

ROCKY FLATS STEWARDSHIP COUNCIL

Monday, April 4, 2016, 8:30 AM – 12:10 PM

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

Meeting Announcement: The Board of Directors will first convene as the Department of Energy (DOE)-designated Local Stakeholder Organization (LSO). At the conclusion of the LSO meeting, the Board will briefly adjourn and reconvene to review management of the Rocky Flats National Wildlife Refuge. That Refuge conversation will include a discussion of the joint DOE-U.S. Fish and Wildlife Service multipurpose facility. As a joint agency project, that facility both falls within the Stewardship Council's role as the LSO, and concerns matters not included in that designation. For this meeting, the multipurpose facility discussion will not be part of the LSO conversation; at future meetings, it might be included in LSO conversations.

The minutes reflect the meetings.

LSO MEETING

Board members in attendance: Mark McGoff (Director, Arvada), Sandra McDonald (Alternate, Arvada), Lisa Morzel (Director, City of Boulder), Deb Gardner (Director, Boulder County), Megan Davis (Alternate, Boulder County), Mike Shelton (Director, Broomfield), David Allen (Alternate, Broomfield), Laura Weinberg (Director, Golden), Libby Szabo (Director, Jefferson County), Pat O'Connell (Alternate, Jefferson County), Joyce Downing (Director, Northglenn), Shelley Stanley (Alternate, Northglenn), Joe Cirelli (Director, Superior), Emily Hunt (Alternate, Thornton), Bruce Baker (Director, Westminster), Mary Fabisiak (Alternate, Westminster), Jeannette Hillery (Director, League of Women Voters), Sue Vaughan (Alternate, 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), Elizabeth Dauer (Setter & Vander Wall, P.C), Rik Getty (Technical Program Manager), Erin Rogers (consultant).

Attendees: Scott Surovchak (DOE-LM), Bob Darr (Navarro), Linda Kaiser (Navarro), Carl Spreng (CDPHE), Vera Moritz (EPA), Christine Hawly (Woman Creek Reservoir Authority), Sandy Pennington (Superior Trustee), Hannah Mullen (Rep. Perlmutter), Stuart Feinhor (Rep. Polis), Carolyn Boller (Friends of the Front Range Wildlife Refuge), Susan Flack (Rocky Flats Museum), Mac West (Rocky Flats Museum), Anne Fenerty (citizen), Michael Ketterer (citizen), LeRoy Moore (Rocky Mountain Peace and Justice Center), Evan Singleton (Gablehouse Granberg, LLC), W. Gale Biggs (citizen), Harvey Nichols (citizen), Jon Lipsky (citizen).

Convene/Agenda Review

Chair Lisa Morzel convened the meeting at 8:33 a.m. The first order of business was introductions of Board members and the audience.

David Abelson began with an explanation of the format of this meeting, which was set up differently than a typical Stewardship Council meeting. While the Stewardship Council is engaged on both past and present issues related to Rocky Flats, the terms of its DOE grant dictate that, as the Local Stakeholder Organization (LSO), the Board may only be involved in issues relating to the past operations and ongoing management of Rocky Flats. However, the Board also receives funding from the local governments that it can use to address non-LSO issues, such as the US Fish and Wildlife Service (USFWS) management plan for the Rocky Flats Refuge.

David explained for this meeting, the Stewardship Council would sit as both the LSO for Rocky Flats, and would address non-LSO issues. The Chair would gavel each part of the meeting open and closed so that there would absolute clarity about which role the Board was taking on for each section. He noted that there were also separate public comment periods for each part of the meeting. David said that the Board of Directors would first convene as the LSO. At the conclusion of the LSO meeting, the Board would briefly adjourn and reconvene to review management of the Rocky Flats National Wildlife Refuge in a non-LSO role. The Refuge conversation was created to include a discussion of the joint DOE-U.S. Fish and Wildlife Service multipurpose facility. As a joint agency project, that facility both falls within the Stewardship Council's role as the LSO, and concerns matters not included in that designation. David explained that for this meeting, the multipurpose facility discussion would not be part of the LSO conversation, but at future meetings, it might be included in LSO conversations.

Chair Lisa Morzel officially opened the LSO portion of the meeting. She noted that the Executive Committee met on March 3, 2016, and had reviewed and the draft agenda for this meeting.

Consent Agenda

The Board next addressed the consent agenda, which included approval of the minutes from the last meeting, as well as checks written since the last meeting. Joyce Downing moved to approve the February 2016 Board minutes and the checks. The motion was seconded by Roman Kohler. The motion to accept the minutes and checks passed 14-0.

Executive Director's Report

David Abelson began his update by mentioning that Elizabeth Dower was sitting in for Barb Vander Wall for this meeting, as Barb was out of town. David announced that all of the annual local government contributions had been received for the year, and thanked everyone for their help and cooperation.

David moved on to an update regarding a recent public notice of a uranium water quality exceedance at the Point of Compliance on Walnut Creek (WALPOC). He noted that the standard was 16.8 µg/L, and the sample came back at 16.9 µg/L. Although the 12-month rolling average was below the standard, the 30-day rolling average was above it. David explained that this result was not a surprise, as it was expected to occur and was mentioned at the Board's February 2016 meeting. David reported that the levels had since returned to 16 µg/L. He also explained that while the drinking water standard was 30 µg/L, Rocky Flats was required to meet lower

standards than even municipal water suppliers. Fluctuations in uranium levels were expected based on previous studies. He noted that while most of the uranium was naturally-occurring, Rocky Flats still was required to meet the standard. David said that this issue led him to consider that it was probably time for the Board (especially newer members) to receive a refresher presentation about the standards, how and why they were set, and explaining the different types of monitoring points. He said he would look at the June meeting for scheduling this type of presentation.

David moved on to a discussion of the public comment section of the Stewardship Council website. He said there was some confusion about the purpose and meaning of this section. David explained that in 2010 DOE's Office of General Counsel provided a strong recommendation, although not a mandate, that the Stewardship Council create a venue for making public comments from its meetings more available, and find a way to more broadly communicate these issues. Therefore, the Board created a "Public Comment" section on its website. In time, it became apparent that the Board was posting comments that included information that may or may not be true, and positions that were not supported by the Board. In order to better clarify the nature of the comments found on this page, David spoke with DOE and created a disclaimer that was consistent with the direction from the Office of General Counsel. David read a copy of the disclaimer – "The following information has been posted to help facilitate dialogue with the Department of Energy. The Rocky Flats Stewardship Council does not endorse the information nor vouch for its accuracy. For more information about the Stewardship Council's role as the local stakeholder organization for Rocky Flats, including facilitating dialogue between DOE and the community, please click here". The link takes the user to the guidance from General Counsel.

