

ROCKY FLATS STEWARDSHIP COUNCIL

Monday, November 5, 2012, 8:30 AM – 12:00 PM

**Rocky Mountain Metropolitan Airport, Terminal Building, Mount Evans Room
11755 Airport Way, Broomfield, Colorado**

Board members in attendance: Shelley Cook (Director, Arvada), Lisa Morzel (Director, City of Boulder), Tim Plass (Alternate, City of Boulder), Deb Gardner (Director, Boulder County), Megan Davis (Alternate, Boulder County), Greg Stokes (Director, Broomfield), David Allen (Alternate, Broomfield), Bill Fisher (Director, Golden), Faye Griffin (Director, Jefferson County), Kate Newman (Alternate, Jefferson County), Shelley Stanley (Alternate, Northglenn), Eric Tade (Director, Thornton), Emily Hunt (Alternate, Thornton), Joe Cirelli (Director, Superior), Bob Briggs (Director, Westminster), Jeannette Hillery (League of Women Voters), Shirley Garcia (Director, Rocky Flats Cold War Museum), Ann Lockhart (Alternate, Rocky Flats Cold War Museum), Roman Kohler (Director, Rocky Flats Homesteaders), Arthur Widdowfield (citizen).

Stewardship Council staff members and consultants in attendance: David Abelson (Executive Director), Rik Getty (Technical Program Manager), Barb Vander Wall (Seter & Vander Wall, P.C), Erin Rogers (consultant).

Attendees: Cathy Shugarts (City of Westminster), Judith Mohling (Rocky Mountain Peace and Justice Center), Leroy Moore (Rocky Mountain Peace and Justice Center), Vera Moritz (EPA), John Dalton (EPA), Carl Spreng (CDPHE), Charles Adams (CDPHE), Jeremiah McLaughlin (Stoller), Bob Darr (Stoller), Rick DiSalvo (Stoller), John Boylan (Stoller), Jody Nelson (Stoller), George Squibb (Stoller), Linda Kaiser (Stoller).

Convene/Agenda Review

Chair Lisa Morzel convened the meeting at 8:34 a.m. She asked if there were any suggested changes to the agenda and there were not.

Consent Agenda

Bill Fisher moved to approve the September Board meeting minutes (with minor spelling changes) and the checks. The motion was seconded by Ann Lockhart. The motion to accept the minutes and checks passed 13-0.

Adopt Resolution Supporting Rocky Flats Cold War Museum

Ann Lockhart said that while the Rocky Flats Coalition of Local Governments passed a resolution in support of the Cold War Museum in 2004, the Stewardship Council had not made a similar endorsement. She explained that such a resolution would help the Museum Board with their fundraising efforts. A draft resolution was provided in Board packet. Deb Gardner said she would support the resolution. She added that the Boulder County Commissioners would be offering their support as well, with a slight modification to include a bit more history of Rocky Flats. Lisa Morzel said that the City of Boulder was interested in doing same. Other Board

members expressed an interest in getting copies of the resolution that the Boulder County Commissioners would be using. Deb said she would distribute copies. Joe Cirelli moved to approve the resolution supporting the Rocky Flats Cold War Museum. The motion was seconded by Eric Tade. The motion passed 13-0.

Chairman's Review of October 17 Executive Committee meeting

Lisa Morzel noted that an Executive Committee meeting was held on October 17, 2012. Meeting attendees included Lisa Morzel, Bob Briggs, Tim Plass and David Abelson. The purpose was to develop the agenda for this meeting. These meetings are always open to public.

Executive Director's Report

David Abelson noted that Rik Getty had sent out a briefing memo about OU3 (offsite areas). A question had originated with Murph Widdowfield in relation to development to the south of Rocky Flats. David noted that all of these areas were released with no land use restrictions. He added that additional information will be presented at the February Board meeting.

