

# ROCKY FLATS STEWARDSHIP COUNCIL

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Jefferson County -- Boulder County -- City and County of Broomfield -- City of Arvada -- City of Boulder  
City of Golden -- City of Northglenn -- City of Westminster -- Town of Superior  
League of Women Voters -- Rocky Flats Cold War Museum -- Rocky Flats Homesteaders  
Arthur Widdowfield

## **Board of Directors Meeting – Agenda**

**Monday, June 7, 2010, 8:30 AM – 11:30 AM**

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

- 8:30 AM Convene/Agenda Review
- 8:35 AM Business Items (briefing memo attached)
1. Consent Agenda
    - Approval of meeting minutes and checks
  2. Approve letters re:
    - DOI funding request
    - RFSC FACA issue
  3. Executive Director's Report
- 8:55 AM Public Comment
- 9:00 AM Receive Stewardship Council 2009 Financial Audit (briefing memo attached)
- At this meeting the Board will be briefed on the results of the audit.
  - No material problems were found and the Stewardship Council was found to be in compliance with all applicable laws and regulations.
- Action item: Accept Stewardship Council 2009 Financial Audit**
- 9:15 AM Host DOE Annual Meeting (briefing memo attached)
- DOE will brief the Stewardship Council on site activities for calendar year 2009.
  - DOE has posted the report on its website and will provide a summary of its activities to the Stewardship Council.
  - Activities included surface water monitoring, groundwater monitoring, ecological monitoring, and site operations (inspections, maintenance, etc.).

- 10:15 AM Continue Discussing Dam Breach Environmental Assessment (EA) (briefing memo attached)
- At this meeting the Board will continue discussing DOE's proposal to breach dams A-4, B-5 and C-2.
  - At the April meeting the Stewardship Council approved a letter opposing DOE's plan.
  - This conversation will be a roundtable conversation, with DOE and CDPHE joining the Board for the conversation.

**TIME PERMITTING**

- Continue Discussing Signs for Rocky Flats (briefing memo attached)
- The Board will continue discussing signs for Rocky Flats.
  - The conversation will focus on reviewing our conversation to date, further discussing the history of the site as a weapons facility, and time permitting, starting to focus on the scope of the cleanup and ongoing management.
  - As we discussed in prior meetings, the intent is not to specify language but to identify categories of information and the types of messages that the Board believes should be conveyed.

11:20 AM Public comment

- 11:30 AM Updates/Big Picture Review
1. Executive Director
  2. Member Updates
  3. Review Big Picture

Adjourn

Next Meetings: September 13 (2<sup>nd</sup> Monday)  
November 8 (2<sup>nd</sup> Monday)

## **Business Items**

- April 5, 2010, draft board meeting minutes
- List of Stewardship Council checks
- Draft letter to DOI re: Refuge funding
- Draft letter to Congress re: FACA
- DOE memo re: FACA

## **2009 Audit**

- Cover memo
- Draft audit

**ROCKY FLATS STEWARDSHIP COUNCIL**  
**Monday, April 5, 2010, 8:30 AM – 11:30 AM**  
**Rocky Mountain Metropolitan Airport, Terminal Building**  
**11755 Airport Way, Broomfield, Colorado**

**Board members in attendance:** Marc Williams (Director, Arvada), Clark Johnson (Alternate, Arvada), Lisa Morzel (Director, City of Boulder), Carl Castillo (Alternate, Boulder), Meagan Davis (Alternate, Boulder County), Lori Cox (Director, Broomfield), David Allen (Alternate, Broomfield), Bill Fisher (Director, Golden), Kate Newman (Alternate, Jefferson County), Shari Paiz (Director, Northglenn), Shelley Stanley (Alternate, Northglenn), Bob Briggs (Director, Westminster), Ron Hellbusch (Alternate, Westminster), Jeannette Hillery (Director, League of Women Voters), Sue Vaughan (Alternate, League of Women Voters), Shirley Garcia (Director, Rocky Flats Cold War Museum), Ann Lockhart (Alternate, Rocky Flats Cold War Museum), Roman Kohler (Director, Rocky Flats Homesteaders), Arthur Widdowfield.

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

**Attendees:** Kody Brooks (Colorado Water Protection), Hildegard Hix (citizen), Mary Harlow (citizen), Dallas Briggs (citizen, Northglenn), Al Hamilton (citizen, Northglenn), Sam Dixon (citizen, Westminster), Mary Lindsey (Westminster City Council), David Willett (Northglenn Public Works), Raymond Reling (Northglenn Public Works), Lee Johnson (WCRA attorney), John Dalton (EPA), Vera Moritz (EPA), Carl Spreng (CDPHE), Scott Surovchak (DOE-LM), Rick DiSalvo (Stoller), Jody Nelson (Stoller), George Squibb (Stoller), John Boylan (Stoller), Linda Kaiser (Stoller), Bob Darr (Stoller), Steve Berendzen (USFWS), Cathy Shugarts (City of Westminster), Lynn Bowdidge (DOE), Jennifer Bohn (RFSC accountant).

### **Convene/Agenda Review**

Chair Jeannette Hillery convened the meeting at 8:35 a.m. She began by saying that it had been brought to her attention that some of the public attendees were at the meeting solely to discuss DOE dam breaching plans. She noted that there is time set aside during the meeting for public comment on this topic and others.

### **Business Items**

The first business item was to finalize Board membership for 2010. Three groups were approved at the last meeting after interviews were conducted. However, since only six governments were present for that vote, the Board decided to wait until this meeting to finalize the appointments. Lorraine Anderson has since withdrawn her application. Lisa Morzel moved to ratify the Board's vote from the last meeting approving positions for the League of Women Voters, Rocky Flats Homesteaders, and the Rocky Flats Cold War Museum. The motion was seconded was Bob Briggs. The motion passed 10-0. The next decision was whether to approve the membership of Arthur Widdowfield. Lisa Morzel moved to appoint Mr. Widdowfield to the Rocky Flats Stewardship Council. There was no second. Lisa said that Mr. Widdowfield did a fine job in his interview. She added that his resume as a citizen with a long term history in this

community, plus a technical background, would be an asset to the Board. Lisa moved again to appoint Mr. Widdowfield. The motion was seconded by Marc Williams. Sue Vaughan asked if any of the Board members needed any more information from Mr. Widdowfield. There were no questions. The motion passed 10-0.

The next item was the election of the Board's 2010 Executive Committee. Those who had expressed an interest in the positions were Lori Cox as Chair, Bob Briggs as Vice Chair, and Lisa Morzel and Jeannette Hillery as Secretary/Treasurer. The Board voted unanimously for Lori as Chair and Bob as Vice Chair. Jeannette Hillery withdrew her name for Secretary/Treasurer. The Board voted unanimously for Lisa Morzel as Secretary/Treasurer. The Board's attorney, Barb Vander Wall, distributed oaths of office to all Board members for their signatures. At this point, Lori Cox took over as Chair to run the remainder of the meeting.

The next item was the consent agenda. Bob Briggs moved to approve the February Board meeting minutes and the checks. The motion was seconded Lisa Morzel. The motion passed 11-0.<sup>1</sup>

### **Executive Director's Report**

David Abelson provided several updates to the Board. First, he introduced Ann Lockhart as the Alternate Director for the Rocky Flats Cold War Museum. He also welcomed the newest Board member, Arthur Widdowfield.

David noted that the ECA annual meeting was cancelled. He was in Washington, D.C. at a later time and was able to meet with DOE and some Congressional staff. DOE would like to extend the Stewardship Council's grant period for five years and make periodic funding decisions within the grant period. David said there is an ongoing commitment from DOE for funding. In 2011, as part of the Stewardship Council's triennial review, there will also be discussion with DOE regarding whether this group is still working as intended. David heard from congressional staffers that there is an interest reaching out to Interior Secretary Salazar in support of Rocky Flats National Wildlife Refuge funding. Lisa Morzel said that making such requests as a group seems to have more weight, and she would like to see the Stewardship Council send a letter about this issue. David Abelson said he would draft a letter for the Board's approval at the June meeting, but recommends staying away from including any specific dollar figures in the letter.

The next item David raised had to do with some statements that have been made recently about the Stewardship Council by the Rocky Flats Peace and Justice Center. He said there had been a strong, personal and direct shot at this group. In February, the Peace and Justice Center sent a letter<sup>2</sup> to the Administrator of the U.S. General Services Administration (GSA). According to DOE, the letter charged the Stewardship Council with violating the Federal Advisory Committee Act (FACA), which is in place to ensure openness of federal advisory boards. David also reported that the Peace Center made these same claims to members of Congress and DOE officials in Washington, D.C. For the benefit of some of the newer members and attendees,

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<sup>1</sup> Since Arthur Widdowfield was appointed prior to this vote, at that point there were 11 voting members. For the prior two votes there were only 10 voting members.

<sup>2</sup> Following the meeting, David learned that all communications were via email.

David explained that this group was never intended to be a FACA group. David said one of the objections of the Peace Center regarding the Stewardship Council was that this group is not in compliance with FACA because the Sierra Club is not a member of this Board. David said that the Sierra Club has never applied to be on the Stewardship Council. He said he finds these claims troubling and unfortunate. Lisa Morzel said she did not recall seeing the letter David described, and would like to see a copy. She also suggested contacting the same groups that the Peace Center spoke with about these concerns in order to explain this group's process and structure. David said he had already spoken to Congressional staff members. Lisa said that she thinks it is important to send a letter from the Stewardship Council. David added that he had been asked to submit information to DOE based on requests from their lawyers. Barb Vander Wall explained that this group is a unit of local government and, as such, must comply with the Colorado Sunshine Act, which meets many of the same requirements of FACA in terms of ensuring openness. David said he will draft a letter for the Board's approval at the June meeting.

David also reported that the Peace Center sent a letter to the EPA Administrator requesting that the Rocky Flats cleanup be re-opened. David said that the letter did not contain any new information about cleanup or technical issues. He will pass it along to the Board.

Next, David shared with the Board that Representative McKinley's bill regarding signs at Rocky Flats died in committee. CDPHE was instrumental in ensuring that the bill did not progress. David noted that the hearings really had more to do with a debate on cleanup than signs. He added that a Representative from Colorado Springs made a statement to the effect of, "If things are really as bad as you are telling us, signs won't do any good".

There has been some progress on issues related to former nuclear workers' benefits. The GAO recently released a report that included some recommendations, such as the need for greater external oversight by the Department of Labor, providing greater access to data for workers, and potential Congressional amendments to certain parts of the program. David will communicate with Senator Udall's office to continue to monitor these changes.

David has been asked to speak at an upcoming EMSSAB chairs meeting. He will be on a panel with DOE's Dave Geiser and Lisa Crawford from Fernald talking about long term stewardship. DOE is covering the cost of this trip.

David made a request that the Board meet on November 8<sup>th</sup> instead of November 1st. Marc Williams moved to change the November meeting date to November 8. The motion was seconded by Lisa Morzel. The motion passed 11-0.

Rik Getty updated the Board on a recent water discharge at Rocky Flats. Because of large amounts of snow, there were discharges in December. Also, pond levels in A-4 and B-5 are currently close to 50% full. The site is now conducting pre-discharge sampling, and CDPHE is taking samples as well. These ponds will be discharged soon, and the site will send notifications with sampling results. Rik also mentioned the annual Stewardship Council site tour which will be in June. He will circulate possible dates soon, and will choose the date based on board members' preference. Lisa Morzel made a request to at least consider an early June date. Sheri Paiz asked that the next time staff receives correspondence such as the one mentioned pertaining

to pond discharges that they are forwarded to Board members immediately. David said they would do this.

### **Public Comment**

This comment period was for any comments other than those related to the dam breaching briefing. There were no comments.

### **DOE briefing on Dam Breach Environmental Assessment and changes to the water monitoring system**

DOE is in the early stages of conducting NEPA analysis for breaching ponds A-3, A-4, B-5, C-2, and the Present Landfill pond. DOE is also evaluating other changes to its water quality protection program, including moving the two surface water Points of Compliance (POC) along Indiana Street, operating terminal ponds A-4 (North Walnut Creek) and B-5 (South Walnut Creek) in flow-through configurations, conducting additional testing for uranium and nitrate.

Scott Surovchak began an update on the Rocky Flats Surface Water Configuration EA and RFLMA Point of Compliance Relocation. As part of the EA process, DOE solicited input on additional alternatives; three Stewardship Council governments offered comments. The Draft EA will be available in May 2010, followed by a 30-day public comment period. The final EA will be released in August.

Rick DiSalvo reported that some of the existing surface water Points of Compliance (POC) are near the boundary of the Central Operable Unit (COU). GS01 and GS03, which are along Indiana Street, are no longer POC's since the Peripheral OU has been delisted. The site is proposing to consolidate GS08 and GS11 into a single new Walnut Creek POC, near the confluence of North and South Walnut Creek and No Name Gulch. POC GS31 would be removed and a new POC would be installed at Woman Creek. The site would also abandon boundary wells near GS01 and GS03. The Area of Concern (AOC) wells in the COU are groundwater POC's (and are also in the 300 foot right-of-way for the Northwest Parkway). Surface water POC's are downgradient of AOC wells considering alluvial groundwater. A corresponding modification to RFLMA will be released for a 30-day public review and comment in parallel with the draft EA. The existence of Rocky Flats ponds lead to depletion of water from the Platte river and other water owners, and negative impacts to riparian areas on the east side of the site. DOE would like to get out of the business of water storage, especially since it does not own the water.

Lisa Morzel asked for a copy of the map used in the presentation. Rick said there will also be a smaller scale, more detailed map available on the website this week as well as one that addresses non-RFLMA monitoring points. Mary Harlow asked if the reason DOE is proposing to move the monitoring points moved was because of the future Northwest Parkway. Rick said it was not, and that the primary reason for the change is that the points are not inside the COU. Lee Johnson asked if the site can legally maintain these monitoring points if they are not in the DOE-owned area. Rick said they can because it is federally-owned land. Cody Brooks asked if the site is still pumping off the top of the ponds. Scott Surovchak discussed the plumbing configuration on Walnut Creek. A bypass carries Woman Creek around Pond C-2. If they breach that area, the

bypass will be kept. This is one of the reasons for moving the POC to this area. Also, it will not go through Pond C-2. Woman Creek carries the largest volume at the site. It flows about eight months per year, and originates offsite from irrigation.

David Allen mentioned about a statement he heard that DOE could hold the flows if there was a reason to do so. He said he had not heard this mentioned at last meeting. Scott Surovchak said that the site is talking about opening the valves at A-4 and B-5, which would establish the water levels at post-breach levels. That would help habitat become established. This trial in opening the valves would help DOE see what it will look like and analyze what it does to water quality, so that they are very sure what will happen when they do complete the breach. David Allen said he would like to see what their operating contingencies look like, such as what would cause them to close the valves, and the monitoring plan. Rik Getty said that the existing monitoring will remain in place, plus new POC's will be added. Cody Brooks asked how DOE can guarantee compliance, because once the dams are breached, there will be nothing physical left to contain water if necessary. Scott pointed out that Woman Creek does not flow through now. Cody is concerned that Woman Creek Reservoir is going to become the new POC. Scott said that there are years and years of data to back this up. Mary Harlow said that there has not been a major storm event in recent years, and that it is too soon to know if this will work. Scott said that, in fact, there have been significant storm events, including a 25-year event in 1995 before cleanup, and there was no increased load. Lee Johnson stated that the water that used to be imported into Rocky Flats went into Walnut Creek, not Woman Creek. Mary Harlow said she was concerned that if C-2 is no longer used, the site will not have way of finding out what is moving offsite from sites such as the 903 pad area. Scott clarified that there is monitoring in place for these areas that will not change. The site will continue to use the same sampling protocols, as well as significantly enhanced monitoring upstream. Lee Johnson asked if the site is also thinking about opening the valves at C-2 to see what will happen. Scott said they are not

Lori Cox opened the discussion to comments from downstream communities followed by a public comment period, and then a dialogue within Board. David Allen said that Broomfield is not necessarily opposed to these plans as long as they are able to see relevant data, but they do not believe they have the data they need at this point. The downstream communities have already submitted their comments. Because of this insufficient data, they support the no action alternative at this time. Secondly, because of ongoing treatment activities, the communities do not believe the site has reached stable point yet. They are asking the Stewardship Council to support the downstream communities' position. David handed out a letter these communities had drafted regarding to the EA. The letter also asks for a public meeting. Some of the concerns are related to changes in POCs and POEs. They also see a need for more information about monitoring protocol standards and are looking for a simple contingency plan. The downstream communities drafted another letter regarding points of compliance. For this discussion, they are requesting a 60-day comment period, as well as another public meeting. Lisa Morzel said the Board has a public responsibility to make sure these decisions are sound, and asked if there was a way to extend the decision process so that Board can comment after its June meeting. Shirley said that the downstream communities are simply asking the Board to support the position of the downstream communities.