Public Comment on LSO-related issues

Jon Lipsky noted that the Stewardship Council, as the LSO, was charged with encouraging public engagement, and transmitting unfiltered comments to DOE. Jon said that DOE funding for the Stewardship Council was \$650,000 for a five-year period. He said the Board received an additional \$10,000 from local governments, and that these funds were co-mingled. He said that the co-mingling of federal money was generally not allowed. He said that the Board's financial reports did not segregate costs between the sources of income. He also said that contractor payments should be based on actual time rather than estimated time. He said that in terms of preparation for this meeting, RFSC staff time was not broken down between LSO and non-LSO in the financial reports. He said that stakeholders deserved to know which source of funding was being used. Jon also referred to 2015 congressional testimony by the Director of the USFWS (Dan Ashe) which committed to better communication and increased efforts to involve the public. He said that a ten-minute comment period at this Stewardship Council meeting was not sufficient to meet this commitment. *A copy of Mr. Lipsky's written comments can be found here: http://rockyflatssc.org/public_comment/20160404%20RFSC%20Public%20Comment%20-%20Jon%20Lipsky..pdf

Sandy Pennington introduced herself as a Town of Superior Trustee. She said that she had some confusion about this body. She said it was hard to understand what the Board had responsibility for and what they do not. She noted that she was confused about whether or not this group had an advisory role. She said that the Town of Superior was recently presented a proposal by two

Stewardship Council leaders to support the planned Rocky Mountain Greenway. She said that a portion of the Greenway would go through what was alleged to be the most highly contaminated areas at Rocky Flats. She asked if this group had performed the function of soliciting public comment on this planned incursion into Rocky Flats lands. Sandy said that the Visitor Center would disturb the soil, and may put harmful contamination into the air, which could be breathed in by residents and may be harmful to them. She said some in Superior had inferred that the Stewardship Council supported the Greenway because the affiliation of the presenters was not clear. Sandy asked why the visitor center was on the agenda for the non-LSO meeting, but the Greenway was not. She said that the elected officials on the Board had a duty to their constituents and the broader region to foster communication and to ensure safety. She said they needed to avoid operating in a reckless manner, and to take this responsibility seriously.

Gale Biggs circulated copies of a handout, and said he was concerned about plutonium (Pu) 239 at Rocky Flats. He said that the Health Department did a study about 25 years ago, and found that the most dangerous emissions from Rocky Flats were the airborne emissions. He noted that no air monitoring was in place at the site, and neither CDPHE nor EPA had airborne standards for Pu-239. He said that once Pu enters a body, it emits alpha radiation for the rest of the person's life. He said he had seen estimates that a tablespoon of plutonium evenly spread over Denver could kill every person in the area. He said that the USFWS was proposing to turn the site into a family picnic area, and that kids visiting the site would die before they made it to college.

Ted Ziegler noted that he continuously shared and addressed the same issues. He said that there was contamination in the soil, and there was a need for complimentary soil samples in order to prevent disturbance and the creation of airborne contamination. He said this was not a safe area for anyone to visit now or anytime in the future. *A copy of Mr. Ziegler's written comments can be found here:

http://rockyflatssc.org/public_comment/20160404%20RFSC%20Public%20Comment%20-%20Ted%20Ziegler.pdf

Lisa Morzel stepped in to address the questions from Sandy Pennington. She said she had raised the topic of the Rocky Mountain Greenway with the Board during member update time. She said she agreed that there needed to be some kind of public hearing. She said that the Board could perhaps talk at the end of the meeting today in terms of making plans for its next meeting. Sandy said that Superior was being asked to make a decision by the end of April, and asked how they could do this prior to public hearings. David Abelson noted that the USFWS was charged with public engagement regarding this and other uses of the Refuge, and that they were presenting later in the meeting. David said he did not know what their plan was, but that they would be addressing it in their presentation. Lisa noted that a grant was available to the Rocky Mountain Greenway as part of the Federal Land Access Program (FLAP), and the deadline was in May. Deb Gardner agreed that some of the issues pertaining to the Rocky Mountain Greenway were confusing. She explained the Rocky Mountain Greenway planners that would be making the grant application for trail access points, and that the April date was being driven by this grant deadline. David Abelson clarified that the Greenway was not the work of the Stewardship Council, and when officials spoke to the Superior Trustees, they were representing their governments and not the Board. He said that the Board was just starting to ask questions about how it would like to engage in its non-LSO capacity. He said that this meeting was a first step,

and then the Board would look further into this issue in the future. David told Sandy that the question she asked about contamination and safety was a question that the Stewardship Council could address as part of its LSO role, along with DOE, CDPHE and EPA. He explained that the Stewardship Council was not an advisory Board, but that local governments engaged individually on advocacy related to Rocky Flats. Lisa and David offered to meet with her for more in depth discussions.

Libby Szabo noted that the USFWS and Colorado Department of Natural Resources were co-chairs of the Greenway Steering Committee. Anne Fenerty said that the Board had a responsibility to submit questions to DOE on this subject. She added that since the Greenway plans had changed to include a section of Rocky Flats, the public had a right to comment. David Abelson clarified that any questions regarding safety issues should be addressed to the Rocky Flats regulators, and not the USFWS. He added that the Board always posted public comments it received in electronic format, and reiterated that the question of public engagement on Refuge-related issues, including the Greenway plan, was the responsibility of USFWS.

Briefing/Discussion on Original Landfill

Chair Lisa Morzel introduced the next briefing, which the Board requested regarding the independent review of the Original Landfill, including options for stabilizing the OLF.

