished for the drill sites using a D-6 Cat bulldozer and road grader. Excavation will include grubbing of some areas, removal and separate storage of the soil A horizon and, if needed, removal and separate storage of material below the soil A horizon to make a level drill site. Drilling mud pits will also need to be excavated in the material below the soil A horizon if there is sufficient depth. When mud pits cannot be constructed, portable containers will be used or the drilling mud, foam, and cuttings will be hauled to an approved disposal site.

One borehole will require temporary road construction, the northernmost boring 00-11-3. The proposed location for this boring is approximately 1,550 feet southwest of FR 50028. This location is relatively flat and open and the proposed road would be straight to the drill site with a total length of 1,550 ft. Finished road width will be approximately 12 feet. Reclamation of the surface following use of this road will be performed by Canyon Fuel Company after operations are completed. Borehole 00-11-2 is not located on a Forest Road but it is located on an existing unclassified road suitable for wheeled and tracked vehicles. This road will also be reclaimed by Canyon Fuel Company at the completion of operations. The third borehole, 00-23-1, is located on FR 50028. No new access will be required for this boring. All the proposed borings are located within an Inventoried Roadless Area (RARE II Area 04-423). No new roads other than the access for borehole 00-11-3 will be constructed for this project.

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Record of Decision
based on the
Final Environmental Impact Statement
for the
Pines Tract Project

Ark Land Company, Year 2001 Coal Exploration
on
Federal Coal Lease UTU-76195
(Formerly Pines Tract)

USDA Forest Service
Manti-La Sal National Forest
Ferron-Price Ranger District
Sevier County, Utah

May 2001

Responsible Agency: USDA Forest Service, Intermountain Region

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There will be two seismic lines that will be laid out along existing Forest Development Roads and wheel tracks. The seismic survey will require a P-shooter (thumper) truck, a data acquisition truck, and one or two pick-up trucks. The P-shooter will provide the energy source for all the seismic lines. The data acquisition truck will collect and store the seismic data.

The project will occur within T. 21 S., R. 5 E., SLM, Sevier County, Utah, Sections 11, 22, and 23 (refer to the attached map, Attachment 1).

B. Proposed Action

The Bureau of Land Management proposes to approve the Exploration Plan and the Manti-La Sal National Forest proposes to consent to approval of the Plan with conditions for the protection of non-mineral resources on National Forest System lands.

C. Purpose And Need

The purpose of the exploration program is to acquire the geologic and coal quality/thickness data necessary for the development of a suitable mining plan that will allow the company to economically and efficiently recover the coal reserves in the Pines Tract Coal Lease area.

D. Decisions To Be Made/Authorities

This Record of Decision (ROD) documents findings specific to a request by Ark Land Company to conduct coal exploration activities on Federal Coal Lease U-76195 (Pines Tract) in order to assist in the development of Federal coal reserves on National Forest System lands administered by the Manti-La Sal National Forest (MLS). The lease and Reasonably Forseeable Development Scenario, including coal drilling, were analyzed in the Pines Tract Project Final Environmental Impact Statement (FEIS). This ROD documents my decisions based on the FEIS analysis including terms and conditions of any consent, for the Bureau of Land Management, Utah State Office (BLM) to approve the coal Exploration Plan. The Forest Service is responsible for surface disturbance under the National Forest Service Management Act of 1976. Forest Service consent to approval of coal operations with requirement for the protection of non-mineral interests on National Forest System lands is provided in the Federal Coal Leasing Amendments Act of 1975 that amended the Mineral Leasing Act of 1920.

The BLM participated in the analysis as a jointly-responsible agency. The Price Field Office manager (BLM responsible official) will document his respective decisions on the proposed project in a separate and distinct document. BLM is responsible for leasing and administration of coal leases under the Mineral Leasing Act of 1920, as amended and Federal Regulations contained in 43 CFR 3400.

The Office of Surface Mining participated in the Pines Tract Project FEIS as well as the analysis of the proposed Coal Exploration Plan as a cooperating agency because of their role regarding mine permitting in accordance with the Surface Mining Control and Reclamation Act of 1977.

With this ROD, I am making the following decisions:

- Whether or not to consent to approval of the proposed Coal Exploration Plan on the Pines Coal Lease UTU-76195 by BLM.

- What conditions, not already proposed as part of the Exploration Plan are necessary for the protection of non-mineral interests on National Forest System lands.

I am the responsible Forest Service official for this project. The scope of my decisions are limited to the specific National Forest System Lands described in the FEIS and this ROD. The decisions I am making are site-specific. They are not programmatic and do not change Forest Plan direction for management of minerals or other resources in the Project Area.

E. Relationship Of Proposed Action To Other Activities Within The Pines Tract Project Area

These decisions do not encompass all resource management practices that may occur within the Project Area. Previous environmental documents, past and ongoing activities, and reasonably foreseeable activities were identified and included in cumulative effects analyses presented in the FEIS. Future resource management proposals within the area would have to be considered on their own merits in subsequent decision making.

F. Impact Analysis of Proposed Action Within The FEIS

The FEIS for the Pines Tract analyzed the effects of leasing, mining, and coal exploration drilling in the project area. The effects of coal drilling in the Muddy Creek-Nelson Mountain Inventoried Roadless Area (RARE II Area 04-423) are specifically addressed. The proposed Exploration Plan falls within this area, as predicted in the FEIS. Effects of coal exploration drilling were identified as an issue under Recreation, Issue Number 2, Page 2-6. Effects of construction of surface facilities were also identified as issues relative to vegetation, wildlife, cultural resources, range/livestock, and visual resources.

The Reasonably Forseeable Development Scenario analyzed in the FEIS included the potential for drilling 6–10 coal exploration holes to further delineate coal reserves. Surface disturbance was anticipated at 40 acres, including drill pads and access roads (FEIS, pages 3-175 through 3-181). Effects to other resources are described in the respective sections of the FEIS, Chapter 3.

Since only 3 holes are proposed for a total of less than ½ acre of new disturbance and only one drill site, 00-11-3, would involve construction of a new temporary project road (approximately 1,550 feet long x 12 feet wide) that would cause less than an additional ½ acre of surface disturbance, the effects of Ark Land Company's Coal Exploration Plan fall well within the scope and magnitude of effects disclosed in the FEIS. In addition, the proposed seismic lines would not disturb any previousely undisturbed lands. This activity is essentially defined as non-disturbing. Since the exact number and location of the drill holes and related disturbances were not known when the FEIS was prepared, any site-specific effects of these proposed actions are disclosed in this ROD which is based upon the FEIS analysis. The project area is a smaller area within the FEIS defined area.

II. OVERVIEW OF THE PROJECT AREA

The Project Area lies within the Ferron-Price Ranger District in Sevier County, Utah, about 6 miles northwest of the town of Emery. The exploration project will occur within T21S, R5E, Secs. 11, 22, and 23. The Project Area is defined by the boundaries of the Pines Coal Lease Tract, the Quitchupah Lease

Modification Area, and the Permit Amendment Area (Box Canyon Area) as indicated on Figure 1. Less than one acre of surface area would be disturbed for this project.

The following summarizes key attributes of the Project Area:

Geology/Topography: The area is a flat to rolling upland plateau with steeply incised canyons, with elevations ranging from 6,900 feet to 9,000 feet. The Castlegate sandstone forms the cap rock through much of the Project Area and the steep cliff escarpment surrounding the plateau. Where it is exposed, it forms the rim and walls of Box Canyon and the East Fork of Box Canyon (FEIS, page 3-12). Box Canyon, the East Fork of Box Canyon, Muddy Creek and Link Canyon dissect the plateau, creating impressive canyons. The drainages have formed steep-walled, narrow-bottomed canyons that have exposed sandstone escarpments. The escarpment cliff faces reach up to 200 feet in Box and the East Fork of Box Canyons, and up to 1,000 feet in Muddy Canyon. Portions of the Project Area has exposed sandstone on the land surface. The streams in Box Canyon and the East Fork Box Canyon flow on the exposed sandstone bedrock (FEIS, page 3-63). The coal reserves present are part of the Wasatch Plateau coalfield (FEIS, page 3-11). The project area lies on the sagebrush and conifer flats and would not affect any deeply incised drainages.

Groundwater and Surface Water Resources: Availability of water is a limiting factor in the lease area (FEIS 3-182). Distribution of water resources is generally confined to the two small perennial drainages (Box Canyon and the East Fork Box Canyon) that originate within the Project Area (FEIS, page 3-57 and Figure 3-8). The majority of springs occur within these two drainages (FEIS, Figure 3-4). Eight stock ponds have been developed to aid in providing water for wildlife and livestock on the grazing allotments that overlap the Project Area (FEIS, Figure 3-8 and page 3-182). The available live water sources (i.e. springs seeps, perennial drainages) are vital for wildlife, livestock and riparian vegetation and habitat (FEIS, page 3-96, Figure 3-11, page 3-111 to 112, and page 3-182).

Vegetation and Special Status Species: The lease area supports nine vegetation communities: grassland-perennial forb, sagebrush, mountain brush, conifer timber, aspen/deciduous forest, pinyon/juniper woodland, riparian, a mixed type, and barren ground (FEIS page 3-92 and Figure 3-10). The primary vegetation community is a conifer timber forest of ponderosa pine, white fir and Douglas-fir which is unlike other areas on the MLS. In general, the vegetation communities are dispersed across the Project Area, except that riparian vegetation is mainly confined to the perennial stream corridors and locations of seeps and springs (FEIS, page 3-62, 3-96 and Figure 3-11). The project is located in the sagebrush and conifer timber communities.

A sensitive plant species known to occur in the project area is the Link Canyon columbine. Three confirmed populations of the Link Canyon columbine have been found in the project area associated with wet areas at the heads of Link Canyon and Box Canyon (FEIS, page 3-66 and 3-133). A fourth unconfirmed population may also be present at a rock shelter site in the East Fork of Box Canyon (project file). No Link Canyon columbine have been found in the disturbance area for Coal Exploration Plan. This area does not contain suibable habitat.

Wildlife and Special Status Species: Elk are the most abundant big game species and is a Forest management indicator species (FEIS, page 3-107). The project area hosts winter range for a part of the Manti Elk Herd, the largest in the state of Utah. Sage grouse were once abundant in the area, but

populations have declined. Sage grouse are dependent on springs and riparian areas in the project area for brood habitat (FEIS, page 3-111). Macroinvertebrates are also a Forest management indicator species and are present at the water sources in the Project Area (FEIS, page 3-112). There are no known fisheries within the Project Area. However, there are fish below the project area in lower Box Canyon and Muddy Creek (FEIS, 3-112).

The bald eagle, a threatened species, may occur in the Project Area as a transient species. No roost sites have been found in the Project Area (FEIS, page 3-130). An eyrie for a peregrine falcon, a sensitive species, has been found near the project area and the nesting pair may forage in portions of the project area (FEIS, page 3-130). Suitable habitat for the southwest willow flycatcher, an endangered specie, is present. However, the southwest willow flycatcher confirmed presence and use are undetermined at this time. A species of willow flycatcher has been found on the MLS, but recent DNA testing has confirmed that it is not the southwest willow flycatcher. The drainages in the Project Area are part of the Colorado River Basin which is habitat for four endangered fish species: the humpback chub, the bonytail chub, the razorback sucker, and the Colorado squawfish. Critical habitat for these species are large rivers, which do not occur in the project area (FEIS, page 3-131 and 132). Sensitive species known, or suspected to occur within the project area include the spotted bat, Northern goshawk, flammulated owl, and three-toed woodpecker (FEIS, pages 3-136 to 3-139).

The Northern Goshawk is a sensitive species that is known to inhabit the Pines Tract Project area in spring and summer, with some altudinal migration into the foothills and valleys in the winter (FEIS, Page 3-137). Nest trees of this species are commonly located on benches or basins surrounded by much steeper slopes. One historic nest (1984) is known to occur at about 3/4 mile from hole 00-11-2.

Cultural/Paleontological Resources: The project area is noted for containing many significant archaeological sites, several of which have been determined to be eligible for listing in the National Register of Historic Places (FEIS, Table 3.7). These sites include rockshelters and surface artifact scatters containing chipped stone artifacts, groundstone artifacts, firehearths and other features associated with prehistoric occupation of the area. The sandstone outcrops in the stream canyons frequently form rock overhangs which were used by prehistoric peoples as shelters. Diagnostic artifacts and recent research at nearby sites provide evidence for long-term occupation of the project area possibly beginning in the Paleoindian Period (ca. 7,500 to 11,500 years ago) to the Protohistoric Period (after A.D. 1300). Only minor paleontological resources exist in the project area (FEIS, page 3-168). A site-specific survey of the project area was conducted and no sites have been found in the areas of potential disturbance.

