

ROCKY FLATS STEWARDSHIP COUNCIL
Monday, September 11, 2017, 8:30 – 11:30 a.m.
Rocky Mountain Metropolitan Airport, Terminal Building, Mount Evans Room
11755 Airport Way, Broomfield, Colorado

Board members: Mark McGoff (Director, Arvada), Sandra McDonald (Alternate, Arvada), Deb Gardner (Director, Boulder County), Mike Shelton (Director, Broomfield), Laura Weinberg (Director, Golden), Pat O’Connell (Alternate, Jefferson County), Joyce Downing (Director, Northglenn), Shelley Stanley (Alternate, Northglenn), Chris Hanson (Director, Superior), Jan Kulmann (Director, Thornton), Bruce Baker (Director, Westminster), Jeannette Hillery (Director, League of Women Voters), Sue Vaughan (Alternate, League of Women Voters), Murph Widdowfield (Director, Rocky Flats Cold War Museum), Roman Kohler (Director, Rocky Flats Homesteaders)

Stewardship Council staff and consultants: David Abelson (Executive Director), Barbara Vander Wall (Seter & Vander Wall, P.C.), Rik Getty (Technical Program Manager), Chelsie Gonzalez (Seter & Vander Wall, P.C.),

Attendees: Dia Gerstle (Thornton), Christine Hawley (WCRA), Shirley Garcia (Broomfield), Cathy Shugarts (Westminster), Ryan Hanson (Sen. Gardner), Stuart Feinhor (Rep. Polis), James Thompson (Sen. Bennet), Carl Spreng (CDPHE), Lindsay Masters (CDPHE), Linda Kaiser (Navarro), Patty Gallo (Navarro), Jeremy Wehner (Navarro), John Boylan (Navarro), David Ward (Navarro), Bob Darr (Navarro), Jeffrey Murl (DOE-LM), Vera Moritz (EPA), George Squibb (Navarro), Jeff Gipe, Marion Whitney, Ted Ziegler, Lynn Siegal, Paul Karolyi (journalist, Changing Denver).

Convene/Agenda Review: Chair Joyce Downing opened the meeting at 8:35 a.m. and called for a moment of silence to honor and remember those who lost their lives on 9/11/01.

Public comment on Consent Agenda and Non-Agenda Items: None

Business Items—Approval of Meeting Minutes and Checks: Chris Hanson motioned to approve the checks and minutes. The motion was seconded by Mark McGoff. The motion passed 12-0.

Executive Director’s Report: David Abelson began by discussing federal funding. He started by framing the issues Congress would likely face when returning from the August recess—healthcare, taxes, North Korea, immigration, hurricane relief, and 2018 appropriations. Some federal funding bills are making their way through Congress, including funding for DOE. The House bill provides \$154 million for the Office of Legacy Management (LM), which basically matches the Administration’s request. The Senate bill cleared the committee and now moves to the Senate floor for final approval. That bill has set funding levels for LM at the Administration’s request. In the interim, Congress approved a funding bill to keep the federal government operating through mid-December 2017. That bill also addresses the debt limit. David said he will continue to track annual appropriations issues.

David next addressed the Colorado Cancer Registry. David said that last week, CDPHE released the next installment in the Colorado Cancer Registry's evaluation of cancer rates in the vicinity of Rocky Flats. This additional information supplements the 2016 analysis; that analysis covered 1990-2014. The update evaluates the incidence of thyroid and rare cancers. This review came in response to a survey released by the Rocky Flats Downwinders, which found a potential higher rate of certain cancers. David said CDPHE's analysis does not align with those results. In short, CDPHE determined that the incidence of thyroid and the "rare" cancers is not higher than expected in the vicinity of Rocky Flats compared to the rest of the Denver Metro area. The exception is Wheat Ridge, which had a higher rate of pancreatic cancer. David noted that the study provides that pancreatic cancer has many risk factors associated with it, among which are smoking, heavy alcohol use, being overweight or obese, family history of the disease, and diabetes. Over 2/3 of male pancreatic cancer cases in this area had a history of smoking and some evidence of alcohol use was also documented. The study also evaluates the limitations in the Downwinders' study.

