ROCKY FLATS STEWARDSHIP COUNCIL
Monday, February 1, 2016, 8:30 – 11:30 AM
Rocky Mountain Metropolitan Airport, Terminal Building, Mount Evans Room
11755 Airport Way, Broomfield, Colorado

Board members in attendance: Sandra McDonald (Alternate, Arvada), Lisa Morzel (Director, City of Boulder), Deb Gardner (Director, Boulder County), David Allen (Alternate, Broomfield), Laura Weinberg (Director, Golden), Libby Szabo (Director, Jefferson County), Pat O'Connell (Alternate, Jefferson County), Shelley Stanley (Alternate, Northglenn), Ray Reling (Alternate, Northglenn), Joe Cirelli (Director, Superior), Jan Kulmann (Director, Thornton), Emily Hunt (Alternate, Thornton), Bruce Baker (Director, Westminster), Sharron Bird (Alternate, Westminster), Mary Fabisiak (Alternate, Westminster), Jeannette Hillery (Director, League of Women Voters), Roman Kohler (Rocky Flats Homesteaders), Arthur Widdowfield (Director, Rocky Flats Cold War Museum), Steven Franks.

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

Attendees: Scott Surovchak (DOE-LM), Bob Darr (Navarro), Linda Kaiser (Navarro), David Ward (Navarro), Bob Fiehweg (Navarro), Stephen Pitton (Navarro), Jody Nelson (Navarro), Heather Brown (Navarro), John Boylan (Navarro), George Squibb (Navarro), Carl Spreng (CDPHE), Christine Howly (Woman Creek Reservoir Authority), Bonnie Graham Reed (citizen), John Reed (citizen), Anne Fenerty (citizen), Jon Lipsky (citizen), Pat Mellen (citizen), Marc Roberson (citizen), Ted Ziegler (citizen), Cynthia Winslow (PCM), Quentin Young (5280 Magazine).

Convene/Agenda Review

Vice Chair Lisa Morzel convened the meeting at 8:30 a.m. The first order of business was introductions of Board members and the audience. Lisa noted that the Executive Committee met on December 14, and had reviewed and approved the agenda for this meeting.

Election of Stewardship Council Officers for 2016

The next item was the election of officers for 2016. Each year, the Board must elect a Chair, Vice Chair, and Secretary/Treasurer. As provided in the bylaws, the terms shall commence at the first meeting held on or after February 1 of each year. There are no limitations as to the number of terms one can serve.

Prior to the meeting, three people had expressed an interest in serving as officers for 2016. Lisa Morzel volunteered to serve as Chair, Joyce Downing as Vice Chair and Jeannette Hillery as Secretary. Vice Chair Morzel asked if anyone else was interested in being considered for one of the positions. No one replied. Jeannette Hillery moved to close the discussion and approve Lisa Morzel as Chair, Joyce Downing as Vice Chair and Jeannette Hillery as Secretary/Treasurer. The motion was seconded by Joe Cirelli. The motion passed 14-0.

Bruce Baker introduced Sharron Bird as a new Alternate member from Westminster. Barb Vander Wall noted that all 2016 Board members needed to sign the oaths of office which she had distributed. She said she would email the document to those who were not in attendance.

Consent Agenda

The Board moved on to the consent agenda, which included approval of the minutes from the last meeting and the checks written since the last meeting. David Abelson noted that there needed to be a change in minutes regarding the language that prefaced that Board going into Executive Session at the last meeting. Roman Kohler moved to approve the October 2015 Board minutes as amended and the checks. The motion was seconded by Bruce Baker. The motion to accept the minutes and checks passed 14-0.

Approval 2016 Meeting Dates and Notice Provisions Resolution

Each year the Board is required to adopt a resolution establishing the meeting dates for the given year. The Board was provided with a suggested schedule for 2016 in the meeting packets. The proposed schedule, with the exception of the first meeting of the year, follows the Board's meeting dates for 2015. The dates proposed were February 1, April 4, June 6, September 12 and October 31. Deb Gardner moved to approve the resolution and meeting notice provisions. The motion was seconded by Jeannette Hillery. The motion passed 14-0.

Executive Director's Report

David Abelson began his update by noting a few new local government Board members for 2016, including Sharron Bird, Martha Derda, Sam Weaver and Jan Kulmann. David next spoke about the Federal budget and shared that DOE-Legacy Management, the DOE program office that manages Rocky Flats, was funded at the levels that were requested. He also noted that the Stewardship Council's 2015 audit was in process, and the Board would be briefed at the June meeting. David noted that the Board's email distribution list had about 120 names on it, and that staff received about 2-3 new requests per month.