Land Use/Recreation: Existing land uses include underground coal mining, timber production, transportation corridors, livestock grazing, wildlife habitat and dispersed recreation (FEIS, page 3-171). The main recreational opportunity in the area is big game hunting. To a lesser extent, the area is used for hiking, dispersed camping and sight-seeing. Two Roadless Area Review and Evaluation (RARE) II areas were inventoried in the Project Area in the late 1970s (FEIS, page 3-175). These areas were not designated as wilderness under the Utah Wilderness Act of 1984 and were not classified for roadless or semi-primitive recreation management under the Forest Plan in 1986. The project is located in the Muddy Creek – Nelson Mountain RARE II (04 – 423) Area. It is concluded in the FEIS (FEIS, page 3-179) that as many as 10 holes could be drilled in the RARE II area with a total disturbance (including pads and temporary access roads) of 40 acres. Impacts to the

undeveloped character of the roadless areas would be short-term as revegetation standards are expected to be met within 5 years.

Range: The project area overlaps with a grazing allotment that supports 1,387 head of cattle early in the grazing season. Eight ponds have been developed in the Project Area for livestock distribution, which also benefit wildlife. The Link Canyon Troughs and the Joes Mill Ponds (FEIS, Figure 3-17) are the most reliable water sources in the project area (FEIS, page 3-182).

Visual Resources/Noise/Air Quality: The majority of the Project Area is designated as middleground viewed, medium sensitivity level, minimal variety class, and is considered natural and undisturbed (FEIS, page 3-195). The Castlegate sandstone escarpments form a visual resource in the area. Since the Project Area is remote, the nearest noise receptors (and occupied private land) are about seven miles away, in the town of Emery (FEIS, page 3-204). The project area is a higher elevation airshed that experiences excellent air quality (FEIS, page 3-228).

Transportation: Road construction and historic timber harvest have occurred within the project area. Established road systems in the area are managed and maintained as Forest Roads open to the public (FEIS, Figure 3-27). These roads are generally single-lane native surface roads, passable during the drier months of the year with high clearance vehicles. Some of these roads restrict motorized vehicles during the general hunt to reduce stress to the elk herd. The Forest Roads connect with county roads that access the major highways (FEIS, pages 3-233 to 3-236).

Socioeconomics and Coal Recoverability: The Coal Exploration Plan is located on Federal Coal Lease UTU-76195 (known as the Pines Tract prior to leasing). Recoverable coal reserves are estimated to be at least 59 million tons. Coal mining on the Wasatch Plateau is important to the local and State economies (FEIS, section 3.14).

III. SUMMARY OF ALTERNATIVES CONSIDERED

Two alternatives were considered: a no action alternative and an action alternative.

Because coal lease tracts are offered through a competitive bid process, the analysis in the EIS considered the environmental consequences of a company other than the applicant being granted the Pines Federal Coal Lease Tract. As such, the FEIS analyzes the effects of Reasonably Foreseeable Development Scenarios (RFDS) for the Project Area. One of the development scenarios considered was eliminated from detailed evaluation because of environmental and operational constraints as discussed in Section 2.5 of the FEIS (page 2-18). Chapter 2 of the FEIS contains a complete description of the alternatives and process used to identify them. Following is a summary of the alternatives considered in detail.

<u>Alternative A, No Action Alternative</u> - No Exploration Allowed

Under this alternative, the Forest Supervisor would not consent to approval of the Exploration Plan by BLM and the project would not be conducted. This alternative would not be consistent with the rights granted by the existing coal lease since the lessee has outstanding rights and the proposal, with Forest Service Stipulations, would be consistent with existing laws, regulations, policy and Forest Plan direction.

Alternative B – Forest Service Consent With Stipulations Needed To Protect Non-Mineral Interests

Under this alternative the Forest Supervisor would consent to approval with stipulations. The drilling project would proceed in accordance with requirements. Forest Service stipulations are included as Attachment 2.

IV. SUMMARY OF PUBLIC INVOLVEMENT

Public scoping for the Pines Tract Project began on October 16, 1997. A Notice of Intent (NOI) to prepare an environmental impact statement (EIS), initiating the formal 30-day scoping period, was published in the *Federal Register* on January 29, 1998. Scoping letters were sent to parties on the project mailing list on February 3, 1998. Legal Notice of the project was published in the Manti-La Sal's newspaper of record, *Sun Advocate*, on February 5, 1998. Legal Notice of the project was also published in supplemental papers (*Emery County Progress,* February 10, 1998; *Richfield Reaper*, February 11, 1998). A revised NOI, further describing the project, was published in the *Federal Register* on April 14, 1998. Two verbal comments and sixteen written comment letters were received in response to these efforts. These comments have been considered and incorporated into the planning process as documented in the Draft Environmental Impact Statement (DEIS) (i.e. identification of issues, alternative development, disclosure of effects). Discussion on public involvement are included in Sections 2.1 and Chapter 4 of the FEIS.

The notice of availability of the DEIS was published in the *Federal Register* on September 25, 1998. Thirteen comment letters were received. The FEIS Appendix E presents all comment letters received and agency responses. The Forest Service Record of Decision was signed by the Forest Supervisor on January 25, 1999 and made available to the public, subject to administreative appeal. No appeals were received. The Pines Tract was leased (Federal Coal Lease UTU – 76195) to Canyon Fuel Company in May 1999.

Project scoping of the proposed Coal Exploration Plan revealed no new issues and that the effects are adequately presented in the FEIS for the Pines Tract Project. Project scoping specific to the Coal Exploration Plan included listing the projects in the Quarterly Schedule of Proposed Actions and discussing the project with water users and livestock permittees during a meeting held at the Forest Supervisor's Office on February 8, 2001. The water users requested that any significant water encountered during drilling be reported to provide information on possible ground water sources in the project area. Forest and BLM standard requirement require reporting of all significant ground water zones encountered during drilling.

V. DECISIONS

I have decided to consent to approval of the Coal Exploration Plan consistent with alternative B. I have determined that this project is exempt from the Interim Requirements for Road Construction/Reconstruction in Inventoried Roadless and Contiguous Unroaded Areas because the temporary road/access is needed "in conjunction with continuation, extension, or renewal of a mineral lease on lands that are under lease by the Secretary of Interior as of January 12, 2001" as described in FSM 7712.16d. Additionally, drilling of site 00-11-2 would provide a net benefit to surface resources because approximately 1.15 miles of an existing unclassified road in the Inventoried Roadless Area will be reclaimed consistent with Forest Plan direction.

The temporary access road for site 00-11-3 will also be fully reclaimed following completion of the project. This decision required careful consideration and balance of environmental protection and the lessee's rights and need to prove coal mineabitity.

Conditions of my approval are as follows are summarized as follows and included as Forest Service Stipulations in Attachment 2:

1) Road Use Permit is required
2) Coal Explorations Stipulations as called out in the Forest Plan
3) Decommisioning of 1.15 miles of user created roads
4) A goshawk survey will be completed in the vicinity of borehole 00-23-1 in the spring prior to operations to determine if there are any active nests that could be affected by operations. If active nests are found that could be affected by operations, operations must be moved or postponed until after fledglings would no longer be adversely affected (probably after October 1).

Given the Forest Service mission of being stewards of the soil, air and water resources, it is incumbent upon me to adhere to the direction given by national policy, agency mission and Forest Plan guidance when making my decisions. I believe that this decision best balances the need to preserve and protect the integrity of watersheds and associated ecosystems present while providing for the exploration for and recovery of the mineral resources.

The proposed Coal Exploration Project was brought up for discussion with the livestock permittees and water users at the Quarterly Water Users Meeting held at the Forest Service office in Price on February 8, 2001. Also, the project was listed in the quarterly publication of Forest Actions.

VI. RATIONALE FOR THE DECISION

My decisions are based upon several criteria, some of which are summarized in this section.

A. Consistency With Forest Plan Goals, Objectives, And Standards

I evaluated each alternative analyzed and compared them to Forest Plan goals, objectives, standards, and guidelines for the Project Area. Several considerations pertaining to Forest Plan consistency are reflected in my decision and are detailed below. My decision is consistent with the Forest Plan.

Consistency with Multiple-Use Management Unit Direction. The Coal Exploration Plan lies with the TBR (timber) Management Unit designated in the Forest Plan (Forest Plan, pages III-64 to III-76, FEIS pages 3-1 and 2).

The timber unit emphasizes wood-fiber production and harvest, allowing other uses so long as the use or rehabilitation returns the area to a condition that is in harmony with the timber emphasis. No timber activities are foreseen for the project area (FEIS, Appendix B) and this project does not change any current or potential timber production.

Application of Conditions. The Forest Plan also requires the application of the Coal Exploration Stipulations designated in Appendix B of the Forest Plan as necessary to minimize impacts to non-coal resources and that operations are consistent with lease stipulations (FEIS, Appendix D). Ark Land Company included most of these stipulations in the proposal and additional stipulations are included in Attachment 2.

B. Relationship To Purpose And Need

My decisions respond to the need to conduct coal exploration activities on Federal coal lands (FEIS, page 1-2), and to the need to allow coal resource development. My decisions also determine the conditions under which coal resources may be recovered in order to protect non-coal resources. My decisions also respond to the need for the applicant (Canyon Fuel Company, LLC) to access their lease for drilling operations needed to determine underground mining conditions, remain competitive in the current coal market and maintain their current contracts.

C. Relationship To Issues And Public Comments

I selected Alternative B because I feel that it best balances coal exploration and recovery with protection of National Forest resources and resource uses consistent with the applicable laws, regulations, Forest Service policy, and Forest Plan goals and objectives; standards and guidelines; and multiple-use decisions. Construction of the drill pads and access roads will temporarily cause minor alterations to the landscape. The locations are relatively flat, requiring little excavation, and will be returned to the approximate original contour and reclaimed after operations are completed.

The following discussions explain how I considered the FEIS issues in making my decisions. The discussions are presented by resource categories rather than by individual issue, but each issue is addressed. A list of the issues by resource category is found on pages XVIII to XXIV of the FEIS Executive Summary and pages 2-2 to 2-8 of the FEIS. No new issues were identified for the drilling project.

Groundwater and Surface Water Resources: The key water resources in the project area include seeps and springs that occur within the canyons shared by the perennial streams (see Section II). My decisions involve protecting the water resources from potential impacts of subsidence. I believe that I have taken the reasonable approach to maintaining the availability and function of these key water resources for maintaining the ecosystem and supporting downstream uses. The project would not involve alteration of any drainages or water impoundments. Drilling fluids will be contained within reserve pits and could not reach surface drainages. The project contains adequate sediment control from the disturbed area. Reclamation and revegetation of the disturbed areas will be assured by stipulations and performance bonds. Drill holes must be plugged in accordance with BLM and State of Utah requirements after completion to prevent contamination or mixing of ground water aquifers.

Vegetation and Special Status Species: The project would not affect the overall health and distribution of the terrestrial plant communities present (FEIS, page 3-99). No riparian vegetation or threatened, endangered, or sensitive plant species would be disturbed. The project will not disturb any Link Canyon columbine.

Wildlife and Special Status Species: The project is short-term and would affect less than one acre of habitat for one summer season, not including sensitive wildlife use seasons such as wintering, breeding, or birthing seasons.

There would be no effects to Threatened or Endangered species (Biological Assessment, Attachment 3).

There could be effects to individuals of some sensitive species but the project is not likely to contribute to a trend toward Federal listing or loss of viability (Biological Evaluation, Attachment 3).

One historic goshawk nest (1984) is known to occur within about ¾ mile of borehole 00-23-1. Since goshawks often build or occupy other nest locations in their territory each spring, there is potential that a nest could be occupied within the project area in the spring before operations begin. A survey will be conducted in the spring to identify any active nests. If no active nests are located, the project can proceed as proposed. If any active nests are found within the project area, operations within the protection buffer area for the nest(s) must be delayed until after the fledglings will no longer be adversely affected by activities (probably October 1). Since operations are temporary and surface disturbance is small, there would be no irretrievable or irreversible loss of habitat. A survey will be conducted in the spring prior to operations in the vicinity of borehole 00-23-1. If active goshawk nests are found in areas that could be affected by operations, the operations must be moved or postponed until after fledglings would no longer be adversely affected (probably after October 1).

Cultural/Paleontological Resources: The survey has been completed and no archaeological or paleontological sites were found, therefore there would be no effects (see Utah Division of State History Concurrence Letter, Attachment 4).

Land Use/Recreation/Roadless Areas: Implementation of my decisions will have minimal impacts to existing land uses and existing recreation activities (FEIS, 3-177 to 178). My decisions are in concert with these findings. Pre-mining and post-mining land uses would remain the same. Less than 1 acre would be temporarily affected in the Muddy Creek – Nelson Mountain Inventoried Roadless Area. The pads and roads would be recontoured, reclaimed and closed upon completion of operations. The unroaded character would be affected for only a short duration. See Transportation section below for additional information on conformance with the Roadless Conservation Rule.

Range: Inventories of the range improvements and range conditions were evaluated as part of this analysis. The primary range concerns are for the availability of water to support livestock and wildlife and maintaining access to the allotment. My decisions protect live water sources, and provide stipulations for replacement of water supplies if they are damaged due to mining activities (FEIS, Appendix D, stipulation 17). Maintaining access will also be required as a mitigation (FEIS, page 3-191). The Coal Exploration Plan will not affect any range facilities or improvements and will not adversely affect allotment permittees or their operations. The area disturbed is less than 1 acre, therefore the temporary loss of vegetation of forage for livestock and wildlife is temporary and negligible. I believe that my decisions address the needs for keeping the range resources intact.

