

ROCKY FLATS STEWARDSHIP COUNCIL
Monday, June 7, 2010, 8:30 AM – 11:30 AM
Rocky Mountain Metropolitan Airport, Terminal Building
11755 Airport Way, Broomfield, Colorado

Board members in attendance: Marc Williams (Director, Arvada), Clark Johnson (Alternate, Arvada), Lisa Morzel (Director, City of Boulder), Lori Cox (Director, Broomfield), David Allen (Alternate, Broomfield), Bill Fisher (Director, Golden), Faye Griffin (Director, Jefferson County), Kate Newman (Alternate, Jefferson County), Joe Cirelli (Director, Superior), Chris Hanson (Alternate, Superior), Bob Briggs (Director, Westminster), Ron Hellbusch (Alternate, Westminster), Sue Vaughan (Alternate, League of Women Voters), Roman Kohler (Director, Rocky Flats Homesteaders), Arthur Widdowfield.

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: James Campbell (citizen, Arvada), Raymond Reling (City of Northglenn), Tamara Moon (City of Northglenn), Hank Stovall (citizen, Broomfield), Doug Young (Sen. Udall), John Dalton (EPA), Vera Moritz (EPA), Carl Spreng (CDPHE), Scott Surovchak (DOE-LM), Rick DiSalvo (Stoller), Jeremiah McLaughlin (Stoller), Jody Nelson (Stoller), George Squibb (Stoller), John Boylan (Stoller), Linda Kaiser (Stoller), Lynn Bowdidge (Stoller), Cathy Shugarts (City of Westminster), Eric Barnes (Wagner & Barnes), Jennifer Bohn (RFSC accountant).

Convene/Agenda Review

Chair Lori Cox convened the meeting at 8:40 a.m. Lori introduced and welcomed two new Board Members –Trustee Joe Cirelli, the new Director representing Superior, and his Alternate, Trustee Chris Hanson.

The next item was the consent agenda. Bob Briggs moved to approve the April Board meeting minutes and the checks. The motion was seconded Lisa Morzel. Prior to the vote, Hank Stovall interjected with a point of order challenging a statement from the April minutes by DOE that site has encountered 25-year flood. Mr. Stovall contends that the 1995 event was 10-year storm event and not the 25-year event as DOE stated. He noted that this is what he found based on his research. David Allen referred to a statement in the minutes on page four, in which a site representative stated that GS01 and GS03 were removed as POC's. David would like the record to reflect that this was not necessarily a statement of fact. He also noted on pages six and seven that Dallas Griggs should instead be Briggs. Lori Cox suggested a clarification in the last sentence on page six that the particular vote that failed by a margin of 8-3 was a request by Lisa Morzel to call the question, and it was not a vote regarding sending the letter in question. The motion to accept the minutes as corrected passed 11-0.

Bob Briggs moved to approve the April checks. The motion was seconded Lisa Morzel. The motion passed 11-0.

Business Items

At the last Stewardship Council meeting, staff was directed to circulate two letters to the Board. One was related to funding for the Rocky Flats National Wildlife Refuge; the other addressed Federal Advisory Committee Act (FACA) issues and the Stewardship Council. After vetting and incorporation of Board members' changes, the letters were sent. The letters still need official ratification of the Board. Roman Kohler moved to ratify both letters. The motion was seconded by Lisa Morzel. The motion passed 11-0.

Executive Director's Report

David Abelson provided several updates to the Board. First, he spoke about his recent attendance at the Department of Energy, Office of Environmental Management, Site-Specific Advisory Board (EMSSAB) semi-annual chairs meeting. For the benefit of the newer Stewardship Council members, David noted that the SSAB at Rocky Flats, the Rocky Flats Citizens Advisory Board (RFCAB), had been very active, and was made up primarily of non-elected stakeholder representatives. David pointed out that SSABs provide an important forum for DOE to reach out to the communities surrounding EM sites. SSAB's are FACA groups and are now focused on long term stewardship. David served on a panel that discussed long term stewardship at closed sites and spoke to the group about lessons learned at Rocky Flats. He emphasized the importance of engaging the stakeholders early and often, and that stewardship is fundamentally a cleanup decision. He also touched on the need for redundancies in physical controls. There was also a discussion about the issue of maintaining federal ownership of the sites. For David, it was interesting to hear about the sites where this is not the case. Finally, David shared with the attendees the importance of maintaining a separate funding stream for LM, and maintaining high levels of oversight and active stakeholder involvement. David was also pleased that he received requests for copies of Rocky Flats Stewardship Toolbox that the Rocky Flats Coalition of Local Governments and Rocky Flats Citizens Advisory Board jointly developed in 2002.

