



Department of Energy

Washington, DC 20585

November 5, 2012

Ms. Susan C. Linner
Colorado Field Supervisor
c/o Alison Deans Michael
USFWS/Colorado Field Office
P.O. Box 25486, DFC (MS65412)
Denver, CO 80225-0486

Subject: East Trenches Plume Treatment System Air Stripper Project at the Rocky Flats Site

Dear Ms. Linner:

The U.S. Department of Energy's Office of Legacy Management at the Rocky Flats Site (Site) requests approval of the enclosed project description for the installation of an air stripper at the East Trenches Plume Treatment System.

Please provide your concurrence and approval for the project at your earliest convenience. If you have questions, please feel free to contact myself or Jody Nelson (720) 377-9677.

Sincerely,

Scott R. Surovchak
LM Site Manager

Enclosure

cc:
Steve Berendzen, USFWS
Rick DiSalvo, Stoller
Linda Kaiser, Stoller
Jody Nelson, Stoller
rc-rocky.flats
File: RFS 215.02



East Trenches Plume Treatment System Air Stripper Project
Amendment to the Programmatic Biological Assessment for Rocky Flats
November 2012

The East Trenches Plume Treatment System (ETPTS) is a groundwater treatment system at the U.S. Department of Energy's (DOE's) Rocky Flats Site (RFS) designed to treat groundwater that contains volatile organic compounds (VOCs). The ETPTS is part of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remedy at RFS and must be maintained to operate properly in order to meet the regulatory requirements under the Rocky Flats Legacy Management Agreement. The ETPTS consists of a groundwater collection trench with a collection sump that feeds intercepted groundwater to the treatment cells. The ETPTS is located within critical habitat (Unit 6) for the Preble's meadow jumping mouse (Preble's mouse; *Zapus hudsonius preblei*) at RFS.

To improve the effectiveness of the ETPTS the installation of an air stripper at the ETPTS influent manhole is planned (Figure 1). A similar air stripper at the Mound Site Plume Treatment System at RFS has been shown to be very effective at enhancing the treatment capabilities of the system. The project involves installing a new air stripper at the ETPTS influent manhole and a new photovoltaic (PV) system to supply electrical power to operate it. No line power is available at RFS, therefore power must be supplied by PV systems. The PV system will power a pump (in the influent manhole), ventilation, monitoring, and telemetry equipment and will have a battery storage system capable of operating the system 24/7.

The ETPTS influent manhole is located approximately 300 feet west of the treatment cells. Initial plans were to locate the PV system on permanent footers located east of the ETPTS treatment cells on the old road that used to cross the former B-4 pond dam. However, that would have required trenching in Preble's habitat approximately 450 feet to connect the electric power from the PV system to the influent manhole. Initial estimates were that approximately 9,100 square feet would have been disturbed (not including up to another potential 12,000 square feet of disturbance within the permanent loss area that was taken around the immediate area of the ETPTS several years ago). In order to reduce the impact to Preble's habitat an innovative PV system was chosen. The solar panels, batteries, and associated electrical equipment will be placed on and inside a 40 foot Connex storage container that will be placed next to the influent manhole. The Connex will sit on a constructed pad (gravel, roadbase, or similar material) to provide a level surface and will be anchored to the ground to prevent movement in high winds. Erosion controls will be installed before construction activities start to prevent movement of soil materials into the adjacent grasslands.

Access to the project area will be made on the existing all-season road that accesses the ETPTS. Work activities will be conducted within the construction footprint or on the existing road. No parking off-road will be allowed outside the construction footprint during the project. After project completion, a 2-track access route will be maintained and used to access the Connex for occasional maintenance of the PV system. It is not

expected to be used on a regular basis except when batteries need to be replaced or if other heavy/bulky equipment must be moved to or from the Connex. A small area adjacent to the influent manhole will become a pull-out for general access to the air stripper and PV system for normal monitoring and maintenance activities. Bollards or jersey barriers may be placed along the edge of the road to protect the solar panels on the Connex.

This plan reduces the overall impact in Preble's habitat to approximately 5,513 square feet for the construction footprint. Of this, approximately 825 square feet will become a permanent loss where the pad, pull-out areas, and bollards/jersey barriers are located. Only temporary impacts to the vegetation in the area are expected throughout the remainder of the project footprint. The fact that the PV system is on and in a Connex unit also means that, in the future if the system is no longer needed at the ETPTS, the solar array can be dismantled, and the box picked up and moved elsewhere. If that occurred, the pad would likely be removed and the area revegetated. In the near term however, the air stripper is expected to remain in place for at least several years.

The pad will be constructed with a skidsteer, bobcat, or rubber tired back-hoe type piece of equipment. The Connex will be placed in position on the pad with the delivery truck. The PV system, including solar panels, mounting racks, batteries, electrical boxes and wiring, will be installed once the Connex is placed and anchored. The air stripper and associated equipment will be installed inside the influent manhole. The power cable to connect the air stripper with the PV system may be trenched (approximately 15-20 feet in length) if necessary to meet electrical code but will be within the construction footprint.