David next reported that on a recent trip to Washington D.C. for another client, he was able to meet with the head of DOE-Legacy Management Dave Geiser. They spoke a bit about the US Fish and Wildlife Service plan for Rocky Flats. They also discussed the recently-published book about Rocky Flats by Kristin Iverson and agreed that no deep concerns had been raised in the press or elsewhere. He also was reassured that DOE continues to recognize that groups such as the Stewardship Council serve a useful purpose and provide great value at Legacy Management sites.

In December, David will be attending an annual Intergovernmental Meeting. This meeting brings together DOE, the Energy Communities Alliance (ECA), National Governors Association, National Association of Attorneys General, State and Tribal Government Working Group, and Environmental Council of States to discuss issues related to nuclear cleanup. David noted that most of his expenses are covered by ECA.

David also mentioned that once the new Congress is seated, the Stewardship Council would likely weigh in again regarding support for compensation claims by former Rocky Flats workers. Staff will draft a letter after the beginning of the year for the Board to discuss.

David distributed the Board's quarterly financial report last week, and said he would be happy to answer any questions.

Public Comment

There was none.

Host DOE Quarterly Meeting

DOE briefed on site activities for the second quarter of 2012 (April – June). Activities included surface water monitoring, groundwater monitoring, ecological monitoring, and site operations (inspections, maintenance, etc.).

Surface Water – George Squibb

Since 2011, all terminal ponds were being operated in a flow-through mode, so there were no terminal pond discharges. Pond levels were very low. As of June, the terminal ponds were holding approximately 6.4 percent of capacity. October levels were similarly low.

George next reviewed sampling results for plutonium and americium, uranium, and nitrates at the Points of Compliance (POC's). All were below applicable standards. Lisa Morzel asked how often the site looked at isotopic results for uranium. George noted that this analysis was very expensive, and they primarily use it at highly targeted locations such as the solar ponds. This type of analysis is done approximately twice a year. Shelley Stanley asked about an increase in the 30-day rolling average at WALPOC. George said this happened when they started flow-through in October 2011. She asked what level of flow there was during that time period. George said it was very low. Deb Gardner referred to results where analysis was pending and asked George if he will add this information to his graphs when the results come in. He said he will.

At the Original Landfill (OLF), surface water quality results were all below standards for the quarter. At the Present Landfill (PLF), the selenium concentration was preliminarily reported as above the standard in the sample collected in April. This result triggered monthly sampling; however, subsequent data validation determined that selenium was not detected. The selenium concentration was below the standard in the first monthly sample collected in May, resulting in the discontinuation of monthly sampling (this sample was collected prior to data validation for the routine quarterly sample).

Reportable 12-month rolling average values for uranium at GS10 continued to be observed through the quarter. Additional sampling is being conducted both upstream and downstream of GS10. Contact Records 2011-04 and 2011-05, which address this issue, can be found on the Rocky Flats website. These reportable results have been cyclical.

Reportable 12-month rolling average values for americium at GS10 continued to be observed through the quarter. Reportable 12-month rolling average values for plutonium at GS10 were observed starting on May 31, 2012. Notification was made on July 24, 2012. Additional sampling is being conducted both upstream and downstream of GS10; no downstream results have been detected. There is not sufficient water to be able to sample upstream. Contact Record 2011-08 can be found on the Rocky Flats website. David Abelson asked for an explanation of why plutonium is not showing up downstream after it had been detected at GS10. John said that the levels they have detected at GS10 are extremely low, and that there could be some dropping off and some dilution downstream.

Tim Plass noted that at GS10, the ratios of natural vs. anthropogenic uranium did not match up with historical data. John Boylan noted that only one of the samples came out at a 50/50 ratio rather than the normal 70/30. Deb Gardner asked whether soil sampling in these areas was an option in lieu of water sampling (since the conditions were so dry). She also asked what would trigger mitigation actions. John said that whenever it was possible to mitigate, they do so. He said that in this case, the best alternative was to prevent movement of contaminants. Shelley Stanley asked what size filter they used to look at the size of colloids. George said it was a 0.45 micron filter.

