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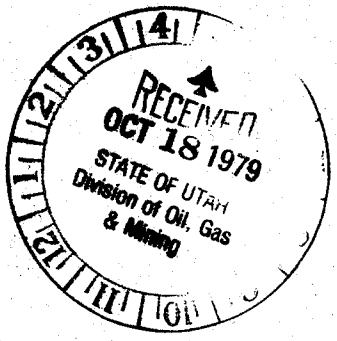
PR0/007/009

United States Department of the Interior

FISH AND WILDLIFE SERVICE
AREA OFFICE COLORADO—UTAH
1311 FEDERAL BUILDING
125 SOUTH STATE STREET
SALT LAKE CITY, UTAH 84138

IN REPLY REFER TO:

October 18, 1979



Mr. Cleon B. Feight
Director, Utah State Division of
Oil, Gas and Mining
1588 West North Temple
Salt Lake City, Utah 84116

Attention: Mary Ann Wright

Dear Mr. Feight:

We have examined the materials provided by your letter of September 7, 1979 in regard to the Eureka Energy Company's mining proposal at the Sage Point and Dugout coal mines in Carbon County, Utah. We have also examined these proposed areas on the ground with the company's representative.

Our response will be directed towards providing guidance to the company regarding the fish and wildlife resource base line studies needed to adequately meet the environmental resource information required by Office of Surface Mining regulations. We have enclosed a copy of guidelines generated by the Fish and Wildlife Service for fish and wildlife studies on coal mined lands that should meet these OSM requirements. These, of course, are suggested guidelines to be utilized by your Division as you see fit.

You will note within these guidelines that there are high and low level intensity of studies delineated for use depending upon the severity of the impacts of the proposed coal mine development. The following would be our suggested level of study that would be desirable for this mine plan area.

1. We suggest that a very intensive habitat mapping effort be conducted for the mine plan area even though disturbance may not be anticipated on many of the acres covered by this operation. We have concerns about possible effects of subsidence on habitat and the interruption of hydrologic cycles by that same subsidence. As such a base line habitat inventory should be available to measure any impacts of this nature that may occur in the future.

2. Low level investigations should be satisfactory for all mammals except for mule deer. Because of possible interruption of migrant movement of mule deer to and from winter ranges caused by the planned conveyor system, we believe that an intensive determination be made of intensity of mule deer use and that corridors of mule deer movement be delineated.

   Low level determinations would be adequate for the bird populations in general with the following exceptions:

Intensive raptor breeding surveys should be accomplished in all areas that will be directly impacted by mine development.

Also, if breeding habitat of any migratory bird species of high Federal interested be suspected to occur in the area that intensive investigations be initiated to determine the presence of those species. A list of those species of high Federal interest is now available from the U.S. Fish and Wildlife Service.

A low level investigation would be satisfactory to address the reptiles and amphibians that occur on the area.

It is suggested that the aquatic systems and threatened and endangered species be addressed as delineated in the guidelines.

We also suggest that those items considered under abiotic factors be addressed as delineated in the guidelines with the exceptions that a low level determination of stream flows would be adequate for this particular mine plan area.

We hope that the information provided will be of assistance to you in guiding the Eureka Energy Company's acquisition of required environmental resources information. We certainly appreciate the opportunity to work with you in this matter and hope that we can provide you similar assistance in the future.

Sincerely,

William C. Ellis

Acting Area Manager

INTERIM GUIDELINES FOR FISH AND WILDLIFE STUDIES ON COAL MINE LANDS

INTERIM GUIDELINES FOR FISH AND WILDLIFE STUDIES ON COAL MINE LANDS

I. INTRODUCTION

Sections 779.20 and 783.20 of the Office of Surface Mining's Permanent Regulatory Porgram, dated March 13, 1979, requires that each coal mine permit application include a study of fish, wildlife, and their habitats within a proposed area. The regulatory authority in consultation with State and Federal fish and wildlife management agencies shall determine what studies and to what extent these studies will be required.

The following outline recommends interim guidelines for the identification and collection of baseline fish and wildlife resources information on proposed coal mine lands. In some categories, low and high levels of study are recommended. The selection of either the low or high level of study will depend upon a mine's size, the quality and quantity of fish and wildlife habitats impacted, the availability of published information, or other site-specific factors.

References cited in Section V or methods appended to these guidelines should be consulted for detailed technical requirements or analyses. State regulatory and fish and wildlife agencies shall be consulted on specific fish and wildlife sampling techniques. Questions regarding the applicability of these study guidelines to specific mine sites, particularly on the level of detail of these studies, should be addressed to the appropriate U.S. Fish and Wildlife Service ot State wildlife agency environmental officer. Futher, the source and techniques employed in the obtainment of all baseline data shall be identified.