Linda Kaiser, Site Manager with Navarro, contractor to DOE, was on hand to give the briefing. She began by displaying a map of the landfill area, which showed the waste footprint, location of berms and seeps, and key surface water features in the area. She then recapped key events from 2015 that affected the landfill. The site experienced extended, heavy precipitation from mid-February through mid-July (approximately 18 inches). Cracking and slumping developed in areas along the eastern and western edges of the waste footprint (mostly outside waste footprint). Water ponding occurred in areas affected by cracking and slumping. The East Perimeter Channel (EPC) experienced significant slumping. However, most of the landfill area did not experience cracking, slumping, or movement. Linda showed another map which depicted these post-precipitation conditions at the landfill.

DOE issued Contact Record 2015-03 in May 2015, which was approved for immediate response actions without public notice. This included draining and diverting surface water and groundwater, and also approved the use of excavation below three feet, if needed. In July, 2015, Contact Record 2015-06 was approved for interim actions to re-establish surface water management. This included:

- Regrading to fill cracks and smooth irregularities (then reseeded/erosion matting)
- Installing above-ground drain pipes
- Berm heights and cover thickness might not be maintained in some areas

These interim actions were completed September 22, 2015. Linda showed photos of some of the work, as well as an aerial image showing the 4-acre area of soil disturbance.

She said DOE was now working on developing a path forward evaluation for the landfill. A geotechnical engineering firm had been evaluating technical alternatives to increase slope stability and enhance water-management features. As part of this evaluation, the engineers were reviewing previous geotechnical investigations, the remedial action decision documents, and observations and experience since the 2005 closure. Linda said they reviewed over 20 documents and reports (there was a partial list in the presentation materials).

DOE received a draft Options Analysis Report from the geotechnical subcontractor, which identified three primary factors contributing to slope instability at the landfill:

- Naturally weak soils underlying the OLF
- Slope angle that is sufficiently steep that soils can mobilize downslope
- Water that is introduced into the already weak soils from sources including:
 - Surface water run-on and runoff
 - Precipitation and infiltration
 - Groundwater

The geotechnical subcontractor identified a set of options to be evaluated individually and combined, as appropriate, to address slope instability:

- Options for addressing naturally weak soils
- Consideration of slope angle
- Options for water management
 - Berm redesign
 - Groundwater control

The subcontractor also provided a preliminary evaluation of options. DOE will select a subset of these options (individually or in combination) for more detailed evaluation. Evaluation criteria include:

- Satisfy the Remedial Action Objectives (RAOs)
- Maintain protectiveness to human health and the environment
- Effectively contribute to reducing one or more factors contributing to slope instability:
 - Technical effectiveness
 - More effective than current design
- Minimize effect on other areas (industrial area plume and stable portions of the landfill)
- Provide reasonable cost/benefit
- Safe implementation
- Regulatory approval

Linda also reviewed the Remedial Action Objectives for the landfill:

- Prevent direct contact with landfill soil and commingled waste
- Control erosion caused by storm water run-on and runoff

She also spoke about the remedy components necessary to address these RAOs:

- Uranium-contaminated surface soils removal (completed July 2004)
- Stable landfill cover to prevent direct contact with landfill soil or debris
- Landfill cover that adequately controls erosion caused by storm water run-on and runoff
- Institutional controls

Jon Lipsky referred to the objective of preventing contact between landfill soil and co-mingled waste. He said he had read that there was no depleted uranium left in the landfill and asked how they could have removed just uranium from co-mingled waste. Scott Surovchak said that Linda was talking about surface uranium contamination, which was addressed through a series of removal actions. Anne Fenerty asked how much DOE had spent on the landfill since 2005. Linda said she did not have that number in her head. Lisa Morzel asked Linda to follow-up on this question. Jon Lipsky referred to a Contact Record showing that the OLF had subsided, and he asked how many feet. Linda said that most of the OLF had not subsided. There was a crack that was beginning of a rotational slump, which slid in circular motion. This area was about 15 feet tall at its highest. She added that they did not see movement within the waste footprint area. Sandy Pennington asked if they sampled the pooled water for contaminants. Linda said they did not, and added that there were several standard monitoring points in the area. She said that, in general, very little contamination was showing up in wells associated with the landfill, and none in surface water. Sandy asked why they did not test the pools of water before they dispersed. Linda explained that the monitoring system was set up based on a network of sampling points designed to meet all necessary criteria. Lisa Morzel said she was also surprised that DOE would not sample even just out of curiosity. Linda said someone could discuss this with DOE. Mike Shelton asked if wells at the bottom of the slope were monitored, and how they could know that none of the contamination was associated with the OLF. Linda said they were seeing constituents like selenium, and nothing at levels that would cause them to have to go back and take another look.

Deb Gardner referred to water getting into the landfill through weak soils, and asked where this was and how deep. Linda said it was about 20-28 feet. Deb asked if water was coming from percolation and other sources. Linda said it was, including from groundwater and natural seeps. Deb asked which factors caused the slumping. Linda said that groundwater was a significant factor, and noted that some of the path forward options were related to groundwater. Bruce Baker asked if there was a spring to the east of the landfill. Linda said there were seeps. Bruce asked Scott to weigh in and characterized him as the person in charge of these decisions. Scott noted that they did not know what the exact contributions were from groundwater vs. water from the surface, but that it was primarily a surface water problem. Bruce said he would have thought opposite. Scott explained that groundwater moved very slowly, especially in this area of low permeability soils. He said the soil contained a lot of pebbles and boulders, and that the matrix was essentially clay. Bruce said that this type of soil would act like reservoir or sponge. Scott reiterated that groundwater controls were part of the equation moving forward.

Shelley Stanley asked if there was any new cracking in 2016. Linda said there was not. Laura Weinberg asked how many alternatives were being considered. Linda said there were 16. They included options such as building a slurry wall, drain trenches, reconfiguring berms, installing low permeability covers, and extending the buttresses. She said that the solution would likely involve some combination of actions. Scott Surovchak clarified that the contractor provided the

list of options, while DOE would be conducting the evaluation. Linda said they expected that a design would be ready in federal fiscal year 2016. Steven Franks asked how they were getting baseline data to use for future actions since the inclinometers were removed or broken. Linda said that the evaluation would be looking at all factors and that most of the problems could be seen on a visual basis. Linda added that they conduct a detailed survey every two years. Lisa asked whether they used physical markers. Linda said that settlement monuments provided data for vertical movement, as well as some indications of horizontal movement.