David noted that in November he attended an annual Intergovernmental Working Group meeting. This group was created to provide a forum for increased communications between the Department of Energy Office of Environmental Management (DOE-EM) and intergovernmental organizations, which include the Energy Communities Alliance (ECA), the National Governors Association (NGA), the State and Tribal Government Working Group (STGWG), the Environmental Council of the States (ECOS), and the National Association of Attorneys General (NAAG). David said there had been a dialogue on remediation issues, which annual includes $8 billion in responsibilities and only $5.4 billion in funding. David facilitated a discussion on this issue. He said Rocky Flats got lucky in terms of cleanup funding, as remediation here was completed before the budget landscape changed in Congress. He noted that other sites were facing much more complex cleanup issues. For example, he explained that the Hanford cleanup was expected to cost $200-300 billion (compared to about $7 billion at Rocky Flats).

Public Comment

Ted Ziegler said he wanted to comment on some discussions that took place during 2015 at these meetings. He said that Carl Spreng had commented often that Rocky Flats was safe. Ted said that he had not seen anything that proves this. He said that the building foundations and contamination were still there, and that he disputed Carl's comments that the site was safe. (A copy of Mr. Ziegler's written comments can be found here: http://rockyflatssc.org/public_comment/20160201%20Ted%20Ziegler%20Public%20Comment.pdf)

Anne Fenerty began by noting that Ted Ziegler had been a union safety representative at Rocky Flats. Anne stated that while some plutonium was shipped offsite, much was left onsite in the subsurface, creeks, and groundwater. She also noted that the original landfill was one of many contamination sites left, and that it was a huge area. She said it was used between 1952-1968, and that no one analyzed what was inside. She said it was located in an unstable area in a huge floodplain. She added that the accelerated action used as part of cleanup did not use a RCRA closure, which she said was recommended by an expert. She said that a geomembrane should have been used to keep water out. She noted that the closure had resulted in great number of contact reports. Anne said that CDPHE has grant from DOE to approve the contract records, and that she believed this was a conflict of interest. She referred to the opinion of Dr. Dwyer related to the original landfill and asked why DOE did not follow the recommendation of their own highly qualified scientist.

Jon Lipsky introduced himself as a local stakeholder. He said he wrote a paper about the buffer zone and refuge areas, and that he had many concerns about safety in the present day. He said that the public was not allowed to comment on contact records, or the five year reviews at Rocky Flats. (A copy of Mr. Lipsky's written comments can be found here: http://rockyflatssc.org/public_comment/20160201%20RFSC%20Public%20Comment%20-%20Jon%20Lipsky.pdf)

At this time, Chair Morzel asked members of the audience to introduce themselves.

Host DOE Quarterly Meeting

DOE was on hand to brief the Board regarding site activities for the third quarter of 2015. The full report was posted on the Rocky Flats website. Activities included surface water monitoring, groundwater monitoring, ecological monitoring, and site operations (inspections, maintenance, etc.). DOE was also asked to include an overview of the recent events at the Original Landfill (OLF).

Surface Water Monitoring – George Squibb
George began the presentation by reviewing surface water activities for the quarter. He began with a quick review of the monitoring requirements and map of locations and monitoring sites, also what constituents they monitor for.

Performance monitoring at the Original Landfill (OLF) showed composite sampling results for arsenic and selenium that were above the RFLMA standards. The mean arsenic concentration

was 10.6 µg/L for the quarter (RFLMA standard is 10 µg/L), and the mean selenium concentration was 6.7 µg/L for the quarter (RFLMA standard is 4.6 µg/L). These results prompted increased sampling frequency (monthly) for the fourth quarter, per RFLMA evaluation protocols. Similar concentrations were detected at the upstream location GS05. George noted that new results had just been received, but not yet validated. These results showed that the constituents were not detected.

Routine third quarter sampling at the Present Landfill (PLF) showed three analytes above the applicable RFLMA standards. The vinyl chloride concentration was 0.28 µg/L, exceeding the practical quantitation limit of 0.2 µg/L. The arsenic concentration was 18 µg/L, exceeding the standard of 10 µg/L. The selenium concentration was 14 µg/L, exceeding the standard of 4.6 µg/L. Per RFLMA evaluation protocols, the results triggered an increase in sampling frequency from quarterly to monthly. Subsequent results from the first monthly sample showed all three analytes either below the standard or not detected.

