Department of Energy

ROCKY FLATS FIELD OFFICE
P O BOX 928
GOLDEN COLORADO 80402-0928

JAN 12 1999

JAN 11 1999

99-DOE-03485

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Mr LeRoy W Carlson, Colorado Field Supervisor
U S Fish and Wildlife Service
P O Box 25486, Denver Federal Center
Denver, Colorado 80225

Dear Mr Carlson

Rocky Flats Environmental Technology Site (Site) and U S Environmental Protection Agency staff met with Peter Plage on January 6, 1999, to continue informal consultation on the Solar Ponds Plume Remediation, Modular Storage Tank Freeze Protection, and the East Trenches Plume Treatment projects

This letter transmits a revised East Trenches Plume Treatment System project description and biological evaluation This new material revises the evaluation transmitted in our letter, 98-DOE-03478, dated December 17, 1998, by providing the additional information requested by Mr Plage at the meeting

The revisions include information on past Preble's trapping efforts in the South Walnut Creek drainage, information on the Dam B-4 Toe-Blanket Construction Study, clarification of water management in Ponds B-1 and B-2, and discussion on dewatering of the collection trench during construction The project construction dates have been revised to reflect the current schedule Construction activities are scheduled to avoid the normal active period of the mouse Figure ET-1 has not been revised

The Site finds that there will be no adverse affect on the Preble's mouse or on the lower Platte River species Other listed species in the area will not be affected by this action

If you or your staff have any questions, please contact John Stover at (303) 966-9735

Sincerely,

Joseph A Legare
Assistant Manager
for Environmental Compliance

Enclosures

ADMIN RECORD
BZ-B-00021

JAN 11 1999

cc
K Brakken, RLG, RFFO
N Castaneda, ER/WM, RFFO
J Stover, RLG, RFFO
K Koch, OCC, RFFO
B April, RLG, RFFO
S Nesta, K-H
L Butler, K-H
A Primrose, RMRS
T Greengard, SAIC
J Dischinger, CCS

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Proposed Agenda for January 6, 1999 USFWS Meeting
0830 to 0930

In addition to consultation process, regulators are trying to resolve issues up-front

Solar Ponds Plume Project (30 min) June – Sept. 1999

- Project Description
- Issues – construction noise – potential for impact
possibly no effect response from USFWS.
shape of cell – design (late Feb. '99) out of grass area.
Concurrence from USFWS – w/in few wks.

MST Freeze Protection Project (15 min)

- Project Description asking for integration for improving habitat
1½ to 1 – wetlands, etc.
restoration of grassland –
mowing area & maybe less
- Elimination Hillside Stabilization project

East Trenches Project (15 min)

- Project Description non-precise habitat document Mice trappings.
Feb. – May 1.

McKay Bypass Extension BA Status

Meeting with Jan McKee on Water Depletion BA scheduled for Jan 12, 1999

Best Available Copy

BIOLOGICAL EVALUATION
EAST TRENCHES PLUME TREATMENT SYSTEM INSTALLATION

INTRODUCTION

The primary contaminants in the groundwater of the East Trenches Plume are carbon tetrachloride, trichloroethene, and tetrachloroethene This contaminant plume currently receives no treatment Installation of a treatment system is required to meet cleanup criteria, and a specific milestone outlined in the Rocky Flats Cleanup Agreement, for this volatile organic compound contaminant plume

A portion of the East Trenches Plume groundwater collection and treatment system installation project will occur within the periphery of an area mapped as suitable Preble's mouse habitat, and a short distance (approximately 400 feet) from the Pond B-4 Preble's mouse habitat (See Figure ET-1) Although this area is mapped as suitable habitat, Preble's mice have not been captured in this area Excavation and installation will occur in upland areas, and will not encroach within the stream channel or pond margins An installation strategy was developed to mitigate impacts to the downstream habitat while allowing the installation of this groundwater treatment system to proceed

Areas designated as suitable habitat at the Site have been identified by selecting all woody riparian vegetation types and adding a 100-foot strip of grassland foraging buffer surrounding these riparian types This reflects the current understanding of habitat use by Preble's mice on the Site The 100-foot buffer distance is based on the current knowledge of the maximum foraging distance from streams In this particular project area, the areas mapped as suitable habitat were included in the designated protection areas on the basis of willow clumps on pond margins of Ponds B-1 and B-2 Small mammal trapping was conducted in several locations around the B-Series ponds, including the mapped suitable habitat, during several different studies conducted in 1992, 1993, and 1995 No Preble's mice have been captured upstream of the B-4 Dam in this stream reach Site ecologists do not believe that Preble's mice currently use these areas of isolated, marginal habitat