Joe Cirelli referred to the ponded water being channeled to automated sampling points, and asked if they were functioning during the time of extended precipitation. Linda said that, to the best of her knowledge, the sampler beneath the landfill was operating at that time. Lisa asked Linda to follow-up with answers to any questions she did not know the answers to. Sue Vaughan asked if the geotechnical engineer provided any recommendations. Linda said that they did provide some technical evaluation. They noted that groundwater and surface water controls would likely be the most effective, while changing the landfill cover would probably be less effective. She added that a change to the slope angle would have to be very significant to be effective in this kind of geology, and that this was not likely to be feasible. Deb Gardner said it would be helpful if the Board could see list of the recommendations and to see the criteria DOE was going to use to review them. She said there was a lot of interest in finding a long-term fix. Linda noted that DOE was really looking for a long-term fix as well. She pointed to the criteria she shared in her presentation, which defined how the alternatives would be evaluated. She added that they were also doing a cost-benefit analysis. Lisa asked if this could be shared with the Board. Scott Surovchak said they would share it when they were done. Lisa said that the Board would appreciate being able to see the options before it was a done deal.

Michael Ketterer said he did not see isotopic analyses in the DOE reports he reviewed and asked how much of the uranium was naturally-occurring. Linda said that samples were sent to the Lawrence Berkeley labs to determine isotopic ratios. She said some groundwater wells showed 100% natural uranium, while others had a mixture. She said they found 68-82% natural uranium in Walnut Creek, and Scott said that Woman Creek was 99% natural. He added that all of this data was online. Mike Shelton asked why the DOE/Navarro water experts were not present for this briefing. Linda said that they were not expecting that level of detail and questions for this presentation. She added that they would come in the future if needed. Mike said he thought this was needed.

LeRoy Moore commented that it seemed like the Stewardship Council wanted to give advice or recommendations to DOE about the OLF. He said that DOE's General Counsel had made clear that this was not the Board's role. David Abelson said that the Board did not and would not make recommendations. He said that the Board only engaged in dialogue. Sandra Pennington asked what the next step would be now that this Board had asked to see additional information in advance DOE moving forward with the OLF. David Abelson explained that the Board was allowed to ask for information, as well as promote dialogue and provide additional questions. He said that one option for follow-up was on the staff level within the local governments. He also said that today was part of an ongoing discussion between the board, members of the public, DOE and the regulators (CDPHE and EPA). Sandra asked how the Board would respond if DOE ignored their request. David explained that the Board did not respond in an advisory capacity. He

said individual governments could raise issues directly with DOE. Libby Szabo asked if the Board had some kind of mission statement that spelled out its actual duties and role. David Abelson said that the best resource for this was the work plan, as it broke out both LSO and non-LSO activities. Libby suggested that they create a document that summarized this description and include it in each meeting packet. David Abelson noted that this was the very first split meeting the Board had ever done. A statement about the different roles of the Board was added to agenda this time. David said they could include LSO/non-LSO information about the Board in future meeting packets.

Joe Cirelli asked David Abelson to explain what the Stewardship Council did when DOE was proposing to breach dams a few years ago and how that changed the outcome. David said that as DOE was evaluating whether it should breach the dams on the terminal ponds, the agency developed an Adaptive Management Plan (AMP). The Board asked downstream communities to take the lead on this issue, and took on the role as serving as a conveyance mechanism for downstream communities' concerns. Bruce Baker said one of his frustrations was that the Board's mission statement used the word 'oversight', which he said implied power. David Abelson explained that when the initial LSO legislation was passed, it had yet to be determined exactly what the role of LSO would be. The Board's Mission statement was adopted in 2004 or 2005. He said that over time, there had been an evolution in terms of understanding our role. He added that the Stewardship Council was the only LSO that resulted from the legislation. He suggested that if the Board were to revise the mission statement, it would probably come up with different language. Libby Szabo said that perhaps that should happen. David said this was something that could be looked at when creating the next workplan. He added that he would have to check with counsel regarding any potential issues with the Board's Intergovernmental Agreement (IGA).

Chair Morzel officially closed the LSO meeting at 10:05 am

NON- LSO MEETING

Chair Morzel opened the non-LSO meeting at 10:10 am, and introduced the next briefing by the USFWS.

Board members in attendance: Mark McGoff (Director, Arvada), Sandra McDonald (Alternate, Arvada), Lisa Morzel (Director, City of Boulder), Deb Gardner (Director, Boulder County), Megan Davis (Alternate, Boulder County), Mike Shelton (Director, Broomfield), David Allen (Alternate, Broomfield), Laura Weinberg (Director, Golden), Libby Szabo (Director, Jefferson County), Pat O'Connell (Alternate, Jefferson County), Joyce Downing (Director, Northglenn), Shelley Stanley (Alternate, Northglenn), Joe Cirelli (Director, Superior), Emily Hunt (Alternate, Thornton), Bruce Baker (Director, Westminster), Mary Fabisiak (Alternate, Westminster), Jeannette Hillery (Director, League of Women Voters), Sue Vaughan (Alternate, 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), Elizabeth Dauer (Setter & Vander Wall, P.C), Rik Getty (Technical Program Manager), Erin Rogers (consultant).

Attendees: Scott Surovchak (DOE-LM), Bob Darr (Navarro), Linda Kaiser (Navarro), Carl Spreng (CDPHE), Vera Moritz (EPA), Dave Azure (USFWS), David Lucas (USFWS), Ryan Moehring (USFWS), Cindy Souders (USFWS), Bill Mangle (USFWS contractor), Mimi Mather (Root House), Christine Hawly (Woman Creek Reservoir Authority), Sandy Pennington (Superior Trustee), Rita Dozal (Superior Trustee), Hannah Mullen (Rep. Perlmutter), Stuart Feinhor (Rep. Polis), Carolyn Boller (Friends of the Front Range Wildlife Refuge), Susan Flack (Rocky Flats Museum), Mac West (Rocky Flats Museum), Anne Fenerty (citizen), Michael Ketterer (citizen), LeRoy Moore (Rocky Mountain Peace and Justice Center), Evan Singleton (Gablehouse Granberg, LLC), W. Gale Biggs (citizen), Harvey Nichols (citizen), Jon Lipsky (citizen), Jeff Kellogg (citizen), Ann Parker (citizen), Pat Mellen (citizen), Teresa Kay (citizen), Tom Colwell (citizen), Allen Kennedy (citizen), S. Shank (citizen), Kevin Smyth (citizen), Marc Roberson (citizen), Ted Ziegler (citizen), David Wood (citizen), Kim Griffiths (citizen), Eric Griffiths (citizen).