Visual Resources/Noise/Air Quality: The visual quality objective for the project area is "modification". This objective allows for management of activities that are "visually dominant" within the characteristic landscape. The project would be consistent with this objective and impacts

would be temporary. Operations would be one field season in duration and the reclaimed road/pads would be noticeable for 3 to 5 years until revegetation is complete. Impacts from noise from my decisions are expected to be minimal (FEIS, page 3-205). Affects to regional air quality from my decisions are estimated to be negligible (FEIS, page 3-223).

Transportation: Transportation needs and effects vary between all the alternatives based on coal production (FEIS, pages 3-236 to 3-241). My decisions are consistent with the Forest Plan, access needs in the area, and the published Roadless Area Conservation Rule Record of Decision (implementation date March 12, 2001). The current lease gives the lesee an outstanding right of access for allowable activities such as drilling. The new pad access road for drill site 00-11-3 would involve minimal disturbances, would be temporary, and will be reclaimed and revegetated after completion of operations. Reclamation and restoration of temporary drill roads have been very successful in the Quitchupah Canyon/Pines Area over the past decade.

In addition, the existing unclassified road to be used to access site 00-11-2 will be reclaimed and closed, consistent with the Forest road system, resulting in a net benefit to watershed conditions and the unroaded character of the Muddy Creek – Nelson Mountain RARE II area. Reconstruction of classified roads will not be conducted.

Socioeconomics and Coal Recoverability: I considered the economic effects when making my decisions, and I believe my decisions balance the need for environmental protection with recovery of the coal resource.

D. Relationship To The Organic Administration Act Of 1897

This act established the original purposes of National Forests as follows: "No national forest shall be established, except to improve and protect the forest within the boundaries, or for the purpose of securing favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States; but it is not the purpose or intent of these provisions, or of the Act providing for such reservations, to authorize the inclusion therein of lands more valuable for the mineral therein, or for agricultural purposes, than for forest purposes". (16 U.S.C. 475)

In making my decisions, I have additionally considered why the Manti-La Sal National Forest was created. The Manti Forest Reserve, which encompasses the project area, was designated in 1903 under authority of the Organic Administration Act as the result of local petition for protection of the area from land practices that were causing severe damage to watershed conditions and public health and safety concerns. Considering the purposes for which the Manti Forest Reserve was established and the history regarding its establishment, I feel that it would be irresponsible of me to make any decisions that could compromise the existing favorable conditions of water flow (risk damage to perennial streams and associated ecosystems) within or adjacent to the project area. I feel that my decisions provide for reasonable and economic coal exploration and recovery while maintaining resource conditions as required under this act.

E. Relationship To The Forest Service Natural Resource Agenda

Additionally, when making my decisions, I considered the Forest Service's "natural resource agenda" (USDA-FS, 1998). The agenda states that the first priority of the Forest Service is to maintain and restore the health of ecosystems and watersheds. The agenda also gives watershed protection and ecological

restoration the highest priority in the decisionmaking process. My decision to consent to the Coal Exploration Plan is in concert with the tenets of the natural resource agenda. I consider it my responsibility to ensure that the agenda is adhered to on lands within the Manti-La Sal National Forest.

VII. FINDINGS REQUIRED BY LAW, REGULATION, AND AGENCY POLICY

Numerous laws, regulations, and agency directives require that my decisions be consistent with their provisions. I have determined that my decisions are consistent with all laws, regulations, and agency

policy; some of which I have summarized in the following.

A. National Forest Management Act (16 USC 1600 et seq.): The Manti-La Sal National Forest Land and Resource Management Plan (Forest Plan) was approved November 5, 1986, as required by this Act. The Forest Plan provides direction and guidance for all resource management activities on the Forest. This management direction is achieved through the establishment of Forest goals and objectives, standards and guidelines, and Management Unit direction. Project implementation consistent with this direction is the process by which we move toward the desired condition described by the Forest Plan. Forest Plan direction provides the sideboards for project planning. The FEIS displays the Forest Plan and Management Unit goals and objectives and the standards and guidelines applicable to the Pines Project Area (FEIS, pages 1-2 and 3, and 3-1 and 2). The alternative development process and the management goals of the alternatives are described in the FEIS, Chapter 2, while the environmental consequences of the alternatives are displayed in the FEIS, Chapter 3. The Coal Exploration Plan lies within the TBR (timber) Management Unit. My decisions are consistent with Forest Plan direction.

B. Federal Land Policy and Management Act of 1976: This Act allows the granting of land use permits on National Forest System lands. The regulations at Code of Federal Regulations Title 36 part 251 (36 CFR 251) guide the issuance of permits under this act. Land use permits are granted on National Forest System lands when the need for such is consistent with planned uses. My decisions are consistent with this Act.

C. National Environmental Policy Act of 1969 (NEPA) The analysis in support of my decisions was performed under the authorization and regulations set forth in NEPA. Due NEPA process was followed including public scoping, identification of issues, development of alternatives, disclosure of environmental consequences, and public comment. The entirety of documentation for this project supports compliance with this Act.

D. Mineral Leasing Act of 1920, as Amended by Federal Coal Leasing Amendments Act of 1975: The proposed leasing and development actions of the proposed action were processed and analyzed in accordance with the Mineral Leasing Act 1920, as amended by the Federal Coal Leasing Amendments act of 1975 and other acts. The Mineral Leasing Act authorizes BLM to process, issue, and administer coal leases and approve Coal Exploration Plans on Federal coal leases in accordance with other appropriate laws, regulations and authorities. It requires consent of the surface management agency for leasing and provides for the surface management agency to require such conditions as it may prescribe with respect to the use and protection of the non-mineral interests in those lands. In regard to the proposed actions, the Forest Service is the surface management agency. My decisions are consistent with these authorities.

E. The Endangered Species Act (16 USC 1531 et. seq.): In accordance with Section 7 (c) of the Endangered Species Act, as amended, a list of the listed and proposed threatened or endangered species which may be present in the Pines Project Area was requested from the US Fish and Wildlife Service (USFWS). The information provided indicated that the bald eagle is a transient specie within the area. It was also identified that suitable habitat for the southwest willow flycatcher is present in the Project Area. Any water withdrawals from this project will be minor, and will be in concert with the Forestwide Consultation in place for these species.

As required by the Act, a Biological Assessment (Attachment 3) was prepared, addressing the potential impacts to these species. The analyses concluded that this project would have no effect on the bald eagle or peregrine falcon, and is not likely to adversely affect the southwestern willow flycatcher or the Colorado River fish species.

F. Forest Service Manual 2607.32 - Sensitive Species: The potential effects of my decisions on sensitive species (Link Canyon columbine, spotted bat, Peregrine Falcon Northern goshawk, flammulated owl, and three-toed woodpecker) have been analyzed and documented in Section 3.7 of the FEIS and the Biological Evaluation in the project file as well as the site-specific Biological Evaluation conducted for the Coal Exploration License. Individuals or habitat may be affected, but there will be no trend towards Federal listing or loss of viability of any of the sensitive species due to my decisions.

G. National Historic Preservation Act: USHPO has concurred with our findings of this analysis in a letter dated January 16, 2001. The Forest Service consulted with the Navajo, Pueblo of the Zuni, the Hopi, the Paiute of Utah and the Ute Tribes during preparation of the FEIS. The purpose of this consultation has been to identify tribal concerns with the project and to identify any sites that tribes may ascribe traditional cultural values to. The Ute Tribe expressed concerns with sites containing rock art (total of two sites) and one site tentatively described as a game kill site. These concerns have been taken into account in my decisions and the drilling will not affect these resources.

H. Secretary of Agriculture Memorandum, 1827: My decisions are in conformance for prime farmland, rangeland and forestland.

I. Clean Water Act: The Clean Water Act (CWA) requires each State to implement its own water quality standards. The State of Utah's Water Quality Antidegradation Policy requires maintenance of water quality to protect existing instream Beneficial Uses on streams designated as Category I High Quality Waters. All surface waters within the Project Area are designated as High Quality (Category I). This means they will be maintained at existing high quality. The State of Utah and the Forest Service have agreed through a 1993 Memorandum of Understanding to use Forest Plan direction and soil and water conservation practices to meet the water quality protection elements of the Utah Nonpoint Source Management Plan. The Beneficial Uses and High Quality of water in the Project Area would be maintained during and following the project through the performance standards, analogous to soil and water conservation practices, required by SMCRA.

J. Executive Order 119900 of May, 1977: There are no wetlands in the Coal Exploration Plan project area.

K. Executive Order 11988 of May, 1977: This order requires the Forest Service to provide leadership and to take action to (1) minimize adverse impacts associated with occupancy and modification of floodplains and reduce risks of flood loss, (2) minimize impacts of floods on human safety, health, and welfare, and (3) restore and preserve the natural and beneficial values served by floodplains. In compliance with this order, Forest Service direction requires that an analysis be completed to determine the significance of potential impacts to floodplains. No floodplains were identified in the Coal Exploration Plan project area. Floodplains are addressed in the FEIS on page 3-62.

L. Civil Rights: Based on comments received during scoping and the comment period for the DEIS, no conflicts have been identified with other Federal, State, or local agencies, tribal governments, minorities, women, or civil rights of any United States Citizen that would result from my decisions. The Coal Exploration Plan would not violate any of these applicable laws.

M. Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations.": Based on comments received during scoping and the comment period for the DEIS, no adverse environmental or human health effects on minority or low income populations have been identified that would result from my decisions (FEIS, page 3-246). Environmental justice means that, to the greatest extent practicable and permitted by law, all po;ulations are provided the opportunity to comment before decisions are rendered on, are allowed to share in the benefits of, and not excluded from, and are not affected in a disproportionately high and adverse manner by, government programs and activities affecting human health or the environment. My decision is consistent with this Order. My decision sought and incorporated public involvement. My decision will not have a discernible effect on minorities, American Indians, or women, or the civil rights of any United States citizen. Nor will it have a disproportionate adverse impact on minorities or low-income individuals.

VIII. APPEAL PROVISIONS AND IMPLEMENTATION

Detailed records of the environmental analysis are available for public review at the Manti-La Sal National Forest Supervisor's Office, 599 West Price River Drive, Price, Utah, 84501. For further information on my decisions, contact Dale Harber, Team Leader, or Carter Reed, Forest Geologist, at the Manti-La Sal National Forest, 599 West Price River Drive, Price, Utah 84501 (telephone number 435-637-2817).

Code of Federal Regulations Title 36 Part 215 (36 CFR 215)

This decision is subject to appeal pursuant to Forest Service regulations at 36 CFR 215.7. Any written appeal must be postmarked or received by the Appeal Deciding Officer within 45 days of the publication of this decision in the *Sun Advocate*, Price, Utah. The only appealable decisions are the ones made in this ROD (Coal Exploration Plan) not decisions made in the previous ROD for leasing. The Appeal Deciding Officer is: Regional Forester, USDA Forest Service, Intermountain Region, 324-25th Street, Ogden, Utah 84401.

Code of Federal Regulations Title 36 Part 251 (36 CFR 251)

This decision is subject to appeal pursuant to 36 CFR 251. Notice of appeal must be postmarked or received by the Appeal Reviewing Officer within 45 days of the date of this decision. A Notice of

appeal, including the reasons for appeal, must be filed with the Regional Forester, Intermountain Region, Federal Building, 324-25th Street Ogden, UT 84401. A copy of the appeal must be filed simultaneously with Elaine J. Zieroth, Forest Supervisor, Manti-La Sal National Forest, 599 West Price River Drive, Price, UT 84501. Appeals must meet the content requirements of 36 CFR 251.90.