Next, David discussed State Representative McKinley's effort to secure late bill status for a resolution regarding signage at Rocky Flats. The resolution mirrored Rep. McKinley's bill that died in committee earlier this year. The resolution, if approved, would not be law, but is instead a sense of the General Assembly. The resolution was defeated on a tie vote. David was not sure what would happen next session of the state legislature. He said that although Rep. McKinley had expressed his desire to work with local governments, it was proving difficult for David to even obtain a copy of the resolution, much less establish a working relationship with Rep. McKinley. Lisa Morzel noted that the activity regarding the resolution took place at the last minute in a session that was very busy. She ended up getting a copy of the resolution the day before the vote. She reported that Rep. McKinley was very open to her suggested changes and took all the language that she recommended, which significantly changed the original language and intent laid out in the draft bill. She said she just would have liked a more timely response to the suggested changes.

David next brought up the Rocky Flats dam breach environmental assessment that DOE was preparing. He noted that he had not seen such intense community interest since the site was closed.

In other business, David reported that the Stewardship Council's annual dues had been received from each of the member local governments. He also discussed his vacation schedule, and directed the Board to contact Rik Getty in his absence.

Rik announced that the Stewardship Council's annual site tour was to take place the next day. Everyone was to meet at 9:00 am on the west side of the site. Participants should wear sturdy footwear and sunscreen, and bring water. He noted that the roads were in good condition. There was still room available if anyone was interested.

Public Comment

Lori Cox noted that this public comment period was for all issues with the exception of the dam breach EA, as the agenda allowed a separate public comment period for this topic. There was no public comment.

Receive Stewardship Council 2009 Financial Audit

Eric Barnes (Wagner & Barnes) presented the 2009 audit of Stewardship Council finances. Mr. Barnes explained that this was a financial statement audit, and not a more detailed "forensic audit." As part of the review, the auditors examined over records, focusing on areas where fraud would be most likely to occur. They found the Stewardship Council's records to be well-kept. He spent a few minutes reviewing the draft report. The beginning of the report includes an independent audit report, using generally accepted auditing standards. It was the auditor's opinion that the Stewardship Council's financial statements presented a fair representation of its financial position. This finding is what is known as a 'clean opinion'.

Mr. Barnes reviewed the Stewardship Council's balance sheet, assets and liabilities, grant revenue, and budget vs. actual expenses. He reported that the Board takes a low risk, prudent approach to its finances. Overall, no material problems were found and the Stewardship Council was deemed to be in compliance with all applicable laws and regulations.

Marc Williams moved to accept the 2009 audit. The motion was seconded Lisa Morzel. The motion passed 11-0. David noted that, due to the excellent work of the Board's accountant, Jennifer Bohn, the annual audits always go well. He offered his thanks to Jennifer on behalf of the Board.

DOE 2009 Annual Meeting

DOE briefed the Stewardship Council on site activities for calendar year 2009. DOE posted the report on its website. Activities included surface water monitoring, groundwater monitoring, ecological monitoring, and site operations (inspections, maintenance, etc.).

Surface Water Monitoring – George Squibb

All three terminal ponds were discharged during the year. Pond A-4 was discharged in May and December. Ponds B-5 and C-2 were also discharged in May. In order to manage volumes, DOE also transferred water from Pond A-3 to Pond A-4 four times throughout the year. As of the beginning of 2010, Ponds A-3, A-4, B-5, C-2 and the Present Landfill Pond were holding approximately 15% of their capacity. Current levels range from 14-35%. DOE is evaluating discharging Pond C-2 in next month or so, and will be collecting pre-discharge samples soon.