USFWS Briefing on the Rocky Flats National Wildlife Refuge

USFWS was on hand to provide an overview of the Rocky Flats National Wildlife Refuge, including its organic act, Rocky Flats refuge organizing legislation, and management plans. The briefing was also designed to include an update on the multi-purpose facility that USFWS and DOE were jointly developing.

David Lucas was the presenter. David is the Refuge Manager for the Rocky Mountain Refuge complex which includes the Rocky Mountain Arsenal, Rocky Flats, Two Ponds and some conservation easements near Fort Collins.

As an introduction, David reviewed the national network of Wildlife Refuges, which consists of 200 million acres of land managed for fish and wildlife conservation. He shared that the mission of the USFWS was: "...working with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people." David noted that the USFWS was actively involved in public engagement, and believed strongly in the need to connect with future generations.

The Rocky Flats National Wildlife Refuge was created in 2007 and consists of 5,000 acres. The purpose of the refuge is 'to restore and preserve native ecosystems'. In terms of history, the Rocky Flats area was intermittently occupied by Native Americans prior to 1800s. It was used by homesteaders in the late 1800s and the early- to mid-1900s. It later became one of 13 nuclear weapons production facilities in the U.S. The site was added to the EPA's National Priorities List (Superfund List) in 1989. As production slowed, cleanup began and in 2007 the refuge was established.

David noted that all refuges were required to create a Comprehensive Conservation Plan (CCP). A CCP sets the long-range (20 year) management goals, objectives and strategies for each Refuge. At Rocky Flats, this was a multi-year planning effort (2002-2005) that involved extensive public involvement. The CCP guides development of new facilities and visitor opportunities at Rocky Flats.

Planned visitor opportunities at Rocky Flats include:

- Visitor Information / Multipurpose Building
- Hiking, cycling and horseback riding trails
- Connections to the Rocky Mountain Greenway trail system
- Guided tours, hikes and nature programs
- Environmental education opportunities for high school and college-level students
- Signs, maps and interpretive panels

David showed a map depicting planned locations for the various visitor features. He added that the Refuge budget was not large, which meant staff limitations in terms of running specific programs. The USFWS was looking at partnering with other organizations to make some of these things happen. He noted that the Rocky Mountain Greenway was a big endeavor, and included many different entities. He also noted that not all refuges have their own legislation, like Rocky Flats did. The Rocky Flats Refuge takes its guidance from both this site-specific legislation, as well as national legislation pertaining to all Refuges.

David noted that opportunities on the west side of the Refuge would be explored, as the USFWS did not own this land when the CCP was developed. He said a scenic overlook was being constructed off Indiana Avenue. He also mentioned a future overpass and underpass, which would possibly be funded through a grant. David said they were envisioning the visitor building in the northeast corner of the site. He said they had contracted with a company to do surveys and an evaluation of whether this was a good place for the building.

David explained that the Refuge's engagement strategy included these goals:

- Keep interested parties informed
- Share information about what Rocky Flats NWR has to offer
- Increase public, stakeholder, media and elected official support
- Incorporate “lessons learned” from Rocky Mountain Arsenal NWR

He said that the Refuge viewed their audience as those in the middle of the public opinion spectrum, Refuge ‘neighbors’, and building on existing relationships and attracting new partners.

David noted that the Refuge had also developed ‘key messages’:

- We are good stewards
- We are listening and sharing information
- We believe Rocky Flats Refuge will offer a safe and enjoyable venue for wildlife-dependent recreation
- Rocky Flats Refuge will be a great wildlife dependent recreation destination and provide a key link in the Rocky Mountain Greenway.

David next reviewed the Refuge’s ‘Talking Points’ on different subjects. In terms of safety, the USFWS stated ‘the cleanup of Rocky Flats was a success and that the Refuge is safe for our employees and visitors’. David noted that the USFWS did not make these decisions, and would defer safety questions to CDPHE and EPA.

In terms of history, the Refuge “intends to share the site’s full story, including prehistory; homesteading; Cold War/nuclear weapons production; clean-up and remediation; and Refuge establishment & habitat conservation.” Regarding habitats and wildlife, the Refuge site has been undisturbed for 30–50 years, and parts of the refuge retain diverse habitat and wildlife including:

- Xeric tallgrass prairie
- 630 plant species, 185 bird species, and numerous other mammal, reptile, amphibian, fish, and insect species
- Preble’s Meadow Jumping Mouse

With regard to future visitor uses, David said that the Refuge had clear goals:

- Open to hiking, biking, wildlife observation, wildlife photography
- USFWS and its partners will offer interpretive and environmental education programming
- There will be trails, a visitor facility, and connections to outlying trail systems

David also introduced the concept of the Urban Wildlife Refuge Conservation Program, which strives to make USFWS’ programs far more relevant to millions of Americans, 80% of whom live in big and small cities. He noted this was a great match with Rocky Flats since it contains 5,000 acres, striking vistas, and native prairie – all right in the Denver Metro Area. This initiative was intended to help with people becoming disconnected from nature. USFWS is looking at using Urban Refuges as tools to connect with future generations. In terms of connectivity, the Rocky Mountain Greenway will be able to serve as a habitat corridor for migrating wildlife and as a trail corridor for humans.

Next, David reviewed the priority habitat management goals at the Refuge, which were:

- Enhance, restore and monitor wildlife and habitat
- Protect and maintain Preble's meadow jumping mouse habitat
- Control and remove invasive weeds

David explained that fire was a key management tool in conserving and restoring prairie habitat and USFWS would like to use prescribed fire to remove invasive weeds and to improve the prairie habitat. He noted that the prairie will burn, whether it was intentional or not. He added that this was an issue on which the public had already made an impact. USFWS had listened to public concerns, and took a pause on moving forward with plan for a prescribed burn.

David noted that the Refuge would use a variety of communication tools to reach out to the public, including an e-newsletter, website, social media, video, refuge map/brochure/flyers, 'coming soon' sign, tours, sharing sessions, and press releases.