Groundwater Monitoring - John Boylan

The second quarter (April through June) is a heavy sampling quarter, especially in even-numbered years. All of the following were sampled:

- All RCRA wells (OLF, PLF)
- All AOC wells
- All sentinel wells
 - One well was dry
- All evaluation wells (only in even-numbered years)
- Surface water support locations
- All RFLMA treatment system locations

Analytical results were reviewed in accordance with the RFLMA Attachment 2 decision flowcharts. Overall, results were consistent with previous conditions. No new reportable conditions were indicated. All results will be discussed and evaluated in the 2012 Annual Report.

Additional (non-RFLMA) activities included continued maintenance and optimization of pilot air stripper at the Mound Site Plume Treatment System (MSPTS). No freezing was observed. Reduced solar availability (i.e. less sunlight) reduced available power, causing the pump to stop. These power issues were resolved. They added a second pump to test higher flow through nozzles. Also, preparations were made to install powered ventilation fan (completed in July).

At the East Trenches Plume Treatment System (ETPTS), the site began planning for installation of an air stripper at the influent manhole. This one differs from the unit at the MSPTS, which polishes ZVI-treated effluent.

At the Solar Ponds Plume Treatment System (SPPTS), microcell (small media-filled containers) testing to treat uranium continued. This work involved automated sampling, usually about every 12 hours. Zero Valent Ion (ZVI) and ion-exchange resins were tested. Early results showed that ZVI provided better treatment than resins. Bench-scale testing of lagoons to treat nitrate also began. This system involved trash cans filled with carbon-dosed influent and small amount of inoculum (de-nitrifying bacteria). One was periodically agitated, while the second was left stagnant. Early results showed that nitrate was successfully removed via lagoon-style treatment. John said that they are now using existing large cells to do pilot scale testing of lagoon method.

Rik Getty asked how effective the bacteria will be in winter. John said he was not sure yet. The cells have not been insulated yet, but they will be monitoring the conditions and will insulate if

necessary. Tim Plass asked what the residence time was for this treatment. John said they were targeting 50 days. They do two pulses a day, which results in a mix of batch and flow-through treatments. He said they needed to adjust the grain size of ZVI, and will likely test new mixes. Shelley Stanley asked what carbon source they are using. John said it was called MicroCG. It is a biologically-based food grade substance similar to vegetable oil.

Shelley Cook asked if Rocky Flats has been faced with any budget issues. Linda Kaiser said that they have not been having any problems, and that she had not heard anything regarding across the board federal cuts.

Shirley Garcia asked about a dry sentinel well mentioned in the report. John said that this monitoring location (which was placed for east trenches plume bypass) has had water in it only one time. Murph Widdowfield asked how contaminated ZVI was disposed. John said that uranium contamination in the spent ZVI was below levels that would make it a DOT-regulated hazardous material. However, DOE requires controlled disposal, so it is shipped to a site in Utah. Shelley Stanley asked if there were any wells in a utility corridor mentioned earlier. John said that there were not.

Site Operations - Jeremiah McLaughlin

Jeremiah reported that the quarterly inspection at the Present Landfill (PLF) was completed in May and no areas of concern were observed. Monthly inspections were completed at the Original Landfill (OLF). Seep locations were active throughout the second quarter. Wetland vegetation was found to have had proficient growth. Since woody vegetation on the waste footprint must be removed, it was sprayed in June with 'Garlon A'.

Shirley Garcia asked if they used pesticides that biodegrade. Jody Nelson said that all pesticides used onsite are listed in the Annual Report.

Settlement monuments were surveyed in June and data were within the expected range per the OLF Monitoring and Maintenance Plan. Inclinometers were measured monthly and no noticeable deflection was found, which continued a trend going back two years. Jeremiah noted that previous work to improve drainage and regrade the west channel, along with routine maintenance, seems effective in mitigating localized instability.