Any other resource information collected to meet permit application requirements under the permanent regulations need not be duplicated within these baseline fish and wildlife studies. Baseline fish and wildlife studies, however, should be coordinated with the abiotic studies to analyze ecological relationships on the project area and to develop adequate fish and wildlife plans and mitigation measures.

II. HABITAT MAPPING

A. Vegetation - All permit application shall provide the following:

1) A detailed vegetative cover map and aerial photographs of the mine plan and designated adjacent area of a scale equal to or greater than 1:24,000 (1in. = 2000 ft.).

2) A description narrative of the major vegetation types and plant communities shown on the cover map including for each type:

a. Total acreages

b. Species composition

c. Condition and trend and present use by livestock and wildlife

d. Age and/or successional stage

e. A description of unique habitat types (e.g., wetlands, seeps or bogs, wildlife production areas, etc.).

B. Water - Aquatic habitats including streams, lakes, ponds wetlands, and point source should be mapped on at least a 1:24,000 scale. The maps should be the same scale or may be combined with the vegetation maps. Narrative and/or tabular data on the quantity of water (e.g., miles of streams, acres of ponds, etc.) occurring within the project study area should also be provided.

C. Topography - Standard U.S. Geological Survey 1:24,000 topographic maps or comparable maps should be provided showing elevations, drainage patterns, and other significant physical features of the study area.

D. Soils - Information collected in the soils resources section of the premanent regulations (779.21) is adequate for fish and wildlife baseline studies.

III. FISH AND WILDLIFE INVENTORY

A. Terrestrial Systems

1. Mammals - Baseline wildlife studies should provide an inventory of small, medium, and large mammal species including furbearers and predators observed or expected to occur within the proposed mining and adjacent areas.

Low Level - All applications shall provide information upon the mammals observed or expected to occur on the study site by habitat type. This list may be site specific or may be developed from known data on

comparable habitat types within the same geographical area. This information shall include qualitative data such as estimates of relative abundance at the study site.

High Level - In addition to the above information, high level baseline investigations should provide site specific quantitative data (e.g., population estimates, densities in animals/acre, etc.) for the following:

a. Species critical to the structure or function of the ecosystem.

b. Species that serve as indicators of environmental change in the ecosystem.

c. Species valuable recreationally or economically.

2. Birds - As with mammals, baseline information on birds should be compiled because of the ecological, recreational, and economic importance in terrestrial ecosystems.

Low Level - All baseline studies should document the presence or expected occurrence within the study area of resident and migratory bird species.

High Level - Relative abundance by season and habitat preference for all resident and migratory birds within the study area should be provided in detailed baseline investigations.

3. Reptiles and Amphibians - Application may provide only observed and expected occurrence information for baseline studies.

B. Aquatic Systems

1. Fish - Ecological baseline studies provide information on any fisheries which might occur within the project study area. All mine applications should provide an inventory of the species of fish occurring within the project area by general habitat type (e.g., ponds, lakes, streams). In addition to species occurrence, data on relative abundance, preferred habitats (e.g. riffles or pools of streams, ponds, etc.), and major limiting factors (e.g., habitat availability, water quality, predation, etc.) for each species should also be provided.

2. Macroinvertebrates - Macroinvertebrates are species such as insects, molluses, crustaceans, and annelids which live all or part of their life cycles within or upon substrates in standing or running water. These species can be utilized for the designation of stream buffer zones in compliance with the "biological community" requirements of Section 816.57 of the permanent regulations. Therefore, it is suggested that baseline studies contain information on the species composition of macroinvertebrates within the study area's streams.

3. Macrophytes - Baseline studies identify the type and distribution of major acquatic plant communities occurring within the project area's waters.

C. Threatened or Endangered Species

Special consideration should be given to the identification and description of threatened or endangered species of animals, plants, and their habitats within a proposed mining area. Federal law requires that actions undertaken or authorized by Federal agencies do not jeopardize the continued existence of these species or result in the adverse modification or destruction of their habitats. Mandatory consultation is required with the U.S. Fish and Wildlife Service when projects affect or may affect animal or plant species formally listed or proposed as threatened or endangered.

To comply with this requirement, it is essential that all mine applications describe the measures taken to assure that threatened or endangered species are adequately considered. Such discussions should include a brief description of any measures or studies undertaken to determine the presence or absence of these species. State as well as Federally recognized threatened or endangered species should be considered within this analysis. Specific consultation requirements are included as an appendix to these guidelines.

