

ROCKY FLATS STEWARDSHIP COUNCIL

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Jefferson County -- Boulder County -- City and County of Broomfield -- City of Arvada -- City of Boulder
City of Golden -- City of Northglenn -- City of Westminster -- Town of Superior
League of Women Voters -- Rocky Flats Cold War Museum -- Rocky Flats Homesteaders
Arthur Widdowfield

Monthly Status Report – June 2011

Board meeting summary

2010 Stewardship Council Audit

The auditor did not find any material deficiencies and issued a clean audit. The board voted to accept the audit.

DOE Annual Update

The Stewardship Council hosted DOE's annual site update for 2010. Updates included:

- groundwater monitoring;
- surface water monitoring;
- ecological monitoring; and,
- surveillance, maintenance and site operations.

Some of the highlights included:

- All surface-water Points of Compliance showed acceptable water quality for the entire year.
- The three terminal ponds (A-4, B-5, and C-2) were discharged in 2010.
- Point of Evaluation (POE) location SW027 showed reportable values for Pu-239,240 starting on April 30, 2010. RFLMA Contact Record 2010-06, "Monitoring Results at Surface Water Point of Evaluation (POE) SW027," provides a discussion of the monitoring results. The agencies believe the reportable values are due to transport of low-level residual contamination in the SW027 drainage. The contact record also recaps the agencies' mitigation plans, which included installing additional erosion control wattles in locations along the hillside north of the South Interceptor Ditch (SID) and permanent erosion blankets and reseeding three areas in the SID. This work was completed on December 20, 2010. Approximately 2,560 linear feet of Filtrexx wattles and 8,452 square feet of permanent erosion matting were installed.
- All other POEs and all other analytes at SW027 showed acceptable water quality for the entire year.
- Proposed modifications to surface water and groundwater monitoring locations specified RFLMA Attachment 2, "Legacy Management Requirements," were released for public review and comment in 2010. The proposed modifications were still under consideration for approval by CDPHE and EPA at the end of 2010.
- Phase II and Phase III upgrades to the Solar Ponds Plume Treatment System (SPPTS) were completed and implemented in May 2009. Optimization of these components and the system

as a whole continued through 2010. The Phase I components installed in late 2008 continued to capture and treatment contaminated groundwater that would otherwise discharge untreated to the creek. Concentrations of nitrate and uranium measured at the effluent discharge gallery have sharply decreased since closure in 2005, while at the surface water performance location, concentrations of nitrate are lower but uranium has increased. Increased sampling of SPPTS and North Walnut Creek locations continued to support various evaluations, including increasing uranium concentrations at this location.

- Analytical results for effluent from the Mound Site Plume Treatment System (MSPTS) and East Trenches Plume Treatment System (ETPTS) continued to demonstrate the vast majority of contaminants have been removed. However, concentrations of some volatile organic compounds (VOCs) in system effluent exceeded target concentrations. Consultation with the regulators followed, and per agreement among the agencies, additional sampling was conducted. VOCs continued to be present in system effluent at elevated levels, but concentrations decreased downgradient from these treatment systems. Contributing factors included the much higher flow rates and correspondingly lower residence times within the treatment media in 2010. Average flows were approximately 50-100% greater than in 2008 and 2009 at the MSPTS, and 100-300% greater than in 2008 and 2009 at the ETPTS. Planning was underway to replace the media at the MSPTS and design an effluent polishing component.
- Water monitoring at the Present Landfill Treatment System (PLFTS) showed no analytes detected above the applicable standards. Consistent with 2009, boron in groundwater samples from one of the downgradient PLF Resource Conservation and Recovery Act (RCRA) wells was both statistically higher in concentration than in upgradient groundwater and on an increasing trend. Regulatory consultation is underway in response to these conditions. Similar regulatory consultation was conducted in 2009.
- Monitoring of the Original Landfill (OLF) inclinometers installed in 2008 showed deflection, indicating localized movement, and minor localized surface cracking was also observed. The inclinometers were installed as part of the geotechnical investigation to address localized slumping and settling of the OLF cover. The annual report includes a review of the data by a qualified geotechnical engineer. The data review concluded that the observed conditions are consistent with the geotechnical investigation findings. Continued monitoring and routine maintenance are presently considered adequate to address any observed surface cracking resulting from minor slumping due to observed localized movement.
- A geotechnical evaluation of the impact on berm stability from runoff from OLF Seep 7 due to heavy spring precipitation was completed in the fourth quarter of 2010. The evaluation concluded the saturation from runoff did not adversely impact the berm stability. The evaluation of data from soil sampling at the OLF to provide information in relation to CDPHE's *Termination of Post Closure Care Policy* criteria was completed in the fourth quarter of 2010. The soil sampling provided data for comparison to data from the early 1990's and provided additional data for subsurface soil characterization and risk evaluation under the CDPHE policy criteria. The evaluation concluded the levels and location of contamination do not appear to pose a significant risk and will help inform the next CERCLA 5-year review, scheduled for completion in 2012.
- The results of statistical evaluations of groundwater quality at the OLF and PLF were essentially identical to the results of these evaluations performed in 2009.