George moved on to an update on Point of Evaluation (POE) monitoring. At location SW027, the 12-month rolling average for plutonium was reportable as of April 30, 2015. Results showed 12-month rolling averages of 0.22pCi/L (April 30) and 0.72 pCi/L (May 31). The standard is 0.15 pCi/L. A composite sample that was initiated June 12 was still in progress, as the creek stopped flowing around this time. Because of this, the results at this location were still considered 'reportable'. RFLMA Contact Record 2015-05 was issued July 8, which called for mitigating actions including enhancing upstream erosion controls. All results from the downstream location at WOMPOC were less than the applicable standards. No other RFLMA POE analyte concentrations were reportable throughout third quarter.

George concluded his presentation by noting that all RFLMA POC analyte concentrations remained below reportable levels throughout third quarter.

Shelley Stanley asked how long they could keep the composite sample that was started in June at SW027. George said it was discarded in January. Sandra McDonald asked if the site saw a lot of vegetation growth in the erosion control areas due to the wet summer. Jody Nelson responded that the vegetation did really well. George added that they used a new product as an erosion control tool. It consisted of toothpick size wood chips derived from beetle kill trees that stay interlocked and in place to keep moisture in the soil. Steven Franks asked if the site was testing to see if the arsenic found in samples was organic or inorganic, and if they could distinguish between natural and manmade. George said that they simply evaluated the results against the standard, and did not distinguish background levels. He explained that if results exceeded the standard, consultation would be triggered and could prompt an analysis. He also noted that the standards take background levels into account. George noted that the Rocky Flats Remedial Investigation/Feasibility Study (RI/FS) included specifics on all constituents at the site. David Allen asked if there were any further plans at SW027. George said that they would be adding more erosion matting in the South Interceptor Ditch (SID), including a couple hundred square feet at the bottom of drop structures. Anne Fenerty asked which facility performed the isotopic analysis for radionuclides. George said that Lawrence Berkeley performed this analysis for uranium from Rocky Flats.

Groundwater Monitoring – John Boylan
John started by noting this quarter is a light sampling quarter per RFLMA monitoring requirements. 10 RCRA wells were sampled quarterly. Groundwater quality was generally consistent with previous results. He added that all results would be evaluated in the annual report. John noted that heavy spring precipitation continued to affect groundwater levels and treatment system flows.

Because of the precipitation, treatment systems experienced above-average flows. At the Mound Site Plume Treatment System (MSPTS), routine maintenance was performed on the air stripper and other components. The site also continued designing the system reconfiguration, with construction scheduled for mid-2016.

At the East Trenches Plume Treatment System (ETPTS), routine maintenance included:

- Adjusting timer settings
- Monitoring power levels (augmented with generator as necessary)
- Replacing malfunctioning effluent pump (augmented with portable sump pump as necessary)
- Cleaning scale from some components (less scale buildup compared to original, small-scale air stripper)

At the Solar Ponds Plume Treatment System (SPPTS), the following activities were performed during the quarter:

- Continued microcell and lagoon tests
- Replacing malfunctioning ITSS pump
- Replacing damaged wiring
- Developing procurement package to construct interim configuration
    - Empty original "Big Box" structure, scale it up to test full-scale lagoon operation and performance
    - Construction scheduled for early 2016

Shelley Stanley asked for a numerical representation of the increased flows. John said at the ETPTS, the average flow was 1.5-2 gpm (gallons per minute), and this increased to 6 gpm for a period of months. He said it was approximately 3 gpm currently. Shelley asked about accommodating additional influent from the MSPTS. John said they had added more power. Mary Fabisiak asked if this was solar or portable power. John clarified that the current power configuration was adequate under normal conditions, but they would be adding more battery power.

Site Operations – Linda Kaiser
Linda started by noting quarterly sign inspections determined that all sings were in good condition.