4/27/01

ELAINE J. ZIEROTH
Forest Supervisor
Manti-La Sal National Forest

Date

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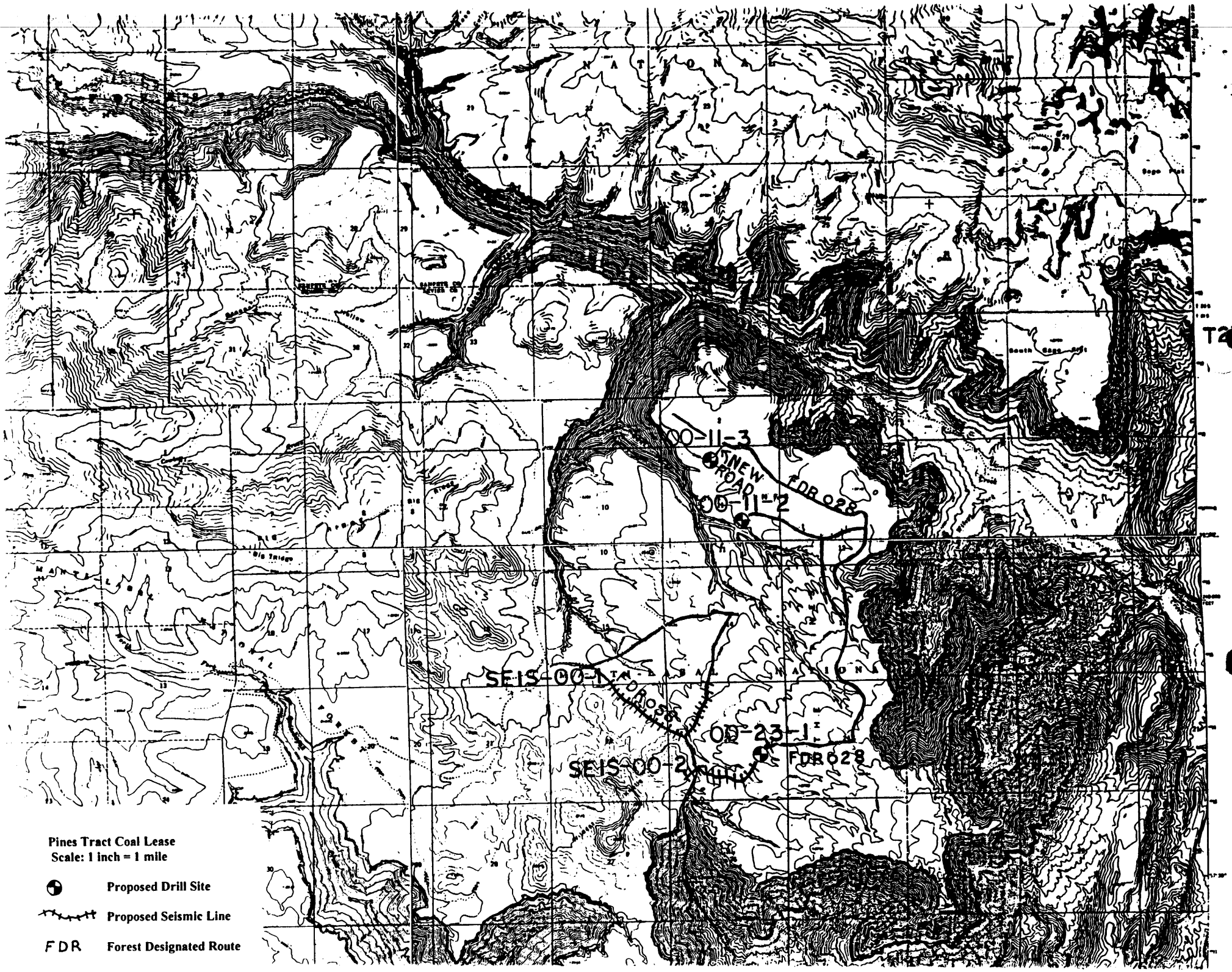
ATTACHMENT 1
LOCATION MAP



Pines Tract Coal Lease
Scale: 1 inch = 1 mile

Proposed Drill Site

Proposed Seismic Line

FDR Forest Designated Route

ATTACHMENT 2
FOREST SERVICE STIPULATIONS

1) A Road Use Permit must be obtained from the Forest service before equipment is transported onto National Forest System lands. The location of new roads is subject to Forest Service review and approval. No construction may begin prior to approval. Any modifications or changes to approved locations are also subject to review and approval.

2) Reclamation efforts will be diligently pursued to insure that a minimum ground cover is established on all disturbed areas. Revegetation will be considered successful when 90% of the predisturbance ground cover is re-established over the entire disturbed area, with no noxious weeds. Adjacent undisturbed areas will be used as a basis for comparison of ground cover. Of the vegetative ground cover, at least 90% must consist of seeded or other desirable species. The 90% of pre-disturbance ground cover must be maintained for three years.

3) The operator will be held responsible for control of noxious weed infestations found to be a result of this project, until acceptance of vegetative restoration.

4) The operator shall take all reasonable/appropriate measures to prevent the introduction and proliferation of exotic plants and/or noxious weeds for all operations on the land surface. Measures must include cleaning vehicles and equipment before entry onto Federal lands, pre-treatment of areas approved for surface disturbing activities, use of weed free materials (straw, fill materials, gravel, etc.), and control and eradication of exotic species and/or noxious weeds in disturbed/reclaimed areas until liability/bond release. Proposed control/eradication measures for surface operations are subject to approval by the surface management agency.

5) The seed mix to be used will be as follows:

		Pounds PLS/acre
Western Wheatgrass	Elymus smithii	2
Basin Wild Rye	Elymus cinereus	1
Intermediate Wheatgrass	Elymus hispidus	2
"Paiute" Orchardgrass	Dactylis glomeratus	2
Yellow Sweet Clover	Melilotus officinalis	1
"Rambler" Alfalfa	Medicago sativa	1
Blue Leaf Aster	Aster glaucodes	0.25
Lewis Flax	Linum lewisii	0.50
Small Burnet	Sanguisorbia minor	1
Mountain Big Sage	Artemisia tridentata vaseyana	0.25
Bitterbrush	Purshia tridentata	1

6) A goshawk survey will be conducted in the vicinity of borehole 00-23-1 in the spring prior to operations. If active goshawk nests are located in areas that could be affected by operations, the operations must be moved or postponed until after fledglings would no longer be adversely affected (probably after October 1).

7) All water bearing zones encountered in the process of drilling will be recorded on the drilling logs. Any zone which is produc9ing a large continuous flow will be reported to the Forest Service prior to abandonment procedures taking place.

8) The existing unclassified road that will be used for access to borehole 00-11-2 will be reclaimed consistent with the reclamation plan in the Exploration Plan and attached stipulations upon completion and abandonment of the hole. The operator will work with the Forest Service to determine the actual segment(s) to be reclaimed to avoid confusion regarding which segments are classified and unclassified.

ATTACHMENT 3
BIOLOGICAL EVALUATION AND BIOLOGICAL ASSESSMENT

original

BIOLOGICAL EVALUATION
FOR
SENSITIVE PLANT AND ANIMAL SPECIES
POTENTIALLY AFFECTED BY
ARK LAND COMPANY 2001 COAL EXPLORATION PLAN
PINES TRACT COAL LEASE (UTU – 76195)

FERRON/PRICE RANGER DISTRICT
MANTI – LA SAL NATIONAL FOREST
SEVIER COUNTY, UTAH

Cara Staab — DATE 2/1/01
CARA STAAB
WILDLIFE BIOLOGIST

Rod Player — DATE 2/1/01
ROD PLAYER
WILDLIFE BIOLOGIST

Robert Davies — DATE 2/01/01
ROBERT DAVIES
FISHERIES BIOLOGIST

Robert M. Thompson — DATE 2/1/01
ROBERT M. THOMPSON
BOTANIST

INTRODUCTION

The biological evaluation is an analysis of how sensitive species may be impacted by land management activities. It is Forest Service policy to analyze potential impacts to sensitive species [Forest Service Manual (FSM) 2670.31-32]. Sensitive species are identified by the Forest Service Regional Forester as "those...for which population viability is a concern, as evidenced by ...significant current or predicted downward trends in population numbers or density..." or "significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution" (FSM 2670.5).

PROPOSED ACTION

This project represents the Ark Land Company's 2001 Coal Exploration Plan for the Pines Tract Federal Coal Lease (UTU – 76195). The proposal is to drill three coal exploration holes and conduct two seismic surveys. Exploration holes would be drilled at three locations for stratigraphic correlation and coal quality assessment. The total depth of each exploration hole is expected to be between 1200 to 1300 feet. The three exploration holes would be abandoned following completion. A second hole, approximately 200 feet deep, would be drilled at each location 20 – 30 feet from the exploration hole for the installation of a piezometer (for monitoring ground water levels). At each drill site, a 100 ft X 60 ft drill pad would be constructed. Earth excavation would primarily be accomplished for the drill sites using a D-6 Cat bulldozer and road grader. In order to make a level drill site, excavation would include grubbing of some areas, removal and separate storage of the soil A horizon, and if needed, removal and separate storage of material below the A horizon. Mud pits would also be excavated in the material below the A horizon if there is sufficient depth. If mud pits could not be constructed, portable containers would be used, and the drilling mud, foam, and cuttings would be hauled to an approved disposal site. All water used during drilling would be hauled in. In total, less than one-half acre would be disturbed for these drilling efforts.

A temporary road would be constructed for one of the three exploration holes (00-11-3). The proposed location for this boring is approximately 1550 feet southwest of FDR 50028. Finished road width would be approximately 12 feet. The temporary road would be reclaimed following field exploration activities. A second exploration hole (00-11-2) is located on an existing unauthorized road that is suitable for wheeled and tracked vehicles. This road would also be reclaimed upon completion of the project. The third exploration hole (00-23-1) is located on FDR 50028, and would not require new access or road reclamation.

Two seismic lines would be laid out along exiting Forest Development Roads and wheel tracks. No new roads or other ground disturbance would occur for this activity. The seismic survey will require a P-shooter (thumper) truck, a data acquisition truck, and one or two pick-up trucks. The P-shooter will provide the energy source for all the seismic lines. The data acquisition truck will collect and store the seismic data.

Project implementation would most likely occur sometime between July and November 2001, depending in part on goshawk survey results.

Project Area
The project area is located in Sevier County on the Pines Plateau (see attached map). Drilling and/or temporary road construction would occur within T. 21 S, R. 5 E, Secs. 11, 22, and 23, where elevation ranges from 8400 to 8650 feet. The Pines Plateau is bordered on the north, south and east by steep escarpments. Link Canyon borders the plateau on the south. Wash Rock Canyon and Wiley's Fork form the eastern edge, and the escarpments of Muddy Creek (including the tributaries East Fork Box Canyon and Box Canyon) form the northern boundary. Gradually higher elevation areas border the project area on the west.

Vegetation on the Pines Plateau varies with landform. Ponderosa pine with sagebrush-grass understory occurs on benches; patches of aspen, mountain mahogany and manzanita are often found within. A sparse pinyon-juniper mountain mahogany vegetation type grows on steeper slopes. A sparse riparian community including willows, wild rose, and small numbers of trees occur on canyon bottoms in East Fork Box Canyon, Box Canyon, and Link Canyon. Rolling hills on the project area support ponderosa pine, Douglas fir, alpine fir, spruce, and aspen.

Soils present in the area are derived from underlying sandstones and shales. All underlying rock units on the tract are sedimentary. The oldest unit present is the Upper Cretaceous Masuk Member of the Mancos Shale. This unit is overlain by, in order of increasingly younger age, the Star Point Sandstone, the Upper Blackhawk Formation, the Castlegate Sandstone Member of the Price River Formation, and the upper member of the Price River Formation. The youngest unit present in the area is the North Horn Formation. The Upper Hiawatha Seam, the target of mining in the area, occurs near the base of the Blackhawk Formation. The Upper Hiawatha Seam averages 12 feet in thickness.

SPECIES POTENTIALLY AFFECTED BY THE PROJECT

Sensitive species with known or possible occurrence on the Ferron/Price Ranger District:

Common Name*	**Scientific Name**
Spotted bat	*Euderma maculatum*
Townsend's big-eared bat	*Plecotus townsendii*
Peregrine falcon	*Falco peregrinus anatum*
Northern goshawk	*Accipiter gentilis*
Flammulated owl	*Otus flammeolus*
Northern three-toed woodpecker	*Picoides tridactylus*
Spotted frog	*Rana pretiosa*
Colorado River cutthroat trout	*Onchorynchus clarki pleuriticus*
Link Trail columbine	*Aquilegia flavescens* var. *rubicunda*
Creutzfeldt-flower	*Cryptantha creutzfeldtii*
Carringtons daisy	*Erigeron carringtoniae*
Canyon sweetvetch	*Hedysarum occidentale* var. *canone*
Maguire campion	*Silene petersonii*
Musinea groundsel	*Senecio musinensis*
Arizona willow	*Salix arizonica*

* The above species list was derived from the Forest Service (FS) Sensitive Species list for the Intermountain Region.

SPOTTED BAT (*Euderma maculatum*)
Species Occurrence And Habitat Needs: Spotted bats occur in scattered areas throughout Utah. They are found in relatively remote, undisturbed areas, suggesting that they may be sensitive to human disturbance. They have been found in a variety of habitat types including open ponderosa pine, desert scrub, pinyon-juniper, and open pasture and hay fields. They roost alone in rock crevices high up on steep cliff faces. Cracks and crevices ranging in width from 0.8-2.2 inches in limestone or sandstone cliffs are critical roosting sites. There is some evidence that individuals show fidelity to roost sites. They are territorial and avoid each other while foraging. They are thought to migrate south for winter hibernation.

Little is known of the spotted bats food habits. They are thought to feed mainly on moths. Their echolocation call is very effective for fast flight feeding on moths. They forage alone, after dark, and avoid each other by listening to the echolocation calls of others. (Leonard and Fenton 1983; Woodsworth et al 1981; and Watkins 1977)

Spotted bats have been detected in several areas on the Ferron/Price Ranger District, including near the project area. A bat survey and habitat assessment was conducted in the Link, Muddy Creek, and Box canyon area during 1997 (Perkins and Peterson 1997). Spotted bats were detected during these surveys. Suitable roost sites were noted below the rims of Muddy Creek Canyon and the lower reaches of Box Canyon. Both rims are approximately 1 mile from the closest drill site (00-11-3). Topographic maps reveal these are the closest suitable roost areas to the project area.