Ecological Monitoring - Jody Nelson

The following ecological monitoring was conducted during the second quarter:

- Weed mapping
- PLF/OLF quarterly vegetation surveys
- Nest box monitoring
- Prairie dog surveys
- Wetland water level
- Wetland weed surveys
- Preparations under way for revegetation monitoring, Prebles Meadow Jumping Mouse, and wetland mitigation monitoring

Jody said that approximately 167 acres in the Central Operating Unit (COU) were treated with spring herbicide. Site ecologists also seeded the ridge top road from Pond A-3 to the PLF and installed erosion controls.

Briefing by CDPHE and EPA on Role of Regulators

Carl Spreng (CDPHE) was asked to brief the Board on the roles of the regulatory agencies at Rocky Flats, and offer perspectives on the effectiveness of the cleanup remedies and ongoing management activities. Carl began by noting that he would cover the regulatory framework at Rocky Flats, regulatory agreements, their roles during cleanup, post-closure roles, and additional regulator activities and studies.

Carl explained that although more than 20 federal laws and regulations applied at the site, the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund) provided the umbrella authority for regulators at the site. CERCLA created the Superfund Program, based on a National Priorities List (to which Rocky Flats was added in 1989). Cleanup decisions were to be based on Applicable or Relevant and Appropriate Requirements (ARARs), drawn from all of the applicable federal laws. Cleanup standards under CERCLA employed risk-based decisions, with an acceptable risk range of 1:10,000 – 1:1 million.

The Resource Conservation and Recovery Act (RCRA) is the federal law that controls hazardous waste from ‘cradle to grave’. Under this program, Colorado is an authorized state, meaning the State has authority to regulate hazardous and ‘mixed’ (hazardous and radioactive) wastes under guidelines that are at least as stringent as the federal laws. In Colorado, the Colorado Hazardous Waste Act (CHWA) is the governing statute and the Colorado Hazardous Waste Regulations (6 CCR 1007-3) provide the policy and guidance. Carl said that the goal of these regulations is to ensure the protection of human health and environment, as well as compliance with environmental laws. Carl noted that other state programs that impact Rocky Flats are Radiation Control, Solid Waste Disposal, Air Pollution Prevention and Water Quality Control.

Carl explained that there have been a series of regulatory agreements at Rocky Flats. A Compliance Agreement in 1986 allowed regulation of radioactive and hazardous waste. This agreement was followed by an Agreement in Principle in 1989. A 1991 Interagency Agreement laid out plans to remediate 178 Individual Hazardous Substance Sites (IHSS), which were grouped into 16 Operable Units (OUs). This framework laid out a rigid schedule with detailed milestones, including treatability studies and characterizations. DOE, CDPHE and EPA found that this process led to too much time being spent on renegotiating milestones and not enough on actual remediation.

After 18 months of negotiations, the Rocky Flats Cleanup Agreement (RFCA) was signed in 1996. This new agreement was intended to guide active remediation through an adaptive regulatory structure. This agreement served as a Compliance Order on Consent under CHWA, and an Interagency Agreement under CERCLA. The plan was to perform cleanup under ‘interim actions’, which provided much greater efficiency and allowed for a quicker process and less paperwork. RFCA also divided the lead regulatory agency role by area. CDPHE had the lead role

in the Industrial Area (IA) and EPA was the lead agency in the Buffer Zone (BZ). OU's were consolidated, and a consultative process was developed to allow for in-the-field decisions. RFCA also defined Standard Operating Protocols (SOPs) that allowed the regulators to make decisions once for the same actions taking place in different areas.

RFCA created a public involvement system that involved stakeholders early and often. Many of these public involvement opportunities were required by CERCLA and RFCA, such as public comment periods for regulatory documents. Public involvement also included various workshops, focus groups and technical working groups, as well as involvement by a number of organizations such as the Rocky Flats Citizens Advisory Board (RFCAB), the Rocky Flats Local Impacts Initiative (RFLII), and later, the Rocky Flats Coalition of Local Governments (RFCLOG).

