Overview of the First Quarter 2016 Surveillance and Maintenance Report for the LM Rocky Flats Site

January–March 2016
Quarterly Monitoring and Reporting

- Quarterly reports are required under the *Rocky Flats Legacy Management Agreement* (RFLMA), to document that the CERCLA remedy continues to be protective
  - Primary goal: Surface water protection
- Response action under the final remedy for Rocky Flats
  - Maintain two landfill covers
  - Maintain four groundwater treatment systems
  - Monitor surface water and groundwater
  - Maintain physical controls
    - Signage
    - Access restriction
  - Enforce institutional controls
    - No building construction or occupation
    - Excavation and soil-disturbance restrictions
    - No surface-water consumption or agricultural use
    - No groundwater wells, except for monitoring
    - Landfill covers and engineered remedy-components protection
Surface Water Monitoring

First Quarter 2016
Select RFLMA Surface-Water Monitoring Locations
Original Landfill (OLF) Performance Monitoring

- OLF (location GS59)
  - Composite sampling results for selenium above RFLMA standards
    - Mean selenium concentration 5.26 mg/L for the quarter (RFLMA standard is 4.6 mg/L)
    - Prompted increased sampling frequency (monthly) for the second quarter, per RFLMA evaluation protocols
Present Landfill (PLF) Performance Monitoring

- PLF (location PLFSYSEFF)
  - Routine first-quarter sampling showed one analyte above the applicable RFLMA standard
    - Vinyl chloride concentration was 0.21 µg/L, exceeding the practical quantitation limit of 0.2 µg/L
    - Per RFLMA evaluation protocols, the result triggered a sampling frequency increase from quarterly to monthly
  - The following two monthly sample results also showed vinyl chloride above the standard (0.29 µg/L and 0.27 µg/L)
  - Vinyl chloride was not detected in the third monthly sample
    - Per RFLMA evaluation protocols, sampling frequency returned to quarterly
Point of Evaluation (POE) Monitoring

- Location SW027: 12-month rolling averages for plutonium (Pu) and americium (Am): Reportable as of April 30, 2015, and June 30, 2015, respectively
  - As of the end of the first quarter 2016, 12-month rolling averages were:
    - Pu 0.97 pCi/L and Am 0.20 pCi/L; standard is 0.15 pCi/L
    - Very little flow during the first quarter of 2016
    - RFLMA Contact Record 2015-05 (July 8, 2015); mitigating actions included enhancing upstream erosion controls
    - Concentrations at downstream location WOMPOC are not reportable
  - No other RFLMA POE analyte concentrations were reportable during the first quarter of 2016
Point of Compliance (POC) Monitoring

- All RFLMA POC analyte concentrations remained below reportable levels throughout first quarter calendar year 2016
Questions?
Groundwater Monitoring and Operations

First Quarter 2016
RFLMA Monitoring

- Light sampling quarter
  - 10 Resource Conservation and Recovery Act wells (sampled quarterly)
  - Groundwater quality generally consistent with previous results
  - Results will be evaluated in the annual report
NOTE: Groundwater treatment system locations omitted for clarity.
Treatment System Activities

- **Mound Site Plume Treatment System**
  - Routine maintenance on air stripper, other components
  - Finishing system reconfiguration design

- **East Trenches Plume Treatment System**
  - Routine maintenance on power facility, air stripper

- **Solar Ponds Plume Treatment System**
  - Preparations for interim reconfiguration project
    - Converts original treatment cells to full-scale, test lagoon
  - Continued operating, maintaining pilot-scale lagoons
Questions?
Quarterly Sign Inspections

- RFLMA physical control
- All signs are in good condition
Site Operations – OLF

- Performed three monthly inspections
  - One weather-related inspection occurred in March due to a precipitation event producing more than 1 inch of rain in a 24-hour period
- Monitored eight settlement monuments
- No issues were noted during inspections
  - Areas repaired in 2015 did not experience cracking or movement during this quarter
- Snow fencing installed at the top of the OLF hillside was removed to eliminate snow retention that might recharge groundwater just upgradient of the OLF
Site Operations – PLF

- Performed one quarterly inspection and one weather-related inspection for precipitation events producing more than 1 inch of rain in a 24-hour period
  - No issues were observed during inspections
Former Building Areas 371, 771, 881, and 991

- Inspected former building areas – no issues were observed
Questions?