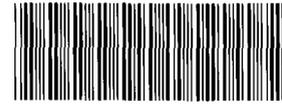


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MEMORANDUM

DATE: October 27, 1995 5400.1

TO: R. Roberts, RMRS Remediation Services, Bldg. T893B, X4869

FROM: *M.B. Murdock*
M. B. Murdock, Ecology, Bldg. T130B, X3560

SUBJECT: COMMENTS ON INTERIM MEASURE/INTERIM REMEDIAL ACTION DECISION DOCUMENT: 903 PAD AND WINDBLOWN SOILS (OPERABLE UNIT 2) - MBM - 103 - 95

Enclosed are Ecology's comments on the Interim Measure/Interim Remedial Action Decision Document: 903 Pad and Windblown Soils (Operable Unit 2). Some comments can be easily resolved with a change in wording, while others will require that sections be substantially rewritten. Ecology personnel can provide support or can author revisions as needed.

Should you have comments or require further information, please call me at extension 3560.

MBM:mbm

Attachments:
As Stated

cc:

C. S. Evans

J. D. Krause

T. R. Ryon

✓ ERPD Records File (2)



ADMIN RECORD

BZ-A-000380

4/5

ECOLOGY COMMENTS ON INTERIM MEASURE/INTERIM REMEDIAL ACTION
DECISION DOCUMENT: 903 PAD AND WINDBLOWN SOILS (OPERABLE UNIT 2)

General Comments:

None of the discussions, from the overview to the description of the alternatives, mentions much about the ecology of the Site or the work location. The alternatives should address impacts on biota during the remediation process. While portions of the work area do not provide high quality habitat, other portions are well used by some species. From the project description it appears that a certain amount of the area outside the asphalt pad will be disturbed. The habitat loss resulting from this disturbance should be addressed.

For several of the alternatives examined, there was a reference to the use of borrow materials. In Section II.4.1.3.6 it was stated "Borrow sources.... should be readily available onsite or locally offsite." If an onsite borrow location should be established, ecological impacts must be addressed, and habitat loss mitigation discussed. It should also be noted that DOE owns only a very limited portion of the mineral rights onsite, so locations for borrow areas would be quite restricted.

Section I.2 Site Overview:

Page I-3

The Site Overview presents no information on the ecology of the Site. It seems that there should be some mention here, even if only to reference Appendix A.

Section I.5.5 Remediation Goals:

Page I-19

One of the remediation goals should be restoration of habitat. The next step, after a cleanup to reduce risk, is to restore a remediated area to a useful state, unless that is impossible. Because wildlife habitat will be impacted by the cleanup, this impact will require mitigation. Since a vegetative cover is planned for all alternatives, some discussion of the habitat provided by that cover would be appropriate.

Section II.2.3.1 Site Preparation and Grading:

Page II-9, Paragraph 6

Where is the source of the 32,000 cubic yards of "hillside" material? It is unclear if this is contaminated soil to be moved onto the 903 Pad area, or if this is borrow material to be used for

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cover. If this is borrow material, what is the source? An onsite borrow location will produce an even greater area of disturbance with a larger amount of habitat destruction. This impact and the mitigation for this impact should be discussed.

Section II.2.3.2 Installation of Enhanced Vegetative Cover:

Page II-12, Paragraph 2

The most common burrowing animals at Rocky Flats are pocket gophers, voles, mice, and ground squirrels. Badgers are rare, and there are currently no prairie dogs on the Site. It is the small mammal species that are responsible for the greatest amount of material turned over or resurfaced.

Figure II. 2-2

Page II-11

How do we get a surface covered with pea gravel to produce a good, tight vegetative ground cover? Most gravel patches are not capable of supporting other than sparse vegetation, and are prone to develop heavy weed infestations. Weed infestations are extremely undesirable, and may result in fines from the state and county if left untreated. The best vegetative cover would be sod-forming grasses that would bind the soil and protect it from erosion to the greatest extent possible.

Section II.2.4.5 Site Restoration

Page II-16

Site Restoration should contain some information about plans to revegetate the final soil surface.

Appendix A

Page A-29, Paragraph 1:

The second sentence starts "Cottonwoods (*Populus sargentii*), and continues with other species citations. Since there are two species of cottonwoods, using "*Populus sp.*" would be more accurate. In any case, the Current Approved Species Code List (CASCL) for the site should be used for uniformity in scientific names at the Site. The CASCL is a section of the Ecology Procedures for the Site, and as such is a controlled document that is updated periodically as more species are recorded on the site. *Populus sargentii* is not used for the plains cottonwood on the CASCL. *Populus deltoides* is the official scientific name used for this species at the Site.

Page A-29, Paragraph 2:

The chainlink fence around the Industrial Area does not greatly impede travel of large or small mammals, and has no effect on avian species. Mule deer are commonly observed within the Americium Zone, around the 903 Pad, and on the 881 Hillside. Coyote and raccoon sign are also common in these areas. Further into the paragraph, if **red fox** were replaced with **raccoon**, the information would be more accurate. Raccoons are quite common on the Site, while only one red fox has been observed.

Page A-31:

The section on threatened and endangered species was written with outdated material and should be rewritten to make the material more accurate. Please consult RMRS Ecology personnel for information or help.

Page A-32:

The section on sensitive environments (riparian and wetlands) was written with outdated material and should be rewritten to make the material more accurate. Please consult with RMRS Ecology personnel for information or help.

**COMMENTS ON THE RFI/RI, ECOLOGICAL RISK ASSESSMENT, HUMAN HEALTH
RISK ASSESSMENT, AND REMEDIATION GOALS**
October 27, 1995

Section I.5, Title of the section.

Comment - The proper term for the assessment of non-human biota in this document is an **ECOLOGICAL Risk Assessment**.

Review of past EPA documents have revealed no use of the term Environmental Risk Assessment. Additionally, in TM2 (RMRS, 1995), the acronym for ERA is Ecological Risk Assessment. Please make this correction throughout the document.

Section I.5, ¶1, last sentence.

Comment - This sentence is confusing. I was expecting one Ecological Risk Assessment for surface soil and surface water then another considering airborne contamination, biota transport, and surface water erosion (i.e., secondary transport).

I think you mean, "This document addresses risks associated with airborne contamination, biota transport, and surface water erosion." If so, please rewrite the sentence to clarify.

Section I.5.2, ¶1, last sentence.

Comment - Based on Figure I.5-2, you mean Woman Creek instead of South Walnut.

Section I.5.3, Title of the section.

Comment - Title should read Results of Ecological Risk Assessment.

Section I.5.3 General Comment

Comment - Were contaminant risk for small mammals, mule deer, coyote, raccoon, red-tailed hawk, and great-horned owl overlooked for the 903 Pad and Windblown Soils IM/IRA?

A paragraph stating the elimination or consideration of key receptors would be helpful. Were the exposure pathways incomplete or were the home ranges of these species so great that the risk from the 903 Pad is negligible? Were the risks to these other key receptors handled in a different document such as the OU2 Environmental Evaluation, Tech Memo 3, etc.? These questions should be answered in this paragraph. It will give the reader a better level of comfort and show a connection to other documents.