At the OLF, three monthly inspections were performed. One weather-related inspection occurred in July due to a precipitation event producing more than one inch of rain in a 24-hour period. Eight settlement monuments were also monitored during the quarter. Linda said that cracking and slumping were less pronounced on the OLF east and west sides, as compared to second

quarter observations. An interim construction action to reestablish surface water management on portions of the OLF began August 18 and was completed September 22. This included grading, smoothing, and filling cracks to promote water drainage from the cover. The existing east subsurface drain was 'potholed' to investigate a reason for low flows. No blockages were found. Finally, seed and erosion control matting was installed on all disturbed areas. Linda showed a number of photos and maps to demonstrate where these actions occurred on and around the OLF. She pointed out that most of the movement was outside of the waste footprint.

At the Present Landfill (PLF), one quarterly inspection was performed. No issues were observed. Linda said that inclement weather brought a requirement to investigate the former building areas for damage to the surface. Former Building Areas 371, 771, 881, and 991 were inspected. Subsidence areas were observed and filled at 881 and 771. These subsidences ranged from one-to-three feet wide, and 1 to 1.5 feet deep. Shelley Stanley asked how many cubic yards of soil was used to fill areas around the buildings. Linda said it was not much (less than truckload) because there were only two small holes found.

Shelley noted the eight settlement monuments that had been monitored and asked how many were there originally. Linda said no settlement monuments had been lost, and that there had always been eight. David Allen asked why DOE stopped monitoring the inclinometers in the OLF. Linda said some of them had failed at depth, and some more shallowly. She added that it was uncertain whether they had been getting useful data. She said only two inclinometers had not broken. David Allen asked how large an area was disturbed as part of the OLF regrading activities. Linda said she thought it was four acres, but was not sure of that number. Steven Franks asked whether there were any plans to replace the inclinometers. Linda said they did not know yet, as this was part of the ongoing evaluation. She explained that inclinometers measured in very small increments, which may not be useful given the conditions. Murph Widdowfield asked if they had observed any slumping on adjacent lands. Linda said not that particular ridge, but that there were two areas by North Walnut Creek that were doing the same thing. John Boylan noted that the last DOE quarterly presentation included some photos of this. Deb Gardner asked how close the movement was to the actual debris of the landfill. Linda said that the debris was quite scattered. She said when work was being completed, they found just couple small pieces of debris. She added that they did not have really good records of what was dumped in the landfill. Deb noted public concern about radioactive waste in the OLF, and asked whether they scanned for this. Linda said that any debris was scanned as it was discovered. Deb asked if there were there records of these scans. Linda said she was not sure whether this information was included in the quarterly report. Lisa Morzel asked if they scanned for VOC's. Linda said that if they were suspicious of something they encountered, they would scan it. Lisa asked if they would do the same if there was something that made them suspicious about the soil. Linda said they would; however, there was no routine sampling of soil during the regrading.

Site ecology – Jody Nelson
Jody spoke about the numerous ecology activities performed during the quarter. Activities included:

- Conducted Preble's mouse and wetland mitigation monitoring, wetland delineations, and revegetation monitoring
- Conducted forb nursery monitoring

- Surveyed current and former prairie dog towns in and near the COU for activity (none were found in COU)
- Conducted revegetation activities
- Treated approximately 145 acres with herbicides for weed control
- Continued watering habitat enhancement shrubs planted in spring 2015

Anne Fenerty noted that Boulder County had a major problem with prairie dogs. Lisa Morzel asked if the site had seen any shift in the raptor population in conjunction with prairie dog numbers. Jody said that they did not do quantitative analyses of the raptor population, but he had not noticed any real changes in the numbers.

Briefing/Discussion on Original Landfill

DOE's briefing on the Original Landfill (OLF) included its history, monitoring data during cleanup, remedial actions taken to close the OLF, and post-closure monitoring and maintenance. DOE had hoped to include a discussion of the engineer's report to help stabilize the OLF, but that report was delayed and will be discussed at the April meeting.

Linda Kaiser began the presentation by displaying an aerial photo of the landfill area taken in 1936. The approximate boundaries of the current landfill movement areas were highlighted on the photo and showed how those locations were unstable and uneven long before Rocky Flats was constructed. Linda explained that construction and other debris, along with general facility waste, was placed in a 20-acre area from 1952 to 1968. The types of waste included:

- Small amounts of waste with hazardous constituents
- Asphalt, construction debris
- Office and building debris
- Commonly used VOCs
- PCB waste such as carbonless copy paper, small capacitors
- Metals such as beryllium, lead, and chromium

A total of approximately 74,000 cubic yards of waste was disposed at the OLF. Waste segregation was practiced, with most radioactive and hazardous waste disposed in other areas of Rocky Flats or in Idaho.