IV. ABIOTIC FACTORS

A. Water

1. Stream Flows - The availability of water and its hydrologic regime are major features governing the biological quality of stream ecosystems. Alterations in these features may drastically impact a stream's ability to support viable fish and wildlife communities as well as effect its aesthetic and recreational uses.

Low Level - All mine applications should identify the classification of stream systems within the study area (e.g., perennial, intermittent, or ephemeral) based upon seasonal flow characteristics.

High Level - In addition to the surface water information required in Section 779.16 of the permanent regulations, data on each stream's velocity, depth, pool-riffle ratio, and substrate types should be supplied for study areas requiring detailed investigations.

2. Water Quality - Mine permit applications should include data on total dissolved and suspended solids, pH, heavy metals, and nutrient content of the project area's surface waters. Seasonal temperature and dissolved oxygen sampling should be conducted on perennial waters.

B. Climate - Climatic data as required under Section 779.18 of the permanent regulations shall be provided to evaluate a project area's suitability for revegetation.

V. REFERENCES

1. Environmental Protection Agency. 1977. Environmental Impact Assessment Guidelines for Surface Mining Activities. Region VI, Dallas, Texas. 8 pp. memo.

2. Grim, E. C. 1974. Environmental Protection in Surface Mining of Coal. EPA 670/2-74-093.

3. Leedy, D. L. 1979. Opportunities for Fish and Wildlife Management on Surface-Mined Lands East of the Mississippi River. Draft Report to U.S. Fish and Wildlife Service, Office of Biological Services, Eastern Energy and Land Use Team, Harpers Ferry, West Virginia.

4. Mason, W. T., Jr. (editor). 1978. Methods for the Assessment and Prediction of Mineral Mining Impacts on Aquatic Communities: A Review and Analysis. FWS/OBS-78/30.

5. Moore, R. and T. Mills. 1977. An Environmental Guide to Western Surface Mining. Part Two: Impacts, Mitigation and Monitoring. FWA/OBS-78/04.

6. Mosby, H. S. (editor). 1960. Manual of Game Investigational Techniques. The Wildlife Society, Wildlife Techniques Committee.

7. Ralston, Sally and Daniel Hilbert et al. 1977. The Ecological Effects of Coal Strip-mining: A Bibliography with abstracts. RWS/OBS-77/09.

8. Giles, R. H. (editor). 1971. Wildlife Management Techniques, 3rd Edition, 633 pp. The Wildlife Society.

9. Ramani, R. V. and M . L. Clar. 1978. User's Manual for Premining Planning on Eastern Surface Coal Mining. Volume 1: Executive Summary. EPA-600/7-78-180.

10. Stalnaker, C. B. and J. T. Arnette (editors). 1976. Methodologies for the Determination of Stream Resource Flow Requirements: An Assessment. Prepared for U.S. Fish and Wildlife Service, Office of Biological Services, by Utah State University, Logan, Utah, 199 pp.

11. States, James B. et al. 1978. A Systems Approach to Ecological Baseline Studies. FWS/OBS-78/21.

12. Annotated Bibliography of Natural Resource Information: S.W. North Dakota FWS/OBS-77/32; Powder River Basin, N.E. Wyoming, S.E. Montana FWS/OBS-77/31; Southern Utah FWS/OBS-77/34; N.W. Colorado FWS/OBS-77/35. 1977. U.S.D.I. FWS/OBS WELUT, Ft. Collins, Colorado.

13. U.S. Department of the Interior, Geological Survey. 1972. Recommended Methods for Water-Data Acquisition. Preliminary Report of the Federal Interagency Work Group on Designation of Standards for Water Data Acquisition. Impaneled by USGS, Office of Water Data Coordination.

14. U.S. Department of the Interior, Office of Surface Mining. 1979. Surface Coal Mining and Reclamation Operations Permanent Regulatory Program. Federal Register, Volume 44(50), pp. 15312-15463, March 13, 1979.

15. Weber, C. I. (editor). 1973. Biological Field and Laboratory Methods for Measuring the Quality of Surface Waters and Effluents. EPA-670/4-73-001.

APPENDIX A

Coordination Directory

Primary coordination of fish, wildlife, and related environmental aspects of surface mining should be through the following agencies and/or individuals for the respective states.