Effects Analysis and Determination Statement: There is potential that noise from drilling and road construction activities could disturb roosting bats. Seismic tests could also produce vibrations audible to roosting bats, since the signals are designed to travel through the ground. Although noise from the activities might be audible from roost sites, it is unlikely to be loud enough to disrupt roosting behavior. This is because drilling-related activities would occur up on ridges, somewhat removed from potential roost sites on cliffs below. If disturbance did occur, it would likely affect very few individuals, due to the spotted bat's solitary roosting behavior. **Therefore, the proposed project may impact individual spotted bats, but is not likely to contribute to a trend towards federal listing or loss of viability.**

TOWNSEND'S BIG-EARED BAT (*Plecotus townsendii*)
Species Occurrence And Habitat Needs: Townsend's big-eared bat uses a variety of scrub and forested habitats throughout western North America from sea level to 10,000 foot elevation. The species forages primarily for moths in open woodlands, along forest edges, and over water. They utilize colonial nurseries. Cool places such as caves, rock fissures, mines, and buildings are used for roosting and hibernation. During the winter they roost singly or in small clusters. Townsend's big-eared bats have been documented using inactive coal mines as hibernacula on the Ferron/Price Ranger District. They have also been found roosting in buildings in the town of Ferron. The Townsend's big-eared bat is very sensitive to human disturbance. It will readily abandon roosts when disturbed.

A bat survey and habitat assessment was conducted near the project area in the Link, Muddy Creek, and Box canyon areas during 1997 (Perkins and Peterson 1997). No big-eared bats or

their sign (guano) were detected. Furthermore, suitable day roosts and hibernacula were noted as being absent. Shallow caves at the head of Box Canyon were identified as possibly providing summer refugia for male or non-reproductive female big-eared bats, but not for significant numbers of bats. This area occurs approximately ¾ mile from the closest proposed drill. No other caves, mines, or structures that could provide roosting habitat are known in the area. The project area has not been surveyed for big-eared bats, but suitable roost sites could be present in the rock walls of Muddy, East Fork Box, and Link canyons.

Effects Analysis and Determination Statement: No suitable day or maternity roost sites occur near the project area. Potential night roosts occur within approximately ¾ miles of the closest drill site. Bats using these night roosts would not be disturbed by drilling because (a) ¾ miles is a sufficient distance for noise to weaken to undisturbing levels, and (b) drilling would not occur at night. **Therefore, the proposed project would not impact the Townsend's big-eared bat.**

FLAMMULATED OWL (*Otus flammeolus*)

Species Occurrence And Habitat Needs: Flammulated owls are found throughout the western United States including Utah. They can be found in the mixed pine forests, from pine mixed with oak and pinyon at lower elevations to pine mixed with spruce and fir at higher elevations. They have also been found in aspen and second growth ponderosa pine. However, they prefer mature ponderosa pine/Douglas fir forests with open canopies. Large diameter dead trees with cavities are important nest site characteristics. They avoid foraging in young dense stands where hunting is difficult. Flammulated owls are dependant upon mature conifer stands for nesting. They are also known to avoid cut-over areas. Flammulated owls are almost exclusively insectivorous, preying on small to medium sized moths, beetles, caterpillars, and crickets. [Reynolds and Linkhart 1987; Johnsgard 1988; and Bull et al 1990].

No flammulated owl surveys have been conducted in the project area, but because ponderosa pine are present, it is likely owls are present. Flammulated owls have been detected near the project area in the Quitchupah drainage and at the head of Muddy Creek.

Effects Analysis and Determination Statement: The proposed project would not alter forest structure, and therefore would not result in a loss of nesting or foraging habitat for the flammulated owl. Noise from drilling and road construction activities could cause nest abandonment. However, because flammulated owl nests are protected inside cavities, it is unlikely that activity noise would be loud enough to trigger abandonment unless the noise was very close (e.g., within one-quarter mile; Romin and Muck 1999). Based on the density and distribution of snags (nest sites) in the project area, it is very unlikely that more than one pair of owls would nest that close to the activity sites. **Therefore, the proposed project may impact individual flammulated owls, but is not likely to contribute to a trend towards federal listing or loss of viability.**

Recommended Mitigation: If flammulated owls are discovered nesting within one-quarter mile of any drill sites or the proposed road alignment before the project commences, delay implementation until after September 30 or until the nest becomes inactive, whichever comes first.

PEREGRINE FALCON (*Falco peregrinus anatum*)
Species Occurrence And Habitat Needs: Peregrines occupy a wide range of habitats. They are typically found in open country near rivers, marshes, and coasts. Cliffs are preferred nesting sites. Peregrines are known to travel more than 18 miles from the nest site to hunt for food. However, a 10 mile radius around the nest is an average hunting area, with 80 percent of the foraging occurring within a mile of the nest. Peregrines prey on a wide variety of birds including shorebirds, waterfowl, grouse, and pigeons.

A peregrine eyrie exists within two miles of drill site 00-23-1. Therefore, it is possible foraging falcons use the project area.

Effects Analysis and Determination Statement: The proposed project would not alter vegetation structure on a scale meaningful to a predatory bird, and therefore would not result in a loss of foraging habitat for the peregrine falcon. Noise from drilling and road construction activities would not cause nest abandonment, due to sufficient distance between the nearest nest and the proposed activity areas. **Therefore, the proposed project would not impact the peregrine falcon.**

NORTHERN GOSHAWK (*Accipiter gentilis*)
Species Occurrence And Habitat Needs: Goshawks have been found in a variety of forest ecosystems including lodgepole pine, ponderosa pine, Douglas fir, and mixed forests throughout much of the northern hemisphere. They prey upon small mammals and birds (e.g., rabbits, squirrels, chipmunks, grouse, woodpeckers, jays, robins, etc.). Goshawk nest sites are usually located in dense mature forests, near water, and on benches of relatively little slope. Nests are often used year after year. Goshawks are very protective of their young in the nest and loudly defend them to intruders. They are very sensitive to human disturbance and have abandoned nests and young due to human activities that take place too close to their nest [Kennedy and Stahlecker 1989; and Hennessey 1978].

There is an historic (1984) goshawk nest within approximately 3/4 mile of drill site 00-23-1. The current status of this nest is unknown. Monitoring efforts in the late 1990's did not reveal occupancy (Rod Player, pers. obs.). Although surveys have not been conducted around the other two drill sites or proposed road alignment, aerial and ground reconnaissance suggests that they do not possess the combination of vegetation and topographical features that have at least moderate potential for goshawk nesting habitat within one-half mile.

Effects Analysis and Determination Statement: If the historic goshawk territory is still occupied, it is possible drilling activities could disturb nesting birds. If goshawks are disturbed, they could abandon their nest or otherwise lapse in nest caretaking activities. Drilling machinery is characteristically quite loud, and the complete process of drilling nearly 1500 feet deep may take up to two weeks. Forest Plan Guideline q (Goshawk Amendment) restricts management activities from occurring inside active nest stands (30 acres) during the nesting period (March 1 – September 30), if the activity is likely to cause nest abandonment. Furthermore, the US Fish and Wildlife Service (Romin and Muck 1999) recommend that no disturbances occur within one-half mile of an active goshawk nest (regardless of nest stand boundaries), in order to effectively minimize the chance of abandonment.

In order to comply with the Forest Plan, and implement recommendations from the US Fish and Wildlife Service (Romin and Muck 1999), surveys must be initiated in the spring before project implementation. The intent is to locate the active nest. Appropriate subsequent actions are dependent upon these surveys and their results. The key below presents scenarios and options.

1a) Surveys are conducted using the Dawn Protocol. Two visits are made between April 1 and 15 May (approximate courtship period), with no more than one visit occurring in May. Go to 2.

1b) If surveys cannot be completed prior to May 15, an alternative accepted protocol is followed prior to implementation of proposed project. Go to 2.

1c) No surveys are conducted. Go to 3.

2a) Survey results indicate that drilling site 00-23-1 does not fall within an active goshawk nest stand, nor is the site within one-half mile of a goshawk nest. Drilling activities can commence at this location during the current field season only if confidence is high that surveys were effective. If confidence is low that surveys were effective, drilling should not be allowed until after September 30 of the current field season.

2b) Survey results indicate one or more active goshawk nests are present within one-half mile of drill site 00-23-1. Designate a 30 acre active nest stand following Forest Plan guideline n. Do not commence drilling activities within the nest stand or within one-half mile of the active nest until after September 30 or until nest becomes inactive, whichever occurs first. Exceptions to drilling within the active nest stand could occur if proper documentation is prepared for deviating from a Forest Plan guideline, and this BE is amended. Exceptions to drilling within one-half mile of the active nest could occur if this BE is amended. In the event either exception is granted, the nest and/or goshawks should be monitored for response during project implementation.

3a) Do not commence drilling during the current field season. Plan surveys for the following field season, and go back to set 1 in key.

3b) Prepare proper documentation for deviating from a Forest Plan guideline if drilling would occur within the active nest stand. Prepare amendment to this BE. If drilling would occur outside the active nest stand, but within one-half mile of the nest, disclose effects in amended BE.

The proposed project has potential to disrupt nesting attempts by northern goshawks. Surveys and adherence to activity timing restrictions as outlined in the key above would minimize that potential. **Therefore, if surveys are conducted and timing restrictions are appropriately applied, the proposed project may impact individual northern goshawks, but is not likely to contribute to a trend towards federal listing or loss of viability.** If surveys or timing restrictions are not appropriately applied, subsequent documentation is required, including an

amended BE. The effects of this alternative are not analyzed here, and no determination statement is provided.

NORTHERN THREE-TOED WOODPECKER (*Picoides tridactylus*)
Species Occurrence And Habitat Needs: Three-toed woodpeckers range across North America. They are found in northern coniferous and mixed forest types up to 9000 feet elevation. Forests containing spruce, grand fir, ponderosa pine, tamarack, and lodgepole pine are used. Nests may be found in spruce, tamarack, pine, cedar, and aspen trees. Three-toed woodpeckers nest and forage mainly in dead trees, although they will occasionally feed in live trees. About 75% of their diet is wood boring insect larvae, mostly beetles, but they also eat moth larvae. They are major predators of the spruce bark beetle, especially during epidemics. They forage on a wide variety of tree species depending on location. In Colorado, they prefer to forage on old-growth and mature trees. Fire or insect killed trees are major food sources, and support local increases in woodpecker numbers 3-5 years after disturbance (Bull et al. 1986,Scott et al. 1980).

Surveys for three-toed woodpeckers took place in suitable habitat on the Ferron/Price, Sanpete, and Moab/Monticello Ranger Districts in 1992 and/or 1993. The species was found on all districts. Currently, populations are probably relatively high in spruce forests on the southern half of the Manti Division, due to the prevalence of spruce bark beetles and dead or dying trees. Although surveys have not been completed in the project area, three-toed woodpeckers are not expected to occur because dead and dying trees are very uncommon (i.e., beetle-infested spruce stands are not present).

Effects Analysis and Determination Statement: The proposed project would not affect three-toed woodpeckers. This is because 1) above-marginal habitat does not occur; 2) forest stand structure would not be modified; and 3) in the event any woodpeckers were nesting in the area, they would be sheltered from noise generated by project activities, because the species nests inside cavities. **Therefore, the proposed project would not impact the three-toed woodpecker.**

SPOTTED FROG (*Rana pretiosa)*
Species Occurrence And Habitat Needs: This species is most commonly found near cold, permanent water in such habitats as marshy edges of ponds or lakes, in algae-grown overflow pools of streams, and near springs with emergent vegetation. The spotted frog may move considerable distances from water after breeding, often frequenting mixed conifer and subalpine forests, grasslands, and brushlands of sage and rabbitbrush. It is thought that spotted frogs hibernate in holes near springs or other areas where water is unfrozen and constantly renewed. The presence of bullfrogs (*Rana* catesbeiana) or leopard frogs (*Rana pipiens*) may exclude spotted frogs.

Spotted frogs have been located west of the Manti Division near Fairview. Although no spotted frogs have ever been found on the Forest, they are most likely to occur only on the west side of the Division if they occur at all.

Because no water exists at any of the proposed drill sites or the temporary road alignment, and because all of these areas occur on the east side of the Manti Division, no frogs or their habitats are expected to occur in the project area. **Therefore, the proposed project would not impact the spotted frog.**

COLORADO RIVER CUTTHROAT TROUT (*Onchorynchus clarki pleuriticus*)
Species Occurrence And Habitat Needs: This species is generally limited to small headwater streams in remote areas where other trout species have not been introduced. The major threats to this species are hybridization with other introduced species of trout and degradation of water quality and quantity. Pure populations of the Colorado River cutthroat trout no longer occur in most of the range they inhabited 100 years ago.

Possible remnant populations of Colorado River cutthroat trout exist on all Ranger Districts on the Forest, except the Sanpete Ranger District. During 1992, surveys were conducted on the Ferron/Price Ranger District by the Utah Department of Wildlife Resources to locate populations of cutthroat trout that phenotypically resembled Colorado River cutthroat trout. The surveys took place in Bear Creek, Little Bear Creek, Eccles Creek and Spring Creek drainages (Kevin Christopherson, UDWR). No populations were discovered. More recent surveys and genetic studies have revealed Colorado River cutthroat trout populations in Crandall Creek, Tie Fork Canyon, Lake Canyon Creek and Scad Valley Creek. (Lewis Berg, UDWR, 1999, personal communication). The project site is not within the subwatersheds where these known populations occur.

