



Department of Energy  
Office of Legacy Management

August 9, 2010

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

Subject: Monitoring Flume Installations at the Rocky Flats Site

Dear Ms. Linner:

The U.S. Department of Energy's Office of Legacy Management at the Rocky Flats Site requests approval of the attached project description for the installation of two new permanent surface water monitoring flumes. Please provide your concurrence and approval for the project at your earliest convenience. If you have questions, please feel free to contact myself at (720) 377-9682 or Jody Nelson at (720) 377-9677.

Sincerely,

Scott R. Surovchak  
LM Site Manager

Enclosure

cc: (w/enclosure)  
Steve Berendzen, USFWS  
Jody Nelson, Stoller  
rc-rocky.flats

cc: (w/o enclosure)  
Rick DiSalvo, Stoller  
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REPLY TO: Westminster Office

## **Monitoring Flume Installations at the Rocky Flats Site USFWS Notification, August 2010**

This project description and notification provides information regarding the installation of two permanent surface water monitoring flumes at the Rocky Flats Site. Currently, two point-of-compliance (POC) flumes are located near Indiana Street, one on Walnut Creek (GS03) and one on Woman Creek (GS01) (Figure 1). These locations are required monitoring points under the *Rocky Flats Legacy Management Agreement* (RFLMA). Two new flumes are scheduled to be installed within the Central Operable Unit (COU) fence in September 2010 as part of a proposal to eventually replace the GS01 and GS03 locations so the POCs are within the COU.

Figure 1 shows the current required POCs (GS01 and GS03) and U.S. Department of Energy's (DOE) proposed replacement monitoring locations. The proposed monitoring locations are where the new flumes will be installed in Walnut and Woman Creeks. Figure 2 is an illustration of the new flumes. Figures 3 and 4 show the construction footprint at each location and the Preble's meadow jumping mouse protection areas. The total area of disturbance is estimated to be approximately 1 acre; however, only about 0.5 acre is within the Preble's mouse protection area. Staging areas have been located outside the Preble's habitat to minimize disturbance to the mouse.

The general sequence of events at the Walnut Creek flume will be:

1. Mobilize,
2. Apply pre-construction erosion control,
3. Perform survey and layout,
4. Construct access road to flume area (Walnut Creek only),
5. Subgrade and earthwork/grading preparation,
6. Form and pour flume approach sections,
7. Install and grout fiberglass flume structure,
8. Install concrete instrument pad,
9. Backfill, compact, and install riprap,
10. Revegetate the disturbed area, install erosion controls, and demobilize,
11. Install monitoring instruments and solar panels.

An access road will be installed at the Walnut Creek location because the location is not currently accessible by any roads. Road access is necessary, since the locations must be accessed on a regular basis for maintenance and sample collection. The access road will be installed across the most direct and safest route, which is predominantly through smooth brome (*Bromus inermis*). Vegetation at the flume location is dominated by smooth brome, arctic rush (*Juncus balticus*), and Canada thistle (*Cirsium arvense*). A few coyote willows (*Salix exigua*) and a small patch of chokecherry (*Prunus virginiana*) are present on the south hillside near the flume. The chokecherry and coyote willow will be preserved to the extent possible. After project completion, the area will be seeded with a native seed mix, and erosion controls will be installed.

The general sequence of events at the Woman Creek flume will be:

1. Mobilize,
2. Install pre-construction erosion control,
3. Perform survey and layout,
4. Install new culvert and flared end section (Woman Creek),
5. Repair road at Woman Creek,
6. Subgrade and earthwork/grading preparation,
7. Form and pour flume approach section,
8. Install and grout fiberglass flume structure,
9. Install concrete instrument pad,
10. Backfill, compact, and install riprap
11. Revegetate the disturbed area, install erosion controls, and demobilize,
12. Install monitoring instrumentation and solar panels.

At the Woman Creek location, the existing culvert downstream of the flume must be removed and a pair of larger culverts installed to prevent water in high-volume flows from backing into the flume. The grassland surrounding the flume location is dominated by smooth brome. The flume location itself is dominated by cattails (*Typha* spp.), spikerush (*Eleocharis macrostachya*), arctic rush, coyote willow, peachleaf willow (*Salix amygdaloides*), and leadplant (*Amorpha fruticosa*). After project completion, the area will be seeded with a native seed mix, and erosion controls will be installed.