As part of the dam breach project, the breaching of Dams A-1, A-2, B-1, B-2, B-3, and B-4 were completed in March 2009. Hydrologic data for the year showed precipitation of 13.1 inches, which was 107% of the average from calendar years 1993-2008. George noted that, overall, it was a pretty impressive year for flow rates, mostly due to a big snow in April. The flow rates ranged from 26-88% of average. In recent years, there has been no flow at many of these spots.

George next reviewed the 2009 water quality plots. Water quality at all points of evaluation, except GS10, was below applicable standards. Reportable values for total uranium at GS10 continued to be observed through March 31. These concentrations were likely caused by groundwater contributions of naturally occurring uranium to South Walnut Creek. The total uranium standard was changed effective April 1. The plots show both standards. This year's results at GS10 remain below reportable levels. David Allen asked if samples at GS01 will include any impacts of the future release from Pond C-2. George said that it will. Lori Cox asked if it is normal for levels to go up and down throughout year. George said that it is normal and has to do with dilution and runoff.

Samples for nitrates throughout the year were mostly undetectable. George said that it appears there will be one reportable value for plutonium at the end of the South Interceptor Ditch (SID), which empties into Pond C-2. Rather than waiting for the result, DOE is initiating the RFLMA process. Site personnel are going to start walking the area looking for excessive erosion, areas requiring additional revegetation, or anything else unusual. George said that plutonium and americium usually move with dirt, so the solutions to stop this movement are based on containment of the dirt. Rik Getty asked if this area includes drainage from the 903 pad area. George said that it does come from the south side of the former Industrial Area, but it is the smallest drainage of three in this area. David Allen asked whether the flow rates take dams into account (i.e. impaired or unimpaired runoff). George said they just look at total volume, and that the annual report contains any more details.

George next discussed performance monitoring, which is performed downstream of specific components of the remedy. At the Original Landfill, surface water quality results during 2009 triggered monthly sampling for dissolved silver. After dissolved silver was not detected in three subsequent monthly samples, monthly sampling was discontinued. At the Present Landfill, surface water quality results triggered monthly sampling for selenium, dissolved silver, and vinyl chloride. After these analytes were not detected in three subsequent monthly samples, monthly sampling was discontinued. David Allen asked if dam operations were changed during that period of monthly sampling. George said they were not changed, and explained that if unacceptable results were found three months in a row, the pond would be sampled. If increased

levels were found in the pond, that would be the point at which changes in dam operation would be considered.

Groundwater – John Boylan

For the 4th quarter, RFLMA required monitoring included monitoring of all Area of Concern (AOC), Sentinel, and RCRA wells, as well as at treatment system locations. Results are included and evaluated in the 2009 Annual Report. Non-RFMLA monitoring included collection of additional samples at and around the solar ponds treatment system (SPPTS), and supporting optimization of the Phase II (uranium) and Phase III (nitrate) upgrades.

Highlights from 2009 included:

- All RFLMA-required monitoring was performed
- Dry conditions affected a few locations, but was reduced compared to pre-closure (better wells, direct recharge)
- Groundwater treatment systems continue to remove contaminants from the groundwater
- SPPTS Phase II (uranium), III (nitrate) upgrades were installed
- East Trenches Plume Treatment System (ETPTS) media was replaced, and plumbing was upgraded
- Data from AOC wells and surface water performance locations indicate the remedy continues to function as intended

David Allen asked about the cause for the settling in the sump pump/storage tank at the SPPTS. John answered that a geotechnical engineer who studied the system could not determine an exact cause. However, the root cause was poorly compacted subsurface materials. The site is high moisture, as it sits very near the former location of Walnut Creek; additionally, a drain that was removed at closure. Sue Vaughan asked how the AOCs are defined. John explained that an AOC is a formal category of wells which are listed in RFLMA. Reportable conditions that apply to AOC wells are based on regulatory standards and are found in a flow chart in RFLMA. Lisa Morzel asked where the samples are analyzed. John said they use labs in Denver and Golden that are EPA-certified to dispose of samples. For samples that are outside of RFLMA, DOE uses its own lab in Grand Junction. This lab is quicker and requires less paperwork, because it uses more of a screening level of analysis. Both John's presentation slides and the Annual Report contain a great deal of additional information regarding specific groundwater monitoring data.