Montana

U.S. Fish & Wildlife Service
Ray Hoem, Coal Coordinator
316 North 26th Street
Federal Building
Billings, Montana 59101
Phone: 406-657-6750, FTS 585-6750

Montana Department Fish, Wildlife & Parks
Jim Tosewitz, Administrator Environment & Information
Bob Martinka, Chief Bureau Baseline Studies
1420 East 6th Avenue
Helena, Montana 59601
Phone: 406-449-2603, FTS 587-2603

Montana Department of State Lands
Richard Juntunen, Wildlife Biologist
Capitol Station
Helena, Montana 59601
Phone: 406-449-2074, FTS 587-2074

North Dakota

U.S. Fish & Wildlife Service
Frank T. Cole, Coal Coordinator
or Stan Zschomler, Area Supervisor
1500 East Capital Avenue
Bismarck, North Dakota 58501
Phone: 701-255-4492, FTS 783-4492

North Dakota State Game & Fish Department
Bill Lynott, Natural Resource Biologist
Mike McKenna, Natural Resource Coordinator
2121 Lovett Avenue
Bismarck, North Dakota 58505
Phone: 701-224-3344 or 2180

North Dakota Public Service Commission
Dave Costain, Environmental Scientist
Ed Englerth, Director, Reclamation Division
Capitol Building
Bismarck, North Dakota 58505
Phone: 701-224-2400

Utah

U.S. Fish & Wildlife Service
Clark D. Johnson, Coal Coordinator
Room 1311, Federal Building
125 South State Street
Salt Lake City, Utah 84138
Phone: 801-524-5649, FTS 588-5649

Utah State Division of Wildlife Resources

Southeast Region - Regional Supervisor
455 West Railroad Avenue
Price, Utah 84501
Phone: 801-637-3310

Northeast Region - Regional Supervisor
671 West 1st North
Vernal, Utah 84078
Phone: 801-789-3103

Southern Region - Regional Supervisor
622 North Main
Cedar City, Utah 84720
Phone: 801-586-6803

Northen Region - Regional Supervisor
166 East 4600 South
Ogden, Utah 84403
Phone: 801-392-6001

Central Region - Regional Supervisor
176 East Center Street
Provo, Utah 84601
Phone: 801-373-4774

Utah State Division of Oil, Gas & Mining
Ron Daniels, Mine Land Reclamation
1588 West North Temple
Salt Lake City, Utah 84116
Phone: 801-533-5771

COLORADO

U.S. Fish & Wildlife Service
Ronel Finley, Coal Coordinator
1360 S. Wadsworth
Lakewood, Colorado 80226
Phone: 303-234-5897, FTS 234-5897

COLORADO (Continued)

Colorado Division of Wildlife
Al Whitaker, Environmental Biologist
6060 Broadway
Denver, Colorado 80216
Phone: 303-825-1192 Ext. 278

Colorado Department Natural Resources
Mine Land Reclamation
Dean Massey, Supervisory Specialist
1313 Sherman, Room 723
Denver, Colorado 80203
Phone: 303-839-3567

WYOMING

U.S. Fish & Wildlife Service
Bob Berg, Coal Coordinator
2120 Capital Avenue
Cheyenne, Wyoming 82001
Phone: FTS 328-2374

Wyoming State Game & Fish Department
Dale Strickland, Supervisor Biological Services
Cheyenne, Wyoming 82002
Phone: 307-777-7604, FTS 328-9604

Wyoming Department Environmental Quality
Walter C. Ackerman, Administrator

Cheyenne, Wyoming 82002
Phone: 307-777-7756, FTS 328-9756

SECTION 7 CONSULTATION PROCEDURES
Prepared by U.S. Fish and Wildlife Service (FWS)
Region 6 Endangered Species Office

The Endangered Species Act Amendments of 1978 (ESAA) have generated the need for two sets of procedures for consultation with the U.S. Fish and Wildlife Service (FWS) based on whether or not the project includes construction work. The first procedure will be used if a Federal action meets the criteria given in No. 1 below. This procedure requires the agency to conduct a biological assessment on listed or proposed threatened or endangered species within a project area. Other projects and actions defined under No. 2 do not require a biological assessment but do require consultation pursuant to Section 7(a) of the ESAA. The FWS will assist the agency, if requested, in determining which procedure to use. Flow charts outlining the procedures are attached.