Bob Briggs said he was prepared to make a motion, but wondered if he should wait to hear more comments. Bob Briggs moved that the Board send both letters just discussed. The motion was



seconded by Lisa Morzel. Shari Paiz said that Northglenn strongly supports these letters and has serious concerns about breaching dams and moving the points of compliance. David Abelson asked David Allen why there are two separate letters. David Allen said it was because there are two separate actions by DOE. Marc Williams questioned the language of the letter regarding ownership of the 300-foot right of way. Jeannette asked David Allen why the letter assumes that the monitoring would be any different than what they are doing now. David said they have not seen the new plans in writing. Lisa Morzel asked to call the question, which moves directly to vote without any further debate. The vote was 8-3. The motion failed.

David Abelson said the Board could address Marc's point by adding a sentence clarifying that if the right-of-way is transferred, the points of compliance would remain at DOE boundaries. Jeannette Hillery said she was not opposed to sending the letters, but was not sure what they were actually addressing and thinks the timing is off. Lisa Morzel said the Board needs to know exactly what it is approving. She offered a friendly amendment to Bob's original motion. She moved to add the sentence David suggested after the three bullets, and clarify that the POC's should be on federal property and at the boundary. The motion passed 11-0.

The discussion was then opened up to members of the public. Mary Harlow said she has a background of working long and hard on these issues. She strongly opposes doing away with these ponds. She said these settling ponds still have contamination in soils, and that DOE should take their time with this. She said there is too much left onsite, such as foundations, vaults, treatment systems, and that some have failed. She said water is the universal solvent and DOE should err on the side of caution. She said with this plan, DOE will not know how much contamination is coming offsite in events such as dust storms. She is especially concerned because she has grandchildren in the vicinity.

Dallas Griggs, Northglenn resident, said he was on hand to speak against DOE's plans to breach dams and move the POCs. He said he had no particular technical expertise, only his ability to reason these things out. He is concerned about the quality of water we drink. First, he said he wanted to address the recurring theme that site is now clean. The landfills, 40 acres apiece, are not lined. Cleanup began in earnest in 1995 and was completed in 2005. He wants the site to do away with 'weasel wording'. He said that to return the site to pre-operation conditions is in no way possible. He said there is no plan of action to contain ground or surface water onsite if there is a major event. Given that it takes 30 days to get monitoring results back, storm events can lead to devastating changes. He believes that DOE should be building dams, not taking them down.

Al Hamilton spoke next and said his comments mirror very closely those before him. He requested that his comments be included in the minutes. He said that the POCs have been at Indiana for 3½ years. He is not opposed to moving them but definitely does not want them removed. He also does not want the site to get rid of the dams.

Cody Brooks, past manger of the Woman Creek Reservoir, said that no one knows exactly what is going at Rocky Flats for sure. He said that water projections are not accurate, and the current plan will not provide the cities with the protection they need. He urged DOE to please be cautious and hold off until there is more information.

Sam Dixon spoke next. She said she knows what is buried there and that the site is not clean. She thinks it is too early to make these changes. She said it takes years for some of this contamination to reach the surface. She does not think there has been a real major weather event, and thinks DOE needs to wait a reasonable amount of time before taking these actions, which is not within ten years of site closure.

Lee Johnson is the attorney for Woman Creek Reservoir Authority (WCRA). He noted that some of the WCRA board members and downstream entities were on hand at this meeting. He said that moving the POCs is a huge concern for the WCRA. He said that if they move it upstream, there will be a three-quarter mile stream segment that will not have monitoring.

Carl Spreng with CDPHE offered a clarification. He said that people do not need to wait until these documents are released to know what standards will be applied. He said these will be the same standards that are currently in place. The Colorado Water Quality Control Commission applies the same standards and protocols all over state. The agencies do the pre-discharge sampling in order to achieve and provide a comfort level when releases occur.

Lisa Morzel asked Dallas Griggs to submit a copy of his statement for the record. She added that she appreciates the downstream communities' input. She said she would also like to see their comments when the EA comes out. David Allen ended the discussion by saying that this is a key issue. Because legacy management implies long term, he does not want to see it cut short.

### **DOE budget briefing**

The Obama Administration submitted its 2011 budget request to Congress in early February. Congress is in the early stages of the annual appropriations process. Linda Kaiser was on hand to brief on DOE's 2011 request and priorities for the 2011 federal fiscal year (October 1, 2010 – September 30, 2011).

- FY08 actual cost (includes EM funding) \$6.4 M.
- FY09 actual cost, \$6.7M (includes EM funding).
- FY10 budget (no more EM funding, special projects, includes dam breach budget accelerated from FY11), \$4.5M.
- FY11 budget (includes dam breach budget accelerated from FY12) \$6.9M.
- Average annual operating budget cost FY09-FY11 (excludes special projects and upgrades, such as media change out, road issues due to weather, etc.) \$3.3M.

Linda was asked what DOE is anticipating going forward. She said that there are no indications of any cuts pertaining to what is required for them to do. Lisa Morzel asked about the costs for relocating the points of compliance. Linda said this would not involve large amounts of money in terms of overall budget. It will probably be less than \$100K. Lisa asked if there would be funding available for additional monitoring. Linda said this is not in the budget. Lisa said she thinks the Board may want to make a recommendation that these additional funds be considered. Linda said that there is \$2.6M included for dam breaching. If POC changes go ahead, DOE would do a baseline change to the budget. Lisa asked if DOE has funding during FY11 to move the POCs. Scott Surovchak said that these changes would actually be done in FY10. They are

working on cost estimates now. Sheri Paiz asked if DOE is allowed to carry this particular money over into next year if the project is put on hold. Linda said they are.

### **Continue Discussing Signs for Rocky Flats**

Lori Cox asked if the Board still wanted to have this discussion as there was no scheduling urgency for it. Lisa Morzel said she was fine with putting it off. She said that, even though the State House bill was dead, there was a resolution being considered that will be introduced in a couple weeks. She has been working with Rep. McKinley and he had been very open to this process. She said that the bill language did change substantially from the beginning of the process. Lisa said she informed Rep. McKinley that the language in the current resolution did not reflect the most current bill language. She has not read it yet, but will be working on the language. She said Rep. Weissmann is supporting it, and she just wanted to bring it to Board's attention and will forward it to the Board for review.

There was no objection to continuing this discussion at the June meeting.

### **Updates/Big Picture Review**

#### **June 7, 2010**

##### *Potential Business Items*

- Receive RFSC 2009 audit
- Letter to Interior dept regarding funding
- Letter about FACA, send to members of delegation

##### *Potential Briefing Items*

- Host LM Annual Meeting
- Original landfill sampling briefing
- Dam breach EA
- Continue discussing interpretive signs for Rocky Flats

#### **September 13, 2010**

##### *Potential Business Items*

- Initial review of 2011 RFSC budget

##### *Potential Briefing Items*

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

#### **November 8, 2010**

##### *Potential Business Items*

- Budget Hearings for 2011 RFSC budget

*Potential Briefing Items*

- Host LM quarterly public meeting
- Approve 2011 RFSC Work Plan

Bob Briggs asked staff to send out an updated Board directory. David said they would by the end of week. Sheri Paiz asked for the Board to do a review of the history of this group in November. David Allen asked if the Board needs to approve a resolution to change the November meeting date. Barb Vander Wall said that this was not necessary because the schedule was part of a resolution during a previous meeting.

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

*Respectfully submitted by Erin Rogers.*

7:14 PM  
05/13/10

## Rocky Flats Stewardship Council Check Detail March 21 through May 13, 2010

Type	Num	Date	Name	Account	Paid Amount	Original Amount
Check		3/31/2010		<b>CASH-Wells Fargo-Operating</b>		<b>-2.00</b>
				Admin Services-Misc Services	-2.00	2.00
TOTAL					-2.00	2.00
Check	1418	4/2/2010	Qwest	<b>CASH-Wells Fargo-Operating</b>		<b>-26.93</b>
				Telecommunications	-26.93	26.93
TOTAL					-26.93	26.93
Bill Pmt...	1419	4/2/2010	Crescent Strategies, LLC	<b>CASH-Wells Fargo-Operating</b>		<b>-7,537.67</b>
Bill	3/31/...	3/31/2010		Personnel - Contract	-6,850.00	6,850.00
				Telecommunications	-126.40	126.40
				TRAVEL-Local	-118.00	118.00
				Postage	-215.99	215.99
				Supplies	-24.99	24.99
				Printing	-172.76	172.76
				Misc Expense-Local Government	-29.53	29.53
TOTAL					-7,537.67	7,537.67
Bill Pmt...	1420	4/2/2010	Erin Rogers	<b>CASH-Wells Fargo-Operating</b>		<b>-525.00</b>
Bill	3/28/...	3/28/2010		Personnel - Contract	-525.00	525.00
TOTAL					-525.00	525.00
Bill Pmt...	1421	4/2/2010	Jennifer A. Bohn	<b>CASH-Wells Fargo-Operating</b>		<b>-221.00</b>
Bill	10-21	3/31/2010		Accounting Fees	-221.00	221.00
TOTAL					-221.00	221.00
Bill Pmt...	1422	5/6/2010	Blue Sky Bistro	<b>CASH-Wells Fargo-Operating</b>		<b>-235.00</b>
Bill	243	4/7/2010		Misc Expense-Local Government	-235.00	235.00
TOTAL					-235.00	235.00
Bill Pmt...	1423	5/6/2010	Crescent Strategies, LLC	<b>CASH-Wells Fargo-Operating</b>		<b>-8,642.32</b>
Bill	4/30/...	4/30/2010		Personnel - Contract	-6,850.00	6,850.00
				Telecommunications	-131.40	131.40
				TRAVEL-Local	-83.50	83.50
				Postage	-15.99	15.99
				Subscriptions/Memberships	-769.60	769.60
				TRAVEL-Out of State	-791.83	791.83
TOTAL					-8,642.32	8,642.32
Bill Pmt...	1424	5/6/2010	Jennifer A. Bohn	<b>CASH-Wells Fargo-Operating</b>		<b>-1,122.00</b>
Bill	10-36	4/30/2010		Accounting Fees	-1,122.00	1,122.00
TOTAL					-1,122.00	1,122.00
Bill Pmt...	1425	5/6/2010	Seter & Vander Wall, P.C.	<b>CASH-Wells Fargo-Operating</b>		<b>-2,243.34</b>
Bill	57993	4/1/2010		Attorney Fees	-708.50	708.50
Bill	58119	4/30/2010		Attorney Fees	-1,534.84	1,534.84
TOTAL					-2,243.34	2,243.34

7:14 PM

05/13/10

**Rocky Flats Stewardship Council**  
**Check Detail**  
March 21 through May 13, 2010

<u>Type</u>	<u>Num</u>	<u>Date</u>	<u>Name</u>	<u>Account</u>	<u>Paid Amount</u>	<u>Original Amount</u>
Check	1426	5/6/2010	Qwest	CASH-Wells Fargo-Operating		-27.06
				Telecommunications	-27.06	27.06
TOTAL					-27.06	27.06
Check	1427	5/6/2010	Tricia Marsh	CASH-Wells Fargo-Operating		-210.00
				Website	-210.00	210.00
TOTAL					-210.00	210.00

# ROCKY FLATS STEWARDSHIP COUNCIL

P.O. Box 17670  
Boulder, CO 80308-0670  
www.rockyflatssc.org

(303) 412-1200  
(303) 600-7773 (f)

Jefferson County -- Boulder County -- City and County of Broomfield -- City of Arvada -- City of Boulder  
City of Golden -- City of Northglenn -- City of Westminster -- Town of Superior  
League of Women Voters -- Rocky Flats Cold War Museum -- Rocky Flats Homesteaders  
Arthur Widdowfield

June \_\_\_\_\_, 2010

Secretary Ken Salazar  
Department of the Interior  
1849 C Street NW  
Washington, DC 20240

Dear Secretary Salazar,

We are writing to urge you to include in the fiscal year 2011 budget and subsequent budgets funding for the Rocky Flats National Wildlife Refuge. As you often remarked as Senator and Attorney General, the Rocky Flats Refuge is the crown jewel of the northwest metro area. Without funding for the USFWS to implement the site conservation plan, this status as the crown jewel is compromised.

We recognize that there are many competing funding needs facing the Department of the Interior. Providing long-term funding for this refuge is core to meeting Congress' intent in passing the refuge legislation in 2001. Funding also helps ensure that this property remains an asset for the local communities, and that our collective efforts to integrate this federal property with our open space is met. The Natural Resource Trustees' decision in 2009 to fund a joint proposal our communities and community groups developed reflects that your goals in working with us on "Beyond the Fences" are being met. A critical missing piece to this regional vision, however, is adequate funding for the Rocky Flats Refuge.

We thus strongly urge you to include in Interior's budget starting in fiscal year 2011 funding for the Rocky Flats National Wildlife Refuge.

Regards,

Lori Cox  
Chairman

Cc: Senator Mark Udall  
Senator Michael Bennet  
Representative Jared Polis  
Representative Ed Perlmutter  
Representative Mike Coffman

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Arthur Widdowfield

June \_\_\_, 2010

Senator Mark Udall  
317 Hart Senate Office Building  
Washington, D.C. 20510

Senator Michael Bennet  
702 Hart Senate Office Building  
Washington, D.C. 20510

Representative Jared Polis  
501 Cannon House Office Building  
Washington, DC 20515

Representative Ed Perlmutter  
415 Cannon House Office Building  
Washington, DC 20515

Dear Senators Udall and Bennet and Representatives Polis and Perlmutter,

In recent months representatives of the Rocky Mountain Peace and Justice Center have charged the Rocky Flats Stewardship Council, as the Department of Energy Local Stakeholder Organization (LSO) for Rocky Flats, with violating the Federal Advisory Committee Act (FACA). They have levied this charge with Congress, the Department of Energy and the General Services Administration. Some of these claims have been raised in meetings with your staff.

The Peace Center's claim is based on the false and misguided idea that in establishing LSOs, Congress included a provision declaring LSOs must comply with FACA. The authorizing legislation does not mention FACA. Moreover, by the explicit terms of the legislation, LSOs were not established as an advisory board for DOE.



DOE has reviewed the Peace Center's claims and find them to be baseless. DOE's memo summarizing its position is attached.

Furthermore, as a unit of local government under the Colorado Constitution and Colorado statutes, we abide by the Colorado Open Meetings Act and the Open Records Act. As then-Representative Udall will recall, DOE and members of Colorado's delegation agreed in 2005 that our complying with these state laws would ensure that we operate in an open forum, thus obviating the need to amend the legislation to require the Stewardship Council to comply with FACA.

Should you have any questions about DOE's position and the concerns the Peace Center is raising, we urge you to contact Dave Geiser, Acting Director, DOE's Office of Legacy Management. You can also contact our Executive Director, David Abelson, at (303) 412-1200.

Regards,

Lori Cox  
Chairman

Cc: Dave Geiser, Office of Legacy Management  
Scott Surovchak, Office of Legacy Management  
LeRoy Moore, Rocky Mountain Peace and Justice Center



## Department of Energy

Washington, DC 20585

MAY 12 2010

MEMORANDUM FOR      DAVID GEISER  
                                         DIRECTOR  
                                         OFFICE OF LEGACY MANAGEMENT

FROM:                      SUSAN BEARD *Susan Beard*  
                                         ASSISTANT GENERAL COUNSEL FOR GENERAL LAW

The Department received an inquiry regarding the operation of the Rocky Flats Stewardship Council (RFSC), Department of Energy (DOE)'s Local Stakeholder Organization (LSO) for the Rocky Flats Site. The inquiry claims the RFSC is operating in violation of the Federal Advisory Committee Act (FACA), Public Law 92-463. Under the FACA, an agency that establishes or utilizes a group of non-Federal individuals for the purpose of providing it with consensus or group advice is required to have: a charter approved by the General Services Administration (GSA), registration with GSA, all meetings noticed in the Federal Register, members appointed on a balanced basis, all documents provided to the committee publicly available, and an opportunity for the public to participate in the deliberations of the committee as it fulfills its charge from DOE.