Finally, David discussed the LSO application process, noting the application period was open and that he had already been receiving applications.

DOE Quarterly Report DOE, First Quarter 2017:

Surface water – George Squibb

At the Original Landfill (OLF), the mean concentrations for all analytes were below the applicable RFLMA water quality standards. That monitoring point is GS59. Monitoring at the Present Landfill also met the applicable water quality standards.

At monitoring points upstream of the terminal ponds, George reported that plutonium concentrations reflect water quality conditions in 2016. At SW027, which is found on Woman Creek, the 12-month rolling average for plutonium remained reportable from 2016, as there was no flow from June 2, 2016, through the first quarter of 2017. As of April 30, 2017, which is part of the second quarter monitoring, plutonium is no longer reportable at SW027.

Concentrations at the Woman Creek point of compliance (WOMPOC), downstream of SW027, were not reportable. At WALPOC, which is the point of compliance on Walnut Creek, uranium concentrations based on the 30-day average were reportable for December 8, 2016 to April 3, 2017. RFLMA Contact Record 2017-02 addresses this condition. The 12-month rolling average uranium concentration has remained below the reportable level.

High-resolution uranium analyses were performed by Lawrence Berkeley National Laboratory. As has been the case in the past, the goal is to calculate the natural vs. anthropogenic uranium fractions. DOE's objectives typically focus on information related to reportable conditions, change in conditions, and natural/anthropogenic uranium fractions in comparison with pre-closure results. Three batches of six samples were submitted in mid-2017. The analytical reports are pending and will be discussed in 2017 annual report.

Chris Hanson asked if the purpose of sending to uranium samples to Lawrence Berkeley National Laboratory is to check if the uranium is naturally occurring or man-made. George said yes. Chris next asked that if uranium is man-made, will it make the concentration present higher. George says no. Chris then asked what the next steps are after sending to Berkeley. George said the goal is to ensure uranium meets the specified regulatory standards.

Groundwater – John Boylan

John began by providing an overview of the monitoring network. As he explained, there are:

1. Ten Resource Conservation and Recovery Act (RCRA) wells that evaluate potential impacts from the OLF and PLF. They are sampled quarterly.
2. Nine Area of Concern (AOC) wells and one Surface Water Support location. These are sampled semi-annually. These wells are located in drainages downstream of contaminant plumes. They evaluate plumes discharging to surface water.
3. Twenty-seven Sentinel wells monitor flow downgradient of the groundwater treatment systems, on the edges of plumes, and in drainages. These wells are sampled semi-annually.
4. Forty-two Evaluation wells monitor groundwater within plumes, near source areas, and within the interior of Central Operable Unit (COU). These wells are monitored biennially. The purpose is to evaluate whether monitoring of an area or plume can cease.
5. Treatment system locations are also monitored. Seven are sampled semiannually, and two are sampled quarterly.

John said that the first and third quarters of the year are light sampling periods. Monitoring of the 10 RCRA wells shows that the results are consistent with the previous data.

At the Solar Ponds Plume Treatment System (SPPTS), DOE continued to treat nitrate to below detection limits in the full-scale test lagoon. Additionally, DOE continued to test treating uranium using microcells with ion-exchange resins. That part of the system treats water leaving the lagoon, water that was already treated for nitrate. John said they will be using fish bones, and that the resin is handled as toxic waste.

Jeannette Hillery asked who they contract with to get the fish bones. John said there is a specific company that provides for them, and that fish bones have been very successful in treating radioactive elements. Sandra McDonald asked if the picture displayed on the last slide of the presentation is the lagoon. John said it is, explaining it is a full-scale test lagoon. Shelley Stanley asked if they are taking phosphorus measurements at these stations as well. John said they are, that they monitor the effluent. Shelley asked what some of the readings were. John said 10 micrograms per liter was the last reading they took.

Site Operations – Jeremy Wehner

Jeremy began by discussing the annual inspection, which was conducted on March 16, 2017. The purpose of the inspection is to monitor for evidence of significant erosion and violation of institutional control. DOE found no evidence of institutional or physical controls violations. Former building areas 371 and 771 showed minor depressions, but neither required immediate

action. Additionally, DOE verified the environmental covenant (now a restrictive notice) for the COU remains in the Administrative Record and on file with Jefferson County.