Site Inspection – Rick DiSalvo

For this project, a team was assembled to walk the entire surface of former Industrial Area, which was divided into various zones. Although personnel are onsite every day, this inspection is much more organized and thorough. It also includes representatives from CDPHE. The annual inspection is performed in the early spring when grasses are not yet high enough to cover anything on the ground. The team was tasked with looking for visual signs of erosion or precursors of erosion, effectiveness of institutional controls, and evidence of adverse biological conditions. They always try to accomplish the inspection in a single day since weather can change rapidly that time of year. The team found all institutional controls to be in place as required and no significant erosion or adverse biological conditions. Photos from the inspection can be found in the Annual Report.

Rick also provided an update on Colorado Water Quality Control Commission (WQCC) rulemaking. In 2009, the WQCC revised Rocky Flats' site-specific uranium standard to the 16.8 µg/L (approximately 11.5 pCi/L) health-based standard. A higher ambient-based standard may be addressed in the future, based on data and what is practical. Gross alpha and gross beta standards were removed; however, specific radionuclides (uranium, plutonium, and americium) continue to be monitored. To date, the site has not exceeded the 16.8 µg/L standard.

Also in 2009, a Triennial Review of the South Platte River Basin was conducted. The WQCC revised the arsenic standard (previously 50 µg/L) to conform with the new statewide water supply standard, effective January 1, 2010. The new standard is .02 to 10 µg/L. This range reflects the range between the WQCC risk-based water consumption and EPA's maximum contaminant level (MCL) for drinking water supply. Water below the MCL (based on 85th percentile of data) is considered in attainment with standard. Water at Rocky Flats is in attainment with new standard.

The WQCC also changed the stream segment 4b use classification from N (no recreation use) to P (potential recreation use) effective January 1, 2010, based on the establishment of the Rocky Flats National Wildlife Refuge outside of the Central Operable Unit (COU). Although the resulting change in the eColi standard does not really matter to site activities, DOE does feel it is necessary to document that this area (COU) is officially non-recreational currently.

Hank Stovall (citizen, Broomfield) asked for the health-based risk of changing the uranium standard from 12 to 20 pCi/L. Rick said that the health-based standard is 16.8 µg/L and the MCL is 30 µg/L. The new standard is roughly half of the MCL, which is based on a 10^{-6} incremental lifetime cancer risk assuming that two liters of water were drunk per day over a lifetime. Arthur Widdowfield asked if any animals found during the site inspection were tested for contamination. Rick said they were not, although if any dead elk or deer were found, the DOW would want to sample for diseases. In previous years, USFWS and DOW have performed extensive deer sampling, and found no significant risk from consumption of grazing animals on Rocky Flats. Arthur asked about the possibility of contamination being transferred upwards via burrowing animals. Rick said that they have not found any dead animals on-site during the post-closure period. Years ago a dead crow was found with fishing line around a leg, and a dead hawk was found and sent to DOW for analysis. Prairie dogs that were moving toward the COU during the past year contracted plague and died off.

Lisa Morzel asked if DOE keeps track of prairie dogs bringing soil to surface. Rick noted that the Soil Action Levels (SAL) that were developed in 2003 took this scenario into consideration. They also used a rural resident scenario, which included the growing of vegetables onsite for consumption and many other related assumptions. The specific scenarios and results can be found in the Rocky Flats RI/FS. The site also had to meet the decommissioning criteria for NRC licensees. The SAL's are well below an unrestricted use level for this rural scenario. Lisa asked if there was a policy for handling things like prairie dogs moving in. Rick said that a study was planned, but was never able to be implemented before they all died.

Ecological Monitoring – Jody Nelson

Site ecologists provided project assistance for OLF projects, 2009 roads projects, the East Trenches project, the annual dam mowing and riprap spraying project, Solar Ponds Plume Treatment System projects, and annual weed control efforts. Ecological monitoring projects included:

- Original and Present Landfill vegetation surveys
- Monthly weed surveys in the mitigation wetlands
- Revegetation monitoring
- Weed monitoring/mapping
- Preble's mouse mitigation monitoring
- Wetland mitigation monitoring
- Bluebird box monitoring.

