

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 Thornton -- 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 3, 2013, 8:30 – 11:30 AM

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

- 8:30 AM Convene/Introductions/Agenda Review
- 8:35 AM Chairman’s Review of May 13, 2013 Executive Committee meeting
- 8:40 AM Business Items
1. Consent Agenda
 - o Approval of checks and meeting minutes
 2. Executive Director’s Report
- 8:50 AM Public Comment
- 9:00 AM Receive Stewardship Council 2012 Financial Audit (briefing memo attached)
 - o The board will be briefed on the results of the audit.
 - o 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 2012 Financial Audit**
- 9:10 AM Host DOE Annual Meeting (briefing memo attached)
 - o DOE will brief on site activities for calendar year 2012.
 - o DOE has posted the report on its website and will provide a summary of its activities to the Stewardship Council.
 - o Activities included surface water monitoring, groundwater monitoring, ecological monitoring, and site operations (inspections, maintenance, etc.).
- 10:25 AM Briefing on Adaptive Management Plan (AMP) and Replacement of GS10 Monitoring Station (briefing memo attached)
 - o The AMP, which was approved in May 2011 following the issuance of an environmental assessment, is a “monitoring and data evaluation program to

assist in deciding to implement proposed action for terminal ponds in 2018-2020 timeframe or delay to gather additional data.”

- The AMP process includes provisions about reporting timeframes, summary reports, and an annual report. DOE recently completed its biannual review of the AMP. They will brief on the 2012 AMP results.
- DOE is also proposing to replace monitoring station GS10.

11:10 AM Public comment

11:20 PM Updates/Big Picture Review

1. Executive Director
2. Member Updates
3. Review Big Picture

Adjourn

Next Meetings: September 9 (2nd Monday of month)
October 28 (4th Monday of month)

Rocky Flats Acronym List, Prepared by Rik Getty, Rocky Flat Stewardship Council, November 2012

Acronym or Term	Means	Definition
Alpha Radiation		A type of radiation that is not very penetrating and can be blocked by materials such as human skin or paper. Alpha radiation presents its greatest risk when it gets inside the human body, such as when a particle of alpha emitting material is inhaled into the lungs. Plutonium, the radioactive material of greatest concern at Rocky Flats, produces this type of radiation.
Am	americium	A man-made radioactive element which is often associated with plutonium. In a mass of Pu, Am increases in concentration over time which can pose personnel handling issues since Am is a gamma radiation-emitter which penetrates many types of protective shielding. During the production era at Rocky Flats, Am was chemically separated from Pu to reduce personnel exposures.
AME	Actinide Migration Evaluation	An exhaustive years-long study by independent researchers who studied how actinides such as Pu, Am, and U move through the soil and water at Rocky Flats
AMP	Adaptive Management Plan	Additional analyses that DOE is performing beyond the normal environmental assessment for breaching the remaining site dams.
AOC well	Area of Concern well	A particular type of groundwater well
B	boron	Boron has been found in some surface water and groundwater samples at the site
Be	beryllium	A very strong and lightweight metal that was used at Rocky Flats in the manufacture of nuclear weapons. Exposure to beryllium is now known to cause respiratory disease in those persons sensitive to it
Beta Radiation		A type of radiation more penetrating than alpha and hence requires more shielding. Some forms of uranium emit beta radiation.
BMP	best management practice	A term used to describe actions taken by DOE that are not required by regulation but warrant action.
BZ	Buffer Zone	The majority of the Rocky Flats site was open land that was added to provide a "buffer" between the neighboring communities and the industrial portion of the site. The buffer zone was approximately 6,000 acres. Most of the buffer zone lands now make up the Rocky Flats National Wildlife Refuge.
CAD/ROD	corrective action decision/record of decision	The complete final plan for cleanup and closure for Rocky Flats. The Federal/State laws that governed the cleanup at Rocky Flats required a document of this sort.
CCP	Comprehensive Conservation Plan	The refuge plan adopted by the U.S. Fish and Wildlife Service in 2007.
CDPHE	Colorado Department of Public Health and Environment	State agency that regulates the site.
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act	Federal legislation that governs site cleanup. Also known as the Superfund Act
cfs	cubic feet per second	A volumetric measure of water flow.
COC	Contaminant of Concern	A hazardous or radioactive substance that is present at the site.

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COU	Central Operable Unit	A CERCLA term used to describe the DOE-retained lands, about 1,500 acres comprised mainly of the former Industrial Area where remediation occurred
CR	Contact Record	A regulatory procedure where CDPHE reviews a proposed action by DOE and either approves the proposal as is or requires changes to the proposal before approval. CRs apply to a wide range of activities performed by DOE. After approval the CR is posted on the DOE-LM website and the public is notified via email.
Cr	chromium	Potentially toxic metal used at the site.
CRA	comprehensive risk assessment	A complicated series of analyses detailing human health risks and risks to the environment (flora and fauna).
D&D	decontamination and decommissioning	The process of cleaning up and tearing down buildings and other structures.
DG	discharge gallery	This is where the treated effluent of the SPPTS empties into North Walnut Creek.
DOE	U.S. Department of Energy	The federal agency that manages portions of Rocky Flats. The site office is the Office of Legacy Management (LM).
EA	environmental assessment	Required by NEPA (see below) when a federal agency proposes an action that could impact the environment. The agency is responsible for conducting the analysis to determine what, if any, impacts to the environment might occur due to a proposed action.
EIS	environmental impact statement	A complex evaluation that is undertaken by a government agency when it is determined that a proposed action by the agency may have significant impacts to the environment.
EPA	U.S. Environmental Protection Agency	The federal regulatory agency for the site.
ETPTS	east trenches plume treatment system	The treatment system near the location of the east waste disposal trenches which treats groundwater contaminated with organic solvents emanating from the trenches. Treated effluent flows into South Walnut Creek.
FC	functional channel	Man-made stream channels constructed during cleanup to help direct water flow.
FACA	Federal Advisory Committee Act	This federal law regulated federal advisory boards. The law requires balanced membership and open meetings with published Federal Register meeting dates.
Gamma Radiation		This type of radiation is very penetrating and requires heavy shielding to keep it from exposing people. Am is a strong gamma emitter.
GAO	Government Accountability Office	Congressional office which reports to Congress. The GAO did 2 investigations of Rocky Flats relating to the ability to close the site for a certain dollar amount and on a certain time schedule. The first study was not optimistic while the second was very positive.
g	gram	metric unit of weight
gpm	gallons per minute	A volumetric measure of water flow in the site's groundwater treatment systems and other locations.
GWIS	groundwater intercept system	Refers to a below ground system that directs contaminated groundwater toward the Solar Ponds and East Trenches treatment systems.
IA	Industrial Area	Refers to the central core of Rocky Flats where all production activities took place. The IA was roughly 350 of the total 6,500

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		acres at the site.
IC	Institutional Control	ICs are physical and legal controls geared towards ensuring the cleanup remedies remain in place and remain effective.
IHSS	Individual Hazardous Substance Site	A name given during cleanup to a discrete area of known or suspected contamination. There were over two hundred such sites at Rocky Flats.
ITPH	interceptor trench pump house	The location where contaminated groundwater collected by the interceptor trench is pumped to either the Solar Ponds and East Trenches treatment systems
L	liter	Metric measure of volume, a liter is slightly larger than a quart.
LANL	Los Alamos National Laboratory	One of the US government's premier research institutions located near Santa Fe, NM. LANL is continuing to conduct highly specialized water analysis for Rocky Flats. Using sophisticated techniques LANL is able to determine the percentages of both naturally-occurring and man-made uranium which helps to inform water quality decisions.
LM	Legacy Management	DOE office responsible for overseeing activities at closed sites.
LMPIP	Legacy Management Public Involvement Plan	This plan follows DOE and EPA guidance on public participation and outlines the methods of public involvement and communication used to inform the public of site conditions and activities. It was previously known as the Post-Closure Public Involvement Plan (PCPIP).
M&M	monitoring and maintenance	Refers to ongoing activities at Rocky Flats.
MOU	Memorandum of Understanding	MOU refers to the formal agreement between EPA and CDPHE which provides that CDPHE is the lead post-closure regulator with EPA providing assistance when needed.
MSPTS	Mound site plume treatment system	The treatment system for treating groundwater contaminated with organic solvents which emanates from the Mound site where waste barrels were buried. Treated effluent flows into South Walnut Creek.
NEPA	National Environmental Policy Act	Federal legislation that requires the federal government to perform analyses of environmental consequences of major projects or activities.
nitrates		Contaminant of concern found in the North Walnut Creek drainage derived from Solar Ponds wastes. Nitrates are very soluble in water and move readily through the aquatic environment
Np	neptunium	A man-made radioactive isotope that is found as a by-product of nuclear reactors and plutonium production.
NPL	National Priorities List	A listing of Superfund sites. The refuge lands were de-listed from the NPL while the DOE-retained lands are still on the NPL due to ongoing groundwater contamination and associated remediation activities.
OLF	Original Landfill	Hillside dumping area of about 20 acres which was used from 1951 to 1968. It underwent extensive remediation with the addition of a soil cap and groundwater monitoring locations.
OU	Operable Unit	A term given to large areas of the site where remediation was focused.
PCE	perchloroethylene	A volatile organic solvent used in past operations at the site. PCE is also found in environmental media as a breakdown product of other solvents.

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pCi/g	picocuries per gram of soil	A unit of radioactivity measure. The soil cleanup standard at the site was 50 pCi/g of soil.
pCi/L	picocuries per liter of water	A water concentration measurement. The State of Colorado has a regulatory limit for Pu and Am which is 0.15 pCi/L of water. This standard is 100 times stricter than the EPA's national standard.
PLF	Present Landfill	Landfill constructed in 1968 to replace the OLF. During cleanup the PLF was closed under RCRA regulations with an extensive cap and monitoring system.
PMJM	Preble's Meadow Jumping Mouse	A species of mouse found along the Front Range that is on the endangered species list. There are several areas in the Refuge and COU that provide an adequate habitat for the mouse, usually found in drainages. Any operations that are planned in potential mouse habitat are strictly controlled.
POC	Point of Compliance (surface water)	A surface water site that is monitored and must be found to be in compliance with federal and state standards for hazardous constituents. Violations of water quality standards at the points of compliance could result in DOE receiving financial penalties.
POE	Point of Evaluation (surface water)	These are locations at Rocky Flats at which surface water is monitored for water quality. There are no financial penalties associated with water quality exceedances at these locations, but the site may be required to develop a plan of action to improve the water quality.
POU	Peripheral Operable Unit	A CERCLA term used to describe the Wildlife Refuge lands of about 4,000 acres.
Pu	plutonium	Plutonium is a metallic substance that was fabricated to form the core or "trigger" of a nuclear weapon. Formation of these triggers was the primary production mission of the Rocky Flats site. Pu-239 is the primary radioactive element of concern at the site. There are different forms of plutonium, called isotopes. Each isotope is known by a different number. Hence, there are plutonium 239, 238, 241 and others.
RCRA	Resource Conservation and Recovery Act	Federal law regulating hazardous waste. In Colorado, the EPA delegates CDPHE the authority to regulate hazardous wastes.
RFCA	Rocky Flats Cleanup Agreement	The regulatory agreement which governed cleanup activities. DOE, EPA, and CDPHE were signors.
RFCAB	Rocky Flats Citizen Advisory Board	This group was formed as part of DOE's site-specific advisory board network. They provided community feedback to DOE on a wide variety of Rocky Flats issues from 1993-2006.
RFCLOG	Rocky Flats Coalition of Local Governments	The predecessor organization of the Rocky Flats Stewardship Council
RFETS	Rocky Flats Environmental Technology Site	The moniker for the site during cleanup years.
RFLMA	Rocky Flats Legacy Management Agreement	The post-cleanup regulatory agreement between DOE, CDPHE, and EPA which governs site activities. The CDPHE takes lead regulator role, with support from EPA as required.
RFNWR	Rocky Flats National Wildlife Refuge	The approximate 4,000 acres which compose the wildlife refuge.
RFSOG	Rocky Flats Site	The nuts-and-bolt guide for post-closure site activities performed by