The work activities will be conducted using the minimum equipment necessary to conduct the work efficiently and safely. The larger equipment will probably include an excavator (trackhoe), front end loader, bobcat, cement trucks, cement pumper truck, dump trucks, and pickups. All work will be conducted within the construction footprint. Construction fencing and t-posts with rope will be used to designate the construction footprint boundaries along with pre-construction erosion controls where appropriate. Staging areas have been located outside the Preble's habitat, where practicable, to minimize disturbance to the mouse. The best management practices outlined in the Programmatic Biological Opinion for the Rocky Flats Site will be followed. In August-early September 2010, before project activities begin, the herbaceous vegetation in the construction footprint will be mowed to a height of 6 inches or less to encourage the Preble's mouse to look elsewhere for a suitable hibernaculum.

Installation of permanent surface water flumes is covered in the Programmatic Biological Assessment (PBA) Part II, Section 3.5, "Surface Water Permanent Flume Installations and Replacement." The PBA estimated that one flume may need to be removed and reinstalled prior to the end of closure. That was never done. An estimated 0.5 acre would have been disturbed in Preble's mouse habitat if that project had occurred. The current project will install two flumes, and the total estimated area of disturbance to Preble's mouse habitat is 0.5 acre. This notification serves as the project notification to USFWS and the initiation of project activities. DOE requests concurrence from USFWS that this project may proceed.

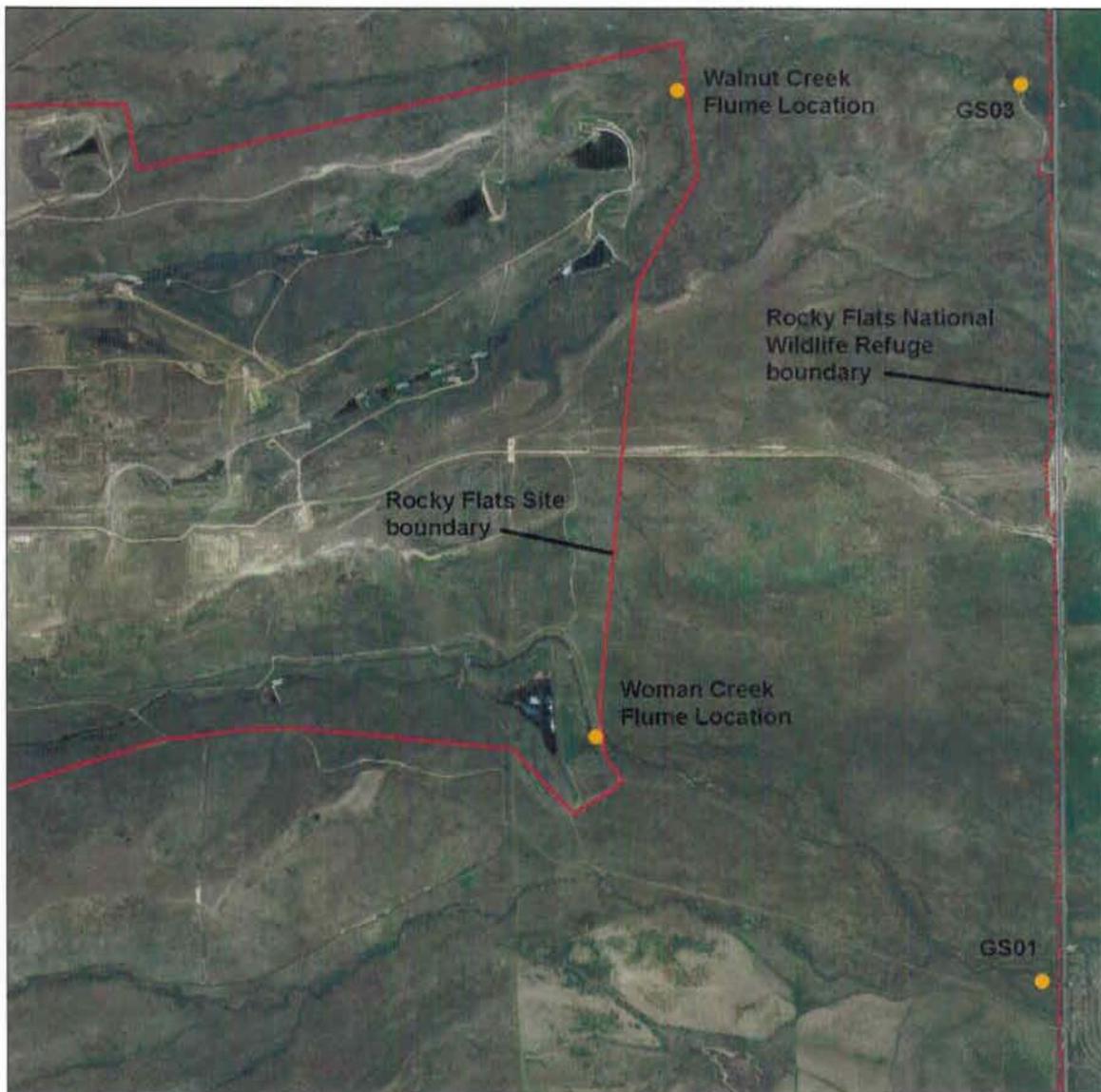


Figure 1. Current flume locations at GS01 and GS03, and proposed Woman Creek and Walnut Creek flume locations.