Effects Analysis and Determination Statement: The project area is not know to contain Colorado River cutthroat trout; nor does it occur within sub watersheds where the fish is present. Historic habitat suitable for this species is present in the headwaters of Muddy Creek, but no drilling would occur within 300 feet of this or any other perennial stream course. **Therefore, the proposed project would not impact the Colorado River cutthroat trout.**

LINK TRAIL COLUMBINE (*Aquilegia flavescens* var. *rubicunda*)
Species Occurrence And Habitat Needs: This plant occurs in seeps and wet site near the head of Link Canyon and in Straight Canyon. Although drill site 00-23-1 is located near the head of Link Canyon, it is not within a seep or other wet area, and no columbine or its habitat are present. This was confirmed during rare plant surveys in October 2000 (Bob Thompson, pers. obs.).

Effects Analysis and Determination Statement: The project area does not provide habitat for this sensitive plant species. **Therefore, the proposed project would not impact the link trail columbine.**

CREUTZFELDT-FLOWER (*Cryptantha creutzfeldtii*)
Species Occurrence And Habitat Needs: This plant occurs on open Mancos Shale hillside and lower slopes in Dry Wash and Lower Muddy Creek drainage. The plant is found at 5550 to 6000 feet elevation in the pinyon-juniper and mixed mountain brush vegetation type. No populations are expected to occur within the proposed drill sites or in the proposed temporary road alignment, because the project area occurs at a higher elevation, and does not contain exposed

Mancos shale. This was confirmed during rare plant surveys in October 2000 (Bob Thompson, pers. obs.).

Effects Analysis and Determination Statement: The project area does not provide habitat for this sensitive plant species. **Therefore, the proposed project would not impact the Creutzfeldt flower.**

CARRINGTONS DAISY (*Erigeron carringtoniae*)
Species Occurrence And Habitat Needs: Small, isolated populations have been found mostly on Flagstaff Limestone outcrops, at the head of Cove Creek, top of East Mountain, south rim of Heliotrope Mountain, and top of Ferron Mountain. The species occurs on wind blown ridge tops and snowdrift sites at elevations of 9000 to 11000 ft. The exploratory drilling project area does not provide habitat for this daisy, because the elevation is too low (8400 to 8650 feet), and no Flagstaff Limestone outcrops are present. This was confirmed during rare plant surveys in October 2000 (Bob Thompson, pers. obs.).

Effects Analysis and Determination Statement: The project area does not provide habitat for this sensitive plant species. **Therefore, the proposed project would not impact the Carringtons daisy.**

CANYON SWEETVETCH (*Hedysarum occidentale* var. *canone*)
Species Occurrence And Habitat Needs: Scattered populations of this plant occur in Lower Huntington Canyon, Straight Canyon, and near Joes Valley. Plants are usually found on sites with a high water table, near springs or along streambeds at elevations between 5500 to 7000 feet. Habitat includes riparian sites in the pinyon-juniper vegetation type. River birch and squaw bush are plants most commonly associated with this species. The proposed drill sites and road alignment are not expected to provide habitat for the canyon sweetvetch, because the elevation is too high (8400 to 8650 feet), and no riparian areas or high water tables exist. This was confirmed during rare plant surveys in October 2000 (Bob Thompson, pers. obs.).

Effects Analysis and Determination Statement: The project area does not provide habitat for this sensitive plant species. **Therefore, the proposed project would not impact the canyon sweetvetch.**

MAGUIRE CAMPION (*Silene petersonii*)
Species Occurrence And Habitat Needs: Scattered populations have been found mostly on Flagstaff Limestone outcrops on high elevation ridges and snowdrift sites. On the Wasatch Plateau, the plant has been found at elevations between 10,000 and 11,000 feet, where it is part of the sub-alpine low forb plant community. Occurrences have been reported from Wagon Road Ridge south to the top of White Mountain, including a small population on Mt. Baldy. The proposed drill sites and road alignment do not provide habitat for the Maguire campion, because the elevation is too low, the sites are too warm, and no Flagstaff Limestone outcrops are present. This was confirmed during rare plant surveys in October 2000 (Bob Thompson, pers. obs.).

Effects Analysis and Determination Statement: The project area does not provide habitat for this sensitive plant species. **Therefore, the proposed project would not impact the Maguire campion.**

MUSINEA GROUNDSEL (*Senecio musinensis*)
Species Occurrence And Habitat Needs: The musinea groundsel occurs on subalpine and alpine ridges, barrens, screes, and talus on Flagstaff Limestone between 9,700 to 10,800 feet (Cronquist 1994). The plant is found on open tops on Flagstaff Limestone barrens, Heliotrope Mountain and possibly on Mt. Baldy and White Mountains. The proposed drill sites and road alignment do not provide habitat for the Maguire campion, because the elevation is too low, the sites are too warm, and no Flagstaff Limestone outcrops are present. This expectation was confirmed during rare plant surveys in October 2000 (Bob Thompson, pers. obs.).

Effects Analysis and Determination Statement: The project area does not provide habitat for this sensitive plant species. **Therefore, the proposed project would not impact the musinea groundsel.**

ARIZONA WILLOW (*Salix arizonica*)
Species Occurrence And Habitat Needs: This plant can be found within a perennial wet meadow at the head of the Muddy Creek drainage, and Duck Fork. The plant typically grows to 2 to 3 feet. The project area does not contain any riparian habitat, and consequently, does not support Arizona willow. This expectation was confirmed during rare plant surveys in October 2000 (Bob Thompson, pers. obs.).

Effects Analysis and Determination Statement: The project area does not provide habitat for this sensitive plant species. **Therefore, the proposed project would not impact the Arizona willow.**

SUMMARY OF IMPACTS

No Impact:

- Townsend's Big-eared Bat
- Peregrine Falcon
- Northern Three-toed Woodpecker
- Spotted Frog
- Colorado River Cutthroat Trout
- Link Trail Columbine
- Creutzfeldt-flower
- Carringtons Daisy
- Canyon Sweetvetch
- Maguire Campion
- Musinea Groundsel
- Arizona Willow

May Impact Individuals, But Is Not Likely To Contribute To A Trend Towards Federal Listing Or Loss Of Viability:

- Spotted Bat
- Northern Goshawk
- Flammulated owl

DOCUMENTATION

References used to determine the presence (or absence) of Sensitive Species as well as species characteristics and habitat information include:

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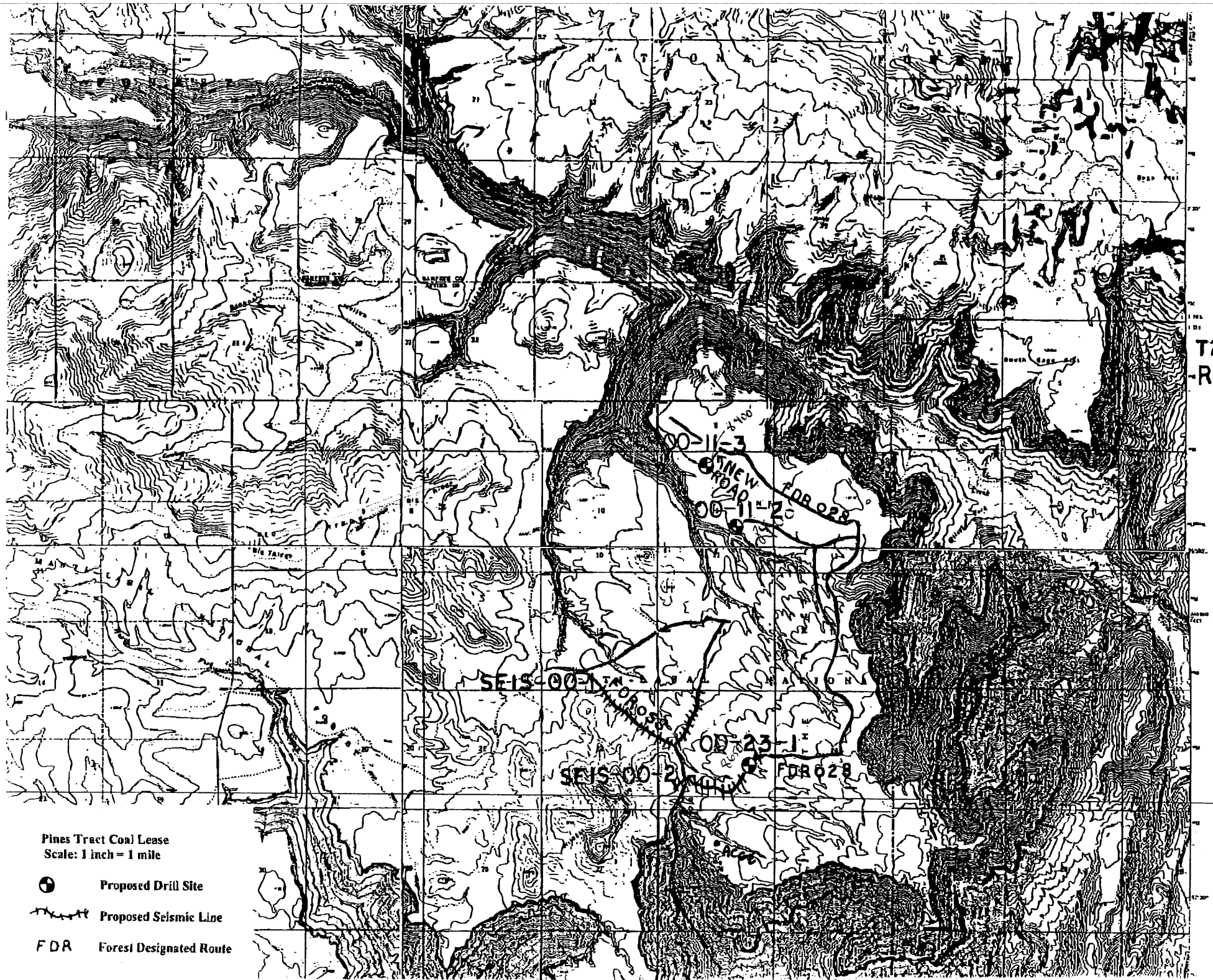

Pines Tract Coal Lease
Scale: 1 inch = 1 mile

Proposed Drill Site

Proposed Seismic Line

FDR Forest Designated Route

United States Department of Agriculture
Forest Service
Manti-La Sal National Forest
Ferron/Price Ranger District
115 West Canyon Road
P. O. Box 310
Ferron, UT 84523
Phone: (435) 384-2372
Fax: (435) 384-3296

File Code: 2820/1950 **Date:** March 20, 2001
Route To:

Subject: Pines Tract 2001 Coal Exploration Plan Biological Evaluation

To: Carter Reed

Please attach this memo and the enclosed "Biological Prefield Research Form" to the Biological Evaluation (BE) I provided for the Pines Tract Coal Exploration Plan (signed 2/1/2001). The prefield form is required by the Manti – La Sal National Forest Land and Resource Management Plan, as amended by the Utah Northern Goshawk Project.

The prefield form supplements the BE by providing additional details and rationale regarding inventory recommendations for goshawks in the Pines Tract project area. The form clarifies why surveys are required only around drill site 00-23-1 and only during the same year as project implementation, and specifies both a primary and alternate survey protocol method. However, it does not modify the anticipated effects to the goshawk or the impact determination statement that were disclosed in the BE.

Please contact me if you have any questions.

Cara Staab

CARA STAAB
WILDLIFE BIOLOGIST

BIOLOGICAL FIELD SURVEY FORM (For BE/BA)
USFS REGION 4

_____
PROJECT NAME

REPORTER_____ DATE (FIELD WORK)_____

JOB TITLE & FUNCTION_____ DISTRICT/UNIT_____

LEGAL SUBDIVISION_____ QUAD_____ MGMT. AREA/ COMPARTMENT ___

LOCATION_____

SURVEY:
THE AREA ON THE ATTACHED MAP WAS SURVEYED FOR THE FOLLOWING TEP&S SPECIES:_____

DESCRIBE THE LEVEL OF SURVEY CONDUCTED, CURSORY, GENERAL, OR DETAILED, TH AMOUNT OF TIME SPENT ON THE PROJECT AREA, AND THE METHOD OF SURVEYING FOR TEP & S SPECIES: _____

SPECIES LOCATED: _____

POPULATION FORM ATTACHED: YES_____, NO____ (IF NO REASON)_____

SUMMARY OF FINDINGS: _____

RECOMMENDATIONS:

☆ U.S. GOVERNMENT PRINTING OFFICE: 1999 — 573-078 / 28111 Region No. 8

Biological Evaluation/Assessment
BIOLOGICAL PREFIELD RESEARCH FORM
USFS REGION 4

Pines Tract Coal Exploration Plan - 2001
PROJECT NAME

REPORTER Cara Staab DATE 1-17-01

JOB TITLE AND FUNCTION Wildlife Biologist DISTRICT/UNIT MLNF Manti Division (D1, 2/3)

LEGAL DESCRIPTION Drill site 00-23-1 T21 S R5E Sec 23 QUAD Emery West MGMT. AREA/ COMPARTMENT Pines Tract Coal Lease (UTU-76195)

RECORDS, AND INFORMATION REVIEWED AND CONTACTS MADE: Historic goshawk nest (Terr No R04F10D0206 - Pines) record in Ferron/Price goshawk survey data notebook. According to R. Player, nest re-visited in '97 or '98, w/o locating either old nest or new nest. Old nest likely deteriorated beyond recognition. Aerial photos reviewed ~~for~~ other project sites for goshawk habitat - drill sites, temp road
Discussed veg characteristics w/ B. Dye + reviewed aerial photos w/ Rod Player
Discussed rare plant habitats/pops w/ B. Thompson - all drillsites too low + dry to support limestone assoc. plant
→ Field visits for rare plants conducted 10/2000.