To the extent that (1) DOE requests information from RFSC on the basis of group deliberations or (2) RFSC filters or otherwise edits comments from the public before providing information to DOE with the knowledge of DOE, it may be subject to claims that it is a federal advisory committee and bound by the requirements of FACA. Potential lawsuits may enjoin the proceedings of the RFSC.

The RFSC was established, pursuant to section 3118 of Public Law 108-375, to be the Rocky Flats Site LSO. Based on the statute, the LSO "shall: (1) solicit and encourage public participation in appropriate activities relating to the closure and post-closure operations of the site; (2) disseminate information on the closure and post-closure operations of the site" to other interested stakeholders; (3) transmit to appropriate officers and employees of DOE "questions and concerns" of other interested stakeholders; and (4) perform such other duties as the Secretary and the LSO jointly determine appropriate to assist the Secretary in meeting post-closure obligations of the Department at the site. Based on this statute, the LSO role is to provide a two-way conduit for information between the DOE and all local stakeholders regarding the closure and post-closure operations of the Rocky Flats Site. Congress did not intend the LSO to be utilized by DOE to seek consensus or group advice from its membership, nor was it intended to edit or filter comments received from stakeholders for DOE.

Therefore, any charges to the LSO that request the gathering of information must make clear that it is a request for the opinions of individual members of the public and all information received must be passed on to DOE without edit or further comment by committee members. To the



extent that DOE has a need to disseminate information to stakeholders, that information should be disseminated through the RFSC to the general public in a manner that is most likely to get the broadest possible distribution ensuring anyone who desires to comment has an opportunity to communicate with DOE unrestricted. In addition, the Department can use other methods to disseminate such information.

To minimize the appearance of engaging in activities that would violate the FACA, it is strongly recommended that, if you are not doing so already, you post all comments received from the general public and all informational communications to the public on the RFSC website, with or without attribution as appropriate. Public meetings must also be conducted in a manner that public comment and feedback are collected and passed on to DOE.

Likewise, DOE must not request the RFSC to provide its views to DOE. Accordingly, DOE must make clear in any communications with the RFSC that DOE is not seeking the collective or consensus advice from its membership. All RFSC activities must be exercised in a manner that is consistent with functioning solely as an outreach tool of DOE to provide information to as many stakeholders as possible and to provide an avenue through which all members of the public may communicate with DOE without edit or comment by the RFSC.

We greatly appreciate your consideration of this matter. If you or your staff have any questions about implementing this guidance, please contact Mell Roy at (513)246-0585.

cc: Mell Roy  
Scott Surovchak  
Ray Plieness

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Arthur Widdowfield

## MEMORANDUM

**TO:** Board

**FROM:** David Abelson

**SUBJECT:** Rocky Flats Stewardship Council's 2009 Financial Audit

**DATE:** May 25, 2010

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Attached for your review is Wagner and Barnes' draft 2009 financial audit of the Rocky Flats Stewardship Council. Eric Barnes, the auditor, will discuss the audit at the meeting and will be prepared to answer any questions. If you have any questions for Eric prior to the meeting, please email me your questions and I will forward them to him.

The auditor did not find any material deficiencies and has issued a clean audit. The Stewardship Council will need to formally accept the audit at the meeting.

The audit is attached.

**Action Item: Approve motion accepting Stewardship Council's 2009 audit.**

**Rocky Flats Stewardship Council**  
**FINANCIAL STATEMENTS**  
**With Independent Auditors' Report**  
**December 31, 2009**

**DRAFT**

**Rocky Flats Stewardship Council**  
**BASIC FINANCIAL STATEMENTS**

**December 31, 2009**

**DRAFT**

<b>Independent auditors' report .....</b>	<b>1</b>
<b>Basic financial statements:</b>	
<b>Government-wide financial statements:</b>	
Statement of net assets.....	2
Statement of activities .....	3
<b>Fund financial statements:</b>	
Balance sheet – governmental fund.....	4
Statement of revenues, expenditures, and changes in fund balance – governmental fund.....	5
Reconciliation of the statement of revenues, expenditures, and changes in fund balance to the statement of activities.....	6
Statement of revenues, expenditures, and changes in fund balance – budget to actual – general fund.....	7
Notes to financial statements.....	8

## **Independent Auditors' Report**

Board of Directors  
Rocky Flats Stewardship Council  
Boulder, Colorado

# **DRAFT**

We have audited the accompanying financial statements of the governmental activities and the general fund of Rocky Flats Stewardship Council, as of December 31, 2009, which collectively comprise the Council's basic financial statements as listed in the table of contents. These financial statements are the responsibility of the Council's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

The Council has not presented management's discussion and analysis that the Governmental Accounting Standards Board has determined is necessary to supplement, although not required to be part of, the basic financial statements.

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities and the general fund of Rocky Flats Stewardship Council, as of December 31, 2009, and the respective changes in financial position thereof, and the respective budgetary comparison for the general fund for the period ending December 31, 2009 in conformity with accounting principles generally accepted in the United States of America.

# **DRAFT**

Golden, Colorado  
May XX, 2010

**Rocky Flats Stewardship Council**

**STATEMENT OF NET ASSETS**

**December 31, 2009**

**DRAFT**

	<b>Governmental Activities</b>
<b>Assets</b>	
Cash and cash equivalents	\$ 141,273
Capital assets, net	
Property, plant, & equipment	132
<b>Total assets</b>	<u>141,405</u>
<b>Liabilities</b>	
Accounts payable	10,526
Deferred grant revenue	13,262
<b>Total liabilities</b>	<u>23,788</u>
<b>Net assets</b>	
Invested in capital assets	132
Unrestricted	117,485
<b>Total net assets</b>	<u>\$ 117,617</u>

*The accompanying Notes to Financial Statements are an integral part of these statements.*



Rocky Flats Stewardship Council

STATEMENT OF ACTIVITIES

For the year ended December 31, 2009

**DRAFT**

Functions/Programs:	Expenses	Program Revenues			Net (Expense) Revenue and Changes in Net Assets
		Net Charges for Services	Operating Grants and Contributions	Capital Grants and Contributions	Governmental Activities
Primary government	\$ (122,371)	\$ -	\$ 128,657	\$ -	\$ 6,286
<b>Total primary government</b>	<b>\$ (122,371)</b>	<b>\$ -</b>	<b>\$ 128,657</b>	<b>\$ -</b>	<b>6,286</b>
<b>General revenues:</b>					
					164
					<u>164</u>
					6,450
					<u>111,167</u>
					<u>\$ 117,617</u>

*The accompanying Notes to Financial Statements are an integral part of these statements.*

**Rocky Flats Stewardship Council**

**BALANCE SHEET - GOVERNMENTAL FUNDS**

December 31, 2009

**DRAFT**

	<u>General</u>	<u>Total Governmental Funds</u>
<b>Assets</b>		
Cash and cash equivalents	\$ 141,273	\$ 141,273
<b>Total assets</b>	<u>141,273</u>	<u>141,273</u>
<b>Liabilities</b>		
Accounts payable	10,526	10,526
Deferred grant revenue	13,262	13,262
<b>Total liabilities</b>	<u>23,788</u>	<u>23,788</u>
<b>Fund balance</b>		
Designated	117,485	117,485
<b>Total fund balance</b>	<u>117,485</u>	<u>117,485</u>
<b>Total liabilities and fund balance</b>	<u>\$ 141,273</u>	

Amounts reported for governmental activities in the statement of net assets are different because:  
 Capital assets, net of accumulated depreciation used in governmental activities are not financial resources and, therefore, are not reported in the funds:

	<u>132</u>
Net assets of governmental activities	<u>\$ 117,617</u>

*The accompanying Notes to Financial Statements are an integral part of these statements.*

**Rocky Flats Stewardship Council**  
**STATEMENT OF REVENUES, EXPENDITURES, AND**  
**CHANGES IN FUND BALANCE - GOVERNMENTAL FUNDS**

**For the year ended December 31, 2009**

**DRAFT**

	<b>Total General Fund and Governmental Funds</b>
<b>Revenues</b>	
Grants	\$ 120,657
Contributions from local governments	8,000
Interest Income	164
<b>Total revenues</b>	<b>128,821</b>
<b>Expenditures</b>	
General government	
Annual Audit	4,744
Accounting Fees	5,338
Attorney Fees	9,479
Administrative Service - miscellaneous	24
Insurance	3,481
Miscellaneous Expense- local government	1,475
Personnel- contract	84,800
Postage	811
Printing	908
Subscriptions/membership dues	2,849
Supplies	891
Telecommunications	2,650
Website	977
Travel - local	848
Travel - out of state	2,963
<b>Total expenditures</b>	<b>122,238</b>
<b>Net change in fund balance</b>	<b>6,583</b>
<b>Fund balances - beginning</b>	<b>110,902</b>
<b>Fund balances - ending</b>	<b>\$ 117,485</b>

*The accompanying Notes to Financial Statements are an integral part of these statements.*

**Rocky Flats Stewardship Council**

**RECONCILIATION OF THE STATEMENT OF REVENUES,  
EXPENDITURES, AND CHANGES IN FUND BALANCES OF  
GOVERNMENTAL FUNDS TO THE STATEMENT OF ACTIVITIES**

**For the year ended December 31, 2009**

**DRAFT**

Amounts reported for governmental activities in the statement of activities  
(page 3) are different because:

Net change in fund balances - total governmental funds (page 5) \$ 6,583

Some expenses reported in the statement of activities do not require the use of  
current financial resources and therefore, are not reported as expenditures in  
governmental funds.

Depreciation expense (133)

Change in net assets of governmental activities (page 3) \$ 6,450

*The accompanying Notes to Financial Statements are an integral part of these statements.*

**Rocky Flats Stewardship Council**

**STATEMENT OF REVENUES, EXPENDITURES, AND  
CHANGES IN FUND BALANCES - BUDGET AND ACTUAL -  
GENERAL FUND**

**DRAFT**

For the year ending December 31, 2009

	<b>Original and Final Budgeted Amounts</b>	<b>Actual</b>	<b>Variance with Final Budget - Favorable (Unfavorable)</b>
<b>Revenues</b>			
U.S. Department of Energy - Office of Legacy Management	\$ 125,000	\$ 120,657	\$ (4,343)
Contributions from local governments	8,000	8,000	-
Investment earnings	-	164	164
<b>Total revenues</b>	<u>133,000</u>	<u>128,821</u>	<u>(4,179)</u>
<b>Expenditures</b>			
General government			
Personnel	99,600	84,800	14,800
Travel- local	1,200	848	352
Travel- out of state	4,200	2,963	1,237
Supplies	1,700	891	809
Contractual	37,000	21,060	15,940
Insurance	4,000	3,481	519
Postage	1,500	811	689
Printing	3,500	908	2,592
Subscriptions/membership dues	2,900	2,849	51
Telecommunications	3,400	2,650	750
Website	3,250	977	2,273
<b>Total expenditures</b>	<u>162,250</u>	<u>122,238</u>	<u>40,012</u>
<b>Net change in fund balance</b>	(29,250)	6,583	35,833
<b>Fund balances - beginning</b>	<u>44,747</u>	<u>110,902</u>	<u>66,155</u>
<b>Fund balances - ending</b>	<u>\$ 15,497</u>	<u>\$ 117,485</u>	<u>\$ 101,988</u>
<b>Funds available at December 31, 2009 is computed as follows:</b>			
Current assets		\$ 141,273	
Current liabilities		(23,788)	
		<u>\$ 117,485</u>	

*The accompanying Notes to Financial Statements are an integral part of these statements.*

**Rocky Flats Stewardship Council**

**NOTES TO FINANCIAL STATEMENTS**

**December 31, 2009**

**Note 1 – Summary of significant accounting policies**

**DRAFT**

**A. Reporting entity**

The Rocky Flats Stewardship Council (Council) was organized on February 13, 2006 through an Intergovernmental Agreement (IGA) by and among the following governments: the City and County of Broomfield, the Counties of Jefferson and Boulder, the Cities of Arvada, Boulder, Golden, Northglenn and Westminster, and the Town of Superior. All jurisdictions are located adjacent to or near the U.S. Department of Energy's Rocky Flats weapons plant. The Cities of Golden and Northglenn are rotating parties, and annually alternate representation on the Council's Board of Directors. All other jurisdictions are permanent parties, with continuous representation on the Board of Directors. The Council was organized as the successor organization to the Rocky Flats Coalition of Local Governments (Coalition), also formed through an IGA, which concluded its existence shortly following the organization of the Council, having fulfilled its purpose in connection with the closure of the Rocky Flats Site.

The Council was formed for the purpose of overseeing all post-closure Rocky Flats activities. The legislative and administrative power of the Council is vested with a Board of Directors not to exceed twelve in number, one representing each of the seven Permanent Parties, one representing one of the Rotating Parties, and one representing up to four Members, each with one equal vote. Members are community stakeholder representatives, selected by the remaining Board of Directors upon application, and have a right to appoint a Director to the Board.

Under the terms of the IGA, the status of the Council is to be reviewed periodically by the local governments which are parties to the agreements to determine whether the Council will continue in existence. Also under the terms of the IGA, the Council is established as an "enterprise", as defined by Article X, Section 20 of the Colorado constitution, commonly referred to as the Taxpayer's Bill of Rights, or Tabor (Note 5).

The Council follows the Governmental Accounting Standards Board (GASB) accounting pronouncements which provide guidance for determining which governmental activities, organizations and functions should be included within the financial reporting entity. GASB pronouncements set forth the financial accountability of a governmental organization's elected governing body as the basic criterion for including a possible component governmental organization in a primary government's legal entity. Financial accountability includes, but is not limited to, appointment of a voting majority of the organization's governing body, ability to impose its will on the organization, a potential for the

## Rocky Flats Stewardship Council

### NOTES TO FINANCIAL STATEMENTS

(continued)

December 31, 2009

# DRAFT

organization to provide specific financial benefits or burdens and fiscal dependency.

As of December 31, 2009, no component unit has been identified as reportable to the Council, nor is the Council a component unit of any other primary governmental entity.

#### **B. Government-wide and fund financial statements**

The government-wide financial statements include the statement of net assets and the statement of activities. These financial statements include all of the activities of the Council. Both statements distinguish between governmental activities, which normally are supported by taxes and intergovernmental revenues, and business-type activities, which rely to a significant extent on fees and charges for support.

The statement of net assets reports all financial and capital resources of the Council. The difference between the assets and liabilities of the Council is reported as net assets.

The statement of activities demonstrates the degree to which the direct expenses of a given function or segment is offset by program revenues. Direct expenses are those that are clearly identifiable with a specific function or segment. Program revenues include 1) charges to customers or applicants who purchase, use, or directly benefit from goods, services or privileges provided by a given function or segment, and 2) grants and contributions that are restricted to meeting the operational or capital requirements of a particular function or segment. Taxes and other items not properly included among program revenues are reported instead as general revenues.

#### **C. Measurement focus, basis of accounting and financial statement presentation**

The government-wide financial statements are reported using the *economic resources measurement focus* and the *accrual basis of accounting*. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows.

Governmental fund financial statements are reported using the *current financial resources measurement focus* and the *modified accrual basis of accounting*. Revenues are recognized as soon as they are both measurable and available. Revenues are considered to be available when they are collectible within the current period or soon enough thereafter to pay liabilities of the current period.

**Rocky Flats Stewardship Council**

**NOTES TO FINANCIAL STATEMENTS**

**(continued)**

**December 31, 2009**

**DRAFT**

For this purpose, the government considers revenues to be available if they are collected within 60 days of the end of the current fiscal period. Expenditures generally are recorded when a liability is incurred, as under accrual accounting.

Eligible grant receipts and interest associated with the current fiscal period are all considered to be susceptible to accrual and so have been recognized as revenues of the current fiscal period. Other revenue items are considered to be measurable and available only when the Council receives cash.

The government reports the following major governmental fund:

*The general fund* is the Council's primary operating fund.  
It accounts for all financial resources of the general government.

When both restricted and unrestricted resources are available for use, it is the Council's policy to use restricted resources first, then unrestricted resources as they are needed.

**D. Use of estimates**

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires Council management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenditures during the reporting period. Actual results could differ from those estimates.

**E. Assets, liabilities, and net assets**

**1. Deposits and investments**

The Council's cash and cash equivalents are considered to be cash on hand, demand deposits and short-term investments with maturities of three months or less.

Investments for the government are reported at fair value.