Figure 2. GS03 flume in lower Walnut Creek. This illustrates what the new proposed flume would look like.



Figure 3. Walnut Creek Flume Location.

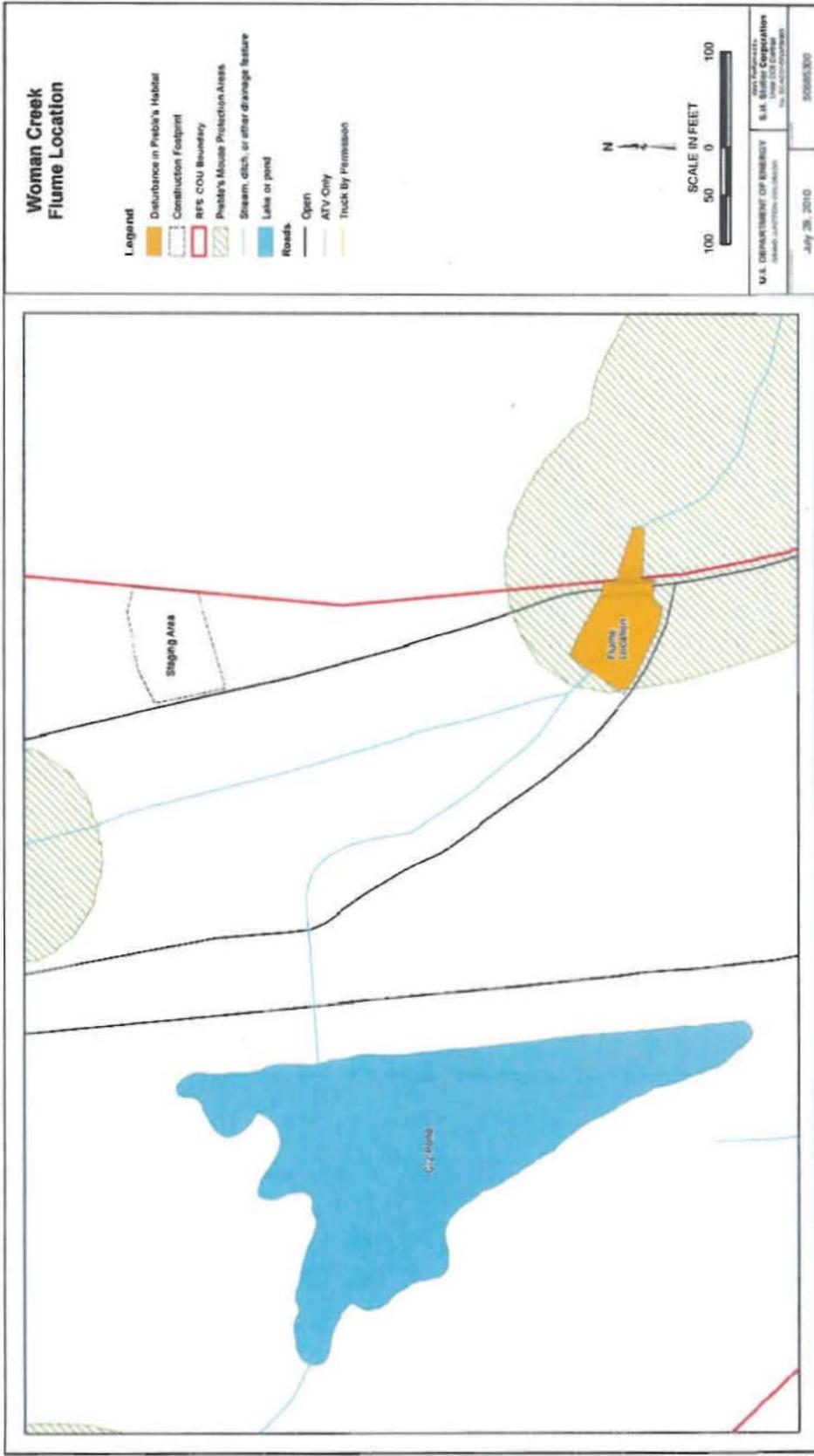


Figure 4. Woman Creek Flume Location