

ROCKY FLATS STEWARDSHIP COUNCIL
Monday, June 5, 2023
Rocky Mountain Metropolitan Airport, Terminal Building, Mount Evans Room
11755 Airport Way, Broomfield, Colorado

Board members in attendance: Randy Moorman (Director, Arvada), Jake Moyer (Alternate, Arvada), Tara Winer (Director, City of Boulder), Marni Ratzel (Alternate, City of Boulder), Claire Levy (Director, Boulder County), Nick Robles (Alternate, Boulder County), Deven Shaff (Director, City and County of Broomfield), Andy Kerr (Director, Jefferson County), Pat O’Connell (Alternate, Jefferson County), Rich Kondo (Director, Northglenn), Laura Farzim (Alternate, Northglenn), Bob McCool (Director, Superior), Jan Kulmann (Director, Thornton), Caleb Owen (Alternate, Thornton), Rich Seymour (Director, Westminster), Trea Nance (Alternate, Westminster), Jeannette Hillery (Director, League of Women Voters), Murph Widdowfield, Roman Kohler (Director, Rocky Flats Homesteaders), Kim Griffiths

Stewardship Council staff members and consultants in attendance: David Abelson (Executive Director), Melissa Weakley (Technical Program Manager), Barb Vander Wall (Seter & Vander Wall, P.C)

Members of the public in attendance: Andy Keim (DOE-LM), Padraic Benson (DOE-LM), Ramona Phillips (RSI), Janette Kiernan (RSI), John Boylan (RSI), Harry Bolton (RSI), Jody Nelson (RSI), Lisa Bade (RSI), Karin McShea (RSI), Ryan Wisniewski (RSI), Brian Walker (CDPHE), David Connolly (EPA), Eric Barnes (Fiscal Focus Partners), Laura Hubbard (City & County of Broomfield), Travis Culley, Chris Allred, Paula Elofson-Gardine, Susan Hurst

Convene/Agenda Review: Jan Kulmann convened the meeting at approximately 8:31 AM.

Public Comment: Travis Culley discussed the triennial review, public review of reports, and the anniversary of the FBI raid. He asked about what is preventing the rebuilding of Rocky Flats in the future, and the connection between sludge, hypergolic fires, and the Marshall Fire. Susan Hurst discussed CDPHE testing the Marshall Fire ashes and the 3-minute public comment limit. Chris Allred handed out a letter regarding public accessibility to meetings, David Abelson’s contract with the Stewardship Council, and recording of meetings. Paula Elofson-Gardine discussed public involvement with the Stewardship Council, hybrid options, and having a court reporter to produce minutes.

Consent Agenda: The consent agenda included the draft April 2023 meeting minutes and checks written since that meeting. Randy Moorman made one correction. Roman Kohler moved to approve the checks and edited minutes. The motion was seconded by Jeannette Hillery. The motion to accept the minutes and checks passed 13-0.

Executive Director’s Report: David discussed three topics. First, the website rebuild is in process. He is hoping it will be done in the next six weeks. The update will make the website more modern-looking and more stable. He then stated that two community member Board positions (the Homesteaders and League of Women Voters) are due for reappointment, effective February 2024. The Board will start the process for those seats in September. The application will be open for 30 days, with interview and appointments at the October 30, 2023, meeting. Information will be posted on the Stewardship Council website. David then introduced Brian Walker, who took over for Lindsay Murl as the Rocky Flats lead for CDPHE. He also introduced Dave Connolly, who started as the EPA lead at the beginning of 2023. Regarding DOE’s quarterly reports, David discussed that Stewardship Council staff continues to

experiment with how to discuss the quarterly reports as a Board. David said the Executive Committee therefore made the decision to return to the previous method of DOE presenting more in-depth overviews of the quarterly reports, followed by questions/comments from the Board, then questions/comments from the public, then a chance for the Board to have further questions. David discussed the Intergovernmental Agreement (IGA). Every three years, the member governments must reauthorize the agreement (i.e., the triennial review), which gives the Board the opportunity to check in with member governments that they want to continue. David will provide the resolution in the fall, with approval no later than January 2024. He is planning to make one change, which is that lack of unanimous consent means the organization will continue without that government, rather than the organization will be disbanded. Trea asked if there would be a minimum number of governments. David said he wasn't sure, as it would depend on the number of governments that wanted to stay engaged. Trea then asked if governments would need to contribute funds. David said they have a sufficient balance so additional contributions are not envisioned at this time.