The project activities are scheduled to begin in mid-late November after the Preble's mouse is in hibernation. The project should take approximately 4-5 weeks depending on weather. It is unlikely that the Preble's mouse would be hibernating in the project area since much of the construction footprint is located where a road to the former B-3 pond dam was located prior to RFS closure. The gravel road was ripped and revegetated during closure activities but given the amount of gravel left in the area it is unlikely it would make a suitable hibernaculum area. The existing habitat in the construction footprint consists of grassland, some of which was revegetated with native species as mitigation after pond remediation/closure activities (2823 square feet) and part of which was non-mitigation area (2690 square feet). Currently the entire area within the construction footprint is considered critical habitat (with the exception of the 8 x 8 foot concrete pad around the influent manhole) as it has the primary constituent elements for the Preble's mouse. The best management practices listed in the Biological Opinion will be followed, the area will be seeded with the native seed mixes used at Rocky Flats, and post-project erosion controls will be installed and maintained to prevent erosion until the vegetation has established. After project completion the disturbance area will be GPS'ed and final calculations of impacts will be determined and added to the Preble's mouse debit/credit spreadsheet that is included with each annual report.

Groundwater treatment system monitoring and maintenance activities are addressed in the Programmatic Biological Assessment (PBA) and Biological Opinion (ES/LK-6-CO-

04-F-012, April 5, 2004). However, this project goes beyond that discussed in the PBA. Based on the project evaluation criteria listed in the PBA, this project qualifies as a likely to “Adversely Affect” activity. The total 5,513 square feet construction footprint represents approximately 0.01 percent of the total 1,108 acres of Preble’s mouse critical habitat in Unit 6. DOE requests approval and concurrence from the U.S. Fish and Wildlife Service (USFWS) that the project may proceed. This notification will serve as the project notification and initiation of project activities to the USFWS once approval has been received.

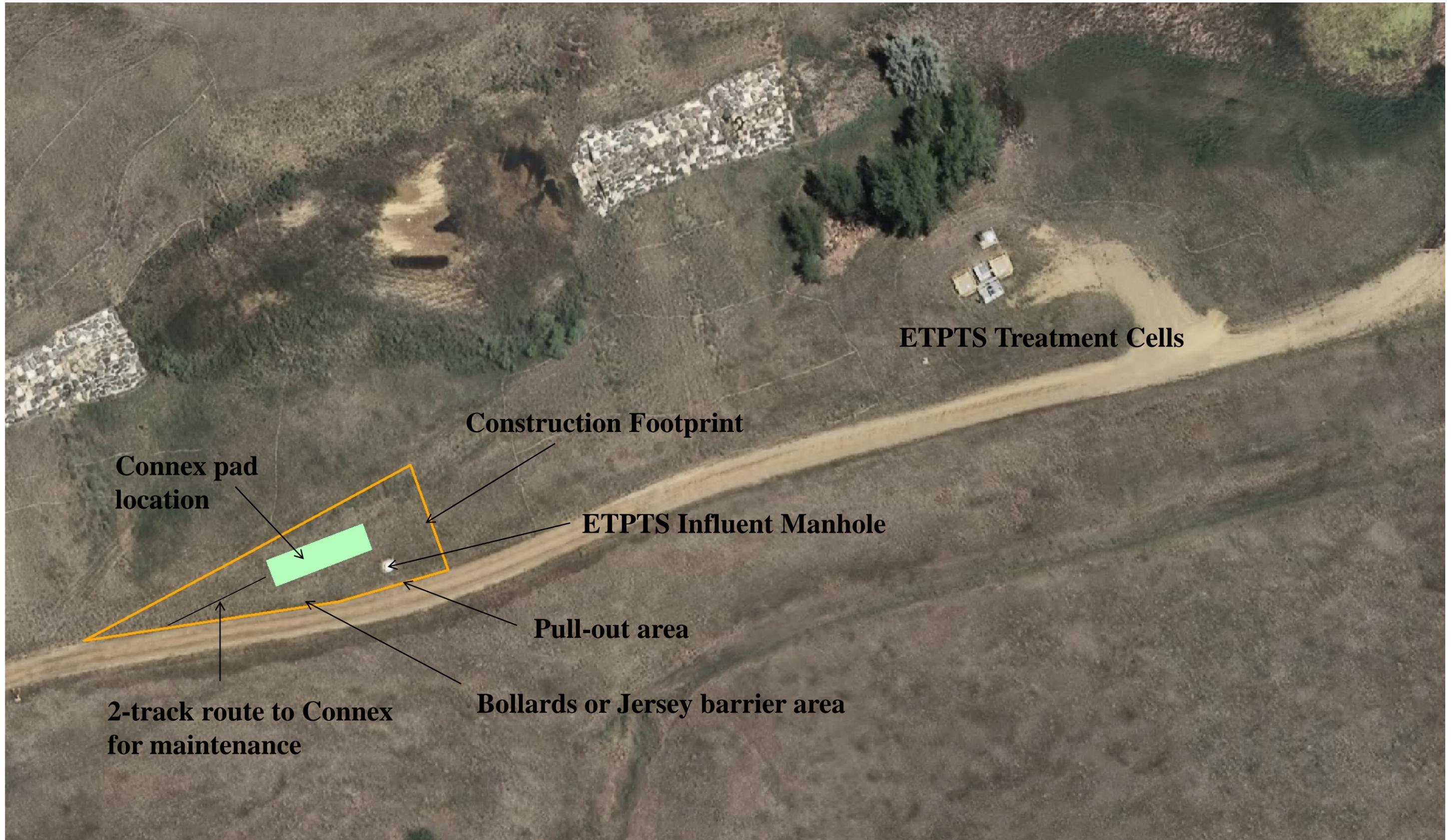


Figure 1. East Trenches Plume Treatment System Area – Air Stripper/PV System Upgrades