**2. Capital assets**

Capital assets, which include furniture and equipment, are reported in the government-wide financial statements. Capital assets are defined by the Council as assets with an initial, individual cost of more than \$250. Such assets are recorded at historical cost if purchased or constructed. Donated



**Rocky Flats Stewardship Council**

**NOTES TO FINANCIAL STATEMENTS**

**(continued)**

**December 31, 2009**

**DRAFT**

capital assets are recorded at estimated fair market value at the date of donation.

The cost of normal maintenance and repairs that do not add to the value of the asset or materially extend the life of the asset are not capitalized. Improvements are capitalized and depreciated over the remaining useful lives of the related fixed assets, as applicable. Depreciation expense has been computed using the straight-line method for all assets, based on the estimated useful lives of the assets, estimated at 5 years. Depreciation expense was \$133 for the year ended December 31, 2009.

**3. Fund equity/Reserved fund balances**

In the fund financial statements, the governmental fund reports reservations of fund balance for amounts that are not available for appropriation or are legally restricted by outside parties for use for a specific purpose. Designations of fund balance represent tentative management plans that are subject to change. At December 31, 2009, the Council's entire fund balance has been designated by management for future expenditures.

**F. Budgetary information**

Annual budgets are adopted on a basis consistent with generally accepted accounting principles for all governmental funds. In accordance with the Colorado State Budget Law, the Council's Board of Directors follows these procedures in establishing the budgetary data reflected in the financial statements:

1. On or before October 15, the Board prepares a proposed operating budget for each fund, based on their respective basis of accounting, for the fiscal year commencing the following January 1. The operating budget includes proposed expenditures and the means of financing them.
2. After considering comments received, the Board approves the budget. The budget is formally adopted by resolution, published, and filed with the state.
3. Before December 31, the expenditures are appropriated for the ensuing year. The appropriation is at the total fund level and lapses at year-end.

**Rocky Flats Stewardship Council**

**NOTES TO FINANCIAL STATEMENTS**

(continued)

December 31, 2009

**DRAFT**

**Note 2 – Cash and Investments**

Cash and investments as of December 31, 2009 are classified in the accompanying statements as follows:

Statement of net assets:

Cash and cash equivalents	<u>\$141,273</u>
---------------------------	------------------

**Deposits with Financial Institutions**

Colorado statutes require that the Council use eligible public depositories as defined by the Colorado Public Deposit Protection Act (the Act). Under the Act, amounts on deposit in excess of federal insurance levels must be collateralized. The eligible collateral is determined by the Act and allows the institution to create a single collateral pool for all public funds. The pool is to be maintained by another institution or held in trust for all the uninsured public deposits as a group. The market value of the collateral must be at least equal to 102% of the aggregate uninsured deposits.

The State Regulatory Commissions for banks and financial services are required by Statute to monitor the naming of eligible depositories and reporting of the uninsured deposits and assets maintained in the collateral pools.

At December 31, 2009, all of the Council's deposits were covered by insurance provided by the federal government. The Council was not subject to custodial credit risk at December 31, 2009.

The Council's cash deposits at December 31, 2009 are as follows:

	<u>Carrying Balance</u>	<u>Bank Balance</u>
Deposits with financial institutions	\$141,273	\$ 141,273
Total cash and cash equivalents	<u>\$141,273</u>	<u>\$ 141,273</u>

**Investments**

The Council has not adopted a formal investment policy, however, the Council follows state statutes regarding investments. Colorado revised statutes limit investment maturities to five years or less unless formally approved by the Board of Directors. Such actions are generally associated with a debt service reserve or sinking fund requirements.

**Rocky Flats Stewardship Council**

**NOTES TO FINANCIAL STATEMENTS**

(continued)

December 31, 2009

**DRAFT**

Colorado statutes specify investment instruments meeting defined rating and risk criteria in which local governments may invest which include:

- Obligations of the United States and certain U.S. government agencies securities
- Certain international agency securities
- General obligation and revenue bonds of U.S. local government entities
- Bankers' acceptance of certain banks
- Commercial paper
- Local government investment pools
- Guaranteed investment contracts
- Written repurchase agreements collateralized by certain authorized securities
- Certain money market funds

As of December 31, 2009, the Council had the following investment, fully insured by the federal government. No interest rate risk is associated with this investment.

<b>Investment</b>	<b>Maturity</b>	<b>Fair Value</b>
Wells Fargo Public Fund	Less than 1 year	<u>\$91,312</u>
Total Investments		<u>\$91,312</u>

**Note 3 – Capital Assets**

An analysis of the changes in capital assets for the year ended December 31, 2009 follows:

	<u>Balance 12/31/08</u>	<u>Additions</u>	<u>Deletions</u>	<u>Balance 12/31/09</u>
Capital assets being depreciated:				
Furniture and equipment	\$ 398	\$ -		\$ 398
Total capital assets	398	-		398
Accumulated depreciation	(133)	(133)		(266)
Capital assets, net	<u>\$ 265</u>	<u>\$ (133)</u>		<u>\$ 132</u>

**Rocky Flats Stewardship Council**

**NOTES TO FINANCIAL STATEMENTS**

**(continued)**

**December 31, 2009**

**DRAFT**

**Note 4 – Net assets**

The Council has net assets consisting of three components – invested in capital assets, restricted, and unrestricted.

Invested in capital assets consists of capital assets, net of depreciation. As of December 31, 2009, the Council had \$132 invested in capital assets.

Restricted assets include net assets that are restricted for use either externally imposed by creditors, grantors, contributors, or laws and regulations of other governments or imposed by law through constitutional provisions or enabling legislation. As of December 31, 2009, the Council had no restricted net assets.

As of December 31, 2009, the Council had unrestricted net assets of \$117,485.

**Note 5 - Risk management**

The Council is exposed to various risks of loss related to torts, thefts of, damage to, or destruction of assets, errors or omissions, injuries to personnel, or natural disasters. The Council maintains commercial insurance for all risks of loss. Settled claims have not exceeded the commercial insurance coverage limits in any of the past three years.

**Note 6 - Tax, spending and debt limitation**

Article X, Section 20 of the Colorado Constitution, referred to as the Taxpayer's Bill of Rights (TABOR), contains tax, spending, revenue, and debt limitations which apply to the State of Colorado and all local governments.

Spending and revenue limits are determined based on the prior year's Fiscal Year Spending adjusted for allowable increases based upon inflation and local growth. Fiscal Year Spending is generally defined as expenditures plus reserve increases with certain exceptions. Revenue in excess of the Fiscal Year Spending limit must be refunded unless the voters approve retention of such revenue.

As an enterprise (Note 1), management believes that the Council is exempt from the provisions of TABOR. However, TABOR is complex and subject to interpretation. Ultimate implementation may depend upon litigation and legislative guidance.

\*\*\*\*\*

## **DOE Annual Report Briefing**

- Cover memo
- Annual report (first 26 pages)

## **Dam Breaching/Water Configuration**

- Cover memo
- RFSC April 8, 2010, letter re: dam breach EA
- Dam breach EA executive summary

# ROCKY FLATS STEWARDSHIP COUNCIL

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City of Golden -- City of Northglenn -- City of Westminster -- Town of Superior  
League of Women Voters -- Rocky Flats Cold War Museum -- Rocky Flats Homesteaders  
Arthur Widdowfield

## MEMORANDUM

**TO:** Stewardship Council Board  
**FROM:** Rik Getty  
**SUBJECT:** DOE Annual Briefing  
**DATE:** May 26, 2010

---

We have scheduled one hour for DOE to present its 2009 annual update. The report, which is very detailed and lengthy (several hundred pages), can be found at:

[http://www.lm.doe.gov/Rocky\\_Flats/Documents.aspx](http://www.lm.doe.gov/Rocky_Flats/Documents.aspx)

The executive summary is found below; first 26 pages of the report are attached.

DOE will brief on the following topics in a format similar to past quarterly and annual report updates:

- surface water monitoring;
- groundwater monitoring;
- ecological monitoring; and,
- site operations (inspections, pond operations, security, general maintenance, etc.).

## Executive Summary

The U.S. Department of Energy (DOE) Office of Legacy Management (LM) is responsible for implementing the final response action selected in the *Final Corrective Action Decision/Record of Decision for Rocky Flats Plant (USDOE) Peripheral Operable Unit and Central Operable Unit (CAD/ROD)* issued September 29, 2006, for the Rocky Flats Site (Site).

Under the CAD/ROD, two Operable Units (OUs) were established within the boundaries of the Rocky Flats property: the Peripheral OU (POU) and the Central OU (COU). The COU consolidates all areas of the Site that require additional remedial or corrective actions while also considering practicalities of future land management. The POU includes the remaining, generally unimpacted portions of the Site and surrounds the COU. The response action in the Final CAD/ROD is no action for the POU and institutional and physical controls with continued monitoring for the COU. The CAD/ROD determined that conditions in the POU were suitable

for unrestricted use. The U.S. Environmental Protection Agency (EPA) subsequently published a Notice of Partial Deletion from the National Priorities List for the POU on May 25, 2007.

DOE, EPA, and the Colorado Department of Public Health and Environment (CDPHE) have chosen to implement the monitoring and maintenance requirements of the CAD/ROD under, and as described in, the *Rocky Flats Legacy Management Agreement* (RFLMA), executed March 14, 2007. RFLMA Attachment 2 defines the COU remedy surveillance and maintenance requirements. The requirements include environmental monitoring; maintenance of the erosion controls, access controls (signs), landfill covers, and groundwater treatment systems; and operation of the groundwater treatment systems.

LM prepared the *Rocky Flats Site Operations Guide* to serve as the primary internal document to guide work performed to satisfy the requirements of RFLMA and implement best management practices at the Site.

This report addresses all surveillance and maintenance activities conducted at the Site during Calendar Year 2009 (January 1 through December 31, 2009). Highlights of the surveillance and maintenance activities are as follows:

- RFLMA references the use of contact records to document CDPHE approvals of field modifications to implement approved response actions. RFLMA Attachment 2 references the use of contact records to document the outcome of consultation related to addressing any reportable conditions. This report discusses RFLMA contact records issued in 2009 and the contact record status as of December 31, 2009.
- Several Colorado Water Quality Control Commission (WQCC) proceedings related to surface water standards for stream segments at Rocky Flats occurred in 2009. Pursuant to a rulemaking hearing in January 2009, the WQCC revised the uranium standard from a site-specific standard to the Colorado health-based standard and deleted the gross alpha and gross beta site-specific standards. DOE requested the revisions due to changed conditions resulting from cleanup and closure of the Site. The new U standard is approximately 10 percent higher than the previous standard. The WQCC completed the triennial review of the South Platte River Basin surface water standards with a hearing in June 2009. Minor revisions to segment descriptions, recreational use classifications of stream segments at Rocky Flats, and revisions to adopt new statewide basic standard for arsenic were adopted by the WQCC in the triennial review.
- Monitoring in 2009 of the Original Landfill (OLF) inclinometers installed in 2008 showed deflection, indicating localized movement, and minor localized surface cracking was also observed. The annual report includes a review of the data by a qualified geotechnical engineer. The inclinometers were installed as part of the geotechnical investigation to address localized slumping and settling of the OLF cover observed in 2007. Construction work was completed in 2008 to improve OLF stability and improve drainage based on the results of the geotechnical investigation. This included constructing an extension to the Seep 7 drain and adding fill to and re-grading the west diversion channel to improve slope stability. The data review concluded that the

observed conditions are consistent with the geotechnical investigation findings. Continued monitoring and routine maintenance are presently considered adequate to address any observed surface cracking resulting from minor slumping due to observed localized movement.

- Modifications to RFLMA Attachment 2, “Legacy Management Requirements,” and to the OLF Monitoring and Maintenance Plan were submitted for approval in 2009. The RFLMA modifications reflected results of the WQCC rulemaking in 2009 and incorporation of changes to monitoring previously approved in Contact Records. Changes to the OLF Monitoring and Maintenance Plan requirements reflected the geotechnical investigation and construction work.
- Surface-water flow volumes continue to show expected reductions resulting from land configuration changes and removal of impervious surfaces.
- All surface-water Points of Compliance showed acceptable water quality for the entire year.
- Point of Evaluation (POE) location GS10 showed reportable values for total U for a portion of 2009; as of April 30, 2009, total U concentrations at GS10 were no longer reportable. Evaluation has suggested that the reportable values are due to changes in hydrologic conditions, which have caused groundwater with naturally occurring U to make up a larger proportion of streamflow at GS10. All other POEs and all other analytes at GS10 showed acceptable water quality for the entire year.
- Surface-water monitoring at the Present Landfill Treatment System showed three analytes as periodically above applicable standards. Additional monitoring was performed as required by the RFLMA data evaluation process. Results of the additional monitoring did not indicate water quality levels requiring consultation between the RFLMA parties.
- The groundwater treatment systems at the Site continued to successfully remove contaminant loading to surface water from groundwater plumes.
- Phase II and Phase III upgrades to the Solar Ponds Plume Treatment System (SPPTS) were completed and implemented in May 2009. In an effort to further improve water quality in North Walnut Creek, the upgrades were designed to improve treatment cell access, reduce operational costs, and allow evaluation of alternative treatment methods. The Phase I components installed in late 2008 continued to effectively capture and allow treatment of more of the contaminated groundwater that would otherwise discharge untreated to the creek. Sampling of SPPTS and North Walnut Creek locations was increased to support an evaluation of the effects of Phase II/III improvements to the system and to support planning for Phase IV upgrades, an improved full-scale nitrate treatment component.



- The East Trenches Plume Treatment System treatment media was replaced, and plumbing upgrades were installed in late 2009 to simplify system operation, improve system performance, and reduce future maintenance needs.
- Groundwater quality and flow at the Site were generally consistent with previous years. Statistical trending calculations indicated numerous significant concentration trends.
- Elevated nitrate concentrations in groundwater that led to the reportable condition reported at Area of Concern well B206989 in 2007 persisted through 2009. Concentrations were generally consistent with previous data, but statistical trending incorporating 2009 data now indicates a decreasing trend in nitrate concentrations that is statistically significant at the 95 percent confidence level.
- The results of statistical evaluations of groundwater quality at the OLF and Present Landfill were essentially identical to the results of these evaluations performed in 2008.
- All RFLMA-required ecological data collection, analysis, and reporting were completed as scheduled.
- Re-vegetation monitoring data continue to document the establishment of the desirable grassland species at the Site. Several locations met success criteria this year.
- The annual data quality assessment showed that the Site continues to collect high-quality data sufficient for decision making.

Please contact me if you have any questions.