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	Operations Guide	DOE and its contractors.
SPPTS	solar ponds plume treatment system	System used to treat groundwater contaminated with uranium and nitrates. The nitrates originate from the former solar evaporation ponds which had high levels of nitric acid. The uranium is primarily naturally-occurring with only a slight portion man-made. Effluent flows into North Walnut Creek
SVOCs	semi-volatile organic compounds	These compounds are not as volatile as the solvent VOCs. They tend to be similar to oils and tars. They are found in many environmental media at the site. One of the most common items to contain SVOCs is asphalt.
TCE	trichloroethylene	A volatile organic solvent used in past operations at the site. TCE is also found in environmental media as a breakdown product of other solvents.
U	uranium	Naturally occurring radioactive element. There were two primary isotopes of U used during production activities. The first was enriched U which contained a very high percentage (>90%) of U-235 which was used in nuclear weapons. The second isotope was U-238, also known as depleted uranium. This had various uses at the site and only had low levels of radioactivity..
USFWS	United States Fish & Wildlife Service	An agency within the US Department of the Interior that is responsible for maintaining the nation-wide system of wildlife refuges, among other duties. The regional office is responsible for the RFNWR.
VOC	volatile organic compound	These compounds include cleaning solvents that were used in the manufacturing operations at Rocky Flats. The VOCs used at Rocky Flats include carbon tetrachloride (often called carbon tet), trichloroethene (also called TCE), perchloroethylene (also called PCE), and methylene chloride.
WCRA	Woman Creek Reservoir Authority	This group is composed of the three local communities, the Cities of Westminster, Northglenn, and Thornton, who use Stanley Lake as part of their drinking water supply network. Water from the site used to flow through Woman Creek to Stanley Lake but the reservoir severed that connection. The Authority has an operations agreement with DOE to manage the Woman Creek Reservoir.
WQCC	Water Quality Control Commission	State board within CDPHE tasked with overseeing water quality issues throughout the state. DOE has petitioned the WQCC several times in the last few years regarding water quality issues.
ZVI	zero valent iron	A type of fine iron particles used to treat VOC's in the ETPTS and MSPTS.

Business Items

- List of Stewardship Council checks
- April 1, 2013 draft board meeting minutes

RFSC 2012 Financial Audit

- Cover memo
- Draft audit

10:36 PM

05/17/13

Rocky Flats Stewardship Council
Check Detail-2013
 March 19 through May 17, 2013

Type	Num	Date	Name	Account	Paid Amount	Original Amount
Check		3/31/2013		CASH-Wells Fargo-Operating		-3.50
				Admin Services-Misc Services	-3.50	3.50
TOTAL					-3.50	3.50
Check	1607	4/1/2013	Century Link	CASH-Wells Fargo-Operating		-26.55
				Telecommunications	-26.55	26.55
TOTAL					-26.55	26.55
Bill P...	1608	4/5/2013	Crescent Strategies...	CASH-Wells Fargo-Operating		-7,932.81
Bill	3/31...	3/31/2013		Personnel - Contract	-6,850.00	6,850.00
				Telecommunications	-115.38	115.38
				TRAVEL-Local	-40.68	40.68
				Postage	-15.99	15.99
				TRAVEL-Out of State	-699.80	699.80
				Printing	-210.96	210.96
TOTAL					-7,932.81	7,932.81
Bill P...	1609	4/5/2013	Jennifer A. Bohn	CASH-Wells Fargo-Operating		-225.00
Bill	13-23	3/31/2013		Accounting Fees	-225.00	255.00
TOTAL					-225.00	255.00
Bill P...	1610	4/5/2013	Seter & Vander Wal...	CASH-Wells Fargo-Operating		-219.25
Bill	65601	3/31/2013		Attorney Fees	-219.25	219.25
TOTAL					-219.25	219.25
Check	1611	5/12/2013	Century Link	CASH-Wells Fargo-Operating		-26.81
				Telecommunications	-26.81	26.81
TOTAL					-26.81	26.81
Bill P...	1612	5/12/2013	Blue Sky Bistro	CASH-Wells Fargo-Operating		-260.00
Bill	1452	4/1/2013		Misc Expense-Local Government	-260.00	260.00
TOTAL					-260.00	260.00
Bill P...	1613	5/12/2013	Crescent Strategies...	CASH-Wells Fargo-Operating		-9,014.93
Bill	4/30...	4/30/2013		Personnel - Contract	-6,850.00	6,850.00
				Telecommunications	-115.38	115.38
				TRAVEL-Local	-136.73	136.73
				Postage	-15.99	15.99
				TRAVEL-Out of State	-1,447.23	1,447.23
				Supplies	-31.00	31.00
				Subscriptions/Memberships	-418.60	418.60
TOTAL					-9,014.93	9,014.93
Bill P...	1614	5/12/2013	Jennifer A. Bohn	CASH-Wells Fargo-Operating		-705.50
Bill	13-31	4/30/2013		Accounting Fees	-705.50	705.50
TOTAL					-705.50	705.50
Bill P...	1615	5/12/2013	Seter & Vander Wal...	CASH-Wells Fargo-Operating		-1,156.16

10:36 PM

05/17/13

Rocky Flats Stewardship Council
Check Detail-2013
March 19 through May 17, 2013

<u>Type</u>	<u>Num</u>	<u>Date</u>	<u>Name</u>	<u>Account</u>	<u>Paid Amount</u>	<u>Original Amount</u>
Bill	65860	4/30/2013		Attorney Fees	-1,156.16	1,156.16
TOTAL					-1,156.16	1,156.16
Bill P...	1616	5/13/2013	HUB SW	CASH-Wells Fargo-Operating		-2,856.19
Bill	Appl...	5/3/2013		Insurance	-2,856.19	2,856.19
TOTAL					-2,856.19	2,856.19

ROCKY FLATS STEWARDSHIP COUNCIL

Monday, April 1, 2013, 8:30 AM – 12:00 PM

**Rocky Mountain Metropolitan Airport, Terminal Building, Mount Evans Room
1175 Airport Way, Broomfield, Colorado**

Board members in attendance: Shelley Cook (Director, Arvada), Jim McCarthy (Alternate, Arvada), Lisa Morzel (Director, City of Boulder), Tim Plass (Alternate, City of Boulder), Deb Gardner (Director, Boulder County), Megan Davis (Alternate, Boulder County), Mike Shelton (Alternate, Broomfield), David Allen (Alternate, Broomfield), Dan Hartman (Alternate, Golden), Faye Griffin (Director, Jefferson County), Shelley Stanley (Alternate, Northglenn), Joe Cirelli (Director, Superior), Emily Hunt (Alternate, Thornton), Bob Briggs (Director, Westminster), Mary Fabisiak (Alternate, Westminster), Jeannette Hillery (League of Women Voters), Ann Lockhart (Director, Rocky Flats Cold War Museum), Roman Kohler (Director, Rocky Flats Homesteaders), Arthur Widdowfield (citizen).

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

Attendees: Carl Spreng (CDPHE), Charles Adams (CDPHE), Joe Legare (Stoller), Bob Darr (Stoller), Jody Nelson (Stoller), Rick DiSalvo (Stoller), Scott Surovchak (DOE-LM), Jim Rada (JeffCo Public WQCC), Randy Frank (JeffCo Open Space), Therese Glowacki (Boulder County), Hank Dalton (Louisville City Council), Patty Strapelli (citizen), Maureen Elmaleh (JeffCo resident).

Convene/Agenda Review

Chair Bob Briggs convened the meeting at 8:34 a.m.

Chairman's Review of March 7 Executive Committee meeting

Chair Briggs noted that an Executive Committee meeting was held on March 7, 2013. Meeting attendees included the Executive Committee along with David Abelson. The purpose was to develop an agenda for this meeting. These meetings are open to public.

Consent Agenda

Lisa Morzel moved to approve the February Board meeting minutes and the checks. The motion was seconded by Joe Cirelli. The motion to accept the minutes and checks passed 14-0.

Executive Director's Report

David Abelson began his update to the Board by noting that the annual financial audit of the Stewardship Council was in process. This audit is not required; however, one is completed each year to provide Board members complete reassurance that all financial matters are being handled correctly. No issues have been found in the past. The final draft is almost complete. A

representative from the company conducting the audit, Eric Barnes, will be at the next meeting to provide a briefing on the results. David, Barb Vander Wall and Jennifer Bohn all review the audit, and the Board will need a vote to accept the audit at the meeting. Once accepted by the Board, the audit will be filed with State.

Next, David noted that S.M. Stoller's contract with DOE-Legacy Management to manage Rocky Flats is expiring and up for bid. Other parties are competing with Stoller for this contract. Previously, Stoller held the largest small business contract within DOE; however, Stoller is no longer classified as a small business, so they are teaming with another company that qualifies as a small business.

David reported that he would be in Washington D.C. the following week for an Energy Communities Alliance (ECA) Peer Exchange meeting. He said that most of the event would be focused on Environmental Management (EM), but there would be some discussion of Legacy Management (LM) and other issues that affect Rocky Flats, such as the DOE budget and sequestration. During this trip, David would also be meeting with DOE-LM Director Dave Geiser for a Rocky Flats update, as well as with staff members from Rep. Perlmutter and Sen. Udall's offices to discuss Rocky Flats worker issues.

After the Board sent a letter to the Colorado Congressional delegation in February regarding former worker benefits, David received calls from some of the staffers with an update. The Department of Labor is now investigating the exposure matrix for Rocky Flats workers. It is likely that there will be a re-introduction of a bi-partisan bill (with Colorado Representatives Perlmutter and Polis among the sponsors) to change the way the nuclear worker benefits law (known as the Energy Employees Occupational Illness Compensation Program Act) is implemented. This new approach would result in lower costs than the previously-proposed Charlie Wolf Act.

David noted that a meeting for the annual review of the Adaptive Management Plan (AMP) was set to be held on April 25. In addition to a review of 2012 results, the issues to be discussed include the future of the former Points of Compliance along Indiana Street. David and Rik will attend this meeting, and will send meeting notice to the Board. The issues raised may be discussed at the June RFSC meeting.

Finally, David mentioned that the quarterly financial reports would be sent to the Board by the end of month.

Public Comment

There was none.