David reviewed a timeline for upcoming activities at the refuge:

- April 2016 - Refine Public Engagement Strategy
- Spring/Summer 2016 - Sharing Sessions w/ neighbors and interested groups
- Spring through Winter 2016 - Digital Outreach (e-newsletter, social media posts) & Monthly refuge tours
- Fall 2016 - Host former Rocky Flats employee day
- Summer 2016 through Fall 2017 - Trail & visitor facility design and construction begins
- Spring through Winter 2017- Digital Outreach & Monthly tours
- Fall/Winter 2017 - Tours of new facilities (RMSC and media)
- Late 2017- Refuge Opening

Also, they may have documents that require public review during this process

David noted that the USFWS had identified their key partners and influencers as local governments, neighbors in Candelas and Leyden Rock, conservation and recreation organizations, and media representatives.

Mike Shelton asked how humans being onsite might affect wildlife. David Lucas said they looked at priority habitats, and then built public use access plans around that. He added that surrogate/indicator species are also used to gauge any impacts. He said that USFWS always maintains the right to further restrict use if they deem it necessary. Mike asked if they had done this at the Arsenal. David said they had not. He added that the elk herd at Rocky Flats is unique because they had not seen people in years, and are somewhat skittish. They retreat to drainages when they feel threatened. The staff will be watching to determine if any changes in use would be needed. Lisa Morzel asked if they would be considering any temporary or seasonal closures for things such as calving. David said they did not think that would be an issue, but they do have the ability to address if needed. He went on to say that he did not think this site would see the same level of visitors as the Arsenal.

Pat O'Connell asked for a copy of the trail map. This will be distributed to the Board. He then asked if they had a visitor estimate for the Refuge. David said they did not have one, but he

guessed there would be about 100,000-200,000 visitors per year. Pat also asked if there would be any fishing allowed in the Refuge. David said no, and also no hunting unless they ran into an excess ungulate population, which might lead to limited hunting. Mark McGoff asked about the trail crossing over Indiana and under Highway 128. He noted that the FLAP grant proposal due May 18, 2016, included funding for those two crossings. Mark said two bridges were being constructed this week, and asked if the other two on the map were planned. David said they were still seeking funding for the other two. Joe Cirelli asked what the purpose of the wildlife crossing proposal was. David said that this was in the Rock Creek drainage, and the culvert was identified as a problem for the endangered Preble's Meadow Jumping Mouse. They had originally envisioned an overpass for the trail, but it appeared that would be cost-prohibitive. The hiking trail was now planned to go under the road, and they hoped to also improve the Preble's drainage, which needed to be separate from the hiking trail.

Bruce Baker said he was looking at a map of the proposed Greenway that was currently on the Refuge website. He said this map showed the trail route staying outside of the Rocky Flats border. David Lucas said that a feasibility study that took place over the past 2-3 years resulted in a change to the proposed route. Megan Davis explained that the goal of the Greenway project was to leverage existing trails when possible. She also emphasized that nothing had been decided as of yet and that the maps were still conceptual at this point. Bruce said that the differences in the maps brought up the matter of trust. He said that the Rocky Flats buffer zone was not part of the original Rocky Flats plan, and was only added because of the spread of contamination. He said that Dr. Johnson who alerted the community of these problems was vilified by government agencies, but was actually proven to be right. Bruce asked if David Lucas could understand why some would be reluctant to trust the 'experts'. David said that of course everyone was entitled to their own opinions. He added that EPA's certification allowed for unrestricted use before this land was transferred to the USFWS. Bruce said that he was still concerned about disturbing the soils when building trails, and that it would be beneficial to have a way to show the public that it was safe. He suggested a competing investigation, and not just experts the agencies paid for, or could be bought. David replied that he did not believe that EPA or CDPHE could be bought, and that everyone could make their own determination about safety. He said the process had been completely transparent.

David Abelson noted that many parts of the proposed Refuge map were reflective of the USFWS wishing to accommodate the wishes and guidance of the original seven governments on the Stewardship Council's predecessor, the Rocky Flats Coalition of Local Governments. He noted that Broomfield, Westminster, Arvada, and Jefferson County were the primary forces behind the type of uses now being implemented, and that the specific trail Bruce was addressing reflected the position of the Westminster and Broomfield council's during the development of the CCP. At the time, the governments based these decisions upon determinations of safety and what would meet the needs of their constituents.

Deb Gardner asked if an Environmental Assessment would be done regarding trail development. David Lucas said they would comply with all federal laws and guidelines. He said that the NEPA requirements would depend on the scope of the project. He added that a full EIS was completed previously for the Refuge. Lisa Morzel asked what kind of geotechnical analyses would be completed regarding construction of the visitor center. David said that whenever they do

construction, they perform various assessments for things such as soils analysis and transportation needs. He said that was underway now, and they would have results in about 2-4 weeks. He said that in this instance one of the main things they are looking into is the feasibility of water and electric utilities.

Harvey Nichols addressed his comments to Bruce Baker and the Stewardship Council. He said that the entire site was dusted with plutonium particles as a result of everyday emissions, in addition to the major building fires. Another member of the audience asked if USFWS would make any special efforts during construction in order to mitigate some of the fears regarding the spread of contamination. David Lucas said this would be based on what CDPHE recommended. Carl Spreng with CDPHE said that they would be directed to meet the State of Colorado's "special construction standards," which had been around for several decades. These standards applied to any areas with radiological contamination over 1 pCi/g. They include requirements for weather evaluations, as well as other special techniques. David Lucas added that they would typically employ dust suppression techniques when disturbing soil. Gale Biggs said he heard a story from a Rocky Flats employee about a firetruck that had become so contaminated during the fighting of a fire at Rocky Flats that it was buried onsite. He asked if David Lucas knew about this. David said he did not.