**Annual Report of Site Surveillance  
and Maintenance Activities  
at the  
Rocky Flats, Colorado, Site  
Calendar Year 2009**

**April 2010**



U.S. DEPARTMENT OF  
**ENERGY**

Legacy  
Management

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**LMS/RFS/S05993**

**U.S. Department of Energy  
Office of Legacy Management**

**Annual Report of Site Surveillance and Maintenance Activities  
at the Rocky Flats, Colorado, Site**

**Calendar Year 2009**

**April 2010**

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## Appendixes

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Appendix E	<i>Technical Memorandum Regarding Instrumentation and Monitoring at the Rocky Flats OLF</i>
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Appendix G	RFLMA Contact Records

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## Abbreviations

Ag	silver
Am	americium
ANOVA	Analysis of Variance
AOC	Area of Concern
B	boron
Be	beryllium
BMP	best management practice
CAD/ROD	Corrective Action Decision/Record of Decision
Cd	cadmium
CDPHE	Colorado Department of Public Health and Environment
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act (also known as “Superfund”)
CFR	<i>Code of Federal Regulations</i>
cfs	cubic feet per second
cm/s	centimeters per second
CNHP	Colorado Natural Heritage Program
COU	Central Operable Unit
Cr	chromium
CY	calendar year
D&D	decontamination and decommissioning
DCA	dichloroethane
DCB	dichlorobenzene
DCE	dichloroethene
DER	duplicate error ratio
DG	Discharge Gallery
DOE	U.S. Department of Energy
DQA	data quality assessment
EPA	U.S. Environmental Protection Agency
ERP	<i>Emergency Response Plan for Rocky Flats Site Dams</i>
ESL	Environmental Sciences Laboratory
ETPTS	East Trenches Plume Treatment System
FC	Functional Channel
FR	<i>Federal Register</i>
ft/yr	feet per year
g	gram
GIS	Geographic Information System
gpm	gallons per minute
GWIS	Groundwater Intercept System
HR ICP/MS	high-resolution inductively coupled plasma/mass spectrometry
HRC	Hydrogen Release Compound
HRT	hydraulic residence time
IA	Industrial Area
IC	institutional control
IHSS	Individual Hazardous Substance Site
IMP	Integrated Monitoring Plan
ITPH	Interceptor Trench Pump House

ITS	Interceptor Trench System
K-H	Kaiser-Hill Company, LLC
L	liter
LANL	Los Alamos National Laboratory
LCS	laboratory control sample
LM	Office of Legacy Management
M&M	monitoring and maintenance
m <sup>3</sup>	cubic meter
MCL	maximum contaminant level
MDA	minimum detectable activity
M-K	Mann-Kendall
µg	microgram
µg/L	micrograms per liter
mg/L	milligrams per liter
mL	milliliter
MS	matrix spike
MSD	matrix spike duplicate
MSPTS	Mound Site Plume Treatment System
NA	not applicable
NOID	Notice of Intent to Delete
NPL	National Priorities List
NWTC	National Wind Technology Center
OBP	Oil Burn Pit
OLF	Original Landfill
OU	Operable Unit
PARCC	precision, accuracy, representativeness, completeness, and comparability
PCE	tetrachloroethene
pCi	picocurie
pCi/L	picocuries per liter
pCi/µg	picocuries per microgram
PIP	Public Involvement Plan
PLF	Present Landfill
PLFTS	Present Landfill Treatment System
POC	Point of Compliance
POE	Point of Evaluation
POU	Peripheral Operable Unit
PQL	practical quantitation limit
Pu	plutonium
PU&D	Property Utilization and Disposal
PVC	polyvinyl chloride
PZ	piezometer
QA	quality assurance
QC	quality control
RCRA	Resource Conservation and Recovery Act
RFCA	<i>Rocky Flats Cleanup Agreement</i>
RFETS	Rocky Flats Environmental Technology Site
RFLMA	<i>Rocky Flats Legacy Management Agreement</i>
RFSOG	<i>Rocky Flats Site Operations Guide</i>

RI/FS	Remedial Investigation/Feasibility Study
RMRS	Rocky Mountain Remediation Services
RPD	relative percent difference
RPS	Responsive Pre-Hearing Statement
Se	selenium
SED	Sitewide Ecological Database
SEEPPro	Site Environmental Evaluation for Projects
SEP	Solar Evaporation Pond
SID	South Interceptor Ditch
S-K	Seasonal-Kendall
SPP	Solar Ponds Plume
SPPTS	Solar Ponds Plume Treatment System
STP	Sewage Treatment Plant
SVOC	semivolatile organic compound
TCA	trichloroethane
TCB	trichlorobenzene
TCE	trichloroethene
TIMS	thermal ionization mass spectrometry
TM	temporary modification
TSS	total suspended solids
U	uranium
UHSU	upper hydrostratigraphic unit
USFWS	U.S. Fish and Wildlife Service
V&V	validation and verification
VC	vinyl chloride
VOC	volatile organic compound
WQCC	Water Quality Control Commission
WQCD	Water Quality Control Division
WQP	water quality parameter
WWTP	Wastewater Treatment Plant
yr	year
ZVI	zero-valent iron

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## Executive Summary

The U.S. Department of Energy (DOE) Office of Legacy Management (LM) is responsible for implementing the final response action selected in the *Final Corrective Action Decision/Record of Decision for Rocky Flats Plant (USDOE) Peripheral Operable Unit and Central Operable Unit (CAD/ROD)* issued September 29, 2006, for the Rocky Flats Site (Site).

Under the CAD/ROD, two Operable Units (OUs) were established within the boundaries of the Rocky Flats property: the Peripheral OU (POU) and the Central OU (COU). The COU consolidates all areas of the Site that require additional remedial or corrective actions while also considering practicalities of future land management. The POU includes the remaining, generally unimpacted portions of the Site and surrounds the COU. The response action in the Final CAD/ROD is no action for the POU and institutional and physical controls with continued monitoring for the COU. The CAD/ROD determined that conditions in the POU were suitable for unrestricted use. The U.S. Environmental Protection Agency (EPA) subsequently published a Notice of Partial Deletion from the National Priorities List for the POU on May 25, 2007.

DOE, EPA, and the Colorado Department of Public Health and Environment (CDPHE) have chosen to implement the monitoring and maintenance requirements of the CAD/ROD under, and as described in, the *Rocky Flats Legacy Management Agreement (RFLMA)*, executed March 14, 2007. RFLMA Attachment 2 defines the COU remedy surveillance and maintenance requirements. The requirements include environmental monitoring; maintenance of the erosion controls, access controls (signs), landfill covers, and groundwater treatment systems; and operation of the groundwater treatment systems.

LM prepared the *Rocky Flats Site Operations Guide* to serve as the primary internal document to guide work performed to satisfy the requirements of RFLMA and implement best management practices at the Site.

This report addresses all surveillance and maintenance activities conducted at the Site during Calendar Year 2009 (January 1 through December 31, 2009). Highlights of the surveillance and maintenance activities are as follows:

- RFLMA references the use of contact records to document CDPHE approvals of field modifications to implement approved response actions. RFLMA Attachment 2 references the use of contact records to document the outcome of consultation related to addressing any reportable conditions. This report discusses RFLMA contact records issued in 2009 and the contact record status as of December 31, 2009.
- Several Colorado Water Quality Control Commission (WQCC) proceedings related to surface water standards for stream segments at Rocky Flats occurred in 2009. Pursuant to a rulemaking hearing in January 2009, the WQCC revised the uranium standard from a site-specific standard to the Colorado health-based standard and deleted the gross alpha and gross beta site-specific standards. DOE requested the revisions due to changed conditions resulting from cleanup and closure of the Site. The new U standard is approximately 10 percent higher than the previous standard. The WQCC completed the triennial review of the South Platte River Basin surface water standards with a hearing in June 2009. Minor revisions to segment descriptions, recreational use classifications of stream segments at



Rocky Flats, and revisions to adopt new statewide basic standard for arsenic were adopted by the WQCC in the triennial review.

- Monitoring in 2009 of the Original Landfill (OLF) inclinometers installed in 2008 showed deflection, indicating localized movement, and minor localized surface cracking was also observed. The annual report includes a review of the data by a qualified geotechnical engineer. The inclinometers were installed as part of the geotechnical investigation to address localized slumping and settling of the OLF cover observed in 2007. Construction work was completed in 2008 to improve OLF stability and improve drainage based on the results of the geotechnical investigation. This included constructing an extension to the Seep 7 drain and adding fill to and regrading the west diversion channel to improve slope stability. The data review concluded that the observed conditions are consistent with the geotechnical investigation findings. Continued monitoring and routine maintenance are presently considered adequate to address any observed surface cracking resulting from minor slumping due to observed localized movement.
- Modifications to RFLMA Attachment 2, “Legacy Management Requirements,” and to the OLF Monitoring and Maintenance Plan were submitted for approval in 2009. The RFLMA modifications reflected results of the WQCC rulemaking in 2009 and incorporation of changes to monitoring previously approved in Contact Records. Changes to the OLF Monitoring and Maintenance Plan requirements reflected the geotechnical investigation and construction work.
- Surface-water flow volumes continue to show expected reductions resulting from land configuration changes and removal of impervious surfaces.
- All surface-water Points of Compliance showed acceptable water quality for the entire year.
- Point of Evaluation (POE) location GS10 showed reportable values for total U for a portion of 2009; as of April 30, 2009, total U concentrations at GS10 were no longer reportable. Evaluation has suggested that the reportable values are due to changes in hydrologic conditions, which have caused groundwater with naturally occurring U to make up a larger proportion of streamflow at GS10. All other POEs and all other analytes at GS10 showed acceptable water quality for the entire year.
- Surface-water monitoring at the Present Landfill Treatment System showed three analytes as periodically above applicable standards. Additional monitoring was performed as required by the RFLMA data evaluation process. Results of the additional monitoring did not indicate water quality levels requiring consultation between the RFLMA parties.
- The groundwater treatment systems at the Site continued to successfully remove contaminant loading to surface water from groundwater plumes.
- Phase II and Phase III upgrades to the Solar Ponds Plume Treatment System (SPPTS) were completed and implemented in May 2009. In an effort to further improve water quality in North Walnut Creek, the upgrades were designed to improve treatment cell access, reduce operational costs, and allow evaluation of alternative treatment methods. The Phase I components installed in late 2008 continued to effectively capture and allow treatment of more of the contaminated groundwater that would otherwise discharge untreated to the creek. Sampling of SPPTS and North Walnut Creek locations was increased to support an evaluation of the effects of Phase II/III improvements to the system and to support planning for Phase IV upgrades, an improved full-scale nitrate treatment component.

- The East Trenches Plume Treatment System treatment media was replaced, and plumbing upgrades were installed in late 2009 to simplify system operation, improve system performance, and reduce future maintenance needs.
- Groundwater quality and flow at the Site were generally consistent with previous years. Statistical trending calculations indicated numerous significant concentration trends.
- Elevated nitrate concentrations in groundwater that led to the reportable condition reported at Area of Concern well B206989 in 2007 persisted through 2009. Concentrations were generally consistent with previous data, but statistical trending incorporating 2009 data now indicates a decreasing trend in nitrate concentrations that is statistically significant at the 95 percent confidence level.
- The results of statistical evaluations of groundwater quality at the OLF and Present Landfill were essentially identical to the results of these evaluations performed in 2008.
- All RFLMA-required ecological data collection, analysis, and reporting were completed as scheduled.
- Revegetation monitoring data continue to document the establishment of the desirable grassland species at the Site. Several locations met success criteria this year.
- The annual data quality assessment showed that the Site continues to collect high-quality data sufficient for decision making.

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# ROCKY FLATS STEWARDSHIP COUNCIL

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City of Golden -- City of Northglenn -- City of Westminster -- Town of Superior  
League of Women Voters -- Rocky Flats Cold War Museum -- Rocky Flats Homesteaders  
Arthur Widdowfield

## MEMORANDUM

**TO:** Board  
**FROM:** David Abelson  
**SUBJECT:** Dam Breach Environmental Assessment (EA)  
**DATE:** May 25, 2010

---

We will continue discussing DOE's proposal to breach five dams. At this time it is hard to gauge how much time to allot for the conversation, so we will use as much time as needed. Additionally, because concerns about the decision to breach these ponds has focused on ponds A-4, B-5 (both of which are on Walnut Creek) and C-2 (Woman Creek), we will focus our conversation on those dams. The executive summary of the dam breach environmental assessment (EA) is attached. The full EA is found at:  
[http://www.lm.doe.gov/Rocky\\_Flats/Sites.aspx?view=5](http://www.lm.doe.gov/Rocky_Flats/Sites.aspx?view=5)

The format of the meeting will be a roundtable discussion, and will include DOE and CDPHE. There will be no briefing, so please review the April 5<sup>th</sup> meeting minutes and the draft EA (or the executive summary) prior to the meeting. One of my hopes for the meeting is that the Stewardship Council and DOE will begin to find a mutually-agreeable resolution regarding the path forward.

### Background

DOE has indentified four primary reasons for breaching the dams:

1. Ecological benefits
2. Dam safety (B-5 is of primary concern)
3. Maintenance and operation costs
4. Evaporative depletion (by breaching dams A-4 and B-5, DOE would no longer need to account for the evaporative losses to Broomfield)

At the April meeting, the Board approved a letter to DOE (attached) in which we raised two primary issues/concerns:

1. uncertainties resulting from an insufficient post-closure period of record for assessing hydrologic conditions at the site, and

2. the inability to fully evaluate the effectiveness of the remedy due to the ongoing construction activities, recent operational changes, and future plans for phased modifications at landfills and groundwater treatment systems.

In raising these concerns, we informed DOE that the Stewardship Council supports the “No Action Alternative”, which in essence means leaving the ponds as is. (We also requested that DOE host a public meeting, which they did on May 18<sup>th</sup>.) While DOE cannot yet make a formal decision on the EA, their comments strongly suggest they will not choose the “No Action” alternative.

At the April meeting and the May 18<sup>th</sup> meeting, Broomfield, Northglenn and Westminster raised a number of concerns, including, but not limited to:

1. While the ponds are not part of the CERCLA remedy – which means DOE does not have to maintain them in order to meet its regulatory obligations – the ponds help settle any contaminants that might flow downstream. Settling provides increased assurance that Broomfield’s Great Western Reservoir will be protected. The ponds also help ensure that contaminated water will not flow into the Woman Creek Reservoir<sup>1</sup>, the 1996 project that protects Westminster and Northglenn’s drinking water, among others.
2. DOE plans to breach C-2 in 2010-2011. Lost in some of the public dialogue about breaching ponds A-4 and B-5 is the fact that DOE will not breach them until 2015, at the earliest. Instead, they plan to operate these two ponds in a flow-through condition and to monitor the impacts. As DOE notes, a flow-through condition should mimic the water levels once the ponds are breached. That will help DOE establish wetlands, and develop ecological conditions DOE would find once the dams are breached. One question that has emerged is why not first manage C-2 in a flow-through condition.
3. Once the dams are breached, should water quality exceed any applicable standard, DOE does not have a contingency plan to stop contaminated water from flowing downstream. Managing these dams for some time in a flow-through condition maintains a contingency plan should DOE determine through sampling that contaminated water is moving downstream, either into the Refuge and/or off-site. Breaching the dams eliminates the option of retaining water should monitoring detect a problem.
4. DOE has yet answered the question of why it needs to breach C-2 in 2010-2011. It has also not identified how the data garnered from managing A-4 and B-5 in a flow-through will be used to determine whether to breach these two dams.

### **Cost**

At the May 18<sup>th</sup> public meeting, DOE stated by breaching the dams it will save \$24 million on operations and maintenance costs over 75 years. DOE did not discuss the cost implications of first managing C-2 in a flow-through condition. These cost projections, however, assume there is no major maintenance on dams, which is a false assumption.

Please let me know what questions you have.

---

<sup>1</sup> In 1996 the hydrological connection between Rocky Flats and Standley Lake was severed. That means, even if plutonium or some other contaminant flowed off site, municipal water supplies served by Standley Lake would be protected. Woman Creek Reservoir, which was built to capture water flowing downstream in Woman Creek, helps ensure supplies are protected.

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City of Golden -- City of Northglenn -- City of Westminster -- Town of Superior  
League of Women Voters -- Rocky Flats Cold War Museum -- Rocky Flats Homesteaders  
Arthur Widdowfield

April 8, 2010

Mr. Dave Geiser  
Director, Office of Legacy Management  
U.S. Department of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585

Ms. Carol Rushin  
Acting Regional Administrator  
Environmental Protection Agency  
1595 Wynkoop Street  
Denver, CO 80202

Mr. Gary Baughman  
Division Director, Hazardous Materials and Waste Management  
Colorado Department of Public Health and the Environment  
4300 Cherry Creek Drive South  
Denver, CO 80246

## **RE: Rocky Flats Surface Water Configuration Environmental Assessment**

Dear Messrs. Geiser, Baughman, and Ms. Rushin,

As the Department of Energy (DOE)-designated Local Stakeholder Organization for Rocky Flats, the Rocky Flats Stewardship Council is expressing its support of the downstream communities to advocate for the “*No Action*” alternative for the Rocky Flats Surface Water Configuration Environmental Assessment. These downstream communities, collectively representing more than 300,000 residents, have expressed their support for the “*No Action*” alternative by sending letters to DOE this past February 2010.

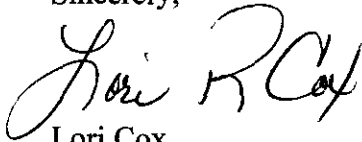
The communities favor the “*No Action*” alternative primarily based on two concerns: 1) uncertainties resulting from an insufficient post-closure period of record for assessing hydrologic conditions at the site, and 2) the inability to fully evaluate the effectiveness of the remedy due to

the ongoing construction activities, recent operational changes, and future plans for phased modifications at landfills and groundwater treatment systems.

In addition, we request that DOE host a formal public meeting on the Rocky Flats Surface Water Configuration Environmental Assessment within the first two weeks after the document is published for the mandatory thirty-day public comment period.

We appreciate the opportunity to comment on this important issue and provide support for the downstream users who could be impacted by the proposed federal actions.

Sincerely,

A handwritten signature in black ink that reads "Lori Cox". The signature is written in a cursive, flowing style.