RESULTS OF PREFIELD RESEARCH (KNOWN LOCATIONS OF TEP&S SPECIES IN OR NEAR THE PROJECT AREA, POTENTIAL HABITAT PRESENT, PROBABILITY OF OCCURRENCE, AND POTENTIAL FOR IMPACTS TO TEP&S, ETC: Historic nest in T21S R5E Sec 26 discovered in 1984, apparently not monitored again until 1998 or '97 then not relocated. Proposed drilling site 00-23-1 is within approx 3/4 mi of historic nest. Should be re-surveyed to determine current status, & no drilling should occur w/in 1/2 mi during nesting unless site specific evaluation concludes risk of nest abandonment is very low or non-existent.

No other suitable nest stands surround other drill sites. Access roads including temp roads, do not need surveys because ~~of existing~~ habitat + human use level do ~~does~~ not warrant it. Habitat too open + dry. Use of existing roads same as non-commercial uses of road. Temp road in non-habitat.

RECOMMENDATIONS ON LEVEL OF FIELD SURVEY NEEDED: 2-4 visits should be conducted before drilling activities commence during same field season. Surveys should cover suitable habitats in approx 1/2 mile radius from drill site. Use Dawn Protocol if before May 15. (1/2) Otherwise, use R4/Rodriguez protocol.

ADDITIONAL COMMENTS: Surveys recommended in same year as project implementation rather than 1 year in advance, because this would be less likely to miss the possibility that the active nest site changed location ~~since~~ between time of survey and time of project implementation.

original

BIOLOGICAL ASSESSMENT
FOR
FEDERALLY LISTED PLANT AND ANIMAL SPECIES
POTENTIALLY AFFECTED BY THE
ARK LAND COMPANY 2001 COAL EXPLORATION PLAN, PINES TRACT COAL LEASE (UTU- 76195)

FERRON/PRICE RANGER DISTRICT
MANTI-LA SAL NATIONAL FOREST
SEVIER COUNTY, UTAH

Cara Staab — DATE 2/1/01

CARA STAAB
WILDLIFE BIOLOGIST

Rod Player — DATE 2/1/01

ROD PLAYER
WILDLIFE BIOLOGIST

Robert Davies — DATE 2/01/01

ROBERT DAVIES
FISHERIES BIOLOGIST

Robert M Thompson — DATE 2/1/01

ROBERT M. THOMPSON
BOTANIST

I. INTRODUCTION

The purpose of this biological assessment (BA) is to evaluate the potential effects of the Ark Land Company's 2001 Coal Exploration Plan for the Pines Tract Federal Coal Lease on Threatened, Endangered, Proposed, and Candidate plant and animal species that may occur within or near the project area.

The Endangered Species Act of 1973 (PL 93-205, as amended) requires federal agencies to ensure that any activities they authorize, fund, or carry out, do not jeopardize the continued existence of any wildlife species federally listed as Threatened or Endangered. This biological assessment is an analysis of which Threatened, Endangered, Proposed, and Candidate species may occur in or near the project area, and whether any impacts on these species are anticipated. This biological assessment is prepared using direction from the Forest Service Manual 2672.4. Discussions with Utah Division of Wildlife Resources, U.S. Fish and Wildlife Service (FWS), and staff with the USDA Forest Service also provided information for this assessment.

II. PROPOSED ACTION

This project represents the Ark Land Company's proposed 2001 Coal Exploration Plan for the Pines Tract Federal Coal Lease (UTU – 76195). The proposal is to drill three coal exploration holes and conduct two seismic surveys. Exploration holes would be drilled at three locations for stratigraphic correlation and coal quality assessment. The total depth of each exploration hole is expected to be between 1200 – 1300 feet. The three exploration holes would be abandoned following completion. A second hole, approximately 200 feet deep, would be drilled at each location 20 – 30 feet from the exploration hole for the installation of a piezometer (for monitoring ground water levels). At each drill site, a 100 ft X 60 ft drill pad would be constructed. Earth excavation would primarily be accomplished for the drill sites using a D-6 Cat bulldozer and road grader. In order to make a level drill site, excavation would include grubbing of some areas, removal and separate storage of the soil A horizon, and if needed, removal and storage of material below the A horizon. Mud pits would also be excavated in the material below the A horizon if there is sufficient depth. If mud pits could not be constructed, portable containers would be used, and the drilling mud, foam, and cuttings would be hauled to an approved disposal site. All water used during drilling would be hauled in. In total, less than one-half acre would be disturbed for these drilling efforts.

A temporary road would be constructed for one of the three exploration holes (00-11-3). The proposed location for this boring is approximately 1550 feet southwest of FDR 50028. Finished road width would be approximately 12 feet. The temporary road would be reclaimed following field exploration activities. A second exploration hole (00-11-2) is located on an existing unauthorized road that is suitable for wheeled and tracked vehicles. This road would also be reclaimed upon completion of the project. The third exploration hole (00-23-1) is located on FDR 50028, and would not require new access or road reclamation.

Two seismic lines would be laid out along exiting Forest Development Roads and wheel tracks. No new roads or other ground disturbance would occur for this activity.

Project implementation would most likely occur sometime between July and November, 2001, depending in part on goshawk survey results.

Project Area
The project area is located in Sevier County on the Pines Plateau (see attached map). Drilling and/or temporary road construction would occur within T. 21 S, R. 5 E, Secs. 11, 22, and 23. Elevations of the proposed drill sites and temporary road alignment range from 8400 to 8650 feet. The Pines Plateau is bordered on the north, south and east by steep escarpments. Link Canyon borders the plateau on the south. Wash Rock Canyon and Wiley's Fork form the eastern edge, and the escarpments of Muddy Creek (including the tributaries East Fork Box Canyon and Box Canyon) form the northern boundary. Gradually higher elevation areas border the project area on the west.

Vegetation on the Pines Plateau varies with landform. Ponderosa pine with sagebrush-grass understory occurs on benches. Patches of aspen, mountain mahogany and manzanita add diversity to this vegetation type. A sparse pinyon-juniper mountain mahogany vegetation type grows on steeper slopes. A sparse riparian community including willows, wild rose, and small numbers of trees occur on canyon bottoms in East Fork Box Canyon, Box Canyon, and Link Canyon. Rolling hills on the project area support ponderosa pine, Douglas fir, alpine fir, spruce, and aspen.

Soils present in the area are derived from underlying sandstones and shales. All underlying rock units on the tract are sedimentary. The oldest unit present is the Upper Cretaceous Masuk Member of the Mancos Shale. This unit is overlain by, in order of increasingly younger age, the Star Point Sandstone, the Upper Blackhawk Formation, the Castlegate Sandstone Member of the Price River Formation, and the upper member of the Price River Formation. The youngest unit present in the area is the North Horn Formation. The Upper Hiawatha Seam, the target of mining in the area, occurs near the base of the Blackhawk Formation. The Upper Hiawatha Seam averages 12 feet in thickness.

III. SPECIES POTENTIALLY AFFECTED BY THE PROJECT

This BA evaluates all federally-listed plant and animal species identified in the FWS's December 2000 list for Sevier County. The FWS list includes all Endangered, Threatened, Proposed and Candidate species; however, no proposed or candidate species, or their habitats, occur within Sevier County. In addition to the Sevier County list, this BA also evaluates listed fishes of the Colorado River drainage system, because the project area occurs within this watershed. These plant and animal species are:

SPECIES	CLASSIFICATION
Colorado Pikeminnow (*Ptychocheilus lucius*)	Endangered
Bonytail Chub (*Gila elegans*)	Endangered
Humpback Chub (*Gila cypha)*	Endangered
Razorback Sucker (*Xyrauchen texancus*)	Endangered
Southwestern Willow Flycatcher (*Empidonax trailii extimus*)	Endangered
Bald Eagle (*Haliaeetus leucocephalus*)	Threatened
Utah Prairie Dog (*Cynomys parvidens*)	Threatened
Wright Fishhook Cactus (*Sclerocactus wrightiae*)	Endangered
Heliotrope Milkvetch (*Astragalus montii*)	Threatened
Last Chance Townsendia (*Townsendia aprica*)	Threatened
Winkler Cactus (*Pediocactus winkleri*)	Threatened

IV. SPECIES OCCURRENCES AND HABITAT NEEDS

Colorado Pikeminnow

The Colorado pikeminnow had a historic range from Green River, Wyoming, to the Gulf of California, but the species is now confined to the upper Colorado River Basin mainstream and larger tributaries (USFWS 1993). The lower Green River between the Price and San Rafael rivers contains abundant Colorado pikeminnow (USFWS 1993). In general, the species decline can be attributed to direct loss of habitat, changes in water flow and temperature, blockage of migrations, and interactions with introduced fish species (USFWS 1993). Colorado pikeminnow adults are thought to prefer deep water eddies and pools or other areas adjacent to the main water current, whereas the young inhabit shallow, quiet backwaters adjacent to high flow areas. Colorado pikeminnow feed on invertebrates while young but gradually became piscivorous after one year (Sigler and Sigler 1996). No Colorado pikeminnow have been located on the Forest but they are present in the drainages that receive water originating on the Forest.

Bonytail Chub

Historically, bonytail chubs existed throughout the Colorado River drainage (Sigler and Sigler 1996). Recently, isolated captures of bonytail chubs have been made in the Colorado River basin but recruitment to the population is extremely low or nonexistent. The decline of the bonytail chub is attributed to dam constructing and associated water temperature changes. Other factors contributing to the reduced numbers include flow depletion, hybridization, stream alterations associated with dam construction, and the introduction of non-native fish species. The bonytail chub generally inhabits eddies and pools over swift current areas (Sigler and Sigler 1996). The chub is an omnivore, feeding mostly on terrestrial insects, plant debris and algae and begins to spawn at five to seven years of age (Behnke and Benson 1980). No bonytail chubs have been located on the Forest but they are present in drainages that receive water originating on the Forest.

Humpback Chub

The humpback chub is believed to have inhabited all of the large rivers of the upper Colorado River basin and canyons of the lower Colorado River basin. Presently the humpback chub can be located in and above the Grand Canyon, Arizona, and the major tributaries to the Colorado River. The USFWS (1993) states stream alteration, including dewatering, dams and channelization, as factors causing the decline of the species. The humpback chub normally lives adjacent to high velocity flows, where they consume plankton and small invertebrates (Sigler and Sigler 1996). The humpback chub has not been located on the Forest but they are present in drainages that receive water originating on the Forest.

Razorback Sucker

Historic distribution of the razorback sucker was mainly along the mainstream of the Colorado, Green and San Juan Rivers. They presently only occur in a portion of their former range in these rivers and are normally found in water four to ten feet deep, within areas of strong currents and backwaters. Spawning fish have been located over both sand and gravel/cobble bars (Sigler and Sigler 1996). The razorback sucker feeds on small invertebrates, and animals and organic debris on the river bottoms. Behnke and Benson (1980) link the decline of the razorback sucker to the land and water uses, particularly dam construction and the associated change of flow regimes and river channel characteristics. The razorback sucker has not been located on the Forest but they are present in drainages that receive water originating on the Forest.

Southwestern Willow Flycatcher
The southwestern willow flycatcher is found mainly in the southwestern United States, extending its range to extreme southwestern Utah. These flycatchers are closely associated with riparian habitat such as willow or alder thickets along streams, on the shores of ponds, or bordering marshy areas. They are also found in the brushy margins of fields, along mountain streams, and in shrubby floodplain areas. They prefer areas of high shrub densities interspersed with openings or meadows. The woody component of their habitat is almost exclusively deciduous including willows, alders, cottonwoods, aspens, and shrubs such as chokecherry, hawthorn, sumac and wild rose. As the name implies, Southwestern Willow Flycatchers are insectivores, eating wasps, bees, beetles, flies, moths and butterflies (Unitt 1987).

Surveys for southwestern willow flycatchers have been conducted within the Ferron/Price and Sanpete Ranger Districts. Willow flycatchers were detected in some of the areas. However, it has been determined through sonogram and DNA samples that these were not of the southwestern subspecies, but instead are of the northern race (*Empidonax trailii adastus*) (Sedgewick, pers. comm. 1998). Therefore, it is no longer believed that the endangered race occurs on or near the Wasatch Plateau. This is consistent with excerpts from the proposed rule to list the species (Federal Register, Vol. 28, No. 140. 7/23/93), which indicated the Ferron/Price and Sanpete Ranger Districts are outside the range of this species. Discussions with the U.S. Fish and Wildlife Service (May 1997) indicate no known presence of southwestern willow flycatcher within the area.