On January 31, DOE conducted the quarterly sign inspection. They found that all signs were present and legible.

At the Original Landfill, site personnel performed three monthly inspections (January 23, February 22, and March 22, 2017). They also surveyed eight settlement monuments on March 13. Vertical settling at each monument was within the allowable limits, and additional drainage pipes were installed through Berm 7 to facilitate surface drainage. Additionally, the East Subsurface Drain (ESSD) project was completed on January 6. A geophysical survey was conducted to locate abandoned subsurface drainage lines and to identify soil/bedrock interface. Finally, the temporary groundwater intercept system became operational on March 29.

At the Present Landfill, DOE performed the quarterly inspection on March 13. The landfill is in good condition and no maintenance is required.

At the North Walnut Creek slump, Jeremy reported that site personnel investigated the hillside. In preparation for regrading work at the site, the area was mowed to increase visibility for locating cracks and discourage use by wildlife for cover and nesting.

Shelley asked how the upgradient pumping at the OLF is going. Jeremy replied it is going well, that they are getting a little less water than expected, but still are recording good flow. Jeremy said the system is designed for worst case scenario. Shelley asked if they had seen a reduction in the elevation wells. John Boylan said certainly, but it has been so dry it is not optimal testing. Shelley asked if the Geophysical study showed any piping that was previously unknown. Jeremy said no. It confirmed the location of piping they had expected to be there.

Overview of Surface Water Monitoring – George Squibb

In follow-up to questions a Board member had at the June 2017 meeting about surface water monitoring and averaging, George provided an overview of the program. He explained how composite samples are taken, showed graphs indicating the volumes and periodicity of sampling, and explained the nexus between flow rates and, in turn, sampling frequency. George explained how that information is then used to generate the 30-day moving average. This presentation included the period for which there is no flow, and how that data is included in developing the moving average.

Deb thanked George for the colored graphs at the end of the presentation that explained how they calculate the rolling average of uranium and other constituents in the surface water. She said it helped her understand better having the visual. Deb mentioned they did not get that in their packet so she wondered if they could send her a link to the graphs they displayed.

Sandra asks what the maximum is for the “acute maximum”. George explained that because it is natural terrain they are monitoring, they could never really get to a maximum.

Public Comment on DOE's Quarterly Report: Marion Whitney said that following the flood, there is debris along a creek that could contain plutonium and other contaminants. She said that if a kid is playing along a creek, elements are going to get on those kids' clothes and such. She mentioned that someone at the last meeting said to not worry about groundwater escaping Rocky Flats. She does not believe that. She thinks because this is a living ecosystem they need to take that into account when doing samples. George says they do take that into consideration. If there is soil or debris in their sample, they do not remove it. They analyze it. Marion said averaging the samples makes the levels seem not so bad. George said exposure of anything toxic is sampled over time because repeated exposure is the concern.

Lynn Siegel said she believes that is not true, and that a single exposure could endanger someone's life.

EPA Presentation on CERCLA Five-Year Review: Vera Moritz began the presentation by discussing EPA guidance for developing CERCLA Five Year Reviews. CERCLA §120 and Executive Order (EO) 12580 provide the basis for EPA's oversight role at federal CERCLA Superfund sites. At Rocky Flats, EO 12580 paragraphs 2(d) and (g) delegate remedial responsibilities to DOE. That means DOE conducts the review, and EPA retains final authority over whether the review adequately addressed the protectiveness of remedies. EPA will either concur with DOE's protectiveness determination, or EPA may provide independent findings.

The key questions addressed in the review are:

Question A: Is the remedy functioning as intended by the decision documents?

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy still valid?

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

Regarding Question A, Vera explained that the basis for answering that question is:

1. Institutional controls are in place and effective in meeting the objectives presented in Table 2. Physical controls are in place and effective at preventing human health exposures from contaminated groundwater, surface water, and soil.
2. Required groundwater and surface water monitoring is ongoing and supports achievement of RAOs in the long term.
3. Operation and maintenance (O&M) of remedy components at the OLF, PLF, and groundwater treatment systems is ongoing and supports achievement of RAOs in the long term.