Sandy Pennington commented that the USFWS' efforts did not constitute public engagement. She said true engagement needed to happen before a decision was made. She said that what David Lucas was describing was actually public relations and marketing, but not engagement. She said that they had not asked the public if these actions should be taken at this very dangerous site. She said it was incumbent upon the Stewardship Council to make sure that occurred. Addressing David Abelson, she said it was an old ploy to tell the Board that their predecessors approved these plans. She said that the Greenway discussions had only been going on since 2012, and she had been in office since 2010 and had not been asked to address this issue before. She said that the region did not need these trails, and there was no need to disturb this property. David Lucas emphasized that the intention of the Greenway plan was to maximize the use of existing trails, and that the decision to include trails and buildings at the Refuge was made in 2005 during the development of the CCP and thus prior to any Greenway plans. He also explained that the USFWS was not seeking input about whether or not to build trails because that had already been done when the CCP. At this point, they were looking for input on how to best implement the plans that were already developed.

Lisa Morzel said she had been working on these issues since 1996, and noted that she and the City of Boulder was not on the prevailing side in terms of the CCP plan in 2005. She said Boulder had advocated for restoring the lands and leaving them as-is, while others had different views. However, she said she disagreed with Ms. Pennington about the lack of public engagement and supported David Abelson's prior comment that the CCP followed an extensive public engagement process. Lisa explained that there was a very extensive, several-year public process involved in creating the CCP. Sandy Pennington asked Lisa how she would propose that the local governments proceed regarding plans for the Greenway. She said that up until a couple weeks ago, her understanding was that the Greenway would be going around and not through Rocky Flats, and she was struggling with the request to take a position so quickly. Lisa said she did not know if the Stewardship Council would have any impact on these decisions as local

governments were addressing these issues outside of the Stewardship Council. Deb Gardner explained that the original Greenway route that went around Rocky Flats was designed that way because USFWS had not yet begun to implement the CCP at that time. Once the USFWS became engaged and starting making their own plans for trails, the Greenway route evolved to include these trails that were now being planned. She said that each local government needed to make a decision about whether they wanted to be involved in applying for the FLAP grant. She said the grant would enable additional environmental testing in those areas slated for access points.

Lisa Morzel noted that individuals had repeatedly been asking for additional sampling at Rocky Flats, and were not getting any results. She pointed out that the FLAP grant would allow for additional sampling, which would be helpful in terms of addressing the many concerns about contamination. Sandy noted that decisions were looming and asked when and where residents would be engaged regarding the Greenway. Lisa explained that the Rocky Mountain Greenway first came about in early 2012, based on an initiative by President Obama. A Steering Group formed at that point, with the counties as the main players. She said she recently got back involved because of the connection to Boulder. She said there was a public meeting scheduled for May 16 at the Butterfly Pavilion, at which there would be a public comment period. David Lucas interjected that he was not sure there was a public comment period scheduled, but he would make sure this was accommodated on the agenda. He reiterated that plans for Refuge trails dated back to the 2005 CCP, and the Greenway route was only being changed because USFWS was getting closer to implementing its plan for building trails within the Refuge. This was just another way of leveraging existing trails for the Greenway. David Lucas noted that whether or not the Greenway tied into Rocky Flats, those trails in the Refuge were would still be built. Deb Gardner explained that because the plan was to use existing trails for the Greenway, a great deal of the implementation would simply involve putting up signage to mark the route, along with construction of a few connecting trails. She said there would be normal a public engagement planning process for this, and noted that the counties do not have purview within the Refuge. Lisa Morzel noted that the City of Boulder would be discussing the Greenway the following evening. Sandra Pennington said that Boulder County offered no public involvement on the recent decision for the Greenway to intrude onto Rocky Flats.

Laura Weinberg said that she envisioned that the character of the Rocky Flats Refuge would be very different from the Rocky Mountain Arsenal. She believed that surrounding neighbors would be using the Refuge a lot, and that there may not be as many tourists visiting. She asked if the USFWS had any relevant data for usage of nearby trails and impacts that could translate to expected usage of the Refuge. David Lucas agreed that usage would likely be very similar to the designated Open Spaces in the area. He noted that the Refuge would have some different rules and enforcement than Open Space areas, in terms of things such as allowed uses. Steven Franks asked about the scope of the previous NEPA study. David Lucas said that the EIS looked at construction of buildings and trails, among other things. He said there had been millions of samples and corresponding analyses, making the Refuge a very highly characterized area. Bruce Baker asked if they had a plan for parking. David Lucas said this was part of the design process. Bruce asked how much parking was available at the Arsenal. David said there were about 200-300 parking spaces at the Arsenal's visitor center.

Public Comment on Non-LSO Issues

Michael Ketterer introduced himself as a chemistry professor. He said that the area where the trails were being proposed was some of the most plutonium-contaminated land in the United States. He referred to contour maps created by Hardy and Kray in the early 1970's that showed the levels of contamination. He criticized the reported use by the USFWS of Geiger counters. He said that handheld counters could not detect plutonium. He said this was not a meaningful measurement, and he thought it was deceptive. He said plutonium could only be measured through laboratory samples. *A copy of Mr. Ketterer's written comments can be found here: http://rockyflatssc.org/public_comment/Ketterer%20comments%20RFSC%2004April2016.pdf

Harvey Nichols introduced himself as a biology professor. He said it was clear that David Lucas did not understand the health implications of the contamination in the Refuge. Harvey said he had asked for full-scale investigation of USFWS management of the Refuge. He said he was first working with the Department of the Interior's Inspector General. He said he also asked for a National Academy of Sciences investigation through Congressional representatives. He said he was in contact with CDPHE as well, and that there was a need to be very cautious about the Refuge.

Rita Dozal introduced herself as a Trustee for the Town of Superior. She recounted that when she bought her house, she had to sign a document that said she knew the home was within three miles of Rocky Flats, but that she had not heard anything about the site since that time. She said that not much information was presented in a public way. She said she had tried to look at data on websites, but that it was difficult to find cohesive, organized files that explained issues at Rocky Flats. She recommended starting fresh with document planning, and deciding how to come to a decision. She said to make sure the plans move forward in orderly process. She said she read the 2005 NEPA document and it was not clear to her that it allowed for a park environment with trails, buildings and parking lots. She asked where in the NEPA document it said that it was acceptable to do what is now being proposed. Lisa Morzel suggested that Rita attend the Rocky Mountain Greenway meeting on May 16.