During an extended study conducted before, during, and after construction of the B-4 Dam Toe-Blanket during late summer 1995, Preble's mice in the B-4 population were monitored to determine the effects of this habitat disturbance on their use of the habitat at the work location During the construction work, Preble's mice continued to use areas very close to the excavation (approximately 30 meters), and one mouse traveled around the edge of the disturbed area (based on fluorescent powder tracking) Preble's mice have continued to use the area during the three-year post-construction period This population of Preble's mice was apparently tolerant of construction within their habitat, and noise from close-by heavy construction equipment apparently did not affect their habitat use

PROJECT DESCRIPTION

The East Trenches Plume treatment system is expected to consist of a 1,100 foot long collection trench installed immediately south of the B-series ponds (B-1, B-2, and B-3) and 2 to 3 treatment cells installed adjacent to the south end of the B-3 dam (see Figure ET-1) The planned construction period is from January 29, 1999 to May 1, 1999 Installation will require excavation of a continuous trench about 3-feet wide, and up to 35-feet deep The surface disturbance will be restricted as much as possible to the present access road disturbance Silt fencing will be installed between the construction activity area and the riparian area to catch any incidental sediment, and to act as a "no-cross" marker for equipment operators If water accumulates in the trench during excavation and poses a threat to the excavation progress, the water will be collected and pumped to a tank or tanker truck for treatment in the Consolidated Water Treatment Facility (Building 891) Because the construction will proceed from east to west, the wettest area of the plume (near the western end) will be reached after the trench and treatment cell are largely complete, providing an alternate route for excess water Unless unanticipated precipitation occurs, dewatering should be unnecessary

The proposed installation will occur within the disturbed area presently covered by a well-used gravel road and the area of excavation open at any given time will be minimized – that is, trenching will be done in a moving excavation and backfill progression from east to west The advantages of this approach include increased slope stability in a slump-prone soil unit, reduced revegetation and weed control costs, and better equipment access Since this road will allow pond access from either direction, normal pond operations are not expected to be interrupted The treatment system will be installed at a low point between Ponds B-3 and B-4 to ensure gravity feed of contaminated groundwater through the treatment media and to permit the treatment media to remain submerged to ensure effectiveness

ASSESSMENT OF IMPACTS

The treatment trench will intercept groundwater that currently infiltrates to Ponds B-1 and B-2 via subirrigation These ponds are no-discharge ponds that do not communicate directly with the downstream ponds or the South Walnut Creek surface flow Water levels in Ponds B-1 and B-2 are largely tied to groundwater subirrigation, with a small contribution from local runoff Because these are "off-stream" reservoirs they do not receive runoff waters from the stream itself, instead, the water is diverted around them in a buried culvert Water levels in these two ponds are lowered passively through evaporation

The net effect of installation of this treatment system will be the addition of a small amount of water to the year-round stream flow in this drainage This will be the water, presently subirrigating Ponds B-1 and B-2, that will instead be intercepted by the collection trench Rather than being lost to evaporation in the two ponds, this water will flow down the collection trench, through the treatment cell(s), and into the stream The

average amount of cleaned water expected to be discharged from the treatment unit to a point just upstream of Pond B-4 is approximately 5 gallons per minute This will result in a small net increase of clean water flowing through the B-4 Preble's mouse habitat unit, and ultimately to the lower Platte River basin This will lower the current depletion in this stream reach