Member Updates

Faye Griffin shared that Jefferson County recently celebrated the transfer of property for Section 16, south of Rocky Flats. Emily Hunt noted that Thornton had issued a Stage 2 drought restriction. Roman Kohler announced that a fellowship has offered to erect a granite monument

commemorating Rocky Flats workers and their families for their involvement in the Cold War effort. There is a tentative date of June 22 for the monument to be erected, and they are working with DOE to get approval to build it at the west entrance to the site. Jeannette Hillery mentioned that the Boulder County League of Women Voters had recently hosted a 'Meet the Legislators' event. Lisa Morzel noted Boulder's involvement in the 'Smart City, Smart Grid' conference. She also mentioned that Boulder is looking into municipalizing utilities. Murph Widdowfield shared a website that he had become involved in that is similar to a neighborhood watch group. He said his community had been working on variety of issues, and this was a great way for small neighborhoods to come together and collaborate, for the neighbors to get to know one another. Rik Getty told Board Members to expect an email soon regarding date options for the annual Rocky Flats site tour in June. Bob Briggs mentioned that Westminster is working on redevelopment of their mall, and would be announcing the developer and four major tenants at a conference in Las Vegas in May. Joe Cirelli announced that he had been re-elected. He also announced that Superior was updating their comprehensive plan, working on a comprehensive transportation plan, and working on plans for a Town Center off Highway 36. Deb Gardner said that Boulder County had been pleased to celebrate the transfer of Section 16 with Jefferson County. She also said that there was a meeting scheduled the following day about the regional trail system and that she would pass along information to David for the Board. Ann Lockhart mentioned a news release from the Rocky Flats Cold War Museum about an upcoming art exhibit.

DOE Briefing on Water Quality Compliance During Drought

DOE briefed the Board about how site water quality was being ensured during drought conditions. The cleanup remedy at Rocky Flats was designed to protect water quality. Activities associated with measuring remedy compliance include surface water and groundwater monitoring. However, with the current drought, there is less water to monitor, thereby raising questions about how DOE can measure actinide movement and, in turn, remedy compliance. Therefore, DOE was asked to review its monitoring program and discuss remedy compliance with a focus on the drought conditions.

Scott Surovchak began by discussing the basics of the site remedy, which are institutional controls plus monitoring. Since extensive studies showed that surface water was the primary movement pathway for plutonium and americium, activities at the site are focused on protecting surface water quality. The test results at Rocky Flats Points of Compliance monitoring sites meet the standards for all uses of water. The Rocky Flats Legacy Management Agreement (RFLMA) requires consultation on the management and protection of surface water, but does not require meeting all standards in all locations. The post-closure land reconfiguration was intended to minimize runoff from the site, specifically in drainage ditches, as well as to minimize habitat and wetlands impacts. This included minimizing total earthwork scope, providing positive surface water drainage, maintaining geotechnical stability, and limiting erosion. Prior to closing, Rocky Flats imported a great deal of water to support up to 12,000 people working onsite at various times. Current conditions are a complete reversal of what existed prior to closing. Ecologists at the site developed a seed mix to match the new site conditions.

During some of the early cleanup involving building demolition (which already met free release standards), workers used dust suppression techniques in conjunction with air monitoring to ensure that there was no airborne contamination. At closure, the air contamination sources had been removed and air monitoring was no longer necessary.

Tim Plass asked how the site could be sure that there was no contamination at times when there was not enough water to conduct the testing. Scott noted that plants stay put, and other things reduce wind velocity at soil level, thereby helping to ensure that any residual contamination is fixed in place. Emily Hunt asked about how monitoring worked during a large precipitation event. Scott said that as flow rate goes up, water is sampled more frequently. He added that with a large flow, they would not detect contaminants because of dilution. He said that the site was permitted to use grab samples, but have chosen to do flow-paced sampling instead. An audience member asked why there was no longer any air monitoring at Rocky Flats. Scott said that they never detected airborne contamination during years of air monitoring during the physical cleanup activities. Therefore, once cleanup work was complete, there was no reason to continue monitoring. Carl Spreng added that the State also shut down their monitors. Another audience member brought up a concern about fires dispersing particles offsite. David Abelson referred them to the minutes from Carl's presentation at the previous Board meeting, which could be found on the Board's website. Deb Gardner asked if all 100 wells were being tested. Scott said that they were on a rotating schedule, and that some were dry. She asked if they measured the water levels. He said that they did. Deb asked where the water from seeps was coming from, and if it was flowing through buried building foundations. Scott replied that the seeps were localized and were the result of precipitation.

Briefing/Discussion on vegetation management and adaptation

The next briefing addressed vegetation management on the site. As discussed in 2012 during the series of briefings on actinide movement, mature and diverse plant communities help reduce actinide migration. A mix of species to address both drought and increased moisture is therefore a critical ingredient of the site's adaptive management approach. Jody Nelson, the site ecologist, discussed his seed mix strategy at the Board's September meeting. He was asked to expand on this approach at this meeting. Open space staff from Boulder, Boulder County and Jefferson County was also on hand to join the conversation by sharing and discussing their own adaptive management strategies.

Jody began by explaining that open space at Rocky Flats meant enhancing the native prairie conditions, which might be different than how cities or counties managed their own open space. He said problems could result during drought conditions if there was a 'monoculture' of one species. At Rocky Flats, the seed mixes were designed based on the surrounding native prairies, which are most adapted to this particular climate, soils, and other conditions. Jody reviewed the full list of seed mix combinations, which are used based on the type of location (i.e. pediment upland, hillside upland, riparian, wetland). The mixes also include both warm and cool season varieties, as well as a classification of whether the species grows as sod or a bunch. Through using these methods, there would always be something to replace what was not able to grow.

Lisa Morzel asked if the site had to bring in much soil after the Industrial Area structures were

removed. Jody said that there was actually quite a bit of Rocky Flats alluvium available on and near the site. He added that they did not need to amend the soil much either, with the exception of the former parking lot areas. Joe Cirelli asked if there were any invasive species on site. Jody said that there were indeed some invasive species. Since preferred grassland management methods such as grazing and controlled burns were not considered to be options at Rocky Flats, they had to use spraying for weed control. Jody said that they had to leave wildflowers out of their seed mix, because the spraying killed them. He added that grasses were now becoming well-established, so they were now able to start adding wildflower seeds back into the mixes. Joe also asked if the USFWS was involved in monitoring grasses on the refuge lands. Jody said he was not sure whether the USFWS was doing much because of funding issues, although he said they sometimes did some spraying along roads. Emily Hunt asked why maintaining vegetation was so beneficial. Jody said that having good vegetation prevented exposed soil, and also cut down on the wind at the ground surface. He said dead plants also get matted down, helping to fix any contaminants into place.

Tim Plass asked whether DOE had considered climate change in its models for remedy protection. Jody said that these types of changes would not cause current species of plants to disappear, but could change which species are dominant. Many of the plants used at Rocky Flats grow in vast areas, from Mexico to Canada, which was why he felt confident in the viability of their seed mix. Rick DiSalvo mentioned DOE's sustainability plan, which has 10 programs. He said 2012 was the first year that DOE started to incorporate climate change issues. They planned to look for synergies among various governmental agencies. Goals should be developed in the August/September timeframe, and will be available on the DOE-LM website.

Jody asked Boulder and Jefferson County to discuss their revegetation strategies. Randy Frank said that Jefferson County used very similar methods as Rocky Flats. In some areas used for hay and grazing, it was more difficult to get back to native conditions. He added that prescribed burning was very effective in re-establishing native grasses. Randy said that what Rocky Flats was doing was industry standard, and that it could not be done any better. Therese Glowacki with Boulder County noted that the models were mixed regarding what kind of future conditions to expect along the Front Range, which meant that planting a variety of different species was the best choice. She added that not having grazing and fire as options would make weed control efforts much more difficult. In fact, they have seen areas like this in decline. Boulder County was looking at weed management alternatives, such as herbicides that may be able to maintain a variety of species. They were also using volunteers to do seed collection. These seeds are sent to grass nurseries which grow it, and then send it back in greater quantities. Randy also emphasized that plants are quite adaptive. Deb Gardner said she had noticed on the last site tour some areas where nothing was growing, which was probably one of the parking lot areas that Jody had mentioned. She asked about plans for addressing these areas. Jody said they do work on these areas using soil amendments, although sometimes it takes multiple attempts before vegetation becomes established. Scott Surovchak said that Deb was likely talking about an area where an access road had been. He said that this was not a high risk area, since it was a flat, high location without much surface water flow.

Jody showed several sets of before and after photographs which demonstrated what certain locations looked like before or during cleanup, and then what they look like today.

Briefing/Discussion on prairie fire at Rocky Flats

The next presentation focused on the issue of prairie fires at Rocky Flats, which generate broad concern in surrounding communities. DOE, CDPHE and EPA have studied these fires, including controlled burns, focusing on the impacts on actinide movement, re-vegetation efforts, and habitat restoration. The agencies were asked to discuss the suite of issues related to prairie fire at Rocky Flats.

Carl Spreng with CDPHE began by noting that the cleanup of Rocky Flats was completed to be protective of human health and environment. He said that the low levels of residual contamination allow Rocky Flats to meet a standard that is one hundred times more conservative than city drinking water standards (.15 vs. 15 pCi/l). He explained that while the agencies were developing the soil action levels, a controlled burn was performed with a wind tunnel in place to measure the particles released during the fire. Carl noted that the time of year makes a difference on the recovery times for vegetation, and that all of this information was taken into account prior to setting the official soil action levels. He noted that plants do not uptake plutonium, but can uptake uranium. When they looked at the risks to firefighters responding to a fire at Rocky Flats, radiological concerns were very low on the list of risks. Carl said that, in prairie environments, fire is not only good, it is critical. He noted that there are no actual regulations that preclude grazing or prescribed burns at Rocky Flats. However, since grazing could have led to damage of monitoring devices, it was ruled out for use at Rocky Flats. He added that prescribed burns were ruled out simply because they were too controversial. He said that the USFWS will probably be implementing some grazing on refuge lands pretty soon, and that DOE might try to look at ways to implement this as well.

Tim Plass referred to a white paper that noted areas where firefighters should not follow a fire at Rocky Flats. Carl said that this did not apply anymore because of the cleanup. Emily Hunt asked what the fire protection goals at the site were. Carl said the main goal was to protect structures. David Abelson asked what kind of communications process was in place in terms of notifications if there were to be a fire. Scott Surovchak said DOE would not be involved in the fire response process. David asked if there was an email list to notify surrounding local governments. Scott said this would only be done if the entities managing the fire requested them to do so. He said that the fire departments simply fight the fire as they would in any other location. Bob Darr said he would send out a community notification, but it would not be immediate. Carl pointed to studies showing that millions of particles of plutonium dust must be inhaled to cause any significant risk. He also said that they might be addressing this group in the future about using prescribed burns onsite.

Scott added that DOE's Wildland Fire Management Plan, which applies to DOE-controlled lands, is part of the Rocky Flats Site Operations Guide, and could be found on the website.

Public comment

There was none.

Updates/Big Picture Review

June 3, 2013

Potential Business Items

- Financial audit

Potential Briefing Items

- DOE Annual update
- AMP Monitoring update
- Legacy Management contract update

September 9, 2013

Potential Business Items

- Initial review of 2014 budget
- Initial review of 2014 work plan
- Review community member application and appointment process

Potential Briefing Items

- DOE quarterly update
- Natural Resource Damages update
- Solar Ponds performance
- Overview of water monitoring network?

Issues to watch:

Americium and uranium levels upstream of pond B-3

The meeting was adjourned at 11:28 a.m.

Respectfully submitted by Erin Rogers.

ROCKY FLATS STEWARDSHIP COUNCIL

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

MEMORANDUM

TO: Board
FROM: David Abelson
SUBJECT: 2012 Financial Audit
DATE: May 24, 2013

Attached for your review is Wagner, Barnes and Griggs' draft 2012 financial audit of the Rocky Flats Stewardship Council. As he has done in past years, Eric Barnes will present and discuss the audit at the meeting, and will be prepared to answer any questions. He and his staff did not find any material deficiencies, and issued a clean audit.