Carl went on to describe the role of the regulators during cleanup. CDPHE and EPA responsibilities included oversight of building commissioning, oversight of environmental cleanup, and emergency preparedness and response planning. Tasks included setting cleanup standards and assessing environmental conditions related to surface water, groundwater, soil and air. Some of the specific activities included independent monitoring, approving monitoring protocols, and approving sampling methodology. Regulators were also extremely active in public involvement activities.

Once remediation was complete, the parties entered into a post-closure agreement in 2007 called the Rocky Flats Legacy Management Agreement (RFLMA). Around this same time, the Rocky Flats site was transferred from DOE-Environmental Management to DOE-Legacy Management. Under RFLMA, the Central Operable Unit (COU) refers the areas that remain in DOE control, after the majority of the former Rocky Flats site was transferred to the US Fish and Wildlife Service as a National Wildlife Refuge.

RFLMA set up a monitoring and maintenance framework, reporting schedule, and a system for Contact Records and notifications. A Memorandum of Understanding between the State and EPA is attached to RFLMA and defines regulatory roles for post-cleanup period. The State is lead for most regulatory actions, and works in consultation with EPA. Joint approval is required for decisions or revisions that affect RFLMA. RFLMA also defines a consultative process for decisions.

Post-closure regulation activities include reviewing routine reports such as landfill inspection reports, surveillance and maintenance activity reports, and surface and ground water monitoring results. CDPHE is also involved in any terminal pond releases from the site through sampling and independent analyses of water prior to release. Other responsibilities include approving actions and changes proposed in Contact Records, public involvement, coordinating with other State agencies, and participating as a Trustee in Natural Resource Damage (NRD) Restoration Projects.

EPA-specific roles include leading CERCLA-required 5-Year Reviews and de-listing processes, providing access to EPA resources and topic experts, approving changes to RFLMA, and consultation.

Carl also reviewed several other projects that have involved the regulatory agencies over the years, such as Rocky Flats Health Studies, and various soil sampling and contamination studies. Additionally, CDPHE and EPA maintain communication with a number of organizations throughout the country that work on similar issues, such as the State and Tribal Government Working Group, the National Governors Association, the Environmental Council of States, and several others.

Joe Cirelli asked if CDPHE was involved in the decision to change the method of transport for low-level waste from trucking to rail. Carl said that this decision did not fall under regulator authority, but that the regulators were involved in deciding where the tracks would be laid. Tim Plass asked for some more information about the ability of CDPHE to perform independent water sampling onsite. Carl said that they have the authority to take samples at any time, as well as to observe collection procedures. He added that, since closure, CDPHE has only taken pre-release samples at the terminal ponds. These samples are run through State labs, and the results were right in line with the results from DOE samples. Shirley Garcia requested a copy of Carl's presentation. David Abelson said he would make sure Board members get a copy.

Approve Fiscal Year 2013 Work Plan

The Board reviewed the draft work plan at the September meeting. No changes were offered at that meeting. Bob Briggs moved to approve the 2013 Stewardship Council Work Plan. The motion was seconded by Jeannette Hillery. The motion passed 14-0.

Fiscal Year 2013 Budget Hearing

The Board reviewed the draft budget at the September meeting. No changes were offered. The Board's attorney Barb Vander Wall explained the required budget review process. Prior to finalizing the budget, the Board must hold a budget hearing and allow time for public comment. Following the public hearing, the Board must approve the budget resolution. This must occur before the end of each year. She also noted that after the budget is approved, it is filed with the State by the end of the year. She reported that a notice for this meeting was published in the *Denver Post* as required.

Chair Lisa Morzel officially opened the budget hearing. There were no comments from the public. Lisa then closed the budget hearing. David Abelson noted that there were no changes since the last meeting. There were no comments from Board members.

Deb Gardner moved to approve the Fiscal Year 2013 budget. The motion was seconded by Roman Kohler. The motion passed 14-0.

Public comment

There was none.

