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Board on Earth Sciences and Resources
Committee on Earth Resources

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MAR 22 2002

DIVISION OF
OIL, GAS AND MINING

March 21, 2002

Dear Colleague:

I am pleased to enclose a copy of the report, *Coal Waste Impoundments: Risks, Responses, and Alternatives*. The report was prepared by the Committee on Coal Waste Impoundments, which operated under the auspices of the Committee on Earth Resources. We gratefully acknowledge the Mine Safety and Health Administration, whose support made this report possible.

The report is based on the thoughtful evaluations and comments of the members of the committee in relation to the charge.

Please contact Karen Imhof via phone (202-334-3507) or email (kimhof@nas.edu) if you would like to have additional copies of the report.

Sincerely,

Tammy L. Dickinson

Tammy L. Dickinson
Senior Program Officer

Enclosure



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155

IN REPLY REFER TO:
3480
(UT-923)

28 May 2002

ORDER

Re: Affixing of Professional Seals

Dear Operators:

The Department of Interior Bureau of Land Management (BLM) is authorized and responsible for review of all geologic data/interpretations and resulting mine plans and financial evaluations/projections for several purposes. Such materials are provided by interested parties for BLM review, consideration, and/or approval.

The State of Utah licenses professional mining engineers and as of 1 Jan 2003 will license professional geologists.

This ORDER is issued, effective 30 days from 28 May 2002, for all operators to provide a seal affixed by a professional mining engineer to all plans, maps, reports, economic or financial evaluations or projections, or other materials provided for review, consideration, and/or approval by BLM.

In addition, all plans, maps, reports, economic or financial evaluations or projections, or other materials provided for review, consideration, and/or approval by BLM which include geologic data or interpretations, shall be signed by a qualified geologist until 31 Dec 2002, and beginning 1 January 2003, bear a seal affixed by a professional geologist as provided by State of Utah law.

Any other plans, maps, reports, economic or financial evaluations or projections, or other materials provided 30 days after 28 May 2002 for review, consideration, and/or approval by BLM will be considered preliminary or draft versions.

If you have any questions, please call Jeff McKenzie at 539-4038.

Sincerely

James F. Kohler
Chief, Solids Minerals Branch

cc:

Price Field Office
Dan Meadors - Skyline Mine, Canyon Fuel Company, LLC, HC 35 Box 380, Helper, UT 84526
Rick Olsen - Dugout Mine, Canyon Fuel Company, LLC, P.O. Box 1029, Wellington, UT 84542
Carl Pollastro - PacifiCorp Complex, Energy West Mining, P.O. Box 310, Huntington, UT 84528
Ken May - SUFCO Mine, Canyon Fuel Company, LLC, 397 South 800 West, Salina, UT 84654
Jim Noyes - Emery Deep Mine, P.O. Box 527 Emery, Utah 84522
Wendell Owen - Co-Op and ANR Mines, Co-Op Mining Company, P.O. Box 1245, Huntington, UT 84528
Sam Quigley - Aberdeen and Pinnacle Mines, 6750 Airport Road, P.O. Box 902, Price, Utah 84501
Lane Adair - Westridge Mine, West Ridge Resources, Inc., P.O. Box 902, Price, Utah 84501
Jay Marshall - Lila Canyon Mine, Utah American Energy, Inc., P.O. Box 986, Price, Utah 84501
David Miller - Lodestar Energy, Inc., HC 35 Box 370, Helper, UT 84526
Gary Gray - Genwal Resources, Inc., P.O. Box 1077, Price, Utah 84501

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Jarow, Pan, Wayne
File General Inquiries
BLM* OK



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Washington, D.C. 20240

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20 staff / 63-FO's
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In Reply Refer To:
FWS/DB/008001

RECEIVED
MO. DAY YEAR

JUN 19 2002

To: General File
Copy Pam

FISH & WILDLIFE
ECOLOGICAL SERVICES

Memorandum

To: Assistant Secretary - Policy, Management and Budget

From: Director Steve Williams JUN 12 2002

Subject: Cooperative Conservation Initiative

The Service is moving forward with plans to implement the Cooperative Conservation Initiative (Initiative) for the restoration and protection of federal lands and resources with cooperators this fall when appropriations are made available.

The Service is slated to receive \$18.0 million under the Administration's budget request, of which at least \$5.0 million will be allocated to the National Wildlife Refuge System. Accordingly, the budget requested \$5.0 million under the refuge program, and \$13.0 million under General Operations for distribution to other programs, including the refuge program.