Neither state law nor our grant with DOE requires the Stewardship Council to seek an audit. However, an independent audit is an important check that ensures that both the board and staff are managing the finances in accordance with applicable laws and regulations.

The Stewardship Council will need to formally accept the audit at the meeting. If you have any questions for Eric prior to the meeting, please email me your questions and I will forward them to him.

Action Item: Approve motion accepting Stewardship Council's 2012 audit.

MAY/20/2013

Rocky Flats Stewardship Council

FINANCIAL STATEMENTS

With Independent Auditors' Report

December 31, 2012

DRAFT

Rocky Flats Stewardship Council

BASIC FINANCIAL STATEMENTS

December 31, 2012

Independent auditors' report..... I

Basic financial statements:

Government-wide financial statements:

 Statement of net position 1

 Statement of activities 2

Fund financial statements:

 Balance sheet – governmental fund 3

 Statement of revenues, expenditures, and changes in fund balance –
 governmental fund 4

 Statement of revenues, expenditures, and changes in fund balance –
 budget and actual – general fund 5

Notes to financial statements 6

DRAFT

INDEPENDENT AUDITOR'S REPORT

To the Board of Directors
Rocky Flats Stewardship Council

We have audited the accompanying financial statements of the governmental activities and each major fund of Rocky Flats Stewardship Council (the Council) as of and for the year ended December 31, 2012, which collectively comprise the Council's basic financial statements as listed in the table of contents, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions 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 misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities and each major fund of Rocky Flats Stewardship Council, as of December 31, 2012, and the respective changes in financial position thereof, and the budgetary comparison for the general fund for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Management has omitted management's discussion and analysis that accounting principles generally accepted in the United States of America require to be presented to supplement the basic financial statements. Such missing information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. Our opinion on the basic financial statements is not affected by this missing information.

Lakewood, Colorado
May X, 2013

DRAFT

ROCKY FLATS STEWARDSHIP COUNCIL
STATEMENT OF NET POSITION
December 31, 2012

	Governmental Activities
ASSETS	
Cash and cash equivalents	\$ 149,420
Receivables	911
Total assets	150,331
LIABILITIES	
Accounts payable and accrued expenses	9,044
Deferred revenues	20
Total liabilities	9,064
NET POSITION	
Restricted for grand expenditures	20
Unrestricted	141,247
Total net position	\$ 141,267

DRAFT

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

ROCKY FLATS STEWARDSHIP COUNCIL

STATEMENT OF ACTIVITIES

For the Year Ended December 31, 2012

<u>Functions/Programs</u>	<u>Expenses</u>	<u>Program Revenue</u>			<u>Total</u>
		<u>Charges for Services</u>	<u>Operating Grants and Contributions</u>	<u>Capital Grants and Contributions</u>	
Primary government	\$ 118,607	\$ -	\$ 128,519	\$ -	\$ 9,912
Total primary government	\$ 118,607	\$ -	\$ 128,519	\$ -	9,912
General revenues:					
Interest income					46
Total general revenues					46
Change in net position					9,958
Net position - beginning					131,309
Net position - ending					\$ 141,267

DRAFT

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

ROCKY FLATS STEWARDSHIP COUNCIL

BALANCE SHEET
GOVERNMENTAL FUND

December 31, 2012

	<u>General Fund</u>
ASSETS	
Cash and cash equivalents	\$ 149,420
Receivables	911
Total assets	<u>\$ 150,331</u>
LIABILITIES	
Accounts payable	\$ 9,044
Deferred revenue	20
Total liabilities	<u>9,064</u>
FUND BALANCES	
Restricted for:	
Grant expenditures	20
Unassigned:	
General government	141,247
Total fund balances	<u>\$ 141,267</u>

Amounts reported for governmental activities in the Statement of Net Position are the same as above

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

ROCKY FLATS STEWARDSHIP COUNCIL
STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE
GOVERNMENTAL FUND

For the Year Ended December 31, 2012

	General Fund
REVENUES	
Grants	\$ 118,519
Contributions from local governments	10,000
Interest income	46
Total revenues	128,565
EXPENDITURES	
General government	
Annual Audit	4,059
Accounting Fees	4,565
Attorney Fees	12,692
Administrative Service - miscellaneous	42
Consultants	52
Insurance	3,356
Miscellaneous Expense - local government	998
Personnel - contract	84,675
Postage	852
Printing	1,181
Subscriptions/membership dues	950
Supplies	360
Telecommunications	2,036
Travel - local	746
Travel - out of state	2,043
Total expenditures	118,607
Net change in fund balances	9,958
Fund balances - beginning	131,309
Fund balances - ending	\$ 141,267

Amounts reported for governmental activities in the Statement of Activities are the same as above

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

ROCKY FLATS STEWARDSHIP COUNCIL

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

For the Year Ended December 31, 2012

	Original and Final Budget	Actual	Variance with Final Budget Favorable (Unfavorable)
Revenues			
U.S. Department of Energy - Office of Legacy Management	\$ 125,000	\$ 118,519	\$ (6,481)
Contributions from local governments	10,000	10,000	-
Donated funds - Rocky Flats Coalition of Local Governments	19,800	-	(19,800)
Interest income	-	46	46
Total revenues	<u>154,800</u>	<u>128,565</u>	<u>(26,235)</u>
Expenditures			
General government			
Personnel	93,000	84,675	8,325
Travel	5,700	2,789	2,911
Equipment	500	-	500
Supplies	1,200	360	840
Contractual	40,100	22,408	17,692
Insurance	4,000	3,356	644
Postage	1,500	852	648
Printing	2,000	1,181	819
Subscriptions/membership dues	2,100	950	1,150
Telecommunications	2,700	2,036	664
Website	2,000	-	2,000
Total expenditures	<u>154,800</u>	<u>118,607</u>	<u>36,193</u>
Change in net assets	<u>-</u>	<u>9,958</u>	<u>9,958</u>
Fund balance - beginning of year	<u>131,309</u>	<u>131,309</u>	<u>-</u>
Fund balance - end of year	<u>\$ 131,309</u>	<u>\$ 141,267</u>	<u>\$ 9,958</u>

DRAFT

Rocky Flats Stewardship Council
NOTES TO FINANCIAL STATEMENTS

December 31, 2012

Note 1 – Summary of significant accounting policies

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

As of December 31, 2012, 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 position 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 position reports all financial and capital resources of the Council. The difference between the assets and liabilities of the Council is reported as net position.

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. 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:

Rocky Flats Stewardship Council

**NOTES TO FINANCIAL STATEMENTS
(continued)
December 31, 2012**

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 position

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 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 3 years.

3. Fund equity

Beginning with fiscal year 2011 the Council implemented GASB Statement No. 54, "Fund Balance Reporting and Governmental Fund Type Definitions." This statement provides more clearly defined fund balance categories to

Rocky Flats Stewardship Council

NOTES TO FINANCIAL STATEMENTS (continued) December 31, 2012

make the nature and extent of the constraints placed on a government's fund balances more transparent. In the fund financial statements the following classifications describe the relative strength of the spending constraints.

Restricted fund balance – The portion of fund balance constrained to being used for a specific purpose by external parties (such as grantors or bondholders), constitutional provisions or enabling legislation.

Unassigned fund balance – The residual portion of fund balance that does not meet any of the above or any other fund balance reporting criteria.

If more than one classification of fund balance is available for use when an expenditure is incurred, it is the Council's policy to use the most restrictive classification first.

At December 31, 2012, the Council had \$20 restricted by grantors (for expenses connected with monitoring of post-closure Rocky Flats activities – see Note 1A. above).

The remaining fund balance is considered by the Council to be unassigned. At December 31, 2012, the Council had an unassigned fund balance in the general fund of \$141,247.

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.

G. Recently Issued and Adopted Accounting Pronouncements

In June 2011, the GASB issued Statement 63, Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources and Net Position. GASB 63

Rocky Flats Stewardship Council

NOTES TO FINANCIAL STATEMENTS
(continued)
December 31, 2012

provides guidance for reporting deferred outflows of resources, deferred inflows of resources, and net position in a statement of financial position and related disclosures. The statement of net assets is renamed the statement of net position and includes four components, which are, assets, deferred outflows of resources, liabilities and deferred inflows of resources. The provisions of this Statement are effective for financial statements for periods beginning after December 15, 2011. The District adopted GASB Statement 63 in fiscal year 2012.

Note 2 – Cash and Investments

Cash and investments as of December 31, 2012 are classified in the accompanying statements as follows:

Statement of net position:
Cash and cash equivalents \$149,420

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, 2012, 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, 2012.

The Council's cash deposits at December 31, 2012 are as follows:

	Carrying Balance	Bank Balance
Deposits with financial institutions	<u>\$149,420</u>	<u>\$ 151,786</u>
Total cash and cash equivalents	<u>\$149,420</u>	<u>\$ 151,786</u>

Investments

The Council has not adopted a formal investment policy, however, the Council follows state statutes regarding investments. Colorado revised statutes limit

Rocky Flats Stewardship Council

**NOTES TO FINANCIAL STATEMENTS
(continued)
December 31, 2012**

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.

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, 2012, the Council had no investments.

Note 3 – Capital Assets

An analysis of the changes in capital assets for the year ended December 31, 2012 follows:

	Balance 12/31/11	Additions	Deletions	Balance 12/31/12
Capital assets being depreciated:				
Furniture and equipment	\$ 398	\$ -	\$ -	\$ 398
Total capital assets	398	-	-	-
Accumulated depreciation	(398)	-	-	(398)
Capital assets, net	\$ -	\$ -	\$ -	\$ -

Note 4 – Net position

The Council has net position 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, 2012, the Council had \$0 invested in capital assets.

Rocky Flats Stewardship Council

**NOTES TO FINANCIAL STATEMENTS
(continued)
December 31, 2012**

Restricted assets include net position 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, 2012, the Council had \$20 of restricted net position.

As of December 31, 2012, the Council had unrestricted net position of \$141,247.

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 - Concentration

The Council receives the majority of its funding through a grant from the U.S. Department of Energy (DOE). The DOE has renewed the grant through February 28, 2017.

Note 7 - 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.

Annual Report Briefing

- Cover memo
- Selection of annual report

ROCKY FLATS STEWARDSHIP COUNCIL

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

MEMORANDUM

TO: Board
FROM: Rik Getty
SUBJECT: DOE 2012 Annual Report Briefing
DATE: May 22, 2013

We have scheduled 75 minutes for DOE to present its 2012 annual report update. The report includes the last quarter of 2012 (October – December). The report, which is very detailed and lengthy (over 400 pages), can be found at: http://www.lm.doe.gov/Rocky_Flats/Documents.aspx. The executive summary is found below. Attached to this memo are the table of contents, introduction to the report, and summary of 2012 contact records.

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, Colorado, Site (Site).