Bald Eagle
During the breeding season bald eagles are generally closely associated with water, along coasts, lakeshores, or riverbanks. During the winter bald eagles tend to concentrate wherever food is available. This usually means open water where fish and waterfowl can be caught. They also winter on more upland areas feeding on small mammals and deer carrion. At winter areas, bald eagles commonly roost in large groups. These communal roosts are located in forested stands that provide protection from harsh weather (Stalmaster 1987).

Bald eagles are occasionally found near lakes and reservoirs on the Forest, during the late fall and early winter (October-mid December). Here they prey upon fish and waterfowl. When the lakes and reservoirs freeze over, eagles leave the Forest. No bald eagles are known to nest on the Forest. However, there is an active bald eagle eyrie near the town of Castle Dale (approximately 20 air miles northeast of the proposed action area). The nesting territory was monitored to determine the foraging and fledgling areas (Boschen 1995). The eagles were not observed using National Forest System lands; instead the birds spent most of their time within approximately five miles from the nest site.

Utah Prairie Dog
The Utah prairie dog is a burrowing, colonial species that feeds on forbs and grasses. Colony densities vary with habitat quality (Pizzimenti and Collier 1975). Areas of lush vegetation, provided the vegetation is not too tall, tend to support higher densities. The current range of the Utah prairie dog is limited to southern Utah, with substantial populations on the Awapa Plateau, along the East Fork of the Sevier River, and in eastern Iron County. Smaller populations occur at several other locations (Pizzimenti and Collier 1975). No Utah prairie dogs or their habitat occur within the project area.

Last Chance Townsendia
Last Chance Townsendia grows on several formations, but prefers fine-textured substrates and shallow soils close to sandstone bedrock. It is commonly found growing in the pinyon-juniper zone associated with grasses and mixed desert shrubs. Elevations range from 6000 to 7400 feet. Slope does not exceed 10 degrees, and aspect is variable. The project area was surveyed for rare plants in October 2000; no last chance townsendia or its habitat was observed (Bob Thompson, pers. obs.).

Heliotrope Milkvetch
On the Ferron/Price Ranger District, the heliotrope milkvetch is found only at high elevations (10,000 to 11,000 ft.) on Flagstaff Limestone outcrops. Populations are located on top of Heliotrope, Ferron, and White Mountains, where they are associated with low growing subalpine vegetation. The project area was surveyed for rare plants in October 2000; no heliotrope milkvetch or its habitat was observed (Bob Thompson, pers. obs.).

Wright Fishhook Cactus
Wright fishhook cactus occurs in salt desert shrub and mixed desert shrub zones between elevations of 4550 to 6200 feet. It has been found occupying a variety of geologic substrata, where it seems to favor specific edaphic and geochemical conditions. Plant cover rarely exceeds 15 percent, and very little litter is present. Slope is usually between 0 to 10 degrees, and aspect is variable. The cactus is known from southeastern Sevier County, southwestern Emery County, and Wayne County. The project area was surveyed for rare plants in October 2000; no Wright fishhook cactus or its habitat was observed (Bob Thompson, pers. obs.).

Winkler Cactus
The Winkler cactus is a diminutive species that usually occurs solitary. The plant grows in salt desert shrub communities at 4800 to 5200 feet elevation, in fine textured and poor quality saline substrates (Welsh et al. 1987). Flowering occurs late March to mid-May. The project area was surveyed for rare plants in October 2000; no Winkler cactus or its habitat was observed (Bob Thompson, pers. obs.).

V. EFFECTS ANALYSES AND DETERMINATION STATEMENTS

Colorado Pikeminnow, Bonytail Chub, Humpback Chub, and Razorback Sucker
The area affected by the proposed action does not contain any of the endangered fish. The project area occurs near the headwaters of Muddy Creek, which ultimately drains into the Lake Powell segment of the Colorado River via the Dirty Devil River. Due to the great distance between the project area and endangered fish habitats (> 100 miles), the minor amount of sediment produced by drilling and road construction would not affect water quality of the Colorado River. Furthermore, there would be no depletion of water quantity. **Therefore, the proposed project would have no effect on the listed fishes or their designated critical habitats.**

Southwestern Willow Flycatcher
No southwestern willow flycatchers, their habitat, or designated critical habitat exist in or near the project area. **Therefore, the proposed project would have no effect on the southwestern willow flycatcher or its designated critical habitat.**

Bald Eagle
Although bald eagles may occassionally visit the project area during late fall or winter, they are not expected to concentrate there in space or time because no high quality foraging habitat occurs (e.g., reservoirs, carrion-strewn highways). Foraging habitat is further reduced by winter snow depths. Even if eagles did hunt or roost in the area, the proposed project would not impact the species because (1) eagles are not present during summer, when project implementation is planned, and (2) vegetation disturbance from the project would be at a scale too small to effect small mammal (prey) populations. **Therefore, the proposed project would have no effect on the bald eagle.**

Utah Prairie Dog
No prairie dogs or their habitats occur within or near the project area. **Therefore, the proposed project would have no effect on the Utah prairie dog.**

Last Chance Townsendia
No last chance townsendia or its habitat occur within or near the project area. **Therefore, the proposed project would have no effect on the last chance townsendia.**

Heliotrope Milkvetch
No heliotrope milkvetch or its habitat occurs within the project area. **Therefore, the proposed project would have no effect on the heliotrope milkvetch.**

Wright Fishhook Cactus
No Wright fishhook cactus or its habitat occurs within the project area. **Therefore, the proposed project would have no effect on the Wright fishhook cactus.**

Winkler Cactus
No Winkler cactus or its habitat occurs within the project area. **Therefore, the proposed project would have no effect on the Winkler cactus.**

VI. SUMMARY OF EFFECTS

	Effects Determinations[1]			
Species	**NE**	**MANLAA**	**LAA**	**BE**
Colorado Pikeminnow	**X**			
Bonytail Chub	**X**			
Razorback Sucker	**X**			
Humpback Chub	**X**			
Southwestern Willow Flycatcher	**X**			
Bald Eagle	**X**			
Utah Prairie Dog	**X**			
Last Chance Townsendia	**X**			
Heliotrope Milkvetch	**X**			
Wright Fishhook Cactus	**X**			
Winkler Cactus	**X**			

[1]NE=No Effect, MANLAA = May Affect, Not Likely to Adversely Affect, LAA = Likely to Adversely Affect, BE = Beneficial Effect

VII. CUMULATIVE EFFECTS

Past and present recreation activities have and will continue to impact wildlife populations and their habitats. Undeveloped and unauthorized roads and trails are created by Off Highway Vehicles (OHVs). This has recently become a major concern because the effects result in many acres of lost foraging habitat (removal of herbaceous and browse species through soil compaction) and encroachment into wildlife security zones. Developed designated roads and trails, summer/fall camping, viewing, hiking, hunting, and bicycling all bring a large number of recreationists into the area most of the year. Perhaps the greatest recreational impact comes from big-game hunting. The Pines area receives intensive use during the big-game hunting season.

Noxious weed invasion and aspen regeneration play an important ecological role. As more forest users interact with this local landscape, the risk of continual weed encroachment increases. Acres of spread are increasing as human activities and natural dispersion continue. These invaders slowly decrease the quality and quantity of the habitat many wildlife species depend on. On the Manti, quaking aspen lacks regeneration due to conifer encroachment and a lack of natural disturbances such as fire. The lack of aspen regeneration could result in habitat competition among wildlife species and domestic stock utilizing the areas.

Other forest use practices and natural events have affected wildlife habitat within and adjacent to the project area. Livestock grazing is a primary forest use that adds to the overall affect. Livestock may compete with wildlife for forage and remove hiding cover. Habitat is altered through grazing; this alteration may improve habitat for some wildlife species but could displace others.

The total effects from conducting the proposed coal exploration activities in addition to past and foreseeable actions, would not have harmful impacts to the local threatened and endangered species. However, as future human actions increase, additional uses activities such as mining, recreation, grazing, and fire suppression the existing habitat may become less effective for these Federally listed species.

VIII. REFERENCES

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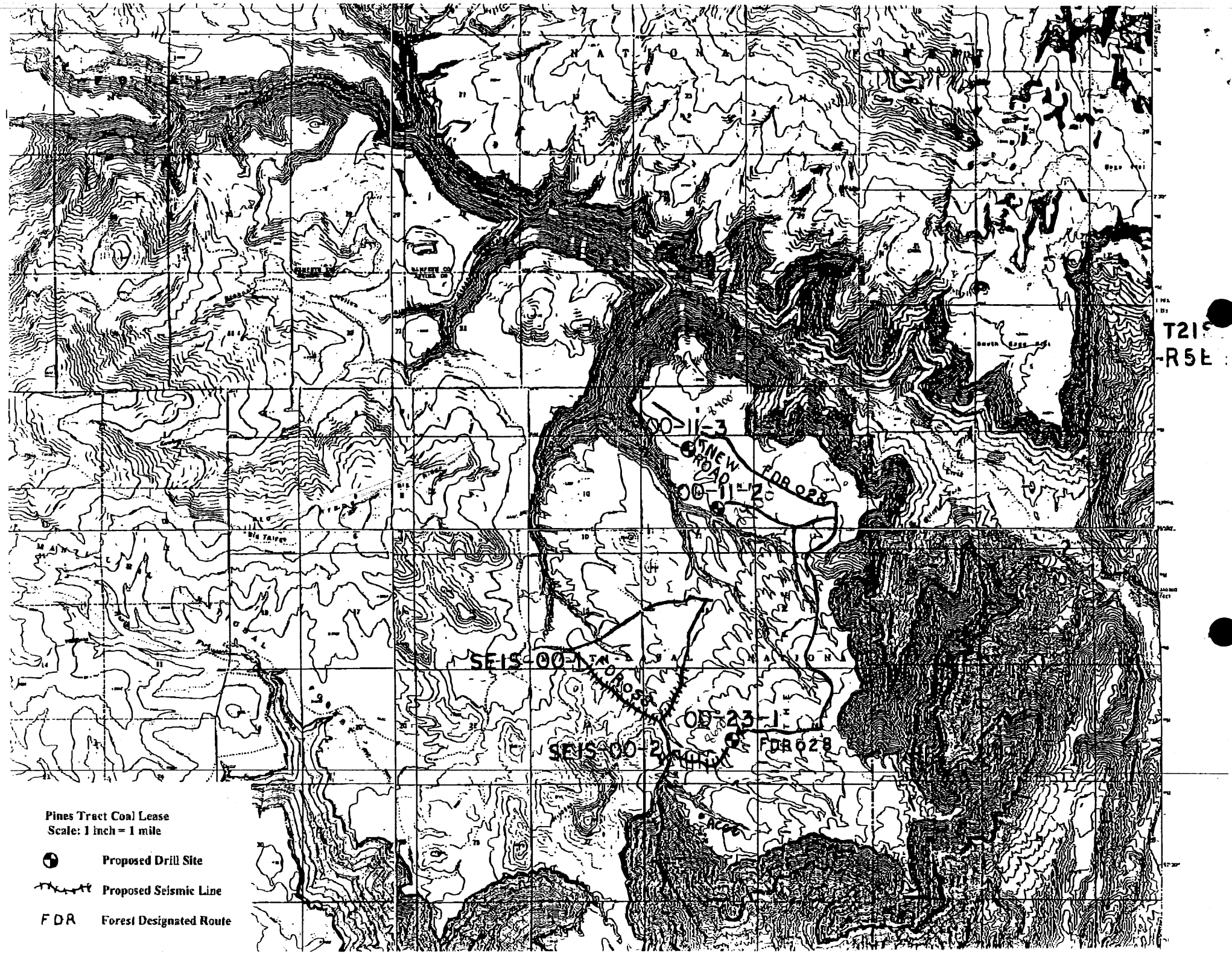

Pines Tract Coal Lease
Scale: 1 inch = 1 mile

Proposed Drill Site

Proposed Seismic Line

FDR Forest Designated Route

ATTACHMENT 4
UTAH DIVISION OF STATE HISTORY CONCURRENCE LETTER

State of Utah

Department of Community and Economic Development
Division of State History
Utah State Historical Society

Michael O. Leavitt
Governor
Max J. Evans
Director

300 Rio Grande
Salt Lake City, Utah 84101-1182
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January 16, 2001

Joseph Gallagher
Recreation-Heritage Branch Chief
Manti-La Sal National Forest
Supervisor's Office
599 West Price River Drive
Price UT 84501

RE: Exploratory Drilling in the Pines-Big Ridge Locality of Sevier County U-99-AF-0684f
CRM Report No. ML-00-917

In Reply Please Refer to Case No. 99-1660

Dear Mr. Gallagher:

The Utah State Historic Preservation Office received the above referenced information on January 11, 2001. The report states that no cultural resources were located in the project area. We, therefore, concur with the report's recommendation of No Historic Properties Affected.

This information is provided on request to assist with Section 106 responsibilities pursuant to §36CFR800. If you have questions, please contact me at (801) 533-3555. My email address is: jdykman@history.state.ut.us

As ever,

James L. Dykmann
Compliance Archaeologist

JLD:99-1660 FS/NPA

c: Archaeological-Environmental Research Corporation, 181 North 200 West, Suite 5
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