Projects will seek to achieve the actual restoration of natural resources and/or the establishment or expansion of habitat for wildlife, with a focus on federal lands and resources. Where applicable, the projects must reflect efforts to resolve conflicts through incentives and cooperation to achieve the intended goal. Nominated applicant partners will seek cost-shared, results-oriented conservation projects using innovative means or practices that embody the Secretary's Four C's. The program will not include projects with cultural and recreational purposes, routine annual and cyclic maintenance, or international projects, except those natural resource projects with demonstrated benefits to resources in the United States.

Partners are required and include state and local governments, tribes, conservation organizations, agriculture interests, sportsmen's groups, corporations, farmers and ranchers, small businesses, private landowners, non-governmental organizations, educational institutions, volunteer groups, and the science community. Coalitions of partners are encouraged.

Projects must either 1) replicate or expand successful, on-the-ground activities; or 2) support new demonstration projects. Projects in Category 1 may build upon ongoing Service activities. However, for expansion of existing projects, the Initiative funds can only be used for the new and expanded portions.

The matching requirement must be fulfilled by new cash and/or in-kind goods or services (not used for match elsewhere or previously) or both types of contributions. When other than cash is used, the goods and services will have to be fairly and specifically valued in the application. Partners cannot include overhead as part of the match. The match must result in actual accretion of new value to the resource and excludes state and local government loan programs and preferential tax programs that would not add to the benefit of the Federal Government.

For program implementation purposes, the Director will make final decisions on competitive projects for funds against the national criteria established above, with final review by the Secretary. The competition will be limited in a manner that only the highest priority projects reach the Director, and therefore administration will be minimal. Each project must be nominated by a Service manager, much in the way any other special project is raised within the Service for consideration. The Service will use two percent (\$360,000) for administration, program management and implementation costs. Projects will be selected competitively based on the benefits derived from the projects. Applications will identify stakeholder involvement in the application and be required to identify benefits to be achieved as well as the time lines for accomplishing clearly defined goals.

Projects must meet the following minimum eligibility criteria.

- Identify one or more partners
- Identify stakeholder involvement
- Include a minimum 50 percent partner match
- Be voluntary on the part of all participants
- Provide measurable benefits to species and/or habitat
- Clearly identify the goal(s) of both the Service and partners, intended outputs, and outcomes
- Clearly identify time lines for accomplishing goals

Funded projects should stress the following.

- Natural resource innovation
- Incentive-based options to regulatory approaches
- Community based solutions
- Development of voluntary and incentive-based natural resource alternatives within the *Endangered Species Act*

Potential project categories include the following.

- Habitat management and improvement on national wildlife refuges and fish hatcheries, including adjacent lands
- Tools such as maps and habitat surveys to help communities balance economic development with conservation
- Surveys and monitoring
- Educational partnerships with schools
- Incentive programs to businesses

- Reduction of habitat fragmentation
- Conservation of nationally or international imperiled natural communities with demonstrated benefits to resources in the United States
- Protection of self-sustaining natural systems

Demand is already building for the program. The Service can call on more than 200 National Wildlife Refuge Friends organizations and more than 2,000 landowners already on the Partners for Fish and Wildlife waiting list and interested in voluntarily restoring fish and wildlife habitat as prime candidates for the Initiative proposals.

The Service also proposes to use the successful Challenge Cost Share Program as the basis for administering the Initiative program within the refuge system. (Current funding is \$3.9 million, which is used to actively support refuge system priorities. For instance, in Fiscal Year 1999 projects focused on invasive species control and migratory birds and their habitats. Most projects are natural resource related).

A database of habitat restoration projects tied to the National Wildlife Refuge System's Centennial Celebration has already been developed. This "Plus 100 Habitat Restoration Program" is a compilation of priority projects intended to restore habitat on the refuge system during its 100th birthday. Each refuge has submitted a habitat enhancement or restoration project they are hoping to implement during the National Wildlife Refuge System's Centennial Celebration year. The *Plus 100* component of the Initiative has already identified approximately \$20.0 million in habitat projects, with the National Wildlife Refuge System's Centennial Commission pledging to raise \$5.0 million in private funds to support the projects. The Initiative funding would be used to implement portions of the *Plus 100* initiative, leveraging not only the Commission's pledge, but also meeting the matching requirements of the Initiative.