1. Construction projects after ESAA enactment. The first consultation procedure (page 3) is required for construction projects for which no contract for physical construction had been entered into and for which no physical construction had begun by November 10, 1978. Such construction projects are those designed primarily to result in the building or erection of such man-made structures as dams, buildings, roads, pipelines and the like. These include:

   a. projects constructed or contracted for by a Federal agency; such as Bureau of Reclamation or Corps of Engineers dams; and

   b. non-Federal projects requiring Federal authorization or approvals such as permits, grants, licenses, technical assistance, loan guarantees or loans, which may result in construction and which may significantly affect the quality of the human environment. An endangered species potentially may be affected or an EIS is usually required.

2. Other projects and actions. The second consultation procedure (page 4) will be used for all other actions authorized, funded, or carried out by Federal agencies such as:

   a. non-Federal projects requiring Federal authorization or approvals which may result in construction but which will not significantly affect the quality of the human environment (an endangered species will not be affected, nor is an EIS usually required);

   b. Federal projects or non-Federal projects requiring Federal authorization, approvals or funding not designed primarily to result in construction;

c. projects constructed or contracted for by a Federal agency where a contract for construction had been entered into before November 10, 1978.

The first procedure covers Sections 7(a), (b), and (c) of the ESAA and the second covers Sections 7(a), and (b). Note that Section 7(c) under the first procedure prohibits contracts for, and construction until the biological assessment is completed. Under both procedures, Section 7(d) prohibits any Federal agency and permit or license applicant from making irreversible or irretrievable resource commitments during the consultation period. Note also that only a Federal agency can request consultation and (except for most marine species) only the FWS has been designated by the Secretary of Interior to carry out consultation procedures.

after November 10, 1978

Federal agency may choose to informally consult and exchange information with FWS Area Manager concerning Federal action or non-Federal action requiring Federal approval.

Agency requests from Regional Director, FWS, identification of listed or proposed threatened or endangered species which may be in project area.

Regional Director responds with list: maximum 30 days, but usually within 10 days.

Agency conducts biological assessment on all listed or proposed species within 180 days, unless mutual agreement for delay. Agency determines:

May affect

Biological assessment report with cover letter to Regional Director requesting initiation of consultation on listed species only (FWS cannot formally consult on proposed species).

Consultation initiated on receipt of request (or response) from agency. FWS reviews biological assessment and other available data and renders biological opinion normally within 90 days after receipt of request.

Biological opinion gives summary of data used in opinion and indicates:

1. Action will promote conservation of listed species or critical habitat.

2. Action is not likely to jeopardize listed species or destroy or adversely modify critical habitat.

3. Action will likely jeopardize listed species or destroy or adversely modify critical habitat.

4. Insufficient information to make one of 3 conclusions above. Regional Director notifies agency; mutually agree on time extension needed to complete consultation.

No effect

Biological assessment report with cover letter to Regional Director indicating no consultation necessary.

Process Terminated

Regional Director may still choose to request consultation with agency if deemed necessary.

Agency responds to request by Regional Director.

Agency will determine final course of action in accordance with its Endangered Species Act obligations.

Biological opinion will also suggest feasible alternative actions, if any.

Biological opinion provided in accordance with 1, 2, or 3 above.

Procedure No. 2
CONSULTATION PROCEDURES FOR OTHER PROJECTS AND ACTIONS

Federal agency may choose to informally consult and exchange information with FWS Area Manager concerning Federal action or non-Federal action requiring Federal approval.

If agency determines action may affect listed threatened and endangered species agency requests consultation with FWS Regional Director. Agency should furnish any info which will aid FWS in rendering a a biological opinion.

If agency determines actions will not affect listed threatened and endangered species no consultation request is made.

→ Process Terminated

Regional Director may still choose to request consultation with agency if deemed necessary.

Agency responds to request by Regional Director.

Consultation initiated on receipt of request (or response) from agency. FWS reviews all available data and renders biological opinion normally within 90 days after receipt of request.

Biological opinion gives summary of data used in opinion and indicates:

1. Action will promote conservation of listed species or critical habitat. → Agency will determine final course of action in accordance with its Endangered Species Act obligations.

2. Action is not likely to jeopardize listed species or destroy or adversely modify critical habitat. → Agency will determine final course of action in accordance with its Endangered Species Act obligations.

3. Action will likely jeopardize listed species or destroy or adversely modify critical habitat. → Biological opinion will also suggest feasible alternative actions, if any. → Agency will determine final course of action in accordance with its Endangered Species Act obligations.

4. Insufficient information to make one of 3 conclusions above. Regional Director notifies agency; mutually agree on time extension needed to complete consultation. → Biological opinion provided in accordance with 1, 2, or 3 above. → Agency will determine final course of action in accordance with its Endangered Species Act obligations.