

ROCKY FLATS STEWARDSHIP COUNCIL

P.O. Box 17670
Boulder, CO 80308-0670
www.rockyflatssc.org

(303) 412-1200
(303) 600-7773 (f)

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League of Women Voters ~ Rocky Flats Cold War Museum ~ Rocky Flats Homesteaders

Monthly Status Report – October 2016

Board meeting summary

2017 Work Plan and Budget

The Stewardship Council Board of Directors adopted the 2017 work plan and the 2017 budget.

DOE Quarterly Update (April – June 2016)

Highlights include:

- Movement continues to be measured at the Original Landfill in the same locations that DOE repaired in 2015.
- Surface water quality downstream of the Original Landfill met the applicable standards.
- Vinyl chloride was found in excess of the standard (standard is 0.2 ug/L; concentrations were 0.27 ug/L). Sampling increased but vinyl chloride was not detected in subsequent analyses.
- Plutonium and americium continue to exceed the 12-month rolling average at surface water monitoring point SW027. There was very little flow during the quarter. The standard is 0.15 pCi/L for both. Plutonium was measured at 0.18 pCi/L; americium was measured at 0.20 pCi/L. To put these figures in context, the federal drinking water standard for plutonium and americium is 15.0 pCi/L.
- Upgrades to the Mound Site Plume Treatment System continues.

DOE Actinide Migration Presentation

The Actinide Migration Evaluation (AME) projects were commissioned at Rocky Flats in 1995 to address how actinide elements could move in the local environment. At Rocky Flats, actinides are plutonium, americium and uranium. Understanding how these actinides move in the environment is central to the cleanup and long-term protection strategies.

Mobility pathways at Rocky Flats were/are:

- Wind - Pu, Am and U
- Surface water - Pu, Am and U (however, only U has significant solubility)
- Groundwater - only U (only with high solubility)

These specific conclusions drove remediation decisions, and the pathway data was used as a foundation for soil cleanup standards. Because of the lack of mobility in soil, cleanup work in the environment focused on the top three feet of soil as actinides in that part of the soil column

could negatively affect water quality. Further, air quality monitoring was discontinued in 2008 as sampling indicated that ambient levels were well within the federal regulatory standards.

The briefing can be found at: http://www.lm.doe.gov/Rocky_Flats/Sites.aspx?view=5 (click on “Rocky Flats General Overview Briefing”).

Legacy Management monthly site inspection summary

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

Water Quality

- Continued redeveloping groundwater wells, as needed.

Groundwater Treatment Systems

- East Trenches Plume Treatment System: The system is working as designed. The system was also involved in the Mound Site reconfiguration (discussed below).
- Mound Site Plume Treatment System: The Mound Site reconfiguration project was completed on September 12, 2016.
 - ZVI removal began on August 29th. Field staff sampled the ZVI media removed from Cells 1 and 2. The analytical results will be used to determine disposition.
 - All the plumbing and connections were completed at the Mound Site and East Trenches.
 - The hatch cover over the lift station was installed and the transfer pipeline from the Mound Site lift station to the East Trenches influent manhole was hydro-tested.
 - Additional solar and battery components were installed at the East Trenches, and the new batteries at the Mound Site were installed in a new battery box.
 - Collected water samples after completing the Mound Site reconfiguration. Samples represented (1) influent to the Mound, (2) influent to East Trenches (i.e., combined Mound and East Trenches influent water), and (3) effluent from East Trenches (which represents treated influent from both systems). The effluent analytical data show the air stripper is meeting all targets.
- Solar Ponds Plume Treatment System: The treatment system is working as designed. Sampled the pilot-scale lagoons (Cells A and B), as well as effluent from Cells 1 and 2 in the full-scale interim lagoon in the Big Box. Results show approximately 80 percent of the nitrate is being removed in the interim lagoon. Continuing to optimize operation of this new lagoon.

Ecology

- Applied pre-emergent herbicide to roadsides to control cheatgrass and jointed goatgrass.
- Conducted erosion control surveys.
- Completed photo-point monitoring and forb nursery monitoring.

Landfills

- Installed piezometers and wells north of the Original Landfill to support the ongoing investigations into groundwater levels and former storm drain lines upgradient of the landfill.

- Began Original Landfill East Perimeter Channel maintenance work.

Stewardship Council Update

2017 Board meetings (schedule to be adopted at the February meeting)

February 6

April 3

June 5

September 11

October 30