Joe Cirelli raised the issue of a recently-released Notice of Scoping regarding the NREL wind test site, which is adjacent to Rocky Flats to the northwest. He said that future plans may include expansion of this site, and he was wondering if this would have any impact on Rocky Flats. David Abelson noted that when the Rocky Flats Refuge bill was approved in 2001, there was a 25 acre parcel of additional land transferred to another DOE department for NREL. He said he had not seen any plans that would go beyond these 25 acres. David noted that this issue was probably similar to the Candelas development and the Northwest Parkway construction in terms of impacts related to Rocky Flats (i.e. the Stewardship Council would simply monitor unless additional issues warranted involvement). Tim Plass suggested that the Stewardship Council might want to consider potential effects on weather conditions at Rocky Flats caused by the wind turbines, such as humidity or precipitation patterns. Faye Griffin noted that the NREL expansion was approved quite a while ago by the Jefferson County Commissioners, subject to certain regulations. Lisa Morzel asked for additional information on this topic from Jefferson County.

Updates/Big Picture Review

David asked Board Members to review the upcoming issues and Big Picture schedule and let him know if there were any additional issues they felt that the Stewardship Council should be addressing. Shirley Garcia suggested a DOE presentation in April about plans for removal of the previously-used Points of Compliance, such as how they are going to close out wells, and their emergency plans. Bob Darr and Vera Moritz both explained that sampling will continue, and that the only thing that will change is what they are called.

Deb Gardner brought up the issue of how climate change/drought will affect vegetation and monitoring plans. Tim Plass added that they should not only look at drought, but also additional extreme weather conditions. Murph Widdowfield asked if there was anything the Board could do to push for USFWS funding for the Rocky Flats Refuge. David Abelson said that they had tried, but that it had not been effective. He said it would be best to talk with federal representatives, or raise the question in Washington, D.C. However, he added, the bottom line is budget limitations and that Interior Secretary Salazar, along with Senator Udall, and Reps. Polis and Perlmutter were the only ones with a say in the matter who are really interested. The Administration would need to put this funding in their budget, and this has not happened. David added that it was common to have a 5-year period during which new Refuges were not funded. Lisa Morzel said that Sec. Salazar was planning to attend an event at the Rocky Mountain Arsenal in October. Although that did not happen, local governments are still working to get him to this area.

February 4, 2013

Potential Business Items

- Elect 2013 officers
- Adopt resolution re: 2013 meeting dates
- Approve letter re: worker benefits

Potential Briefing Items

- Host LM Quarterly public meeting
- Original landfill performance

- Off-site contamination

April 1, 2013

Potential Briefing Items

- NRD update
- Solar Ponds Performance
- AMP Monitoring Update

At 10:50 a.m. Lisa Morzel made a motion to move into Executive Session for the purpose of discussing personnel issues, and to receive legal advice on such issues, as authorized under Sections 24-6-402(4)(b) and (f), C.R.S. Joe Cirelli seconded the motion. The motion passed 14-0.

The Board reconvened from Executive Session at 11:02 a.m. and affirmed that no actions had been taken during Executive Session.

David Abelson said staff and the Executive Committee would look at structuring some sort of dialogue regarding issues such as resiliency and climate change that would incorporate local government expertise. The Board could be out front on this issue and interface with representatives from the site. David Allen said he wondered about how climate change might affect cleanup issues and standards. Deb Gardner said she would like to get ahead of the curve and think about what could happen versus waiting for any changes and then reacting. David Abelson suggested that this could be a whole session, perhaps in April, and the Board could bring in a climatologist. Tim Plass suggested finding out if there is a DOE-LM person who might be looking into these issues nationally. He added that this discussion should also include wildfires. Faye Griffin said she would like to see a comparison of monitoring results over time so any cyclical trends could be seen. David Allen said that these are in DOE's reports. David Abelson suggested that DOE include this as a slide in their quarterly presentations.

Issues to watch:

Americium and uranium levels upstream of pond B-3

Member Updates:

The meeting was adjourned at 11:17 a.m.

Respectfully submitted by Erin Rogers.