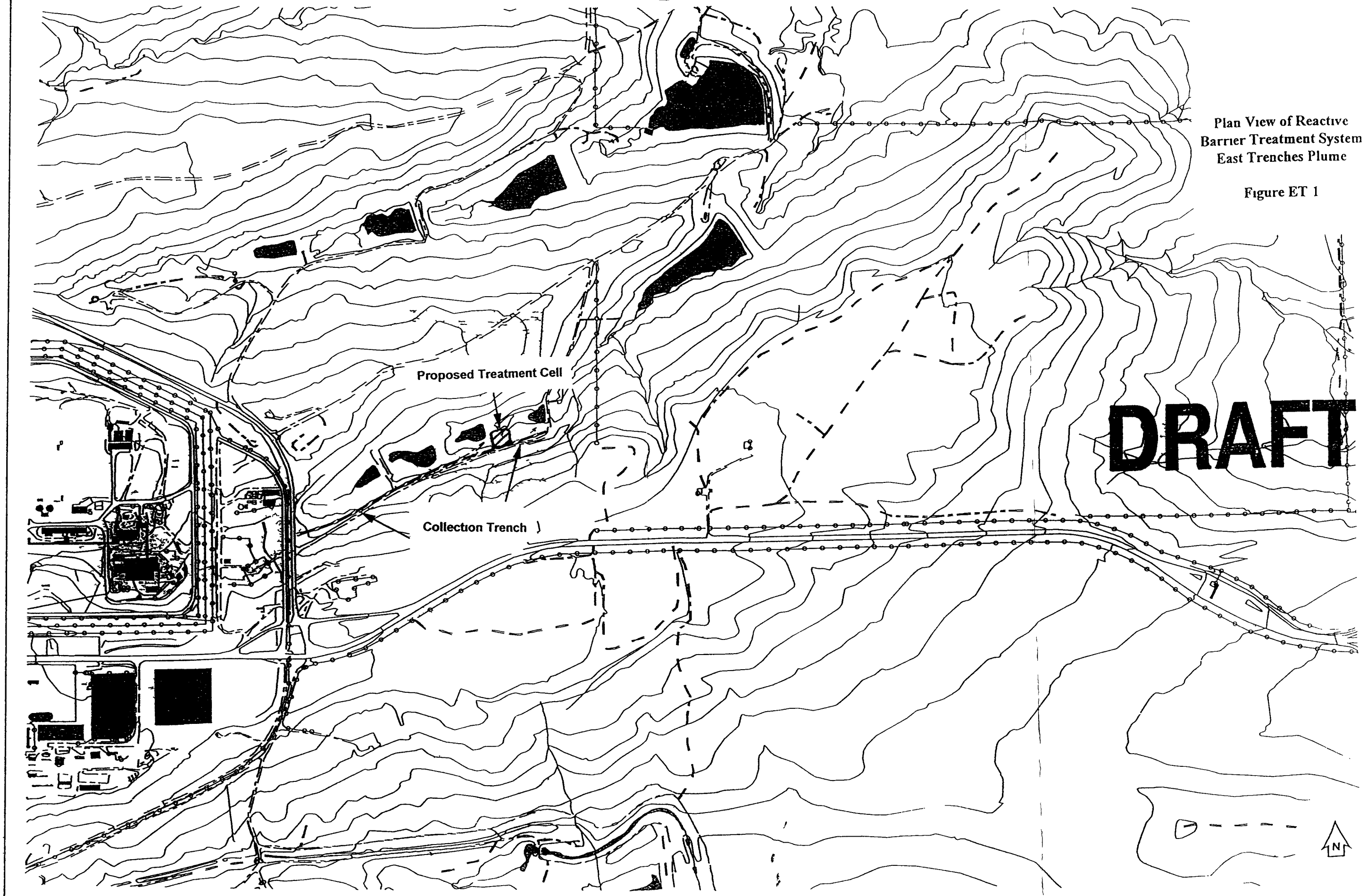
While the construction site is not within an area known to harbor Preble's mice, it is near a known population (approximately 400 feet) Based on the 1995 toe-blanket installation study, the Preble's mice apparently tolerate construction in the vicinity However, certain mitigative actions are planned These include limiting the surface disturbance as much as possible to previously disturbed areas (predominantly the existing gravel road), revegetating any new disturbance with native vegetation, and timing the construction so that the area nearest the Preble's habitat is completed first, with construction activities proceeding from east to west Construction activities are scheduled to avoid the normal active period of the mouse

Site ecologists feel that this strategy can reduce any potential impact to nearby Preble's mouse habitat, and will ultimately result in cleaner water and a slightly increased flow to the downstream Preble's mouse habitat unit It is expected that the long-term effect will be positive With construction planned during the mouse's inactive period there should be no direct effect on the mouse itself The addition of a small amount of additional clean water to the South Walnut Creek drainage that flows through the B-4 Preble's habitat unit will supplement water that supports the unit By replacing the non-native vegetation currently at that location with native vegetation, foraging opportunities for the mouse may increase

The Site therefore finds that there will be no adverse effect on the Preble's mouse or on lower Platte River species Other listed species in the area (e g , Ute ladies'-tresses, bald eagle, and peregrine falcon) will not be affected by this action

Plan View of Reactive
Barrier Treatment System
East Trenches Plume

Figure ET 1



DRAFT