LeRoy Moore thanked the speakers for reminding him about the active public participation in 2005. He said that 82% of commenting parties said they did not want the refuge to open. He said that contamination on the DOE lands would be transported onto Refuge lands. He said contamination would be moved by water, burrowing animals, plants bringing it to the surface, and wind. He cautioned that the Refuge was not going to be a safe place. He brought a copy of paper that detailed the genetic dangers of plutonium, and submitted a copy to staff. He said plutonium exposure would cause the loss of ability to reproduce, and that the whole human race could be wiped out with a little plutonium. He said there was no excuse for DOE and the regulators not to know this. *A copy of Mr. Moore's written comments can be found here: http://rockyflatssc.org/public_comment/L%20Moore%204-3-16.pdf

Chair Lisa Morzel made an announcement for the commenters to keep their comments succinct.

Anne Fenerty brought up the planning map that showed the Rocky Mountain Greenway route going around Rocky Flats. She asked what had happened for this drastic change to happen, now

that the Greenway was going to go through the site. She said the agencies were failing the public. She said they knew the dangers. She mentioned a YouTube video that focused on unaccounted-for plutonium within the DOE complex. She asked the Stewardship Council to vote against trails at Rocky Flats.

David Wood introduced himself as a resident of the Candelas neighborhood, and noted that he had a PhD in physics. He encouraged homeowners to contact him to be kept abreast of USFWS developments. He said they were making decisions based on 20-year old data. He said he believed there was a lack of tools to move the discussion forward, and that the effect was confusion about actual risks. He said that the questions about risk were not terribly technical. He said each homeowner must make their own determination about whether it was safe. He said he did his own soil samples before moving into the area, and found no detectable amounts of contamination. He said he logged count rates all around area, and would be happy to share his findings. *A copy of Mr. Wood's written comments can be found here: http://rockyflatssc.org/public_comment/DMWood-Combined.pdf

Jon Lipsky referenced USFWS Director Dan Ashe's testimony before a Congressional panel regarding his commitment to public involvement. Jon said that he did not think that the USFWS would come in and engage in a one-way conversation, but that they did. He said they misled the public by not posted updated trail maps regarding the Greenway. He said that they needed to call Rocky Flats a CERCLA site, not a Legacy site. Lisa Morzel noted that the Stewardship Council invited the USFWS to give this presentation and that there had been two-way discussions happening at this meeting. She said she was appreciative of this, and that it was important that USFWS representatives attend these meetings.

Kim Griffiths introduced herself as a resident of Candelas, with a perimeter lot backing to the Refuge. She said her family did their homework prior to purchasing their home and were very happy with their choice. She said they were very well informed, and knew exactly what we were buying. She said that everyone was entitled to their own opinion, but not their own set of facts. She said she felt that her neighborhood was safe, and that there was more of a risk getting into her car every day. She referenced an earlier comment that the area did not need these trails. She said that Candelas residents feel very strongly that they are needed, as this was one of the amenities that was part of their home purchase decision. She said that new people to this issue could give fresh perspectives, and that she would like to see a de-stigmatization of Rocky Flats. *A copy of Ms. Griffiths' written comments can be found here: http://rockyflatssc.org/public_comment/Kim%20Griffiths%20comment%204-16.pdf

Gale Biggs said he was appointed by Governor Romer in 1989 to a Rocky Flats oversight group, and that he served as Chairman of the air committee. He said the Governor wanted an honest assessment of conditions at Rocky Flats. Gale said their group went into buildings and found that poor management led to high levels of contamination being blown out of the stacks. He said that 60-90% of the plutonium leaving the plant side was from fugitive sources, such as the ground.

Chair Morzel closed the non-LSO meeting at 11:25 am.

RESUMPTION OF LSO MEETING

Chair Morzel resumed the LSO meeting at 11:30 am.

Big Picture Review

David Abelson reviewed topics for the next Board meeting, which was scheduled for June 6, 2016. Topics would include the 2015 Stewardship Council audit, the quarterly DOE update, and an overview of the Rocky Flats sampling program. In September, the Board would look at the 2017 budget and work plan and receive another quarterly update from DOE. He brought up the topic of why air sampling had been discontinued at Rocky Flats, and said it was apparent that many had questions about this, so it should be addressed. He said there would most likely not be a strategy for moving forward with OLF until later in the year, or perhaps early 2017, so he did not envision another stand-alone briefing on this topic for a while.

David Allen noted that a previous presentation to the Board on actinide migration had been extremely helpful and said that requesting a repeat of this presentation might serve as a good precursor to the air sampling discussion.

June 6, 2016

Potential Business Items

- Receive 2015 audit

Potential Briefing Items

- DOE quarterly update
- Overview of RFLMA Sampling

September 12, 2016

Potential Business Items

- Initial review of 2017 budget
- Initial review of 2017 work plan

Potential Briefing Items

- DOE quarterly update
- Discontinuance of Air Quality Sampling

Issues to watch:

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

Board Roundtable – Big Picture/Additional Questions/Issue Identification

Murph Widdowfield noted that there were no new developments regarding the Rocky Flats Cold War Museum. All of the artifacts were in storage, and no displays were active.

Mark McGoff noted that a ribbon-cutting event was scheduled for June 4th for a portion of the Greenway in Arvada and Westminster south of Standley Lake. The Secretary of the Interior would be in attendance, as well as former Interior Secretary Ken Salazar. He said this connection to the Standley Lake area would allow for hiking from the south of the lake to the north side, as well as around the east side of the lake.

Laura Weinberg commented that she thought it would be a good idea for the Board to review its mission while working on next year's work plan.

Mike Shelton thanked the attendees for their comments. He noted that these were good meetings to learn about the issues, and identify whether or not there were things that the participants felt they should take action on through other channels.

Joe Cirelli noted that Superior was considering whether or not to participate in the land access (FLAP) grant.

Bruce Benson noted previous concerns with the logistics of the meeting room that was being used. He offered the use of a room at Westview Recreation Center that might be more conducive to the Board's needs. David Abelson said he would work with Westminster staff to take a look at the space before the next meeting.

Lisa Morzel also thanked the attendees on behalf of the City of Boulder for their public comments. She invited them to keep coming to the meetings, as well as addressing their own local governments. She also reminded everyone again about the public meeting about the Rocky Mountain Greenway on May 16th, 1 pm at the Butterfly Pavilion in Westminster.

The meeting was adjourned at 12:10 p.m.

Respectfully submitted by Erin Rogers.