

ROCKY FLATS STEWARDSHIP COUNCIL

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League of Women Voters -- Rocky Flats Cold War Museum -- Rocky Flats Homesteaders
Steven Franks

Monthly Status Report – August 2016

Board meeting summary

There was no meeting this month

Legacy Management monthly site inspection summary

DOE reports that in addition to routine monitoring and maintenance activities, site personnel conducted the following activities in July.

Water Quality

- Collected surface water flow-paced samples as available
- Continued redeveloping groundwater wells that have high turbidity.

Groundwater Treatment Systems

- East Trenches Plume Treatment System: DOE reports the system is working as designed. Solar power system upgrades installed recently began providing additional backup power during prolonged inclement weather.
- Mound Site Plume Treatment System (MSPTS): DOE reports the reconfiguration project planning and preparation are ongoing. The subcontractor began digging the trench and installing the transfer pipeline.
- Solar Ponds Plume Treatment System (SPPTS): DOE reports that the U.S. Fish and Wildlife Service and CDPHE approved expanding the reconfiguration construction boundary to safely fix the pipe leak outside the Big Box. The subcontractor excavated outside of the Big Box, repaired the broken pipes, and successfully hydro-tested the repairs. Site personnel began routing influent dosed with vegetable oil-based nutrient into the test lagoon on July 19. Interim reconfiguration project was completed on July 29.

Ecology

- Conducted erosion control surveys and wetland water level monitoring, and continued wetland delineation mapping.
- Conducted nest surveys of the SPPTS and MSPTS project areas. No active nests were found.
- Completed revegetation monitoring at various locations.
- Began Preble's meadow jumping mouse habitat photo-point monitoring.

- Conducted erosion control release monitoring at locations near GS-10, WOMPOC and along the former Central Avenue. Each location met the success criteria, so these erosion controls no longer need to be monitored.

Landfills

- The investigation into the slumping at the Original Landfill is ongoing. (See Contact Record 2016-03 below for additional details)

Legacy Management Database Modernization

According to DOE (see http://energy.gov/sites/prod/files/2016/07/f33/2016_Q2FINAL_0.pdf), the agency is

implementing a new environmental database called Environmental Quality Information System (EQuIS). This program will replace LM's previous Site Environmental Evaluation for Projects system... When completed, the EQuIS Database will contain approximately 4.7 million analytical results and 232,000 water-level measurements. This data was collected over a period of 40 years for 91 LM long-term surveillance and maintenance sites. The database will be used to capture and store historical environmental information such as analytical chemistry, groundwater depths and elevations, well logs, well construction data, geo-referenced boundaries, site physical features, and sampling locations. LM staff can chose to use the web-based EQuIS Enterprise application or a PC-based power-user application (EQuIS Professional) to display data and information in many forms such as interactive tabular reports, graphs, and geospatial displays, with data labeled or highlighted in map views.

Rocky Flats is slated to go live in October 2016.

Contact Record 2016-03

Geoprobe Investigation of the Groundwater System Upgradient of the Original Landfill and the Soil Disturbance Review Plan

This record is part of the ongoing investigation into slope stability issues at the Original Landfill. The record builds on actions discussed in contact records 2015-03 and 2015-06 (both can be found at: http://www.lm.doe.gov/Rocky_Flats/ContactRecords.aspx).

As provided in this record, instability at the OLF can be attributed to three factors: "(1) comparatively weak soils that naturally underlie the OLF area, (2) a slope angle that is sufficiently steep such that the soils can mobilize downslope, and (3) water is introduced into the already weak soils from one or more sources, including surface run-on and runoff, precipitation and infiltration, and groundwater." Groundwater appears to have the greatest impact on slope stability.

The purpose of the investigation is to better understand groundwater movement in the area of the landfill. As provided in the record, DOE will proceed as follows:

Proposed Approach: A Geoprobe (a direct push drilling rig) will be used to better identify the expected conduits of groundwater flow and to install small wells or piezometers in these areas to better understand the characteristics of groundwater. The investigation area upgradient of the OLF is identified in Figure 1. The number of potential holes will vary, depending on field results, from 10 to 50 holes that will be from 5 to 50 feet in depth. Specifically, the Geoprobe will be used to (1) confirm the expected three locations of abandoned piping/bedding materials that may be conduits for groundwater to enter the OLF; (2) install small wells in these conduits to track the movement of the water table; (3) install small wells above the eastern portion of the OLF where the most significant slumping has occurred; (4) install a small well west of the OLF near the abandoned gas line, which may be a conduit for groundwater flow entering the area; and (5) evaluate the water quality in areas that may later be disturbed or where groundwater may be removed as part of the long-term improvements. In all cases, the Geoprobe will be used on the flat bench above the OLF and outside of the waste footprint. This effort is expected to take approximately 2 weeks.

Expected Outcome/Endpoints: This effort is expected to (1) make the identification of the location of the abandoned infrastructure more accurate to better guide a potholing or water removal project that may be done in the future; (2) provide water level data targeted on the areas that likely contribute the most significant volumes of groundwater to the OLF; and (3) help DOE better understand water quality for potential future water management projects. Overall, the information gathered from this effort will be critical in determining the most effective long-term solutions for minimizing the slumping that is occurring at the OLF. As described above, this excavation work will exceed the 3-foot depth limit specified in the Rocky Flats Legacy Management Agreement (RFLMA) institutional control (IC) 2 (RFLMA, Attachment 2, Table 4, Control 2) as shown in Table 1 below, and the required Soil Disturbance Review Plan is submitted with this contact record for regulatory approval.

The record can be found at: http://www.lm.doe.gov/Rocky_Flats/ContactRecords.aspx

Stewardship Council Update

Upcoming 2016 Board meetings:

September 12

October 31