Stewardship Council 2022 Financial Audit (briefing memo attached)

Eric Barnes gave an overview of the results of the audit. He said very little changed from previous years. No material problems were found, and the Stewardship Council was found to be in compliance with all applicable laws and regulations. He mentioned that the Stewardship Council is not required to have an audit, but the Board has elected to have one.

Randy Moorman asked about the grant funding process. David said we have a 5-year grant from DOE with annual funding. In 2027, we will apply for another 5-year grant.

Rich Kondo moved to approve the audit. The motion was seconded by Jeannette Hillery. The motion to accept the audit passed 13-0.

DOE Presentation – Calendar Year 2022

Surface Water Monitoring – George Squibb

George Squibb, surface water lead at Rocky Flats, gave an overview of the surface water monitoring locations and sampling results from 2022. At the Original Landfill (Woman Creek location GS59), the third quarter 2022 mean arsenic concentration was 12.5 ug/L (above the 10 ug/L RFLMA standard), which triggered increased monthly sampling frequency. Monthly sampling continued through the fourth quarter. The fourth quarter 2022 mean arsenic concentration was 2.28 ug/L, so the sampling frequency returned to quarterly. All other quarterly concentrations below applicable RFLMA standards during full CY 2022.

At the Present Landfill (location PLFSYSEFF), the arsenic concentration for the first quarter 2022 sample was 20 ug/L (above the 10 ug/L RFLMA standard), which triggered monthly sampling frequency. The arsenic concentration for the first monthly sample (February 2022) was 4.1 mg/L, so the sampling frequency returned to quarterly. All other quarterly concentrations were below the applicable RFLMA standards during full CY 2022.

At Points of Evaluation, the 12-month rolling average uranium concentrations at location GS10 were above the RFLMA standard of 16.8 ug/L starting in August 2022, which was a reportable condition under RFLMA (see RFLMA Contact Record 2022-03). The reportable condition concentrations were 17.4–18.3 ug/L. Uranium was no longer reportable as of December 31, 2022. Concentrations at the Walnut Creek Point of Compliance (WALPOC, which is downstream of GS10) remained well below 16.8 ug/L. The 12-month rolling average plutonium concentrations at location SW027 were above the RFLMA standard of

0.15 pCi/L starting in May 2022. A reportable condition was triggered under RFLMA (see RFLMA Contact Record 2022-04). The reportable condition concentration was 0.18 pCi/L. There was no flow at SW027 in 2022, so the reportable condition only includes a sample from 2021. Plutonium was no longer reportable as of July 31, 2022. Concentrations at Woman Creek Point of Compliance (WOMPOC, downstream of SW027) remained well below 0.15 pCi/L. No RFLMA POC analyte concentrations were reportable during 2022.

Rich Kondo asked about the rolling 12-month average and reason for averaging. George said the constituents at Rocky Flats generally have chronic risk and concentrations vary seasonally with changes in precipitation patterns. Plutonium (Pu) wants to move when rain moves soil particles. Runoff increases Pu concentrations. Uranium (U) wants to be dissolved and move in groundwater. Runoff dilutes U concentrations. Americium (Am) responds like Pu, so DOE tracks them together. Rich then asked if Pu/Am sorbing to soil gives you control over managing remaining contamination. George said most of the Pu/Am source terms were removed during closure, but there are low levels of contamination still onsite, so they monitor concentrations and possible exposure risk.