Filter backwash wastewater (from making potable water) was discharged to an evaporation pond in the area of the landfill and covered with fill by 1964. In 1965, 60 kg of burning depleted uranium was dumped in the landfill. 40 kg of this material was recovered and further removal of depleted uranium in surface soil was completed in 2004.

A soil cover was placed over the disposed waste when the OLF was shut down in 1968. At that time, the Present Landfill (PLF) opened to receive this type of waste. Also, the South Interceptor Ditch (SID) was built across the southern portion of the landfill in 1980. Linda showed a few more photos of the OLF area taken in the 1960's and 1970's.

There were some early cleanup efforts at the OLF during the production years. In 1979, three locations containing depleted uranium were found and one box of soil was removed. At an unknown date, Woman Creek near the western portion of the landfill was relocated. In 1990, a barrel with radioactive materials was removed and followed by a radiological survey of the entire OLF area. In 1993, pieces of radioactive debris were removed (depleted uranium). These were small spherical pieces of rusty material and concrete coated with corroded metallic material.

In 1996, the Remedial Investigation was completed. In 2004, surface soil contaminated with uranium above Wildlife Refuge Worker Action Levels was removed. The final Interim Measure/Interim Remedial Action (IM/IRA) document (2005) addressed remedy selection for the OLF. Linda shared some highlights from the IM/IRA:

- Page 5-1: "OLF has been closed for approximately 35 years with an inadequate soil cover and limited stormwater run-on and run-off controls, and very little maintenance applied, and yet the levels and extent of contamination in environmental media are quite low."
- Page 4-8: "…Groundwater quality is not significantly impacted by the OLF."
- Page 4-9: "frequency of occurrence (of downgradient surface water analytes above action levels) is not sufficient to indicate the OLF has a significant chronic impact on surface water quality."

Based on these findings, two Remedial Action Objectives were developed. These were 1) to prevent direct contact with landfill soil and commingled waste, and 2) to control erosion caused by stormwater run-on and runoff. The strategy designed to meet these remedy objectives included:

- Remove uranium-contaminated surface soils
- Install a stable landfill cover to prevent direct contact with soil or debris
- Install a landfill cover that controls erosion caused by stormwater run-on and runoff
- Adopt institutional controls to supplement engineering controls

Linda showed photos taken of the work performed during the closure of the OLF, followed by a depiction of the current landfill features. She then moved to a summary of events at the OLF since closure.

In 2007, localized cover slumping and settling was observed, primarily on the west side, and Seep 8 appeared at the eastern toe of the buttress. A geotechnical investigation was begun in 2008 with the following objectives:

- Evaluate possible causes of localized slumping
- Develop feasible alternatives for mitigating localized slumping
- Consider seep impacts and evaluate berm heights and channel slopes

The results of the investigation included:

- The clay layer containing organic materials at bedrock contact appeared to be a weak interface area

- Modeling predicted small-scale instability when percolating moisture lubricated weak layer
- The buttress provided stability and no large-scale instability was predicted
- Selected path forward was filling cracks and repairing localized movement if necessary; no large-scale actions
- Berm heights were re-evaluated

Actions undertaken during this timeframe included extending the drain at Seep 7, reconfiguring the West perimeter channel, opening of the drain in the west perimeter channel, adding a subsurface drain in the west perimeter/berm 3 channels, and berm and channel maintenance. After the west perimeter channel reconfiguration in 2009, no significant movement or cracking was found. Occasional small cracks were filled in accordance with the monitoring and maintenance plan. Scott Surovchak added that some trench characterization was also performed during this timeframe.

A flood occurred in September 2013 and was classified as a100-year rainfall event. It resulted in cracking through Berm 4 and into Berm 5 on the east side. No significant erosion occurred. There was some minor gullying and erosion at the ends of some berm channels where connected to perimeter channels. The surface water management features performed well. After the event, cracks were filled and a temporary drain was installed at berm 4. A larger scale re-grade was designed for the east perimeter channel; however, implementation was delayed by early winter weather.

Cracking and slumping, mostly associated with the east perimeter channel and the Berm 4 area, continued through the spring of 2014. DOE re-evaluated the design for the east perimeter channel reconfiguration, and construction was completed in January 2015. All soil disturbance and regrading was performed outside the waste footprint area.