Under the CAD/ROD, two Operable Units were established within the boundaries of the Rocky Flats property: the Peripheral Operable Unit (POU) and the Central Operable Unit (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 (CY) 2012 (January 1 through December 31, 2012). 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 the three RFLMA contact records issued in 2012 and the contact record status as of December 31, 2012.
- Inclinometers were installed at the Original Landfill (OLF) as part of the 2008 geotechnical investigation to address localized slumping and settling of the OLF cover observed in 2007. The localized instability is caused by the weakening of one or more soil layers in the shallow subsurface due to moisture in these layers. To address these conditions, filling and grading to re-contour some side-slopes and to minimize and remove subsurface moisture was completed in 2009. This annual report includes a review of the inclinometer data by a qualified geotechnical engineer. The inclinometers have shown little deflection in the past 2 years. Continued monitoring and routine maintenance of the OLF cover are presently considered adequate to address any observed surface cracking resulting from minor slumping.
- 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.
- Reportable 12-month rolling average plutonium (Pu) activities were observed starting on April 30, 2010, in surface water at RFLMA Point of Evaluation (POE) monitoring station SW027, which is located on the South Interceptor Ditch upstream of Pond C-2. SW027 has recorded very little water flow since 2010, and as of April 30, 2011, the 12-month rolling average for Pu was no longer reportable at SW027. No analytical samples were able to be collected in 2012 because of insufficient flow. Reportable 12-month rolling average uranium (U) concentrations were observed starting on April 30, 2011, in surface water at RFLMA POE monitoring station GS10, which is located on South Walnut Creek upstream of former Pond B-1. Reportable 12-month rolling average americium (Am) activities were also observed starting on August 31, 2011. Pu also became reportable for 12-month rolling average activities on May 31, 2012. As of the end of CY 2012, U, Pu, and Am were still reportable at GS10.

- All other POE analyte concentrations remained below reporting levels throughout CY 2012.
- The results of statistical evaluations of groundwater quality at the OLF and Present Landfill (PLF) were largely identical to the results of these evaluations performed in 2011.
- Water monitoring at the Present Landfill Treatment System during CY 2012 showed two analytes detected above the applicable standards for individual sample results. The observed concentrations did not recur and RFLMA consultation was not required. Groundwater samples collected from the three downgradient PLF Resource Conservation and Recovery Act (RCRA) wells indicated concentrations of boron in one well, boron and nickel in another, and chromium and selenium in the third. All these concentrations were statistically higher than in upgradient groundwater and were on increasing trends, although only the selenium results exceeded corresponding RFLMA levels. These conditions are generally consistent with those reported for earlier years. Regulatory consultation was conducted in response to these conditions.
- Surface-water monitoring for the OLF during CY 2012 showed two analytes detected above the applicable standards for individual sample results. The observed concentrations did not recur and RFLMA consultation was not required. Consistent with 2010 and 2011, boron in all three downgradient OLF RCRA wells and uranium in one of these wells was determined in 2012 to be present at statistically higher concentrations than in upgradient groundwater; also for 2012, nickel was calculated to be statistically higher in samples from one downgradient well than in upgradient groundwater. Boron in one of the downgradient wells was also found to be present on an increasing trend. In all cases, the concentrations of these constituents in downgradient groundwater were below the associated RFLMA limits. Regulatory consultation was conducted in response to these conditions.
- Analytical results for effluent from the Mound Site Plume Treatment System (MSPTS) and East Trenches Plume Treatment System (ETPTS) continued to demonstrate the vast majority of contaminants are removed. However, concentrations of some volatile organic compounds (VOCs) in system effluent exceeded target concentrations. A test air stripper installed in the existing effluent manhole at the MSPTS in 2011 was operated for most of 2012 to evaluate the effectiveness and feasibility of this method to remove residual VOCs in effluent from the treatment cells. Results were promising and installation of a more permanent, full-time air stripper in the effluent manhole was underway at the end of 2012. A similar air stripper was also being installed at the ETPTS at the end of 2012, but in the influent manhole. Phase II and Phase III upgrades to the Solar Ponds Plume Treatment System (SPPTS) were completed and implemented in May 2009. Concentrations of nitrate and uranium measured at the effluent discharge gallery have decreased since Site closure, even as influent concentrations have sharply increased, demonstrating the overall improvement resulting from the phased upgrades installed since 2008. However, the Phase II uranium treatment component is not performing adequately; alternative approaches to uranium treatment were identified and testing was underway in 2012. This “microcell” approach uses small containers of treatment media—on the order of 1 to 2 gallons—to remove uranium from system influent. At the same time, the first iteration of the Phase III pilot-scale nitrate treatment studies, which were completed in 2011, continued to support nitrate removal for much of 2012. However, in 2011 this treatment method was confirmed to be infeasible for long-term implementation. Therefore, bench-scale testing was performed in 2012 on an alternative, “lagoon” approach to nitrate treatment, and late in the year the Phase III pilot

scale cells were cleaned out and modified to support this new approach. Increased sampling of SPPTS and North Walnut Creek locations continued to support various evaluations.

- Groundwater quality and flow at the Site were generally consistent with previous years. Statistical trending calculations indicated numerous significant concentration trends. Conditions observed at some locations suggested climatic causes (i.e., reduced precipitation in 2012) and/or effects of changes in sampling procedures implemented in recent years.
- All RFLMA-required ecological data collection, analysis, and reporting were completed as scheduled.
- Re-vegetation monitoring data continue to document the establishment of 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 let me know if you have any questions.

**Annual Report of
Site Surveillance and
Maintenance Activities at the
Rocky Flats, Colorado, Site
Calendar Year 2012**

April 2013



**U.S. DEPARTMENT OF
ENERGY**

Legacy
Management

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Appendixes

- Appendix A Hydrologic Data
- Appendix B Water-Quality Data
- Appendix C Landfill Inspection Forms—Fourth Quarter CY 2012
- Appendix D Data Evaluation Flowcharts Reproduced from RFLMA and the RFSOG
- Appendix E *Technical Memorandum Regarding Instrumentation and Monitoring at the Rocky Flats OLF*
- Appendix F RFLMA Contact Records

Available on DVD:

Ecology DVD: 2012 Annual RFS Ecology Reports

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
COU	Central Operable Unit
Cr	chromium
Cu	copper
CY	calendar year
DCB	dichlorobenzene
DCE	dichloroethene
DER	duplicate error ratio
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
GIS	geographic information system
gpm	gallons per minute
GWIS	Groundwater Intercept System
HRC	Hydrogen Release Compound
IA	Industrial Area
IC	institutional control
IHSS	Individual Hazardous Substance Site
IMP	Integrated Monitoring Plan
ITPH	Interceptor Trench Pump House

ITS	Interceptor Trench System
ITSS	Intercept Trench System Sump
IX	ion-exchange
J	For sampling data, a laboratory and/or validation qualifier that indicates an estimated value.
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-K	Mann-Kendall
MCG	MicroCg
µg	microgram
µg/L	micrograms per liter
mg/L	milligrams per liter
MS	matrix spike
MSD	matrix spike duplicate
MSPTS	Mound Site Plume Treatment System
N	nitrogen
NA	not applicable
Ni	nickel
NOIPD	Notice of Intent for Partial Delete
NPL	National Priorities List
OBP	Oil Burn Pit
OLF	Original Landfill
OU	Operable Unit
PARCC	precision, accuracy, representativeness, completeness, and comparability
PBA	Programmatic Biological Assessment
PCE	tetrachloroethene
pCi	picocuries
pCi/L	picocuries per liter
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
QA	quality assurance
QC	quality control
R	For sampling data, a laboratory and/or validation qualifier that indicates a value rejected as unusable.
RCRA	Resource Conservation and Recovery Act
RER	relative error ratio
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>
RMRS	Rocky Mountain Remediation Services
RPD	relative percent difference
S-K	Seasonal-Kendall
Se	selenium
SED	Sitewide Ecological Database
SEPro	Site Environmental Evaluation for Projects
SEP	Solar Evaporation Pond
SID	South Interceptor Ditch
SPP	Solar Ponds Plume
SPPTS	Solar Ponds Plume Treatment System
STP	Sewage Treatment Plant
SVOC	semivolatile organic compound
TCA	trichloroethane
TCB	trichlorobenzene
TCE	trichloroethene
TOC	total organic carbon
TSS	total suspended solids
U	uranium
U	For sampling data, a laboratory and/or validation qualifier that indicates an analyte not detected at the indicated concentration.
UHSU	upper hydrostratigraphic unit
USFWS	U.S. Fish and Wildlife Service
V&V	validation and verification
VC	vinyl chloride
VOC	volatile organic compound
WQP	water quality parameter

WWTP	Wastewater Treatment Plant
yr	year
Zn	zinc
ZVI	zero-valent iron

1.0 Introduction

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)* (DOE 2006a) issued September 29, 2006, for the Rocky Flats, Colorado, Site (Site). Prior to the CAD/ROD, cleanup and closure activities were completed in accordance with the requirements of the *Final Rocky Flats Cleanup Agreement (RFCA)* (CDPHE et al. 1996). Under the CAD/ROD, two Operable Units (OUs) were established within the boundaries of the Rocky Flats property: the Peripheral Operable Unit (POU) and the Central Operable Unit (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 Offsite Areas at Rocky Flats, known as OU 3, were addressed under a separate no-action CAD/ROD dated June 3, 1997.

The CAD/RODs for OU 3 and the POU determined that conditions in those OUs were suitable for unrestricted use. As a result, the U.S. Environmental Protection Agency (EPA) published a Notice of Intent for Partial Deletion (NOIPD) of the Rocky Flats Site (also known as the Rocky Flats Plant) from the National Priorities List (NPL) on March 13, 2007 (Volume 72 *Federal Register* page 11313 [72 FR 11313], March 13, 2007) to delete the POU and OU 3 from the NPL. The NOIPD was based on the results of the remedial investigations leading to the CAD/ROD no-action remedies being selected for these OUs. The NOIPD stated that because no hazardous substances occur in the OUs above levels that allow for unlimited use and unrestricted exposure, no five-year review was required for these OUs. EPA subsequently published a Notice of Partial Deletion from the NPL for the POU and OU 3 on May 25, 2007 (72 FR 29276, May 25, 2007).

On July 12, 2007, most of the property outside the COU was transferred to the U.S. Department of the Interior for establishment of a national wildlife refuge managed by the U.S. Fish and Wildlife Service (USFWS). EPA certified that cleanup and closure of Rocky Flats was complete and that the COU remedy was operating properly and successfully, in accordance with requirements for DOE to transfer land to USFWS for establishing the refuge. DOE retained the COU and is responsible for implementing the CAD/ROD final response action and for ensuring that it remains protective of human health and the environment. The monitoring, surveillance, and maintenance activities—for which quarterly, annual, and five-year review reports are issued—are included in the *Rocky Flats Legacy Management Agreement (RFLMA)* (CDPHE et al. 2012).

RFLMA, signed March 14, 2007, superseded the RFCA. RFLMA is a Federal Facility Agreement and Consent Order under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Resource Conservation and Recovery Act (RCRA), and the Colorado Hazardous Waste Act, between DOE, EPA Region 8, and the Colorado Department of Public Health and Environment (CDPHE). The purpose of RFLMA is to establish the regulatory framework for Attachment 2, “Legacy Management Requirements.”

RFLMA Attachment 2, Section 7.0, requires DOE to provide reports pertaining to the surveillance and maintenance of the remedy prescribed in the CAD/ROD on a calendar quarter and annual basis. The fourth-quarter report information is to be included in the annual report.