Randy Moorman asked about blips in concentrations and asked for confirmation that they are weather related. George said the blips are normal. Randy then asked what triggers mitigation actions. George explained that DOE, CDPHE, and EPA look at past data and concentrations at POCs to see if the current situation is different. They are trying to determine if the risk has changed (i.e., the remedy has become less protective). Randy asked about Pu-related mitigation actions at SW 027. George said Pu and Am move with soil. Mitigating actions are targeted at limiting the movement of soil, including vegetation monitoring and wood straw application, which help reduce impact from precipitation and hold in soil moisture.

Kim Griffiths asked if arsenic was naturally occurring or a byproduct of manufacturing. John Boylan said there was naturally occurring arsenic in onsite water.

Roman Kohler asked about typical the turnaround time to get a sample back. John Boylan said the sample turnaround time is generally 14 to 28 days.

Deven Shaff asked if surface water or groundwater was more concerning regarding exposure. George said they are not concerned more about one or the other, but they are concerned about concentrations and risk. Deven asked how DOE rules out lab error. George said a validation group looks at the data, and they certify labs periodically. He said there are many layers of review and QC.

Groundwater Monitoring – John Boylan

John Boylan, groundwater lead, gave an overview of the RFLMA groundwater monitoring network. He said there no changes to the monitoring network in 2022. All wells were scheduled for sampling in 2022. Results were generally consistent with previous data. Statistical evaluation results of original landfill (OLF) and present landfill (PLF) data were also generally consistent with previous results. Groundwater treatment systems continued to remove contaminants. The East Trenches Plume Treatment System met all treatment objectives for both collection/treatment systems (Mound and East Trenches). The Solar Ponds Plume Treatment System (SPPTS) met the nitrate treatment objectives and removed approximately 30% of the uranium. Also in 2022, a new solar/battery power facility was installed at the SPPTS. RSI began uranium treatment testing, including bench-scale tests. Pilot-scale testing will be completed in 2023 and design of the full-scale uranium treatment component is scheduled to begin in late 2023.

Rich Kondo asked if they monitored constituents other than uranium. John said wells are monitored for Pu/Am; concentrations of those constituents are non-detect.

Randy Moorman asked about the uranium treatment project being underway. John said a full-scale uranium treatment would be online in 2024. Alum will be added to form a chemical precipitate; uranium precipitates out with alum. Right now, the system is removing about a third of the U in the influent. The uranium treatment component is designed to meet 16.8 ug/L site-specific standard. He mentioned there were several contact records on this issue.

Rich Kondo asked if there was a “thumb-rule” for figuring out how much U or Pu would go airborne in a fire. John said the concentrations are such that there is not enough of a highly radioactive source term onsite that could go airborne.

Claire Levy asked how deep the groundwater is onsite. George said average is 30-35 feet bgs. Claire asked if groundwater was pumped for treatment. John said they don’t pump the wells, rather the treatment systems collect groundwater where it would normally surface (uranium/nitrate in one area, VOCs in another area, which are treated by an air stripper).

Roman Kohler asked about naturally occurring uranium. John said naturally occurring uranium is present onsite.

Deven Shaff asked how precipitation increases impact movement of contaminants. John said there would be dilution of some contaminants and flushing of some contaminants. Deven asked when the data points would be official for May and June. John said 6 months or so (two meetings from now). Deven asked if they compare results to previous quarters. John said they do that regularly.

George mentioned the GEMS website. Data are available on GEMS about 45 days after samples are collected in the field.

Rich Kondo asked about the units of measurement for water samples. John said micrograms per liter (ug/L) are generally the same as parts per billion (ppb).

Site Operations – Harry Bolton

Harry Bolton reported on Site Operations. The annual Site-wide inspection showed no evidence of violations of the institutional or physical controls. No adverse biological conditions (e.g., unexpected mortalities) were observed. The PLF was inspected quarterly and after significant precipitation events. No significant issues were observed. The OLF was inspected monthly and after significant precipitation events. No significant issues were observed. The North Walnut Creek Slump (NWCS) was monitored as a best management practice. Slump movement continued through 2022. Harry said they aren’t concerned about the slump itself, other than possible impact to monitoring wells that could be damaged from slumping.