Lori Cox  
Chair

cc: Ray Plienness, DOE  
Scott Surovchak, DOE  
Vera Moritz, EPA  
Joe Schieffelin, CDPHE  
Carl Spreng, CDPHE  
Steve Berendzen, USFWS

# Rocky Flats Surface Water Configuration Environmental Assessment

**Draft**

**April 2010**



U.S. DEPARTMENT OF  
**ENERGY**

Legacy  
Management



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## Abbreviations

AADT	average annual daily traffic
Am	Americium
APEN	air pollution emission notice
BO	Biological Opinion
CAD	Corrective Action Decision
CCR	Code of Colorado Regulations
CDOT	Colorado Department of Transportation
CDOW	Colorado Division of Wildlife
CDPHE	Colorado Department of Public Health and Environment
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
cfs	cubic feet per second
CHWA	Colorado Hazardous Waste Act
COU	Central Operating Unit
CWQCC	Colorado Water Quality Control Commission
DOE	U.S. Department of Energy
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ESCO	ESCO and Associates, Inc.
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
ft	feet
in.	inches
LM	Legacy Management
m <sup>3</sup>	cubic meter
MBTA	Migratory Bird Treaty Act
MG	million gallons
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NPB	NEPA Planning Board
NREL	National Renewable Energy Laboratory

O <sub>3</sub>	Ozone
OU	Operable Unit
PBA	Programmatic Biological Assessment
PL	Public Law
PLF	Present Landfill
POC	Point of Compliance
POE	Point of Evaluation
POU	Peripheral Operating Unit
ppm	parts per million
Pu	Plutonium
RCRA	Resource Conservation and Recovery Act
Refuge	Rocky Flats National Wildlife Refuge
RFLMA	Rocky Flats Legacy Management Agreement
RFS	Rocky Flats Site
ROD	Record of Decision
SH	State Highway
SHPO	State Historic Preservation Officer
SID	South Interceptor Ditch
T&E	threatened and endangered
USACOE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
WWE	Wright Water Engineers, Inc

# Executive Summary

The following sections provide a summary of the Rocky Flats Site (RFS), the purpose and need for the Proposed Action, the description of the Proposed Action and No Action alternatives, the potential impacts associated with the two alternatives, and mitigation measures associated with the Proposed Action.

## Introduction

The RFS is owned by the United States and is located in northern Jefferson County, Colorado, approximately 16 miles northwest of Denver. The RFS was formerly used to process and manufacture nuclear weapons components, but cleanup and closure of Rocky Flats by the U.S. Department of Energy (DOE) was completed in 2005. The Office of Legacy Management (LM) has jurisdiction and control of portions of Rocky Flats as discussed below.

The cleanup and closure of RFS was completed via a cleanup agreement under the Comprehensive Environmental Response, Compensation, and Liability Act; a Compliance Order on Consent under the Resource Conservation and Recovery Act (RCRA); and the Colorado Hazardous Waste Act (CHWA). RCRA and CHWA are administered by the State of Colorado through the Colorado Department of Public Health and Environment (CDPHE). The final response action for RFS is specified in the final Corrective Action Decision/Record of Decision (CAD/ROD) for Rocky Flats issued on September 29, 2006. Implementation of the final response action is regulated under the *Rocky Flats Legacy Management Agreement* (RFLMA).

The original Rocky Flats property occupied approximately 6,200 acres. Under the CAD/ROD, two Operable Units (OUs) were established within the boundaries of the Rocky Flats property: the Central OU (COU, or the current RFS) and the Peripheral OU (POU). The COU is centrally located within the Rocky Flats boundary and occupies approximately 1,300 acres. The POU surrounds the COU and occupies the remaining acreage. Transfer of jurisdiction and control of most of the land in the POU by DOE to the U.S. Fish and Wildlife Service (USFWS) was completed on July 12, 2007, for use as the Rocky Flats National Wildlife Refuge (Refuge).

Twelve dams were constructed on the RFS during operation of the Rocky Flats plant. Seven dams were breached by constructing notches in the dam embankments. Five dams remain, but surface water retention is not required at RFS, and the dams are not a functional part of the final CAD/ROD remedy.

The remaining dams include the following:

- Present Landfill (PLF) Dam on No Name Gulch
- Dams A-3 and A-4 on North Walnut Creek
- Dam B-5 on South Walnut Creek
- Dam C-2 near Woman Creek

Surface water points of compliance (POCs) are established under the CAD/ROD immediately downstream of dams A-4, B-5, and C-2. These are called the terminal pond dams, because the water released from these dams flows off the site. Currently, these ponds are operated in batch-and-release mode and are discharged 0 to 2 times a year. Woman Creek currently flows around

Pond C-2 in the Woman Creek Diversion Canal north of the pond and continues unimpeded beyond Pond C-2 to the downstream reaches of Woman Creek. The contribution of water to Woman Creek resulting from the infrequent releases from Pond C-2 is minimal due to the relatively small drainage basin area (South Interceptor Ditch basin) tributary to Pond C-2.

DOE has signed a lease agreement with the City and County of Broomfield to comply with the water law and regulations of the State of Colorado as they apply to the holding ponds at the site. The State of Colorado requires that stream depletions resulting from out-of-priority storage of water be replaced, and Broomfield agreed to lease to DOE a certain amount of Broomfield's reusable Windy Gap effluent (Augmentation Plan) (DOE 2006a). This water is to be released by Broomfield to the Big Dry Creek Basin to replace depletions resulting from out-of-priority storage in ponds at Rocky Flats. The Augmentation Plan is described in detail in the body of this Environmental Assessment (EA).

The dams are not required to maintain adequate protection of human health and the environment under the final CAD/ROD remedy. Activities proposed in this EA do not fall within the scope of CAD/ROD or the *Environmental Assessment Comment Response and Finding of No Significant Impact, Pond and Land Configuration* (DOE 2004). The 2004 EA only considered alternatives related to breaching the dams in North and South Walnut Creek upstream of ponds A-3, A-4, and B-5. The breaching of remaining dams was not anticipated at that time, and the possible environmental impacts of breaching all remaining dams, including cumulative impacts were not addressed. This EA evaluates the direct, indirect, and cumulative impacts of breaching all remaining dams.

## **Purpose and Need**

The purpose of the Proposed Action is to reduce or eliminate the retention of surface water to return the RFS surface water flow configuration to the approximate conditions existing prior to construction of the dams. The Proposed Action would be implemented in two timeframes, with the PLF, A-3, and C-2 breaching to occur in 2011, and A-4 and B5 breaching to be completed within the 2015 to 2018 timeframe.

DOE is responsible for the long-term management of the water discharges at the RFS in an environmentally acceptable manner and in compliance with local, state, and federal regulations. To accomplish this long-term responsibility, the drainage system resulting from the Proposed Action should require less active management and maintenance than the current system while preserving existing wetlands and habitat as available water allows. Reestablishing flows to approximate pre-retention conditions would provide ecological benefits by improving riparian habitat and promoting wetland formation.

Breaching the dams would reduce the Rocky Flats management efforts related to the continuous determination of evaporative depletions while also reducing the costs to water rights holders responsible for downstream augmentation replacements. The reduction/elimination of depletions would reduce or eliminate the following:

- Costs incurred by Broomfield,
- Depletion reporting costs, and
- Costs to water rights holders responsible for downstream augmentation.



In addition, the live flows currently retained in the ponds would be available to downstream users.

LM is directed by DOE to ensure protection of human health and the environment through effective long-term stewardship of land, structures, and facilities and to be responsible for the cost-effective management of this directive. Water discharged from the terminal pond dams meets applicable RFLMA surface water quality standards, which are based on the Colorado Water Quality Control Commission (CWQCC) Code of Colorado Regulations (CCR) Regulation No. 31: Basic Standards and Methodologies for Surface Water (5 CCR 1002-31) and on the site-specific standards in the CWQCC Regulations No. 38: Classifications and Numeric Standards South Platte River Basin Laramie River Basin Republican River Basin Smoky Hill River Basin (5 CCR 1002-38). DOE has maintained the dams in accordance with the dam safety requirements of the State of Colorado, Office of the State Engineer.

The State of Colorado Division of Water Resources (State Engineer) has jurisdiction over the RFS dams. The site incurs dam maintenance costs resulting from vegetation control, structure/infrastructure maintenance, inspections, and data collection in order to ensure dam safety in compliance with dam safety regulations. Operational costs are incurred due to the batch-and-release water management protocols. The remaining dams at RFS are more than 30 years old and maintenance and operation costs are expected to rise as the dams age. Construction costs associated with the actual breaching would also be expected to increase over time. By preserving the proposed breach schedule, maintenance, operational, and construction costs would be nearly eliminated. Accordingly, DOE would reduce and/or eliminate the inspection and reporting costs associated with meeting dam safety requirements and the management and maintenance costs for operation of the dams, by completing the breaching of the remaining five dams.

The dams are no longer needed for the original purpose and breaching of the dams would reduce DOE costs (and by association taxpayer costs), and would not change DOE's obligations to monitor surface water and meet standards as required by RFLMA.

## **Description of Alternatives**

### **Proposed Action**

The Proposed Action is divided into two timeframes. Breaching the dams at ponds A-3, C-2, and PLF is proposed to start in 2011 and be completed by the end of that fiscal year; breaching the dams at ponds A-4 and B-5 is proposed to be completed during the 2015 to 2018 timeframe. The average construction duration for dam breaching at each structure is approximately 11 weeks.

To modify the dam, a "breach" or "channel" would be cut into each dam to reduce its jurisdictional height, thus creating a lower profile. The following design characteristics are similar among the five dams.

- Channel side slopes of 2H:1V
- Channel flowline slope of 2 percent with a 5H:1V drop structure slope

- Channel design to accommodate peak flows from at least a 100-year/24-hour storm event with 2 foot (ft) freeboard
- Channel bottom and side slopes to be armored to resist future erosion

The inlet elevation (invert) for the channel would be located to provide positive drainage from the area upstream of the channel inlet. This would ensure a consistent flow of water and prevent ponding. The area upstream of each channel would be designed to preserve and enhance wetlands and habitat to the extent possible, while still providing positive flow.

Dam-specific information is provided in the text of the EA. The following generalized construction sequence is similar for all five dams.

- Dewater the pond using existing discharge valves, and/or pumping as necessary, several months prior to construction work (preceding winter/spring).
- Mobilize for construction: set up staging area, erosion controls, and stockpile area.
- Install a temporary coffer dam upstream for potential storm events (manage retained water upstream using pumps).
- Excavate soil from the breach channel and fill predefined fill areas (i.e., former spillways and roads to be reclaimed).
- Construct breach to engineering specs (side slopes, flowline, drop structure); armor channel as necessary for erosion resistance.
- Regrade area upstream of channel to provide positive flow, minimize ponding, and promote establishment of quality habitat.
- Reclaim all disturbed areas.

### **No Action**

The No Action Alternative involves no change to the existing configuration of the remaining five dams at the RFS. Water would be routed according to current configuration and managed using the current operating protocol. Data would continue to be collected on water quality and sediment. Operation and maintenance of the dams and necessary structures would continue to require maximum resources.

## **Environmental Consequences and Mitigation Summary**

Certain non-resource mitigation efforts are required, which are briefly described in the following section. Table ES-1 provides a comparison of resource impacts between the two alternatives and briefly describes the mitigation measures associated with the Proposed Action. All potential impacts can be mitigated as appropriate to the resource.

### **Mitigation Measures Similar to all Five Dams (not resource specific)**

Although the dams that are proposed to be breached are not required by the CAD/ROD, certain aspects of the work are subject to institutional controls within the COU and regulated by RFLMA requirements. Also, RFLMA establishes water quality standards and identifies the water monitoring and evaluation requirements applicable to implementation of the remedy. The current

operation of ponds A-4, B-5, and C-2 is to retain water until approximately 40 to 50 percent of the capacity is reached, at which point discharge planning is initiated. Under RFLMA operational monitoring, the pond water is sampled prior to release to demonstrate that the discharged water would be expected to meet applicable RFLMA water quality standards. During discharge, the released water is monitored and compliance is determined at a RFLMA POC a short distance downstream of the dam outlet.

In addition, excavation within the COU deeper than 3 ft below the surface is prohibited by the remedy institutional controls unless approved in accordance with RFLMA requirements. Shallower soil disturbance within the COU is also prohibited by the remedy institutional controls unless the work is conducted in accordance with an approved erosion control plan. DOE has requested approval under the RFLMA requirements to perform the dam breach excavation and has documented that an approved erosion control plan would apply to the work.

Once the dams are breached, there will not be any pre-discharge sampling, as the batch and release mode of operation will stop and the water would be in a flow through configuration. Thus RFLMA operational pre-discharge monitoring will discontinue, but all other RFLMA monitoring will remain.

### **Resource-Specific Consequences and Mitigation**

Table ES-1 presents a comparison of resource impacts between the Proposed Action and the No Action alternatives and describes mitigation measures under the Proposed Action. Additional detail is presented in the body of the EA.

Table ES-1. Resource-Specific Consequences and Mitigation

Resource	Proposed Action	No Action
Wildlife	<p>Impacts:</p> <ul style="list-style-type: none"> <li>• Restore a more natural, seasonally variable flow system to provide more consistent water for downstream habitat.</li> <li>• Temporary disturbance from construction noise.</li> <li>• Eliminate surface water habitat for species.</li> <li>• Reduced disturbance from human activities for monitoring and maintenance.</li> </ul> <p>Mitigation:</p> <ul style="list-style-type: none"> <li>• Water levels in the ponds will be drawn down prior to construction activities to provide the opportunity for species to use nearby habitats.</li> <li>• Vegetation at the construction footprint will be mowed to 6 inches or less to help encourage species to use other habitat locations.</li> </ul>	<p>Walnut Creek:</p> <ul style="list-style-type: none"> <li>• Long-term continuation of batch releases from the ponds, predominantly during the non-growing season, could alter the structure and composition of the downstream habitat.</li> </ul> <p>No Name Gulch and Woman Creek:</p> <ul style="list-style-type: none"> <li>• No change from current conditions</li> </ul>
Migratory Birds	<p>Impacts:</p> <ul style="list-style-type: none"> <li>• Noise and construction activities to foraging and nesting activities in the adjacent habitat, but no fatalities are expected because of prescribed mitigation measures.</li> <li>• Reductions in the abundance of waterfowl at the ponds; however, these types of habitats are available within a few miles of the RFS.</li> <li>• Species that forage and nest in emergent and shrub wetland habitat types would potentially increase following reclamation.</li> <li>• Reduced disturbance from human activities for monitoring and maintenance.</li> </ul> <p>Mitigation:</p> <p>Activities are planned to occur throughout the primary nesting season for birds (April 1 through August 31), Therefore:</p> <ul style="list-style-type: none"> <li>• A qualified biologist will conduct field nest surveys prior to and regularly throughout construction.</li> <li>• If the survey identifies active nests that cannot be avoided, USFWS will be contacted immediately for guidance.</li> <li>• Results of the surveys and information regarding the qualifications of the biologist(s) will be documented and maintained on file for potential review by USFWS (if requested) until the Proposed Action activities have been completed.</li> <li>• Water levels in the ponds and vegetation clearing will occur as described under wildlife impacts.</li> </ul> <p>Based on the results of surveys, and determination from USFWS, additional nesting deterrents may be warranted.</p>	<p>Walnut Creek:</p> <ul style="list-style-type: none"> <li>• Long-term continuation of batch releases from the ponds, predominantly during the non-growing season, could alter the structure and composition of the downstream habitat.</li> </ul> <p>No Name Gulch and Woman Creek:</p> <ul style="list-style-type: none"> <li>• No change from current conditions.</li> </ul>