Another round of extended heavy precipitation took place over several months in the spring of 2015. This resulted in significant cracking, slumping, and movement on the east side of the OLF. The west side of the OLF experienced some movement on the west end of Berms 1 and 2. The center section of the landfill experienced no visible movement, just small cracks in a few locations. As the most immediate need was to conduct water off the cover, initial short-term actions included installing an overland drain pipe and developing small drainage channels. Linda displayed several photos of the wet conditions and the actions taken to mitigate the effects at the OLF.

Additional interim actions to address the issues included re-grading affected areas to restore the water management functions of the cover and close cracks. It was noted that the two-foot cover requirement was not maintained in some areas, primarily outside the waste footprint. A few pieces of debris were noted during regrading, but none were radiologically contaminated.

Linda said that DOE was currently evaluating a longer term path forward for the OLF. This includes an engineering evaluation of wide range of technical alternatives to increase slope stability and evaluate water management features. She said the alternatives would be ranked

according to how effective they were predicted to be. Cost estimates and regulatory implications would then be developed for short-listed technical alternatives.

Ongoing OLF monitoring and maintenance actions were prescribed by RFLMA and detailed in the OLF Monitoring and Maintenance (M&M) Plan. These include:

- Inspections
  - Monthly as required by RFLMA
  - Currently performed weekly as a best management practice
  - Performed after 1 inch of rain in 24 hours or significant melt of a 10-inch or more snow accumulation
- 8 settlement monuments surveyed quarterly
- Inclinometer monitoring (discontinued)
- Topographic survey every two years
- Berm and channel maintenance every two years
- Consultation with geotechnical engineer triggered by specified events
- Institutional controls
- Four RCRA monitoring wells
- Surface water monitoring at GS05 and GS59
- Reporting in quarterly and annual environmental monitoring reports

Linda concluded her presentation by reviewing water quality monitoring results at the OLF. She said water was analyzed for VOCs, SVOCs, and metals including uranium. There is one upgradient monitoring location and three downgradient locations. Results have been consistent year-to-year. VOCs and SVOCs have rarely been detected. Overall, monitoring did not indicate any water quality impacts from the landfill.

Emily Hunt asked if DOE understood how much of the groundwater was coming from the mesa and how much from rainfall. Linda said that part of what they were looking at was whether additional groundwater controls would be effective. She said that there was definitely a groundwater component to what was going on. Shelley Stanley asked if they re-seeded after the 2015 re-grading. Linda said that was done right away. They also used coconut and plastic reinforcement matting. David Abelson noted the concerns that Anne Fenerty had brought up repeatedly about not using a RCRA Subtitle C cap at the OLF, and asked Linda to address these concerns. Linda noted that the Rocky Flats Intermediate Measure/Intermediate Remedial Action (IM/IRA) report explained how the decision was made to choose the OLF cover configuration. She said that new guidelines for military and municipal landfills included designs similar to what was in place at the OLF. She explained that there were several types of RCRA caps. Linda noted that a thicker cap with more layers would add a lot of weight, which would in turn lead to more movement. Carl Spreng (CDPHE) added that as part of the evaluation of the OLF closure requirements, five State criteria were reviewed, and three of these were found to be relevant and appropriate to Rocky Flats. He noted that a layered cap was inappropriate for several reasons. Jeannette Hillery asked whether there were RCRA covers at other locations that had a similar level of slope as the OLF. Linda said she did not know. She added that the ongoing geotechnical evaluation would be looking at and considering different type of covers.

Deb Gardner asked if DOE knew what was causing new seeps to be formed. Linda said it was groundwater daylighting on the hillside. Deb asked what would have happened with this groundwater if there were a RCRA cap in place. Anne Fenerty said she was not the one who suggested the RCRA cap, and that it was Dr. Dwyer. She said that the agencies decided it would be too expensive. David Abelson pointed out that Dwyer was not hired by DOE, but by the Woman Creek Reservoir Authority. He added that the Rocky Flats Coalition of Local Governments had rejected what Dwyer recommended because of the weight and the fact that the cap he was recommending would cover Woman Creek. At the time, the governments preferred that the waste be excavated. However, the risk to workers and the desire to not set a precedent led to a different decision by the agencies. David noted that Westminster had been a dissenting voice in terms of accepting the cap design.

