



United States Department of the Interior

FISH AND WILDLIFE SERVICE

AREA OFFICE COLORADO-UTAH

1426 FEDERAL BUILDING

125 SOUTH STATE STREET

SALT LAKE CITY, UTAH 84138 PM 3 51

September 28, 1978

In Reply Refer To (ES) SLC

Nuclear Regulatory Commission
Division of Fuel Cycle and Material Safety
Washington, D.C. 20555

Gentlemen:

These are the Fish and Wildlife Service review comments on the environmental report and related documents prepared by Woodward-Clyde Consultants for Plateau Resources Ltd. on the Shootering Canyon Uranium Project, Utah (ER78/716).

Main Report Comments

On maps prepared by the U.S. Geological Survey, the agency considered to be the principal authority on geographical place names, the name of the site is given as Shitamaring, not Shootering Creek. It is questionable that the applicant can unilaterally change the official name of the canyon. Also, the public and resource managing agencies could relate the project to the correct geographical area more readily if the established name were used.

2-153 through 162 Wildlife

We agree that numbers and diversity of wildlife are limited within the blackbrush-Mormon tea vegetation of the immediate project area. However, secondary impacts from outdoor activities of 600 to 800 new people will extend far beyond the developed area and to higher elevations. This larger area of secondary impact includes terrain supporting a much higher diversity of species including eagles, deer, cougar, a few bighorns, and the unique free-roaming bison herd on the Henry Mountains.

A study by the Utah State Division of Wildlife's Southeastern Region lists 449 species of vertebrate wildlife known to occur in southeastern Utah. The above study area is larger and more diverse than the secondary impact area of the uranium project. However, the Kaiparowits Plateau, a more comparable area about 35 miles southwest of the project area and possibly somewhat more productive, is used by over 200 species of birds, 30 species of mammals and 31 species of amphibians and reptiles. We expect that nearly this many species live permanently or seasonally within the overall area of secondary impacts for this project. This expanded area of consideration for wildlife populations would be consistent with demographic discussions in the same chapter which include communities of Loa and Bicknell located approximately 70 miles away.

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Important deer summer range and bighorn sheep are located 7 miles north and east of the site. Critical buffalo winter range is located 9 miles northwest of the mill site. These wildlife resources would inevitably suffer from increased poaching, harassment and disturbance. Significant wildlife habitat is not as remote from the project area as is implied in the draft statement. The bald eagle is a winter resident and the peregrine falcon nests a few miles away in Capitol Reef National Park and among the cliffs along Lake Powell.

4.0 Environmental Effects of Site Preparation, Plant Construction, and Mine Development

Outdoor activities of the 600 to 800 persons associated with the project would have adverse impacts on wildlife far beyond the immediate project area. No mention is made of this secondary impact. The activities of 600 to 800 permanent residents in an area previously almost uninhabited would be one of the major impacts of the project on the natural environment.

4-8 Water Supply

No mention is made of potential effects on existing springs or seeps from establishment of a well field capable of supplying 700 gallons per minute intermittently and 400 gallons per minute continuously. In this arid area any water source, no matter how small, is vitally important to wildlife.

4-10 Economic Effects

Figures are given for estimated project related payrolls and income, but no figures are given for increased costs of schools, fire protection, law enforcement, and other municipal services. This is inconsistent and should be corrected.

5.0 Environmental effects of Plant and Mine Operations

It is indicated that there would be some dispersal of radioactive material upon soil and vegetation of the area, and that some of this would be ingested by animals. There is no discussion of potential transport of radioactive material by surface runoff into the aquatic environment of Lake Powell. Bioamplification is normally greater in an aquatic ecosystem. Also, cumulative effects on raptors and other predators from eating herbivores that have fed on contaminated vegetation is not adequately addressed.

5-2 1st Para - "Since the tailings water will be acidic (pH about 1.5 to 2.0), it will be distinctly unpalatable and will discourage the approach of small animals and waterfowl".

There are a number of examples where high or low pH or other chemical concentrations have not prevented waterfowl from alighting in highly toxic bodies of water with sometimes fatal results. Damage to plumage can cause death indirectly through exposure or loss of ability to fly.

7.0 Environmental Effects of Accidents

This section describes potential accidents but stops short of assessing environmental impacts of the accidents. Events are described in which radioactive materials might be released into the outdoor environment, but inadequate mention is made of what effect these materials might have on biota of the environment, e.g. food-chain biomagnifications, or the time required for deterioration of the various radioactive contaminants ingested or inhaled by wildlife.

Tailings Management Plan

There is considerable discussion of measures that would be taken to minimize the hazard of the tailings pond dam failure and of the small probability of such an event occurring. However, there is little on the impacts that would result if dam failure did occur.

Adequacy of the tailings management plan could be evaluated better if information were provided on the length of time the material is expected to retain hazardous levels of radioactivity. Does the material need to be contained for 50 years or 5,000 years? Natural erosion occurs at a high rate in the project area and no earthen structure, no matter how well designed, can be expected to last indefinitely.

Tailings Management Plan

Specific Comments

Page 17-3. Seepage of toxic material into groundwater

This section conveys the impression that a lining of compacted clay in the tailings pond would adequately control seepage of liquids. This is not consistent with the executive summary contained in the "Preliminary Geotechnical Engineering Report." the latter document contains the statement, "Seepage analysis for these same tailings levels for a blanketed upper pond constructed from locally available clayey soil indicate the losses could be reduced to about 7,000 to 35,000 gallons per day, which are about 4 to 20 percent of the quantity of fluid required to transport the tailings to the upper pond."

Page 26-1. Remote from People

The fact should be mentioned that Bullfrog Marina, 14 miles away on Lake Powell, is used by nearly 20,000 persons on holiday weekends and that

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the project area's watershed does in fact drain to Lake Powell only 6 to 8 miles from Bullfrog Marina via Hansen Creek.

The opportunity to offer these comments is appreciated.

Sincerely yours,

Mitchell G. Sheldon

Acting Area Manager