Table ES-1 (continued). Resource-Specific Consequences and Mitigation

Resource	Proposed Action	No Action
Threatened & Endangered Plant and Wildlife Species	<p>Impacts:</p> <ul style="list-style-type: none"> <li>• Approximately 1 acre of Preble's mouse habitat would be impacted during construction.</li> <li>• Increase in Preble's habitat expected with conversion from open water to emergent wetland/shrubland.</li> <li>• Possible impacts to individual garter snakes and northern leopard frogs.</li> <li>• Minimal long-term effect is expected because the re-established stream channels would provide habitat.</li> </ul> <p>Mitigation:</p> <ul style="list-style-type: none"> <li>• In compliance with Section 7 of the Endangered Species Act, consultation with USFWS will be conducted via an amendment to the existing Programmatic Biological Assessment.</li> <li>• No earth-moving activities will be started until either the approval letter or Biological Opinion from USFWS has been obtained.</li> <li>• Mitigation for impacts will be conducted in-situ and follow guidelines in the Programmatic Biological Assessment.</li> </ul>	<p>Walnut Creek:</p> <ul style="list-style-type: none"> <li>• The Preble's mouse preferred multi-strata habitat could change the multi-strata riparian woodland/shrubland habitat in Walnut Creek to a single story herbaceous habitat, which would limit the amount of quality habitat for the species.</li> <li>• Continued long-term reduction in creek flows below the dams in Walnut Creek may reduce the amount of existing wetland along this reach of creek, which would reduce available habitat.</li> </ul> <p>No Name Gulch and Woman Creek:</p> <ul style="list-style-type: none"> <li>• No change from current conditions.</li> </ul> <p>The lower South Platte River species would continue to be impacted by the retention of water upstream of the dams in the No Action Alternative.</p>
<b>Vegetation, Wetlands and Floodplains</b>		
Vegetation	<p>Impacts:</p> <ul style="list-style-type: none"> <li>• Clearing of 26 acres of vegetation (including noxious weeds) due to construction.</li> <li>• Reseeding of native species and ongoing weed control would provide a higher quality ecosystem.</li> </ul> <p>Mitigation:</p> <ul style="list-style-type: none"> <li>• Use of appropriate erosion controls throughout and after the project.</li> <li>• The guidance in the <i>Erosion Control Plan for the Rocky Flats Property Central Operable Unit</i> (DOE 2007b) will be followed.</li> <li>• Temporarily disturbed areas will be reclaimed following project completion using native plant species.</li> <li>• Revegetation will occur as soon as possible.</li> <li>• Noxious weeds will be controlled using appropriate weed control measures.</li> </ul>	<p>Walnut Creek:</p> <ul style="list-style-type: none"> <li>• Retention of the batch-and-release water flow may lead to continued changes in the existing wetlands downstream.</li> </ul> <p>No Name Gulch and Woman Creek:</p> <ul style="list-style-type: none"> <li>• No change from current conditions.</li> </ul>
Wetlands	<p>Impacts:</p> <ul style="list-style-type: none"> <li>• Less than 0.5 acre of palustrine emergent/shrubland wetland and approximately 4 acres of open water habitat.</li> <li>• Five to six acres of palustrine emergent/shrubland wetland created in the former open water habitat, which would increase the aquatic resources functions and services.</li> </ul> <p>Mitigation:</p> <ul style="list-style-type: none"> <li>• A section 404 permit in accordance with the Clean Water Act will be required and obtained prior to any earth-disturbing activities.</li> <li>• Based on discussions with U.S. Army Corps of Engineers, DOE believes that a Nationwide Permit #27 will be applicable.</li> <li>• Impacts to jurisdictional waters will be mitigated according to USACOE requirements.</li> </ul>	<p>Walnut Creek:</p> <ul style="list-style-type: none"> <li>• Retention of the batch-and-release water flow may lead to continued changes in the existing wetlands downstream.</li> </ul> <p>No Name Gulch and Woman Creek:</p> <ul style="list-style-type: none"> <li>• No change from current conditions.</li> </ul>

Table ES-1 (continued). Resource-Specific Consequences and Mitigation

Resource	Proposed Action	No Action
Floodplains	Impacts: <ul style="list-style-type: none"> <li>Minimal and limited to construction areas.</li> <li>Would re-establish the historic floodplain and stream channel through the pond bottoms.</li> </ul> Mitigation: <ul style="list-style-type: none"> <li>Same as mitigation measures for wetlands.</li> </ul>	Walnut Creek, No Name Gulch, and Woman Creek: <ul style="list-style-type: none"> <li>No change from current conditions.</li> </ul>
<b>Surface Water Resources</b>		
Surface water flow	Impacts: <ul style="list-style-type: none"> <li>Larger flows and volumes downstream compared to current conditions with return to flood conditions prior to the original construction of the dams.</li> <li>Short-term erosion associated with construction.</li> <li>Would eventually eliminate evaporative depletions associated with the retention of out-of-priority water.</li> </ul> Mitigation: <p>A construction general permit for stormwater discharge from EPA will be required prior to commencing the work.</p>	No change to existing conditions of either surface water flow or water quality. However, failure of a dam during a flood event would result in higher flood flows downstream and transport and deposition of large quantities of soil from the embankment structure. The remaining dams at the RFS are more than 30 years old.
Surface water quality	Impacts: <ul style="list-style-type: none"> <li>No direct impacts on water quality.</li> <li>Individual sample results downstream are expected to show increased variability. Data indicate that remedy-related soil and infrastructure removal, revegetation, land configuration, and reductions in runoff would continue to result in water quality summary statistics that meet applicable standards.</li> </ul> Mitigation: <ul style="list-style-type: none"> <li>Monitoring in accordance with RFLMA requirements to continue.</li> <li>Construction mitigation is the same as Surface Water Flow.</li> </ul>	
Air Quality	Impacts: <ul style="list-style-type: none"> <li>Releases of PM<sub>10</sub>, PM<sub>2.5</sub>, and O<sub>3</sub> are expected to be minimal during construction.</li> </ul> Mitigation: <ul style="list-style-type: none"> <li>Contractor to obtain any required air quality construction permits prior to start of the construction work.</li> <li>The contractor would provide proof of age of equipment, per CDPHE requirements.</li> </ul>	No change from current conditions.

## **Refuge Signs**

- Cover memo
- Selection from February 2, 2009, minutes
- Selection from June 1, 2009, minutes
- Fact sheet: Rocky Flats History, Cleanup and Ongoing Management
- Fact sheet: How Clean Is Clean
- Rocky Flats Timeline

# ROCKY FLATS STEWARDSHIP COUNCIL

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League of Women Voters -- Rocky Flats Cold War Museum -- Rocky Flats Homesteaders

## MEMORANDUM

**TO:** Board  
**FROM:** David Abelson  
**SUBJECT:** Rocky Flats Signs – Restarting the conversation  
**DATE:** May 25, 2010

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Time permitting,<sup>1</sup> we will continue discussing interpretative signs for Rocky Flats. This conversation had been scheduled for the April meeting, but was postponed until this meeting due to time constraints.

As we discussed at the February meeting in the context of Rep. McKinley’s legislation, the Rocky Flats National Wildlife Refuge conservation plan (CCP) that the USFWS adopted in 2005 provides interpretative signs will be placed at the entrance to the Rocky Flats National Wildlife Refuge and throughout the site. The CCP further provides the signs will include information about “DOE’s development and management of a nuclear weapons production site and the cold war history.... to tell the story of the site as a nuclear production site.”

At this meeting we will continue focusing on signs interpreting Rocky Flats as a weapons facility. We will not discuss either the signs interpreting the natural history of the Refuge or the entrance signs for the Refuge that USFWS approved in 2007.

### **Our Work Product – What we will present to USFWS**

Our goal is to identify the type of information USFWS should include on interpretative signs and to forward to USFWS ideas/information about the message they should convey, along with a detailed explanation of why this information and messages are important. USFWS can then use this information when developing their network of signs, including deciding what information to provide to visitors.

As background, the Board began discussing interpretative signs at the February and June 2009 meetings. At those meetings the Board identified the following topics for signs:

1. History of Rocky Flats
2. Scope of the cleanup
3. Ongoing management
4. Monitoring activities

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<sup>1</sup> We are planning to allow as much time for the dam breach EA as needed. Since we do not know how much time we will need for that conversation, will do not know whether there will be sufficient time to discuss signs.



## 5. Groundwater treatment

As the minutes from those meetings reflect, our conversation has focused on:

1. The need for signs
2. Why the Stewardship Council is undertaking this effort
3. Topic areas for signs
4. The type and depth of information we might present to USFWS

The fact sheets that we developed in 2008 and posted on our website ([www.rockyflatssc.org/fact\\_sheets.html](http://www.rockyflatssc.org/fact_sheets.html)) provide valuable background information for USFWS to use when develop specific language for the signs. (A few of those fact sheets are attached to this memo.) Additionally, the Rocky Flats Cold War Museum is developing information interpreting the history of the site. They too will work with USFWS on developing signs for the Refuge.

At this meeting we will focus on history of Rocky Flats, scope of the cleanup, and ongoing management.

### **Ideas Re: What we Should Provide to USFWS**

The following ideas are for discussion purposes.

#### *History of Rocky Flats*

##### Message to be conveyed:

1. Rocky Flats was one of the main nuclear production facilities in the United States. It operated from 1951 until 1992.
2. Activities included producing pits, which serve as the triggers for nuclear weapons. At one point all of the nuclear weapons in the US arsenal passed through Rocky Flats.
3. Rocky Flats site included both a production area – approximately 385 acres – and a buffer zone. The initial site spanned 2560 acres.
4. Additional land was purchased in mid-1970s to expand the site to 6400 acres. This land, which was a buffer zone, now comprises much of the Rocky Flats Refuge.
5. Cleanup began in earnest in 1995 and was completed in 2005.
6. In 2007, 4000 acres were transferred from the Department of Energy to the United States Fish and Wildlife Service. These lands now comprise the Rocky Flats National Wildlife Refuge.
7. The Department of Energy retains the core production area where manufacturing took place and where materials were deposited. The Department also controls the lands currently being mined in the western part of the site.

##### Additional ideas:

1. Use overlooks into the DOE lands to discuss the history of the site, and show through photographs where buildings and other structures once stood.

#### *Scope of the cleanup*

##### Message to be conveyed:

1. Cleaning up Rocky Flats was one of the most complex environmental remediations in history.

2. The cleanup focused on four principal activities:
  - a. Stabilizing materials
  - b. Decontaminating and demolishing buildings
  - c. Shipping all waste to off-site receiver sites (note: the two landfills that were used during production were capped in place)
  - d. Remediating contaminated soils and contaminated groundwater, and protecting surface water quality
3. Waters leaving the site are available for any and all uses – at Rocky Flats the surface water standard for plutonium is 100 times cleaner than the federal drinking water standard.
4. All buildings were demolished and foundations were removed to 6’ below grade.
5. The Refuge is clean enough to support residential and/or industrial use.
6. Contamination is found along old, underground building foundations, in pond sediments, in old underground process waste lines, in two landfills, and in other areas. This contamination, which is at or, in nearly all cases, below all federal and state regulatory standards, includes radioactive materials, chemical solvent wastes and heavy metal wastes.

Additional ideas:

1. Do not suggest there is no risk or that visiting the refuge is risky – and stay away using the term “safe” as it is hard to define.
2. Explain what was cleaned up and what remains.
3. Use overlooks into the DOE lands to discuss the cleanup, and show through photographs where buildings and other structures once stood.
4. At or near the plaque honoring the workers, add a sign discussing their work.

*Ongoing Management*

Message to be conveyed:

1. DOE retains management responsibility over the former production, ponds, and two landfills.
2. DOE’s responsibility is to ensure the cleanup remedies are working as designed and to protect the remedies from human intrusion. DOE’s responsibilities include:
  - a. Monitoring and maintaining the two landfills and four groundwater treatment systems.
  - b. Conducting environmental monitoring, including surface water and groundwater monitoring, and repairing systems as necessary.
  - c. Ensuring surface water and groundwater on-site is not used for drinking water or for agricultural purposes.
  - d. Prohibiting activities that may damage or impair the proper functioning of any engineered control, including treatment systems, monitor wells, landfill caps and/or surveyed benchmarks.

Additional ideas:

1. Use overlooks into the DOE lands to discuss ongoing management. Do not point out specific management activities, such as monitoring wells.

## February 2, 2009, Minutes

### Discuss Interpretative Signage for Rocky Flats

The USFWS' site conservation plan for Rocky Flats includes commitments to place interpretative signage at various locations in the Refuge. Those signs will include information about the history of the site as a nuclear weapons facility, the remediation project and ongoing management requirements. The Stewardship Council's conversation will focus on identifying the types of information regarding history of the site and the remediation project that it believes USFWS should include in their signs.

David began by providing some context for this discussion. During cleanup, one of the important community issues was the long-term retention of information about Rocky Flats. This included the use of institutional controls and the education of successive generations. When the Conservation plan was developed, everyone agreed there was a need to inform Refuge visitors about the history and special circumstances of this site, notably the DOE-retained lands in the center. USFWS developed signage for the entrance and DOE has posted basic signs around the areas that it controls. The Stewardship Council has also discussed how information onsite can be used to lead to additional information offsite. Starting today, the idea is for the Board to focus only on information related to the DOE mission at Rocky Flats (i.e. not to focus on wildlife or recreation issues), to discuss and debate signage ideas, and then to codify and send recommendations to USFWS.

David noted that there will be six access points across all four sides of the Refuge. He suggested that the Board begin with brainstorming about what type of information should be conveyed to visitors. These ideas can then be refined to determine how best to communicate them. He added that the Board would like to inform, not warn and should not overwhelm Refuge visitors with information.

Lori Cox said she was confused about what the role of the Stewardship Council is or should be in this process. David noted that although the Stewardship Council did not exist when the Refuge CCP was developed, USFWS has said they wanted to work with community in developing these plans. As the Rocky Flats LSO, a core part of the Stewardship Council's role and mission is to inform and educate the public about the site. The issue of Refuge signage has been in the group's Work Plan. The only concern of USFWS at this point is that they do not have funding to commit to working on this issue.

Lori also asked about how much liberty USFWS has in terms of signage. Steve Berendzen said that the agency tries to follow the CCP as closely as they can. He strongly encouraged the Stewardship Council to work in coordination with them, and said he does appreciate the help. He said USFWS quite often cooperates with partners to do things such as this. David Allen said he thought it will be helpful to focus on specific kinds of signs. He also posed the question of how important the topic of cleanup will be years from now.

Andrew Muckle suggested a Colorado historical organization as a potential funding source if necessary. He also said web links are probably a better choice for signs rather than providing telephone numbers for more information. He added that it would be great to have a multimedia presentation available to the public. Lorraine said she thought Kaiser Hill had produced a video addressing the cleanup. She also responded to David Allen that the cleanup of Rocky Flats site is one of most important things that ever occurred in the U.S. She said that there is a whole community of workers that needs to be recognized, and their story must be told; without that, Rocky Flats does not mean much. Lisa Morzel said she agreed. She added that it would be a good idea to use graphics as part of the message. She also would like to see an emphasis on the ongoing monitoring. Megan Davis said she also agreed with these points, and that the message should also emphasize that there was continuous involvement of local communities and governments in the cleanup decisions.

David Allen said fully agreed that cleanup should be recognized, but that there was a danger of sending mixed messages by raising questions in the public's mind. Lorraine pointed out the need to explain that the DOE fenced areas are not in place to protect the public, but rather to protect the remedies. Sue Vaughan added that it is also important to consider the audience and what they need from a sign versus what the Cold War Museum can handle in more depth. Jeannette said that the museum will help identify these issues. Shirley Garcia confirmed that Museum planners are working on developing Rocky Flats storylines for an upcoming exhibit and hope to be done by the end of summer. She said they will continue to work on collaboration with this group. Lisa Morzel commented that Rocky Flats environmental monitoring activities could be great educational tools for children.

David Abelson asked the group to focus on what to convey and why, and to what extent and depth. David Allen suggested putting up panels of before and after photos with historical descriptions at various locations. Bob Briggs said he is currently working on materials for the 100<sup>th</sup> anniversary of the City of Westminster. They have decided on developing a historical timeline, and that this may be a good way to approach presenting the history of Rocky Flats also. Andrew Muckle asked if there is an existing map showing where signs may be placed. Steve Berendzen said he did not think the CCP was that specific, but that USFWS can provide feedback during the process. He said the agency could assign one of their specialists from the Regional Office to work on this project and attend future meetings. Steve added that there are some general sign plans, but no specifics. David Allen said it is too early to suggest specific content. David Abelson agreed, but said that the group needs to start somewhere. Matt Jones said that there is a science behind this kind of signing. For example, one study showed that people spend an average of eight seconds at entrance signs. He added that in most cases, specialists who are trained in creating signs will produce a draft, and then people will comment on that. Jeannette Hillery said she would like to see what kind of language is used on the signs at the Rocky Mountain Arsenal. Sue Vaughan suggested that the group also think about programs and background packets for educational visitors.

## June 1, 2009, Minutes

### Continue Discussing Interpretative Signs for Rocky Flats National Wildlife Refuge

The Board moved into a continued discussion of signs for Rocky Flats. This conversation was set up for the Board to identify categories of information and the types of messages it believes should be conveyed regarding the history of the site as a weapons facility, without suggesting specific language.