Weed spraying took place on approximately 355 acres. Jody showed several slides that compared various areas of the site during both pre- and post-closure. He also noted that all three prairie dog towns were wiped out by plague.

Site Operations – Jeremiah McLaughlin

At the Original Landfill, 12 monthly inspections were performed in 2009. Fourth-quarter inspections were completed on October 27, November 30, and December 30, 2009. Settlement Monuments were surveyed in March, June, September, and December. Data were within the expected range per the Monitoring and Maintenance Plan (which is between 1.34 and 2.86 feet depending on the location). Surface cracking was found to be continuing in the vicinity of Berm 1, indicating localized instability. A new surface expression of the Seep #7 area (located approximately 10 feet southwest of inclinometer 82608) was documented in November. Observation of area is ongoing. Adjustment to the drain may be needed to carry additional water observed after heavy precipitation.

Inclinometers at the Original Landfill were measured in October, November, and December. Very little inclinometer deflection was noted during fourth quarter. A review by a geotechnical engineer was consistent with 2008 Geotechnical Report findings. Localized slumping occurs as groundwater levels saturate the organic layer near bedrock. DOE will continue monitoring and implementing maintenance to fill/grade surface cracking.

At the Present Landfill, four quarterly inspections were completed in 2009. The fourth-quarter inspection was completed on November 30; the vegetation inspection was completed on December 1; and the settlement monument surveys were completed in January and December 2009.

Continue Discussing Dam Breach Environmental Assessment (EA)

The next agenda item was a continued discussion of DOE's Environmental Assessment related to the breaching of dams A-4, B-5 and C-2. At the April meeting, the Stewardship Council approved a letter opposing DOE's plan.

The public was invited to share comments prior to additional conversation between the Board, DOE and CDPHE. Hank Stovall introduced himself by noting that he was a 40-year resident of Broomfield, a former City Council member, and also participated on Health Advisory Panel's dose reconstruction project. He said he thinks it is hypocrisy that DOE wants to restore the dams to their natural state and that they really just want to dilute the contamination. He would like to hear from DOE and the regulators how much contamination was left, where it is, and what was done to keep it under control. He said radioactive contamination requires substantial seals and double liners, such as at the Last Chance site and other licensed hazardous waste sites. He cited many reasons for being concerned, such as the 1957 fire in which B771 filters were breached and subsequent fires. He also mentioned routine operations in B776/771 and the 903 pad. He referred to estimates of the number of curies released over the years. He said the decision to breach the dams is 90-100 years premature because the site has not stabilized. He expects contaminated groundwater to begin seeping shortly if it has not already. He described what he called DOE's callous disregard for downstream communities over the years. Mr. Stovall also referred to a study of Great Western Reservoir that showed contamination. He also said a study has demonstrated that above-background radiation was found in a 4-5 mile radius around Rocky Flats. He said the ponds have provided Broomfield with a first line of defense from contamination and asked the Stewardship Council to continue to demand and advocate for the 'No Action' alternative.

David Allen asked DOE for their path forward on the dam breach EA, as well as on decisions related to a potential change to POCs. Lynn Bowdidge said Stoller will present the final EA to DOE in late July. DOE will then choose one of the alternatives. Carl Spreng said that a draft final will be sent to the regulators, and a comment period will take place in July. David Allen said he is concerned that this group has not had a sufficient chance to provide comment. He added that, as DOE moves forward and considers changes to POC's, he hopes that the Stewardship Council will be able to have a meeting during the public comment period. He pointed to the need to continue to work together, and suggested a special meeting during the comment period. Lori Cox noted that a special meeting of the Stewardship Council can be called by any three members. David Allen said he would like the opportunity to review a summary of comments from the last public meeting.

At this point, Chair Lori Cox noted that the Board had veered away from discussing the details of the EA. Rick DiSalvo commented that the details of the proposal had not changed since the briefing and technical meeting in April. Lori asked whether there was a way to schedule the comment period to end after the Board's September meeting. After a bit more discussion, the Board scheduled a tentative meeting for August 16, pending the actual dates of the comment period. Joe Cirelli said he supported holding the special meeting because waiting until September might not give the Board enough time to formulate comments. Sue Vaughan suggested that the talking points from the letters written by the downstream municipalities be used as a starting point for discussion at the special meeting. David Allen noted that they may bring additional points for consideration. Marc Williams moved to schedule a special meeting for August 16. The motion was seconded by Joe Cirelli. The motion passed 11-0.