Regarding Question B, Vera explained that the basis for answering that question is:

1. The exposure assumptions, toxicity levels, cleanup levels, and RAOs used at the time of the remedy are still valid.
2. There were no changes in exposure pathways or assumptions.
3. Revisions/changes to surface water quality standards and toxicity levels were assessed and determined to not impact the remedy.

Regarding Question C, Vera explained that the basis for answering that question is:

1. The remedy remained protective despite high precipitation events and extreme weather variability

In answering these statements, DOE determined that the remedy remains protective. As Vera explained, the 2006 CAD/ROD concluded that conditions in the POU – the lands that now comprise the refuge – are acceptable for unrestricted use and unlimited exposure. Similarly, off-site lands (dubbed OU3) were determined protective in June 1997, and were deleted from the CERCLA Superfund list in May 2007. As part of the Five-Year Review, a review of changes to toxicity factors confirmed that conditions in the POU and OU3 remain suitable for unlimited use and unrestricted exposure.

Regarding the DOE-controlled lands (called the Central Operable Unit or COU), Vera explained that the remedy remains protective of human health and the environment. Specifically,

1. Interim removal actions completed prior to the CAD/ROD included the removal of contaminated soils and sediments, decontamination and removal of equipment and buildings, construction of cover systems at the two landfills, and construction and operation of four groundwater treatment systems.
2. A monitoring and maintenance plan is in place to ensure the long-term integrity of the remedy.
3. Routine inspections of remedy components ensure that maintenance and repairs are identified and implemented.
4. Groundwater treatment systems continue to reduce contaminant load to surface water.
5. Surface water and groundwater monitoring provide assurance that water quality at the COU boundary is protective.
6. Institutional controls are effective in preventing unacceptable exposures to residual contamination by prohibiting building construction, controlling intrusive activities, restricting the use of groundwater and surface water, and protecting engineered remedy components.
7. Physical controls are effective at controlling access to the COU.

The discussion next turned to questions from the Board.

Jeannette Hillery expressed concern that the agencies had ceased air quality monitoring. She asked whether there is a way to reassure the public about the air quality. Vera answered that monitoring the surface water is more effective because it is a good indicator of remediation. Water, she noted, is monitored continuously and has very strict standards. If there are low levels in water, there are even lower levels in the air. Jeannette reiterated that it is a public perception that the air quality is not good around Rocky Flats. Vera explained when DOE and the regulatory agencies previously monitored the air, it was during the building demolition phase. That monitoring did not find anything to be concerned about, so now that there is no longer any demolition going on and the sources had been removed, there is no need for air monitoring.

In follow up, David asked Vera that even if the results would not show any air quality impacts, would the agencies address community concerns by periodically monitoring air quality. Vera

said no. Carl Spreng with CDPHE cited a few examples of when the public perception dictated the agencies sampling (e.g., prescribed burns, trail construction, etc.).

Deb Gardner stated that an issue that keeps coming up is the limited nature of the review, noting the review does not really do anything to ease the concerns from the public because it is just reviewing the previous data. Deb thinks this is a big flaw because it does not allow for changes in circumstance. Deb asked if there are any studies that show monitoring water coincides with not having to monitor air. Vera explained there is definitive proof that air quality is fine because they were monitoring the air with lots more activity going on at Rocky Flats and at that time nothing came as reportable.

David noted for the Board that local governments and community members had the same concerns when the agencies ceased air monitoring 10 years ago.

Shelley said in the previous Five-Year Review, the agencies included information about what was happening in-between the reviews. She said those were not included this time and she wondered why the change. Vera explained that there are some lingering issues that they are still working out and will display that information when the review is final.

Sandra asks if there were revisions to the numeric standards to the Five-Year Review. Vera said the Colorado Water Quality Control Commission sets their own standards. She said some obscure numeric standards were revised, but no numeric standards changed in regards to Rocky Flats.

Public Comment on CERCLA Five-Year Review: Marion Whitney talked about an upcoming meeting of her organization, Rocky Flats Right To Know, and a rally at the State Capitol organized by Candelas Glows, The Ambushed Grand Jury, Rocky Flats Downwinders, Rocky Flats Right To Know, and the Rocky Mountain Peace Center. Marion then stated there have been recent studies that found breathable levels of plutonium outside of Rocky Flats. Then she stated that the previous air monitoring done at Rocky Flats has been exposed as not being done properly at the time. She invites everyone to the Right to Know meeting.