RFLMA Attachment 2, Section 7.2, specifies that the annual reports may include a summary for the previous quarter and shall include the following:

- A discussion of surface-water monitoring data
- A discussion of groundwater monitoring data
- A discussion of groundwater treatment system monitoring data
- A discussion of ecological sampling data
- A description of any adverse biological conditions
- A summary of actions taken in response to reportable conditions
- A summary of maintenance and repairs
- Inspection reports
- Verification of the Environmental Covenant and evaluation of the effectiveness of institutional controls (ICs)
- The Original Landfill (OLF) Monitoring Report (see Table 3 and Section 6.1 of the final *U.S. Department of Energy Rocky Flats Site, Original Landfill Monitoring and Maintenance Plan* [OLF M&M Plan] [DOE 2009a])
- The Present Landfill (PLF) Monitoring Report (see Table 3 and Section 6.1 of the *Present Landfill Monitoring and Maintenance Plan and Post-Closure Plan, U.S. Department of Energy Rocky Flats Site* (PLF M&M Plan) [DOE 2008a])
- Assessments of analytical data, including laboratory audits
- Other conditions or actions taken that are pertinent to the continued effectiveness of the remedy

This calendar year (CY) 2012 Annual Report contains the summary for the fourth quarter of CY 2012.

LM prepared the *Rocky Flats Site Operations Guide* (RFSOG) (DOE 2011a) as a document to guide work at the Site. The RFSOG provides details on the surveillance and maintenance needed to satisfy the requirements of the CAD/ROD as well as best management practices (BMPs) at the Site. As a “desktop procedure,” the RFSOG explains how DOE will fulfill its long-term surveillance and maintenance obligations at the Site.

While the specific BMPs are not subject to regulation under RFLMA, this annual report includes a discussion of activities related to implementing BMPs to document the information for future reference and to provide a perspective of the work conducted over the year.

1.1 Purpose and Scope

The purpose of this report is to inform the regulatory agencies and stakeholders of the surveillance, monitoring, and maintenance activities being conducted at the Site. LM provides

periodic communications such as this report and communicates through other means such as Web-based tools and public meetings.

Topics covered in this annual report include Site operations and maintenance (Section 2.0) and environmental monitoring, including water and ecological monitoring (Section 3.0). Data management, data validation, and an assessment of data quality are also included in Section 3.0. References cited in this report are included in Section 4.0.

Supporting information is provided in a series of appendixes. Appendix A provides the hydrologic data and Appendix B provides the water quality data. The fourth quarter of CY 2012 landfill inspection forms for the PLF and OLF are included in Appendix C. RFLMA and RFSOG data evaluation flowcharts are provided in Appendix D. Appendix E contains the *Technical Memorandum Regarding Instrumentation and Monitoring at the Rocky Flats OLF*. Appendix F contains the RFLMA contact records issued during CY 2012.

1.2 Background

Surveillance, maintenance, and monitoring activities are conducted according to RFLMA. RFLMA incorporates the following plans:

- The OLF O&M Plan (DOE 2009a)
- The PLF M&M Plan (DOE 2008a)

RFLMA Attachment 2 stipulates that DOE employ administrative procedures to control activities in accordance with the ICs and to meet quality assurance and quality control program requirements. Other Site procedures are established to guide work and implement BMPs. These procedures are referenced in the RFSOG and include:

- *The Operations and Maintenance Plan for Rocky Flats Surface Water Control Project* (DOE 2010a);
- *The Operations and Maintenance Manual for the Rocky Flats Groundwater Treatment Systems* (DOE 2010b);
- *The Rocky Flats, Colorado, Site Revegetation Plan* (DOE 2009b);
- *The Erosion Control Plan for the Rocky Flats Property Central Operable Unit* (DOE 2007a);
- *The Rocky Flats, Colorado, Site Vegetation Management Plan* (DOE 2009c);
- *The Ecological Monitoring Methods Handbook for the Rocky Flats, Colorado, Site* (DOE 2008b); and
- *The Legacy Management CERCLA Sites Quality Assurance Project Plan* (LMS/PLN/S04353).

1.3 RFLMA Contact Records

This section provides a summary of the status of activities addressed by RFLMA contact records issued during 2012. RFLMA references the use of contact records to document CDPHE oral approvals of field modifications to implement approved response actions (see RFLMA

paragraph 34). Excavation or soil disturbance activities that are subject to ICs must have prior regulatory review and approval pursuant to the Soil Disturbance Review Plan in RFLMA Attachment 2, Section 4.1, and results of consultation will be documented in contact records or written correspondence. RFLMA Attachment 2 also references the use of contact records to document the outcome of consultation related to addressing any reportable conditions (see RFLMA Attachment 2, Section 6.0). Finally, the *Rocky Flats Site Legacy Management Public Involvement Plan* (PIP), in RFLMA Appendix 2, also provides that a contact record of consultative process discussions between the RFLMA Parties will be made available to the Rocky Flats Stewardship Council and other interested stakeholders as early in the process as is practicable following signature approval by the parties. The PIP process to make contact records available is implemented by posting contact records on the Rocky Flats public website and by promptly notifying stakeholders (by e-mail) that the contact record is posted.

The RFLMA Parties agreed, as documented in RFLMA Contact Record 2007-08, that DOE will document the status of actions or activities in RFLMA contact records from time to time and will include the documentation in RFLMA quarterly and/or annual surveillance and maintenance reports for tracking purposes. The RFLMA Parties also agreed that to facilitate the status reporting, contact records should include a short discussion of the anticipated actions or activities to close out the RFLMA contact record. Thus, RFLMA Contact Record 2007-08 and subsequent contact records will include the closeout discussion.

Under certain situations, activities previously approved in a contact record that has been closed out will need to be performed. A simple notification and approval process has been developed for these situations, which is documented in RFLMA Contact Record 2009-05. CDPHE may receive notification of and approve the activities over the phone or in person, with e-mail follow-ups. The notification and approval of such work shall be reported in the next RFLMA annual report, in relation to the contact record that originally covered the work. This protocol is consistent with RFLMA paragraph 34.

Table 1 lists the RFLMA contact records issued in 2012 and their status at the end of 2012. The table also lists contact records that were issued from 2007 to the end of 2011, were discussed in the 2011 Annual Report, and were not closed by the end of 2012, and shows their status at the end of 2012. The table also lists e-mail approval of activities previously covered by closed out contact records. Appendix F contains copies of the 2012 contact records.

1.4 RFLMA Modifications

A minor modification to RFLMA Attachment 1, “Site Map,” and Attachment 2, “Legacy Management Requirements,” was submitted for approval to CDPHE and EPA on December 7, 2012. The proposed minor modifications are described in Contact Record 2012-03, which is included in Appendix F.

Table 1. Status of RFLMA Contact Records

Contact Record No.	Purpose	Approval Date	Status as of December 31, 2012
2012-01	Soil Disturbance Review Plan—Roads maintenance, including grading the road to the former A-3 Pond to convert the road to two-track vehicle use.	5/31/12	Actions completed—closed.
2012-02	Improving treatment at the East Trenches Plume Treatment System (ETPTS) by adding an air stripper component	10/25/12	Contact record will be closed when the ETPTS air stripper and photovoltaic system installation work is completed allowing performance testing and optimization to begin.
2012-03	Minor Modification of <i>Rocky Flats Legacy Management Agreement</i> (RFLMA) Attachment 1, "Site Map," and of RFLMA Attachment 2, "Legacy Management Requirements"	12/7/12	Contact record will be closed when the minor modifications to RFLMA Attachment 1 and RFLMA Attachment 2 are approved.
2011-04	Reportable Condition for Uranium at Point of Evaluation GS10	7/8/11	Contact record serves as the plan and schedule for the evaluation of the reportable condition and will be closed when the evaluation is completed.
2011-05	Update for Reportable Condition for Uranium at Point of Evaluation GS10	10/4/11	Contact record serves as the plan and schedule for the evaluation of the reportable condition and will be closed when the evaluation is completed.
2011-07	Soil Disturbance Review Plan—Pond A-3 and Present Landfill Pond Dam Breach Project	12/5/11	Actions completed—closed.
2011-08	Reportable Condition for Americium-241 at Point of Evaluation GS10	12/23/11	Contact record serves as the plan and schedule for the evaluation of the reportable condition and will be closed when the evaluation is completed.
2010-03	Non-Rocky Flats Legacy Management Agreement (RFLMA) Surface Water Monitoring Project for North and South Walnut Creeks	3/15/10	Contact record will be closed after completion of the non-RFLMA sampling project described herein. After this contact record is closed out, additional non-RFLMA sampling activities may be performed, and CDPHE will be kept apprised of the additional sampling through the consultative process.
2009-01	Phase II and III Upgrades to Solar Ponds Plume Treatment System	2/17/09	Construction and post-construction revegetation and erosion controls are in place. Optimization of the upgrades and monitoring is ongoing. Contact record will be closed when testing is completed and as-built drawings are completed.
2008-06	Management of intercepted groundwater during SPPTS repair or maintenance activities	7/9/08	Actions continuing.
2007-06	Evaluation of elevated nitrate in groundwater samples from Area of Concern well B206989	10/16/07	Continuing monitoring and evaluation.

Adaptive Management Plan (AMP)/ GS10 Monitoring

- Cover memo
- Westminster letter re: AMP
- Woman Creek Reservoir Authority letter re: AMP
- Westminster letter re: GS10

ROCKY FLATS STEWARDSHIP COUNCIL

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

MEMORANDUM

TO: Board
FROM: Rik Getty
SUBJECT: Adaptive Management Plan update and replacement of water monitoring station GS10 briefing
DATE: May 22, 2013

We have scheduled 45 minutes for DOE to provide an update on the Adaptive Management Plan, and to discuss its plan to replace surface water monitoring station GS10 on South Walnut Creek.

Adaptive Management Plan (AMP)

In 2010, DOE released a draft environmental assessment for breaching the three terminal pond dams along Walnut Creek (ponds A-4 and B-5) and Woman Creek (pond C-2). Communities, led by Broomfield, Westminster and Northglenn, challenged the decision. Among other things, they argued that although the terminal ponds were not part of the CERCLA remedy, the ponds provide an extra measure of protection in case surface water contamination exceeds regulatory levels, and thus should be maintained as is. After an extensive dialogue, DOE formed a working group to develop an AMP. The AMP provides monitoring data that DOE will use in determining whether to breach the terminal ponds in 2018-2020. During this period, the dams are being operated in a flow-through condition.

Starting in February 2013, DOE released three reports/documents concerning the AMP:

1. February – 2012 annual AMP report
2. April – first quarter 2013 AMP monitoring results
3. May – Proposed amendments to the AMP

These documents can be found at: http://www.lm.doe.gov/Rocky_Flats_AMP.pdf

While there is a great deal of valuable data and information in these documents, I would like to draw your attention to one item in particular – DOE's plan to cease water quality monitoring where Walnut Creek and Woman Creek cross Indiana Street (monitoring points GS01 and GS03). DOE's plan has been to remove these monitoring points; the question for many was when and under what circumstances. At an April 25th meeting, DOE proposed to remove them October 1, 2013. In recent weeks this plan changed. As provided in the AMP:

Table 2—Updated to reflect completion of certain AMP activities since 2011 and added a new Note 1 to item 4 regarding the duration of monitoring at GS01 and GS03. Based on consideration of stakeholder comments related to DOE’s initial proposal to discontinue GS01 and GS03 as AMP monitoring locations on October 1, 2013, and the cooperative approach for review and implementation of the AMP, the date was changed to October 1, 2015. Section 7.0 includes a discussion of the initial proposal and the outcome of the 2-year review evaluation.

NOTE 1—GS01 and GS03 are scheduled to cease being RFLMA Points of Compliance on September 9 and 28, 2013, respectively. After this occurs, GS01 and GS03 will be discontinued as AMP monitoring locations on October 1, 2015. AMP Section 7.0 provides additional information.

Westminster and the Woman Creek Reservoir Authority’s letters about DOE’s plan to stop monitoring at these points on October 1, 2013, are attached. These letters preceded DOE’s decision to push back by two years the decision to stop monitoring at GS01 and GS03.