United States Department of the Interior
FISH AND WILDLIFE SERVICE

UTAH FIELD OFFICE
2369 WEST ORTON CIRCLE, SUITE 50
WEST VALLEY CITY, UTAH 84119

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NOV 25 2002

DIV. OF OIL, GAS & MINING

In Reply Refer To

FWS/R6
ES/UT

November 21, 2002

Memorandum

General Incoming
FWS
Copy Susana
Paula Jerrison

To: State Director, Utah State Office, Bureau Land Management, Salt Lake City, Utah

From: Utah Field Supervisor, Ecological Services, U.S. Fish and Wildlife Service, West Valley City, Utah

Subject: Project Evaluation and Section 7 Consultation Recommendations for Mexican Spotted Owl Habitat Using Available Habitat Models

During the 2002 Mexican Spotted Owl (owl) Survey Training, the U.S. Fish and Wildlife Service's (Service) Utah Field Office and the Utah Division Wildlife Resources (UDWR) recommended to the participants (including federal, state, and private consultants) that the 1997 Willey-Spotskey Mexican Spotted Owl Habitat Model (model) be used for initial evaluation of potential habitat within project areas; and furthermore, we emphasized that only the red model pixels (prime breeding areas) need to be evaluated because the crude vegetation layer deriving the marginal habitat in the model is too general and not very meaningful for management applications. We further emphasized that use of the model should be accompanied by field evaluations to determine the actual extent of owl habitat in the project area and the subsequent need for owl surveys. In no case should GIS models replace on-the-ground field evaluations by the wildlife biologists. We have also made similar informal recommendations to individual BLM staff members during project reviews.

It has come to our attention that there are still questions and concerns regarding use of the 1997 model because it is over-inclusive, e.g., all steep slopes are included in the model regardless of aspect, an important ecological parameter for spotted owls in the arid southwest. A recent modeling effort produced a newer 2000 GIS model that may have overcome the over-inclusive problems with the 1997 model; however, application of the two models, i.e., 1997 vs. 2000 remains controversial. In fact, the Price BLM recently asked Dr. David Willey [co-creator of the GIS models] to assess performance of the models in several project areas. Dr. Willey is in the process of finalizing a report of this assessment that will include specific recommendations regarding the appropriate use of both the 1997 and 2000 models. Because of Dr. Willey's extensive owl and owl habitat experience in Utah (14 years), and his direct involvement in the development of these models, we would likely incorporate his recommendations relative to these models during section 7 consultation with your agency. In addition, the Mexican Spotted Owl Recovery Team may, at some point, provide their evaluation of these models (a revision to the

Recovery Plan specifically addressing suitable habitat in the Col-Plat-RU is currently under review and due out next spring).

In the interim, we are aware that projects are proceeding that may require analyses and consultation specific to the Mexican spotted owl. Therefore, the Service (Laura Romin and Diana Whittington) conducted a conference call with Frank Howe, UDWR and David Willey on November 6, 2002 to discuss the use and limitations of both the 1997 and 2000 models.

It is most important to understand that the GIS models are conceptual hypotheses (and spatial predictions), and were intended as a first-cut evaluation of project areas for the possible location and extent of owl habitat. Both models were field tested and proved to be valuable for identifying regions where spotted owl nesting and breeding habitat are likely to occur, but they do not replace on-site visits nor were they intended for fine-grained determination of habitat suitability for management planning, e.g., identifying the scope of a project treatment and its planning area. This first-cut analysis should, in all cases, be followed by field reviews to determine the actual extent and location of owl habitat in a project area and the potential for impacts to owls and their habitat.

We acknowledge that the 1997 owl model overestimates the extent of owl habitat in almost all cases throughout the state. However, it is just as likely that the 2000 model may underestimate owl habitat, particularly foraging, winter, and dispersal habitat because the 2000 model was designed to identify specialized nest and roost habitats; in fact, a recent field review of the Western Geco Horse Point project area in Uintah County (Brian Maxfield, UDWR, November 2002) identified potential owl habitat that is not depicted on either the 1997 or 2000 owl habitat models. However, we recognize that GIS models will never reach 100% success and are limited by the quality of the data layers used for modeling (layers that often contain 20-25% error in accuracy).

Both models provide information that can benefit field biologists that suspect their landscapes include spotted owl habitat. For example, the 1997 model relies on a slope curvature index that is valuable for predicting surface ruggedness. Research indicates that rugged terrain is indicative of potential habitat and thus the 1997 model can and should be used for large scale planning efforts to identify areas with high-relief topography. The 2000 model, which resulted from iterative testing and modifications of the 1997 model, includes additional variables such as geology suitable for forming steep cliffs, aspects suitable for nesting and roosting, a radiation index to predict areas with the cooler temperatures that the Mexican spotted owl appears to require, and steep slope mixed conifer habitat that is Protected Habitat under the Mexican Spotted Owl Recovery Plan (Recovery Plan).

It should be restated and emphasized that the 2000 model does not necessarily identify all owl habitat, such as foraging, dispersal, and wintering habitats. Small-scale habitat features, such as crevices or alcoves that may provide suitable owl microclimates on south-facing slopes, may also be missed by the 2000 model.

Therefore, we encourage a multi-tool approach, e.g., a biologist should use the 1997 model to ascertain that spotted owl habitat, at the broadest level, occurs within their planning area. Next