Ted Ziegler explained his role at Rocky Flats as a site worker. He stated there was a wide variety of contamination at Rocky Flats. What he has focused on is not the water sampling, but the surface soil and air sampling. The major contributors to cancers are inhalation. He claims they have never seen any study that shows the air quality around Rocky Flats as being clean.

Lynn Siegel thanked David for keeping the meeting so open and interactive. She does not understand how DOE is preventing erosion. Vera explained that revegetation reduces erosion. Lynn asked about plant uptake. Vera said plant uptake has been very minimal. Lynn said she is trying to clarify the perception being presented as compared to the reality of Rocky Flats. She thinks there are governmental representatives that are not being heard by the Stewardship Council Board. Carl Spreng explained that the vegetation at Rocky Flats has been studied extensively, with some dating to the 1970s. National experts have studied Rocky Flats plant uptake. He further stated they have copious amounts of data that meet state and federal standards.

Stuart Feinhor asked about the rationale for only monitoring water and not air and soil. Vera stated that the 2006 ROD specifies why they no longer monitor air. DOE, CDPHE and EPA determined that the very substantial amount of air monitoring during demolition had not shown any levels of concern at all, so the ROD determined air monitoring would no longer be required. Performance of the remedy would be monitored using surface water monitoring, as outlined by ROD.

Jeff Gipe asked if there were there any special considerations given during the review to addresses the 2013 floods. Vera said that DOE did significant studies after the floods, and those results are included in the report.

Marion stated that on her organization has information regarding plant uptake and plutonium.

2018 Work Plan – Initial Review: David Abelson introduced two related agenda items that the Board would be reviewing at this meeting and adopting at the October 30th meeting – the 2018 work plan and 2018 budget. David referred to his memo in the Board packet, which outlined a plan to stay the course in terms of Board activities. For that reason, David and Rik offered a few non-substantive changes to the proposed 2018 work plan.

The Board agreed with David and Rik’s counsel, and other than noting two typos, did not offer any changes to the work plan as presented.

2018 Budget – Initial Review: David Abelson explained that, as a unit of local government under the Colorado Constitution, the Stewardship Council must review the budget at one meeting and then hold budget hearings at a second meeting prior to adopting a final budget. The budget hearings will be held at the October 30th meeting, at which time the Board will adopt the budget. David explained that the budget was very similar compared to previous years.

No changes were suggested to the draft.

Discussion of Stewardship Council’s IGA triennial review and IGA amendments: David started the conversation by explaining that this fall the 10 member governments would need to take two steps – (1) reaffirm their individual commitment to continue the Stewardship Council for another three years (called the “triennial review”), and (2) amend the Mission, Purposes and Definitions (called “IGA amendments”).

The Board reviewed the edits to the Mission, Purposes and Definitions that were made in accordance with the June 5th Board meeting and July 24th executive committee meeting. The Board agreed to the proposed language, with one exception – the definition of “Stewardship.”

Deb Gardner noted that the definition did not sufficiently define stewardship in the context of the Stewardship Council. She explained that the proposed definition was broader and encompassed Rocky Flats in general. Other Board members agreed with Deb’s assessment. Various ideas of how to improve the language were offered, and in time, it became clear that the definition should closely track the revised Mission Statement. At that point, the Board agreed that defining

“Stewardship” based on the Mission Statement was redundant, and that if people want to understand the Stewardship Council’s role, the Mission Statement and not the definition of “Stewardship” was the appropriate section to review. For that reason, the Board agreed to drop the definition of Stewardship from the proposed IGA amendments.

EXECUTIVE SESSION: At 11:20 a.m. Joyce Downing made a motion to move into Executive Session for the purpose of discussing Stewardship Council personnel contracts for 2018, 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. Chris Hanson seconded the motion. The motion passed 11-0. (Westminster was no longer in attendance.)

The Board reconvened from Executive Session at 11:30 a.m. and affirmed that no actions had been taken during Executive Session.

The meeting was adjourned at 11:30 a.m.