Replacement of Water Monitoring Station GS10

DOE has proposed to replace the GS10 monitoring station on South Walnut Creek. The proposed action can be found in Contact Record 2013-01 at: http://www.lm.doe.gov/Rocky_Flats/ContactRecords.aspx

As provided in the record, the purpose of the action is

The flume for Rocky Flats Legacy Management Agreement (RFLMA) Point of Evaluation (POE) monitoring location GS10 in South Walnut Creek was originally installed in 1993. DOE considered replacing the GS10 flume in 2000, when it replaced flumes for several other monitoring locations, but it was a low priority in relation to other cleanup and closure work at the time. The new surface water configuration resulting from breaching the dams for former retention ponds B-1, B-2, B-3, and B-4 in 2009 now allows DOE to propose replacing the GS10 flume and to move its location slightly downstream.

Also as provided in the record:

- DOE will replace the GS10 flume and move the flume to the downstream side of the diversion structure, which will, among other things, make flume operation and maintenance easier.
- Although the GS10 metal flume currently is operational, additional structure aging and movement of the south hillside could compromise the quality of data collected in the future.

Downstream cities have raised concerns about this decision. Their primary concern is soil disturbance in the area of GS10 where DOE is investigating the potential source(s) of elevated levels of Pu, Am, and U in surface water upstream from GS10. The contact record speaks to this concern, noting “RFLMA parties agree that conducting the GS10 flume replacement project as

described in this Contact Record is not likely to impede the reportable condition evaluation.” Westminster’s formal concerns are found in the attached letter from their City Manager.

Please let me know what questions you have.



WESTMINSTER

May 2, 2013

Scott Surovchak
Department of Energy
Office of Legacy Management
11025 Dover Street, Suite 1000
Westminster, Colorado 80021
Sent via email: scott.surovchak@lm.doe.gov

City of Westminster
Office of the
City Manager

4800 West 92nd Avenue
Westminster, Colorado
80031

303-658-2400
FAX 303-706-3921

Dear Mr. Surovchak:

The City of Westminster (“Westminster” or “City”) appreciates the opportunity to comment on the proposal to remove sampling locations GS01 and GS03 in September 2013.

By way of background, Westminster’s primary drinking water supply, Standley Lake, is located downstream of the former Rocky Flats Plant Site (“Site”). Westminster helped lead efforts in the 1990’s to construct the Standley Lake Protection Project and thereby prevent flows leaving the Site from reaching the City’s drinking water supply. Although the Standley Lake Protection Project severed the hydrologic connection between activities on the Site and Standley Lake, water leaving federal property continues to flow through portions of Westminster adjacent to Walnut and Big Dry Creeks. Westminster continues to actively monitor and comment on proposals involving the Site and, in this instance, stands in opposition to the current proposal to prematurely remove sampling locations GS01 and GS03.

The City of Westminster believes there is a strong technical basis to maintain these locations at this time. Specifically, during the less than two year period of flow-through operations at the terminal dams, there have been no high-intensity runoff events across the site. While some areas might expect lower runoff response due to recent response actions (i.e., wattles installed in the SW027 drainage in response to April 2010 reportable condition), there have been no sharp runoff peaks across the site at any station since initiation of flow through. The AMP sampling locations and the flow-through configuration has not yet been tested under such conditions. This is a basis to continue the monitoring at GS01 and GS03 to evaluate concentrations at the fenceline relative to the WOMPOC and WALPOC locations in response to such events. DOE has presented no analysis of data to justify removal of GS01 and GS03.

Following the AMP meeting on April 25, 2013, Cathy Shugarts, representing the City, discussed with you her differing recollections regarding your position related to long-term monitoring at the Indiana Street locations. In reviewing past meeting minutes, she discovered a number of references (attached) to statements you have made in public forums since 2010 about DOE’s commitment for long-term continued monitoring at the GS01 and GS03 locations, whether they were regulatory



requirements or not. She sent you those references on Monday. Tuesday you responded via email indicating that the discontinuation of the monitoring was based on data collected in the last two years. However, in the redlined version of the proposed AMP, the only reason for dropping the monitoring sites is that they are no longer POCs.

As you are well aware, Westminster was instrumental in DOE's efforts to engage downstream communities in the AMP process. Westminster was prompted to do so by your assurances that GS01 would be monitored until the dam was breached at Pond C-2 or until highway construction eliminated the sampling location or prohibited access. As such, this is an important issue for us.

The City of Westminster also fully supports and agrees with the comments provided by the Woman Creek Reservoir Authority (WCRA). We believe it is too early to eliminate the sampling locations at the Indiana Street fenceline. As detailed in the Woman Creek Reservoir Authority letter, there has not been enough data collected in the full range of flow regimes. We are also very disturbed that DOE is proposing these changes after assuring the City of Westminster that the sampling and analysis would continue for another 7 – 10 years.

We look forward to your responses at the May 9, 2013 meeting requested by the WCRA.

Sincerely,

A handwritten signature in blue ink, appearing to read "J. Brent McFall", is written over a printed name and title.

J. Brent McFall
City Manager

Cc: Carl Spreng, Colorado Department of Public Health and Environment
Vera Moritz, EPA
David Abelson, Rocky Flats Stewardship Council
Mike Smith, Director of Public Works & Utilities
Mike Happe, Utility Planning & Engineering Manager

http://rockyflatssc.org/RFSC_meeting_minutes/RFSC_minutes_8_16_10_FINAL.pdf

Excerpt from RFSC meeting minutes - August 16, 2010

Jeannette asked Scott to clarify the timeframe for continued monitoring at Indiana. Scott said that since DOE had modified its dam breach plan based on public input and was now going to operate Pond C-2 in a flow-through configuration, they would continue to operate the Indiana monitoring points. He said this would most likely continue as long as they were operating C-2 in flow-through. Shirley asked what DOE's objectives were for the flow-through period. Scott said this would be found in the EA, with some augmented language from the previous version. He said the primary reason to operate in flow-through configuration was to allow habitat to establish itself. He said it also provides a period of time in which they can look at long-term water quality impacts.... Lisa Morzel asked Scott for clarification about whether DOE was keeping the Indiana POCs as data points and for how long. Scott said they were keeping them and it would probably be for 7-10 years, or as long C-2 is in flow-through. Shelly Stanley asked where the public would see this in writing. Scott said it would not be a RFLMA change, because it was not related to any regulation, but said it would be added to the Rocky Flats Site Operations Guide. Sue Vaughan asked if they found a reportable condition at Indiana after these changes have been made whether DOE was bound to take any action. Scott said they would definitely look at the problem, but it would not be a regulatory compliance issue. Lisa Morzel asked what the site would do about contacting downstream communities in this scenario. Scott said they would have no obligation regarding notification, but would look at what was reasonable.

http://www.lm.doe.gov/Rocky_Flats_AMP.pdf

Excerpt from AMP meeting notes summary - January 13, 2010

DOE – Offered months ago to continue to monitor at Indiana locations regardless of RFLMA MOD, at least until the Parkway construction eliminates monitoring locations.

http://rockyflatssc.org/RFSC_meeting_minutes/RFSC_minutes_2_7_11_FINAL.pdf

Excerpts from RFSC meeting minutes - February 7, 2011

David Abelson asked Scott about the possibility of looking at monitoring points more as data points. Scott said that under the AMP process, anything is fair game. He reiterated that, although it will not be a regulatory requirement, he will continue to monitor at Indiana Street. Broomfield still does not think this is enough.

David Allen said they are not comfortable that DOE would be able to make a unilateral decision to discontinue this non-regulatory monitoring. Scott said that DOE is looking at even adding data points and have made a commitment to continue to monitor in these areas. Lisa Morzel asked if there will be anything binding DOE to maintaining these data points. Scott said that is what AMP is all about. David Abelson pointed out that the AMP is not part of a NEPA decision, and does not require regulator approval. He said it is a management tool and can be discarded unilaterally by DOE. Scott said he did not think that is how the Department of the Interior sees it. He said the criteria for opting out will have to be described, like RFLMA. He said it is part of the NEPA process. David Abelson asked for a clarification from the downstream communities that their concern is that DOE will have the unilateral discretion to discontinue monitoring without sign-off by the regulators. He asked if they also believe fines need to be an option for the regulators. David Allen said that ideally they would like to have this, but their main concern is a requirement to continue monitoring.

http://www.lm.doe.gov/Rocky_Flats_AMP.pdf

Excerpt from AMP development working group meeting Notes Summary - March 3, 2011

7: Monitoring programs

- BF wants to continue monitoring at identified locations for 2-5YR cycles, wants to

keep the existing monitoring locations, regardless if they are changed under RFLMA.

Indiana St. monitoring

- DOE – does not see replacing Indiana St. locations in event they have to be removed

due to Jefferson Parkway construction. Won't seek to maintain locations on nonfederal

land and doesn't want to reinstall monitoring locations outside of NPL site.

- BF – If parkway authority built monitoring stations, would DOE monitor, operate and

maintain the new locations?

- DOE – would agree to operate for some time, probably not 2-5YR cycles, but for

some period of time as long as have access. If property changes hands, that changes the legal status. Federal government needs agreement to access private land.

http://rockyflatssc.org/RFSC_meeting_minutes/RFSC_minutes_4_4_11_FINAL.pdf

Excerpt from RFSC meeting minutes - April 4, 2011

David Allen raised a point that the motion should refer specifically to the current standards at Indiana Street. He said that the second part of motion could be read to say that the Board supports moving the POC's to wherever DOE proposes. Sheri said she did not want to get too specific. David Allen said to remember that there were currently five POC's for surface water, and the two at Indiana have different monitoring and reporting requirements than the other three. He suggested revising the motion to say that any relocated POCs should carry the same reporting requirements that currently apply at Indiana Street. Jeannette said she would support the original motion, because the second part allows for additional input in future. David Allen said they were still working through the issue of 30-day rolling average. Lisa Morzel asked if they were talking about the eastern boundary of refuge lands, after the 300 foot right-of-way for the Parkway was removed. Marc Williams said he agreed with this approach. David Abelson noted that the motion lacked a discussion of continued monitoring at the eastern edge of the Federal boundary, even though the Board has supported retaining these 'data points' even if they are no longer POCs. Jeannette said that if this letter did not mention Indiana, it would not mean the Board cannot address it in the future. David said that these issues were being addressed in the AMP, so there was a time factor at play. Jeannette said that the letter could be approved and then submitted at the June meeting. David said he wondered why there was not a #3 that called for DOE to continue to collect water quality data at the eastern edge of the federal boundary. Lisa Morzel suggested adding a friendly amendment to clarify this point. The motion passed unanimously; Shirley Garcia abstained. Because DOE

would be issuing its decisions prior to the Stewardship Council's June 6th meeting, the Board decided not to send a letter.

http://rockyflatssc.org/RFSC_meeting_minutes/RFSC_minutes_6_6_11%20FINAL.pdf

Excerpt from RFSC meeting minutes - June 6, 2011

Because the meeting was running behind schedule, Chairman Briggs asked if anyone had question about this topic. David Allen asked if the monitoring points on Indiana were going to remain as Points of Compliance, or Points of Evaluation. Scott Surovchak said they will continue to be POCs and will later become part of the AMP. He said they will remain at the same locations until the Jefferson Parkway is constructed.