Ecology – Karin McShea

Karin McShea gave an overview of ecological monitoring. She said revegetation and wetland monitoring activities were conducted. Revegetation efforts continue to be successful; approximately 113 acres were treated with herbicides to control noxious weeds. Several areas along the 903 hillside were seeded and

treated with engineered wood straw. No active black-tailed prairie dog towns were observed within the Site boundaries. 300+ elk were monitored using game cameras to monitor animal movement.

Randy Moorman asked about elk crossing into Central Operable Unit (COU). Karin said the elk have to jump the fence, and their hoofs sometimes impact the ground. They've installed wildlife crossings, which reduces the energy elk have to use to cross the fence.

Randy Kondo asked about the noxious weed list. Karin said the A-list weeds were the highest priority for eradication.

Deven Shaff asked about revegetation for slumping. Karin said revegetation would not help because the slumping is deeper than the roots of the vegetation.

Murph Widdowfield asked if there were any updates regarding the visitor's center. Andy Keim said there was nothing new to report.

Public comment

Travis Culley said he had ongoing question about fire. Travis wanted information on oxidized versus non-oxidized plutonium. John said plutonium would be oxidized if exposed. Travis then asked clarifying questions on the standards in place for plutonium in soil.

Chris Allred expressed concern about statements made during DOE presentation. He asked about "concentration spikes". George explained the changes in concentrations are better explained as variability, but chronic exposures are what DOE looks at. Chris expressed concern about plutonium standards and said there needs to be acknowledgement of science regarding plutonium. He wants to know how many prairie dogs have been moved to the Refuge. He also wants to know about scientific evidence of 70% naturally occurring uranium in water samples. George answered that scientific reports are available that show isotopic ratios at Rocky Flats.

Deven Shaff asked how often agencies look at remedy protectiveness and protectiveness of standards. Brian Walker replied that they review the remedy every five years and if any exceedances of standards are noted. David Connolly said the five-year review evaluates any changes in regulations that would impact protectiveness.

Big Picture/Additional Questions/Issue Identification: David went through the Big Picture. Remaining meetings for 2023 are scheduled for September 18 and October 20. Discussion topics are below.

September 18

- Initial review of 2024 work plan and budget
- DOE quarterly update

October 20

- Adopt 2024 work plan and budget
- New members interviews/appointment
- DOE quarterly update

David then addressed a petition being circulated. The issues in the petition include the time of Stewardship Council meetings. He said we meet during the day to work around commissioner and council meetings. There is a window when no one is meeting, which is Monday mornings. Regarding the location of meetings, he said we want to be centrally located along the Highway 36 corridor for access of Board members, and we need an ADA-accessible building with free parking. If there is another place that meets those criteria, he said let us know. Jan Kulmann mentioned four meetings are online to maintain accessibility. David talked about meeting recordings. The executive committee discussed recording the meetings and passed on it because the Board would need a new space to enable recording. The petition also pushes for cancelation of David's and Melissa's contracts because of DOE funding. David said the Board manages contracts and expenditures.

Deven mentioned we could reengage in conversations regarding recording meetings. Deven was fine with the meeting time and day.

David said Zoom meetings are posted on the website. It is the in-person meeting that is not recorded and posted online.

Kim acknowledged that Monday morning meetings are well attended by Board meetings.

Executive Session

At 10:49 a.m. Deven Shaff made a motion to move into Executive Session for the purpose of discussing Stewardship Council personnel contracts for 2023, authorized pursuant to Section 24-6-402(4)(e) & (b), C.R.S., to determine positions relative to matters that may be subject to negotiation, and conferencing with the attorney on such matters. Bob McCool seconded the motion. The motion passed 13-0.

The Board reconvened from Executive Session at 11:33 a.m. and affirmed that no actions had been taken during Executive Session.

The Board meeting adjourned at 11:33 AM.