- Surface-water monitoring for the OLF during 2010 showed no analytes detected above the applicable standards. Consistent with 2009, boron in all three downgradient OLF RCRA wells and uranium in one of these wells was determined to be present at statistically higher concentrations than in upgradient groundwater. None of these is on an increasing trend. Regulatory consultation is underway in response to these conditions. Similar regulatory consultation was conducted in 2009.
- Groundwater quality and flow were generally consistent with previous years.
- Elevated nitrate concentrations in groundwater that led to the reportable condition at Area of Concern well B206989 (located east of the Landfill Pond dam) in 2007 persisted through 2010. Concentrations were generally consistent with previous data, and statistical trending continues to indicate a decreasing trend in nitrate concentrations that is statistically significant at the 95 percent confidence level. A sample collected in 2010 reported the lowest concentration of nitrate since 2000.
- All RFLMA-required ecological data collection, analysis, and reporting were completed as scheduled.
- Revegetation grassland species continues. Several locations met success criteria this year.

Proposed Changes to Institutional Controls

Dan Miller (CO AG's Office) briefed on proposed change to institutional controls (ICs) governing digging 3' below grade at Rocky Flats. As Dan explained, DOE, EPA and CDPHE are proposing a number of related changes, none of which alter the final site remedy. The plan amendments would:

1. Clarify the description of certain ICs and provides a regulatory review and approval process to implement ICs.
2. Require amending the current environmental covenant or issuance of a restrictive notice to incorporate the CAD/ROD amendment ICs clarifications.
3. Provide that any future modification or termination of ICs follow regulations and guidance in effect at that time.

Since excavations under these changes would not be limited to "remedy-related purposes," these changes could include breaching of the terminal pond dams. Additionally, the proposed changes incorporate changes to the state environmental covenant law to allow for the issuance of restrictive notices.

Start of Stewardship Council Triennial Review – Meeting with City of Thornton

In accordance with the Stewardship Council's Intergovernmental Agreement (IGA), every three years the member governments must reaffirm their desire to continue the Stewardship Council. The last triennial review was in 2008, with an effective date of February 2009. Accordingly, no later than February 13, 2012, the Stewardship Council governments will need to renew the organization's IGA.¹

¹ The Stewardship Council is a unit of local government organized under the state constitution and implementing regulations. As such, only the governments are a party to the IGA, so only the governments can/must approve continuation of the IGA.

In April, the City of Thornton requested membership on the Stewardship Council. The first order of business in this triennial review was to meet with Thornton to discuss their interest in the Stewardship Council and their request for a seat on the board of directors. After a productive discussion, the Stewardship Council government representatives agreed to support Thornton's request. Each government also voiced support for continuing the Stewardship Council for another three years and to make both Golden and Northglenn full members (they are currently rotating members).

Importantly, continuation of the IGA requires each government to approve at its council/commission a resolution expressing that government's intent. Approval does not occur at the Stewardship Council. These resolutions will be taken up later this year.

Legacy Management monthly site inspection summary

DOE's May 2011 Rocky Flats activities included:

Groundwater and Surface Water Monitoring

- Collected routine samples at the Solar Ponds Plume Treatment System (SPPTS).
- Conducted quarterly groundwater sampling in the Original Landfill (OLF), Present Landfill (PLF), East Trenches Plume Treatment System (ETPTS) and the Mound System Plume Treatment System (MSPTS) areas.
- Processed automated surface water sample suites and collected water quality samples in Walnut Creek.

Groundwater Treatment Systems

Routine inspections of the treatment systems were conducted as follows:

- ETPTS – DOE reports the system is functioning normally.
- MSPTS – DOE reports the system is functioning normally.
- SPPTS – DOE reports that optimization of the system is ongoing.

Ecology

- Conducted wetland water level surveys at mitigation wetlands
- Seeded a few sparse areas at the site

Site Monitoring & Maintenance

- There were no significant changes to report at either landfill.
- Conducted inspections of the OLF and PLF on May 17 and 19 due to the site receiving more than 1" of precipitation. No problems were observed.
- Conducted PMJM erosion control inspections.
- Installation of the new solar panel, charge controller, and battery at the Storage Shed was completed.

Site Document Update

Proposed Plan for Amendment of the Corrective Action Decision/Record of Decision

On June 1st, DOE issued a for public comment proposed changes to the site Corrective Action Decision (CAD)/Record of Decision (ROD). That plan was issued in September 2006. The

proposed changes concern restrictions and protocols for ground disturbing activities 3' or greater below grade. (See June board meeting notice above for additional information about the proposed changes.)

The document and ancillary documents and notifications can be found at:

http://www.lm.doe.gov/Rocky_Flats/Proposed_Plan_Documents/Proposed_Plan_for_the_Rocky_Flats_CAD/ROD_Amendment_June_2011.pdf

The public comment period is open through August 2, 2011.

Stewardship Council update

Next meetings:

September 12 (second Monday)

November 14 (second Monday)