Lisa Morzel asked if DOE would make the same decision today for the OLF closure given what they knew now. Scott Surovchak said he still would not have made the decision to excavate the waste. He said that the priority was getting the buildings and other materials offsite, and that excavation of the OLF would have generated a huge waste stream that presented little to no risk if left in place. He said there were several very well-placed monitoring sites throughout the OLF, and added that there had been a great deal of characterization data gathered from the early 1980's through as recently as 2009. This data showed low to no risks at this location. Scott said that if the site had been excavated, all of the soil would have had to have been treated as hazardous (low level mixed) waste because it could not be feasibly characterized. It would then have had to be shipped by truck or rail to the Envirocare facility in Utah.

Steven Franks asked if was a way to measure water pressure at the OLF. Linda said there had been, but the instruments had failed and there was no requirement to repair. John Boylan noted that there were 83 wells and piezometers in the OLF before closure. Steven asked if it would be possible to de-water north of landfill. John said it would possible, but not realistically feasible. Deb Gardner asked about a report that estimated that excavation of the OLF would produce 74,000 cubic yards of waste. Scott and Linda responded that when the soil was included, the amount would be much higher.

Ted Ziegler referenced a DOE statement from January 2015 that pointed to plutonium as the main focus at Rocky Flats. He argued that there were many other toxic materials sprayed and buried at the site, and that the soil should be sampled. He said he got the answer that this was not required. He said he believed people were still being exposed to contaminants and said he wondered what the future health effects would be. Linda Kaiser again referred to the RI/FS report which documented a huge amount of soil sampling that took place at the site, representing millions of data points. Ted responded that the contamination was still there and was still affecting anyone in the area, including workers. Linda explained that risk assessments were used and that health and safety personnel looked at every job and determined safety procedures.

Sandra McDonald asked if any drainage was added to the seep areas. Linda said they did add drainage in order to move the water off faster. They installed rock drains, which conducted the water to the East Perimeter Channel or other locations. Sandra asked if these were sampled. Linda said they were not, but if problems were found at the monitoring points, they would move back up the drainage to investigate. Sandra asked how the site would know if VOCs were

encountered since they dissipated in air. John Boylan noted that groundwater was monitored for VOCs and SVOCs, and they rarely see anything detected, let alone anything close to the standards. Anne Fenerty asked if there was a RCRA well southwest of OLF. John said there were three at south end of landfill. She said she was concerned that these wells were not inside the COU. John said they were inside. Anne had been referring to well GS05, which was located on refuge lands. She said she did not think there could be any wells in refuge. Scott said that was not true.

Public Comment

There was none**.**

Board Roundtable – Big Picture/Additional Questions/Issue Identification

Joe Cirelli noted that the Town of Superior sent a set of questions to the Stewardship Council. David and Rik provided answers related to impact of rains and flooding during the past couple of years. Joe said that the answers were posted on the Town of Superior website.

Shelley Stanley said that the Woman Creek Reservoir Authority had written to DOE regarding a recent contract record. David said that letter and DOE's response would be included in the Stewardship Council's January update.

Lisa Morzel noted that she had been was working on the Rocky Mountain Greenway project along with Deb Gardner. This planned trail system was to begin at DIA, connect the three Front Range National Wildlife Refuges, continue north from Boulder to Lyons, and then all the way to Rocky Mountain National Park. Planning efforts include the east part of Rocky Flats. They have also talked about connections with Westminster and Broomfield open space locations. Libby Szabo said that she had maps of the plans if anyone would like a copy.

Big Picture Review

David Abelson explained that at the upcoming April meeting, the Stewardship Council would be operating as the Local Stakeholder Organization (LSO) for part of the meeting, and in a non-LSO capacity for the other part. He explained that the Chair would gavel the opening and closing of each part of the meeting so that it will be extremely clear what role the Board was playing at each time. At this meeting, there will be a review and look back at the positions of the seven original local governments during the time cleanup decisions were being made.

April 4, 2016

Potential Business Items

Potential Briefing Items

- Original Landfill – Update (LSO)
- DOE-USFWS Visitor Center (both LSO and non-LSO)
- USFWS Refuge Plans (non-LSO)

June 6, 2016

Potential Business Items

- Receive 2015 audit

Potential Briefing Items

- DOE quarterly update
- Discontinuance of Air Quality Sampling
- Overview of RFLMA Sampling

Issues to watch:

- Original landfill
- Uranium exceedances
- Plutonium levels at SW027
- Groundwater treatment systems
- Plutonium movement in soil column

The meeting was adjourned at 11:05 a.m.

Respectfully submitted by Erin Rogers.