David noted that representatives from USFWS were not able to attend this meeting, but have passed along to him that they are concerned that the Stewardship Council will recommend too much information for the signs. He said they are also concerned about the roles of the Cold War Museum and the Stewardship Council. David said he explained to the agency that the missions of the two organizations are in line.

David suggested that the Stewardship Council put forth ideas for the types of information that should be provided to visitors, along with detailed explanations for why these messages should be included. He also recommends aiming for objective facts, rather than any value judgments. The Board will also likely recommend information be conveyed about ongoing management activities. David said he has communicated this type of goal on behalf of the Board to the USFWS, and that there still may be some level of discomfort within the agency.

Lorraine Anderson said she thinks David is on the right track with these parameters. She asked if the signs in question include those on the DOE lands. She said her preference would be to focus only on refuge lands. David Allen said he likes the idea of the Board providing this type of information, and added that the Board's 'talking point' papers cover a lot of this information. David Abelson said he agreed. Carl Castillo asked if the USFWS process would involve draft wording coming back to this group for comment. David Abelson said that the short answer is yes, since this is part of one of the agency's 'step-down' plans. He said the last similar action was put through a process of informal public involvement, and that he would expect them to reach out in a similar way on the sign issue. Carl then asked how Rep. McKinley's bill would play into this process. David said that the McKinley bill only addresses entrance signs, and language for these signs has already been adopted by USFWS. The signs being discussed now are additional interpretive signs to be posted at various points within the refuge. Ron Hellbusch said he thought if Steve Berendzen of USFWS were here, that he would support David's approach. He said USFWS is trying to get as much consistency as possible across the country on signage at similar new sites. Shirley Garcia said that the Cold War Museum has an education committee, which is working on an exhibit for next summer and are trying to combine various Rocky Flats timelines into historical facts and key points. She said they would love to have anyone join them. Jeannette Hillery asked Shirley to keep the Board in the loop so it can support the Museum when needed.

Jeannette directed the Board to page two of a memo in the Board packet that listed framing topics for this discussion. She asked the Board if these topics were enough or if they needed to be expanded.

Lorraine said that the list covered the major topics that the Board should be considering for signs, and that the Museum may be able to fill in some of the gaps. Karen Imbierowicz asked if bullet #1 addressing the 'History of Cleanup' should also mention the history of Rocky Flats in general. David noted that the Board must determine how broad the scope should be, and added that staff could present options of different approaches to the Board for its consideration. Carl Castillo asked about whether to explain the reasons the remediation that was completed. David Abelson acknowledged that this was not exactly spelled out, but he would play around with wording and ideas. He also pointed to three eras at the site; production, cleanup, and from this point forward. Scott Surovchak said that the history is not quite as clear-cut as that. He pointed to quite a bit of overlap in activities (i.e. various ongoing cleanup activities since the 1950's). Lorraine said this is reason the Board needs to distinguish between the industrial area and the rest of site. She said the Stewardship Council is funded to talk about issues related to the existence of Rocky Flats, such as why there was a buffer zone, and if there was contamination. David Abelson clarified that he was not trying to get into anything about the history of the site beyond the DOE mission. The Board will break the site history into categories, and then deal any overlapping issues.

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Karen Imbierowicz

## **Rocky Flats History, Cleanup and Ongoing Management**

### **The History of Rocky Flats and the Cleanup (1995 – 2005)**

Rocky Flats operated from 1951 until 1989 and served as the nation's primary nuclear weapons trigger production facility. Production of triggers (known as pits) and other classified work resulted in widespread contamination within the buildings and throughout portions of the 6,200-acre site, with the greatest contamination and thus hazards within the 384-acre core industrial area. Site operations and fires in the production buildings also spread contamination to off-site lands and into off-site water supplies.

Production ceased in 1989 after the FBI and Environmental Protection Agency (EPA) raid on the site, yet DOE did not announce an end to the nuclear weapons production mission until 1993. Cleanup, which began in earnest in 1995 and was closely regulated by both the EPA and the Colorado Department of Public Health and Environment (CDPHE), took 10 years and cost \$7 billion. Local governments and community organizations closely tracked site issues and engaged on numerous issues, including cleanup levels and future use determinations.

The cleanup focused on four principal activities:

1. Stabilizing materials
2. Decontaminating and demolishing buildings
3. Shipping all waste to off-site receiver sites (note: the two landfills that were used during production were capped in place)
4. Remediating contaminated soils and contaminated groundwater, and protecting surface water quality

The overarching goals for the cleanup project included:

1. Ensuring waters leaving the site are available for any and all uses – at Rocky Flats the surface water standard for plutonium is 100 times cleaner than the federal drinking water standard
2. Demolishing all buildings and removing foundations to 6' below grade
3. Remediating soils to levels that support a wildlife refuge – in fact, most of the site is clean enough to support residential and/or industrial use
4. Developing and implementing a comprehensive post-closure stewardship plan

DOE, EPA and CDPHE determined off-site lands were not contaminated to levels that warranted remediation. Cleanup activities ended in October 2005, and in late 2006 and early 2007, DOE, EPA and the CDPHE declared the cleanup complete. The former buffer zone and off-site lands were removed from the Superfund list and 4000 acres of the former buffer zone were transferred to the Department of the Interior to be protected as the Rocky Flats National Wildlife Refuge.

### **Ongoing Management**

Cleanup, however, did not eliminate all risk. The core production areas, settling ponds and two landfills hold the greatest hazards and thus remain under DOE's jurisdiction. Contamination is found along old building foundations, in pond sediments, in old underground process waste lines, in two landfills, and in other areas. This contamination, which is at or, in nearly all cases, below all federal and state regulatory standards, includes radioactive materials, chemical solvent wastes and heavy metal wastes. DOE's responsibility is to ensure the cleanup remedies are working as designed and to protect the remedies from human intrusion.

This remaining contamination poses no immediate threat to human health and the environment, but it does require ongoing management by DOE and regulatory oversight by CDPHE and EPA. Accordingly, DOE, CDPHE and EPA entered into a post-closure regulatory agreement, the Rocky Flats Legacy Management Agreement (RFLMA). The RFLMA identifies each party's management/oversight responsibilities. DOE's responsibilities include:

1. Monitoring and maintaining the two landfills and four groundwater treatment systems.
2. Conducting environmental monitoring, including surface water and groundwater monitoring, and repairing systems as necessary.
3. Maintaining legal and physical controls, including but not limited to:
  - a. Prohibiting excavation, drilling, tilling and other such intrusive activities except for remedy-related purposes and in conjunction with plans approved by CDPHE and EPA.
  - b. Ensuring surface water and groundwater on-site is not used for drinking water or for agricultural purposes.
  - c. Maintaining groundwater wells and surface water monitoring stations.
  - d. Prohibiting activities that may damage or impair the proper functioning of any engineered control, including treatment systems, monitor wells, landfill caps and/or surveyed benchmarks.
  - e. Maintaining signs and fencing demarcating the Rocky Flats National Wildlife Refuge lands from the DOE-retained lands.

Perhaps the best barometer to gauge whether the remedies are performing as designed is water quality, both surface water and groundwater. Per the RFLMA, water leaving the site must meet stringent standards, which in the case of plutonium is 100 times below the federal standard for drinking water. The current standard for uranium is two times more stringent than the state standard, although the site specific standard will likely be changed in 2009 to conform with state standards.

To determine whether water standards are being met, DOE uses an extensive water quality monitoring network. This network, which is found throughout both the DOE lands and the Rocky Flats National Wildlife Refuge, includes approximately 20 surface water monitoring



stations and nearly 100 groundwater monitoring wells. Changes to the network require approval by the state of Colorado. Water in the terminal pond system (two terminal ponds on Walnut Creek; one on Woman Creek) is tested by both DOE and CDPHE prior to releasing the water. That data is also shared with downstream communities prior to the releases.

**The RFLMA can be found at:**

[http://www.lm.doe.gov/documents/sites/co/rocky\\_flats/rflma/RFLMA\\_200702.pdf](http://www.lm.doe.gov/documents/sites/co/rocky_flats/rflma/RFLMA_200702.pdf)

*May 2008*

# ROCKY FLATS STEWARDSHIP COUNCIL

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City of Golden -- City of Northglenn -- City of Westminster -- Town of Superior  
League of Women Voters -- Rocky Flats Cold War Museum -- Rocky Flats Homesteaders  
Karen Imbierowicz

## **How Clean is Clean**

Often one of the most pressing questions people have about Rocky Flats is “Is it safe?” The best way to answer this question is to present objective facts and let each decide whether the risks are reasonable and thus worth taking.

The cleanup of Rocky Flats was extensive. Cleanup actions included:

1. Demolishing 800+ buildings and facilities
2. Consolidating 21 metric tons of weapons-grade nuclear materials and 100 metric tons of plutonium residues
3. Excavating and/or consolidating 275,000 cubic meters of radioactive wastes
4. Analyzing and remediating as necessary 360 individual hazardous substance sites
5. Shipping these wastes and other materials to off-site locations

Following are a few benchmarks in determining “how clean is clean”:

1. Cleanup meets or exceeds federal and state standards.
2. Water leaving the site meets all applicable standards. In the case of plutonium, the standard is 100 times cleaner (more protective) than the federal drinking water standard.
3. The vast majority of the site can support residential and/or industrial use. The reason the DOE lands are not part of the Refuge and thus not open to the public is to protect the remedies from humans; access is not restricted to protect humans from residual risk.
4. One of the key drivers for designating Rocky Flats as a national wildlife refuge was to protect this important resource from future development.
5. DOE calculates the greatest risk from residual contamination is to a refuge worker with an increased cancer risk estimated to be  $2 \times 10^{-6}$ , or 2 in one million. These levels are also protective of wildlife.
6. A refuge worker’s annual dose would be less than 1 mrem/year. The dose visitors to the Refuge would receive would be significantly less. 1 mrem compares to other doses as follows:

Average dose to US public from all sources: 360 mrem/year  
Average dose to US public from natural sources: 300 mrem/year  
Average dose to US public from medical sources: 53 mrem/year  
Average dose to US public from nuclear power: < 0.1 mrem/year  
Average US terrestrial radiation: 28 mrem/year  
Terrestrial background (Atlantic coast): 16 mrem/year

Terrestrial background (Rocky Mountains): 40 mrem/year  
Cosmic radiation (Sea level): 26 mrem/year  
Cosmic radiation (Denver): 50 mrem/year  
Radionuclides in the body (e.g., potassium): 39 mrem/year  
Building materials (concrete): 3 mrem/year  
Drinking water: 5 mrem/year  
Pocket watch (radium dial): 6 mrem/year  
Eyeglasses (containing thorium): 6 - 11 mrem/year  
Coast-to-coast airplane (roundtrip): 5 mrem  
Chest x-ray: 8 mrem  
Dental x-ray: 10 mrem

*(source: Idaho State University, Radiation Information Network)*

For more information about the cleanup and residual contamination, please go to:

[http://www.lm.doe.gov/land/sites/co/rocky\\_flats/rocky.htm](http://www.lm.doe.gov/land/sites/co/rocky_flats/rocky.htm)

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## Rocky Flats History – Timeline of Key events

(adapted from The Politics of Cleanup, Energy Communities Alliance, 2007)

- 1951 On March 23<sup>rd</sup>, *The Denver Post* reports “There Is Good News Today: U.S. To Build \$45 Million A-Plant Near Denver.” Dow Chemical becomes the initial operating contractor.
- 1957 A major fire occurs in Building 771, later deemed the most dangerous building in the complex. Community is not told about fire until 1970 despite the spread of contamination to off-site lands.
- 1969 A major fire in a glove box in Building 776 – later declared the second-most dangerous building in the complex – results in the costliest industrial accident in the nation at the time; cleanup took two years.
- 1970 After independent scientists find plutonium on off-site lands, the Atomic Energy Commission (AEC) announces the contamination is the result of the 1957 fire, the first the community had heard about the fire, and leaking waste drums containing radioactive and hazardous materials.
- 1972 AEC determines it needs to expand the buffer zone around the production buildings; Congress agrees to spend \$6 million to buy an additional 4,600 acres, bringing the total site acreage to approximately 6400 acres.
- 1973 In April, the Colorado Health Department finds tritium in downstream drinking water supplies but does not alert local officials for five months; the AEC initially denies the presence of tritium at Rocky Flats but later admits to its presence.
- 1974 Gov. Richard Lamm and Rep. Timothy Wirth establish the Lamm-Wirth Task Force on Rocky Flats. The group, which includes site workers and anti-nuclear activists, is charged with making recommendations regarding the future of the site.
- 1975 Rockwell International replaces Dow Chemical as managing contractor.
- 1978 In April, large-scale protests begin at Rocky Flats when 5,000 people turn out for a rally at the west gate; protestors begin camping on railroad tracks leading into the Plant site and occupy the tracks until January 1979 when plans are made for a large-scale protest.

- 1979 In April, 9,000 protestors rally outside of Rocky Flats; 300 are arrested, including Pentagon Papers whistle-blower Daniel Ellsberg; in August the United Steelworkers of America, the main site union, holds a counter demonstration that draws 16,000.
- 1983 On October 15, 15,000 protestors nearly encircle the 17-mile perimeter of the Rocky Flats site.
- 1986 DOE, the Colorado Department of Health, and the Environmental Protection Agency sign an agreement to allow regulation of radioactive/hazardous waste at Rocky Flats.
- 1987 Rocky Flats Environmental Monitoring Council forms, a community oversight organization. It is replaced in 1993 by the Rocky Flats Citizens Advisory Board.
- 1989 On June 6, as part of Operation Desert Glow, 80 armed federal agents raid the site to investigate allegations of environmental violations; contractor Rockwell International later agrees to pay an \$18.5 million fine, the largest in the nation as of that date.
- 1990 EG&G takes over operation of Rocky Flats from Rockwell International.
- 1991 An interagency agreement among DOE, the Colorado Department of Health and EPA is signed, outlining multiyear schedules for environmental restoration studies and remediation activities fully integrated with anticipated National Environmental Policy Act documentation requirements. The approach stymies progress leading the parties five years later to sign the Rocky Flats Cleanup Agreement, which provides the regulatory basis to accelerate cleanup.
- 1992 In the State of the Union address, President George H.W. Bush announces the end of the W-88 warhead program, effectively ending the mission at Rocky Flats.
- 1993 Gov. Roy Romer and Rep. David Skaggs form a 29-member Citizens Advisory Board to provide advice on technical and policy decisions related to cleanup and waste management activities at Rocky Flats.
- 1995 In July, Kaiser-Hill LLC signs contract to clean up site with a target completion date of 2010 for an estimated cost of \$7.3 billion.
- 1995 In July, the Future Site Use Working Group issues a comprehensive report of the future use of the site, which includes protecting the 6,000-acre buffer zone as open space, but leaving open the questions regarding the future use of the 384-acre core production area (the Industrial Area).
- 1997 DOE and the regulatory agencies agree to no on-site burial of Rocky Flats waste.
- 1998 The Industrial Area Transition Task Force issues a report listing six alternatives for use of the Industrial Area. Final determinations about use of the Industrial Area are made in 2001 with the passage of “The Rocky Flats National Wildlife Refuge Act of 2001.”
- 1999 In February, seven surrounding local government form the Rocky Flats Coalition of Local Governments (RFCLOG) to give affected governments greater leverage over cleanup and future use decisions.
- 2001 Rocky Flats National Wildlife Refuge Act signed into law, as part of the 2002 National Defense Authorization Act (P.L. 107-107); it directs protection of the entire site as

national wildlife refuge following completion of cleanup activities and expressly prohibits reindustrialization of the site or local government annexation of the property.

- 2003 DOE, EPA and CDPHE agree to site-wide cleanup levels for soils contaminated with radioactive materials.
- 2005 On October 13, Kaiser-Hill announces physical completion of Rocky Flats cleanup, more than 14 months ahead of schedule.
- 2006 In September, EPA and CDPHE grant regulatory approval of the cleanup.
- 2007 Rocky Flats buffer zone and off-site lands are deleted from superfund list.
- 2007 On July 12<sup>th</sup> jurisdiction over 4000 acres of the former buffer zone is transferred to the Department of the Interior to be managed as the Rocky Flats National Wildlife Refuge. DOE retains jurisdiction of the vast majority of the former core production area and settling ponds (1309 acres), as well as jurisdiction over active mining claims (929 acres).

*May 2008*