Lori Cox asked again for comments on the EA. She summarized that the Board has said repeatedly that it is too soon to make this decision, and that there are too many unanswered

questions. She said that the public meeting went well, and many questions were raised, although there were not as many answers as the attendees may have liked. Lisa Morzel asked if notes were taken at the meeting. Scott Surovchak said that because it was a public meeting and not a formal hearing, there were no requirements for formal note-taking. DOE did take notes on flipcharts, and these will be included in the final EA. Lisa asked for a copy of these notes. Scott pointed out that the reason some of the questions were not answered was because they will be better dispositioned in the EA's Response to Comments. He said DOE also received some written comments. Doug Young (Sen. Udall) asked if there was a way that DOE could respond to the primary issues prior to the release of the EA. He said he was worried this was becoming an adversarial scenario, and would like to see additional discussion, negotiation and hopefully a consensus agreement. Carl Spreng agreed with Doug and said that throughout a series of meetings with technical staff members from the concerned cities, the comments have narrowed and focused.

David Abelson pointed out that, over the years, there has been an unofficial practice among the local governments in which they have deferred to the downstream communities on water issues. This practice has impacted the level of engagement and nature of comments offered by the other communities. He said that, in looking for consensus, it may make sense for the downstream communities to have those dialogues directly with DOE and the regulators. He recapped the primary issues of concern to date, including the ability to test the flow-through conditions at other dams but not at C-2, and the lack of contingency plans for addressing any potential future contamination flowing offsite through the C-2 area. David noted his belief that there is ample opportunity to really discuss these issues, and that the downstream communities are in the best position to accomplish this. He asked the Board if it made sense to entrust the downstream communities to work on these issues with DOE, and then report back to the Board. David Allen said that they are willing to do this, but that it has been proving difficult because they do not have specific information about DOE's plans and will not know what they are until the official release of the EA. He noted that there needs to be willingness on both sides to have this dialogue. Scott Surovchak replied that DOE has met with the communities many times, and has been very consistent in outlining their plans. He said there will not be any surprises in the EA. David Allen said that the communities have been openly communicating their desire for a contingency plan since last year, as well as their position that it is too soon in the post-closure period to make this decision. Sue Vaughan said that, through the discussions between the downstream communities and the agencies, she would like to see if there is common ground on the issues identified by David Abelson before the special meeting. Carl Spreng noted that he had proposed late last week that the agencies meet with the cities on a staff level, and that he thinks this would be good way to move forward. Faye Griffin said she would also like to receive updated information from the downstream communities based on any new discussions with the agencies prior to the special meeting. David Abelson and Rik Getty will be available to compile this information. Bill Fisher acknowledged that Golden was comfortable with the path forward being discussed. Ron Hellbusch said that Westminster was also interested in pursuing a consensus on these issues, as suggested by Doug Young. He would like the technical discussions to proceed, followed the technical staff members meeting with city officials to look for a consensus position to bring to the Board. Lori Cox noted that the discussion on August 16th will cover both the dam breach EA and possible relocation of POC's.

Continue Discussing Signs for Rocky Flats

Because the meeting ran behind schedule, this agenda item was postponed.

Public comment

There was none.

Updates/Big Picture Review

August 16, 2010 (special meeting)

September 13, 2010 (second Monday)

Potential Business Items

- Initial review of 2011 RFSC budget

Potential Briefing Items

- Host LM quarterly public meeting
- Surface water briefing
- Annual review of RFSC activities
- Begin discussing 2011 RFSC Work Plan
- Continue discussing interpretive signs for Rocky Flats

November 8, 2010 (second Monday)

Potential Business Items

- Budget Hearings for 2011 RFSC budget

Potential Briefing Items

- Host LM quarterly public meeting
- Approve 2011 RFSC Work Plan
- Review history of RFSC
- Continue discussing interpretive signage for Rocky Flats

Lisa Morzel would like a map of the surface water systems included in the materials for the next meeting.

The meeting was adjourned at 11:55 a.m.

Respectfully submitted by Erin Rogers.