Woman Creek Reservoir Authority
9500 Civic Center Drive
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Phone (720) 977-6512
FAX (720) 977-6202

May 3, 2013

Mr. Scott Surovchak
U.S. Department of Energy
Office of Legacy Management
Rocky Flats Site
11025 Dover Street, Suite 1000
Westminster, CO 80021

RE: Proposed Discontinuance of Monitoring, GS01 and GS03

Dear Mr. Surovchak,

I am writing on behalf of the Woman Creek Reservoir Authority (the "Authority"), a political subdivision and public corporation of the State of Colorado created under C.R.S. 29-2-204.2. The Authority is the owner and operator of Woman Creek Reservoir generally located at the intersection of Woman Creek and Indiana Street, immediately adjacent to the historical boundaries of what has been formerly known as the Rocky Flats Plant Buffer Zone. The Reservoir physically separates Standley Lake, the drinking water source for the Cities of Northglenn, Thornton, and Westminster, from surface water leaving the former Rocky Flats site. I am writing to provide comments on the recent Department of Energy (DOE) proposal to remove sampling locations GS01 and GS03 in September 2013.

The DOE, Office of Legacy Management, has proposed to discontinue sampling at Rocky Flats surface water monitoring locations GS01 and GS03, effective September 2013. GS01 and GS03 are at the federal property fence line monitoring locations that sample waters as they exit the eastern edge of the site. This proposal was made as part of a two-year review process of the Surface Water Configuration Adaptive Management Plan (AMP; DOE, 2011). The AMP provides for a monitoring and data evaluation plan during flow-through conditions at the terminal ponds to determine whether to breach the terminal ponds on the current 2018-2020 timeline. This letter expresses the Authority's opposition to the proposed changes.

Issue #1: This proposed change contradicts statements made by DOE regarding intention to operate GS01 and GS03 until terminal dam breach.

Meeting minutes from Rocky Flats Stewardship Council (RFSC) meeting (e.g., August 2010, February 2011, and April 2011) and AMP meetings (e.g., January 2010 and March 2011) record statements by DOE explaining that GS01 and GS03 will be monitored until dam breach. DOE's commitment to long-term monitoring provided reassurance to downstream communities in the AMP development process and during CAD/ROD and RFLMA modifications in recent years that GS01 and GS03 would be monitored until the terminal dams were breached or until highway construction eliminated the sampling location or prohibited access.

One excerpt from the minutes of the RFSC meeting on August 16, 2010 is presented below as an example. This excerpt documents an exchange between Scott Surovchak and members of the RFSC:

Jeannette asked Scott to clarify the timeframe for continued monitoring at Indiana. Scott said that since DOE had modified its dam breach plan based on public input and was now going to operate Pond C-2 in a flow-through configuration, they would continue to operate the Indiana monitoring points. He said this would most likely continue as long as they were operating C-2 in flow-through. ... Lisa Morzel asked Scott for clarification about whether DOE was keeping the Indiana POCs as data points and for how long. Scott said they were keeping them and it would probably be for 7-10 years, or as long C-2 is in flow-through. Shelly Stanley asked where the public would see this in writing. Scott said it would not be a RFLMA change, because it was not related to any regulation, but said it would be added to the Rocky Flats Site Operations Guide.

Issue #2: No technical basis has been presented to justify removal of these stations for the purposes of AMP.

The process for review of AMP monitoring requirements is described in Section 6 of the AMP document. This section states “This review will consider the evaluation of the data and information collected through the AMP monitoring...” DOE has presented no analysis of data to justify removal of GS01 and GS03.

The Authority believes there is a strong technical basis to maintain these locations at this time. Specifically, during the less than two year period of flow-through operations at the terminal dams, there have been no high-intensity runoff events across the site. While some areas might expect lower runoff response due to recent response actions (i.e., wattles installed in the SW027 drainage in response to April 2010 reportable condition), there have been no sharp runoff peaks across the site at any station since initiation of flow through. Such runoff peaks occur in response to a combination of high intensity precipitation events and antecedent moisture conditions in the surface soils. The long-term hydrograph records show that such events have occurred in three of the seven post-closure years. The AMP sampling locations and the flow-through configuration has not yet been tested under such conditions. This is a basis to continue the monitoring at GS01 and GS03 to evaluate concentrations at the federal property fence line relative to the WOMPOC and WALPOC locations in response to such events.

Additionally, there are ongoing reportable conditions of Pu, Am, and U in the Walnut Creek drainage. These reportable conditions in surface water on the site are well above water quality standards for POC locations. DOE is working to identify the sources and transport mechanisms to explain these reportable conditions but has yet to succeed on that front. While downstream POC locations have not yet shown these elevated concentrations, the ongoing uncertainty about transport mechanisms and source areas is a basis for caution. As such, this is further technical basis to continue operation of the downstream-most monitoring locations which measure the quality of water immediately before it enters the properties of downstream communities.

Issue #3: DOE’s timeline for comments seems unnecessarily short and limits the AMP-specified cooperative approach.

Removal of GS01 and GS03 was proposed in an email on April 11, 2013 as a DOE redline of the AMP document. A meeting was held on April 25, 2013 for the first discussion of this proposal. DOE set a deadline of May 3, 2013 (6 work days later) for comments. There seems to be a great urgency to

discontinue this monitoring and limit further discussion in spite of concerns expressed at the April 25, 2013 meeting. Further, this timeline seems to skirt the AMP-specified AMP Group “cooperative approach” to modifications to the AMP. Since the AMP has provisions for review of monitoring on a more frequent basis than every two years, the urgency at this time is unfounded.

Summary

In summary, the Authority is surprised by the DOE proposal to remove sampling locations GS01 and GS03 this year, based on assurances from DOE to the contrary at previous meetings. The Authority also feels there is a technical basis to maintain the federal property fence line sampling locations at this time, in light of the limited range of hydrologic events observed during the flow-through period so far and ongoing uncertainty of sources and transport mechanisms as exemplified by the Walnut Creek drainage ongoing reportable conditions. The Authority therefore requests that DOE promptly withdraw its proposal to remove GS01 and GS03 as AMP locations at this time. The Authority also requests that an AMP meeting be held on May 9, 2013 at 1:00 to further discuss these issues and to establish a cooperative path forward for the AMP 2 year review.

Sincerely,



Ed Lanyon,
President

Woman Creek Reservoir Authority

cc: Carl Spreng, Colorado Department of Public Health and Environment
Vera Moritz, EPA
David Abelson, Rocky Flats Stewardship Council
Eric Tade, City of Thornton
Bob Briggs, City of Westminster
Joyce Downing, City of Northglenn
Shelley Cook, City of Arvada
Greg Stokes, City of Broomfield
Shirley Garcia, City and County of Broomfield
Faye Griffin, Jefferson County
Joe Cirelli, Town of Superior
Josh Nims, Woman Creek Reservoir Authority
Tami Moon, Woman Creek Reservoir Authority
Lee Johnson, Attorney for Woman Creek Reservoir Authority



WESTMINSTER

May 16, 2013

Scott Surovchak,
Department of Energy
Office of Legacy Management
11025 Dover Street, Suite 1000
Westminster, CO 80021
Sent via email: scott.surovchak@lm.doe.gov

City of Westminster
Office of the
City Manager

4800 West 92nd Avenue
Westminster, Colorado
80031

303-658-2400
FAX 303-706-3921

RE: City of Westminster Comments on Contact Record 2013-01

Dear Mr. Surovchak:

On May 2, 2013 the Department of Energy (DOE) issued a Contact Record (Contact Record 2013-01) describing plans to move surface water sampling location GS10 from its current location in South Walnut Creek to a location approximately 40 ft. downstream. GS10 is the location of current reportable conditions for total uranium (U), plutonium-239,240 (Pu), and americium-241 (Am). The City of Westminster has prepared this letter to express concerns about the proposed relocation of GS10 and associated cut and fill activities at this time while efforts continue to identify the source(s) associated with ongoing reportable conditions for actinides at that location.

Background Information

Contact Record 2013-01 delineates plans to move GS10 from its current location on South Walnut Creek to a location roughly 40 ft. downstream, making use of an existing diversion structure at the new location. As bases for the move, DOE indicates concerns about a slump on the downstream side of GS10, access and maintenance challenges associated with willow saplings growing around the current flume, and a desire to install a more appropriately sized flume for better measurement at low flow rates. As part of the relocation project, cut and fill work would serve to set a gentle 1-2% grade in the channel above and below the new flume location. Material would be cut from the area downstream of the diversion structure to a max depth of more than 3 ft. Cut material would be used as fill upstream of the diversion structure. The fill material would extend approximately 100 ft. upstream of the diversion structure (~60 ft. upstream of the current GS10 flume location), covering the current channel bed.

GS10 has experienced reportable conditions¹ at GS10 for U since April, 2011, Am since December, 2011, and Pu since July, 2012. These results are summarized in Figure 1 and Figure 2 for the post-site-closure dataset.

¹ For uranium, a reportable condition is defined as a 12-month rolling average concentration of total uranium greater than 16.8 ug/L. For both Pu and Am, a reportable condition is defined as a 12-month rolling average activity greater than 0.15 pCi/L.

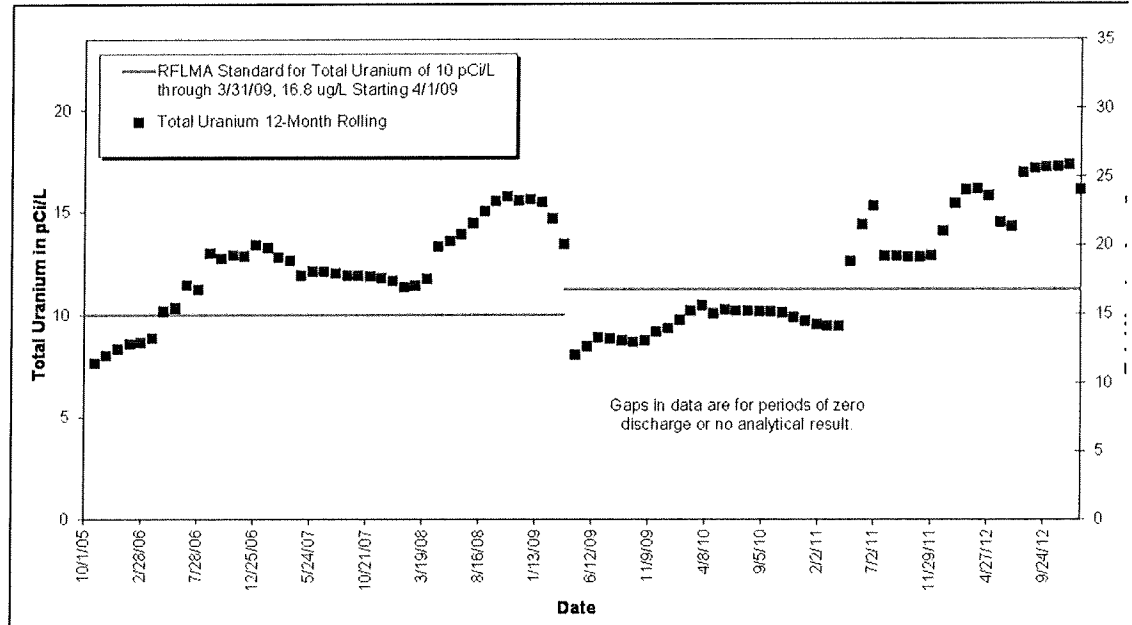


Figure 1. 12-Month Rolling Average Total Uranium Concentration for GS10, Post-Closure Period (Figure 28 from DOE, 2013).

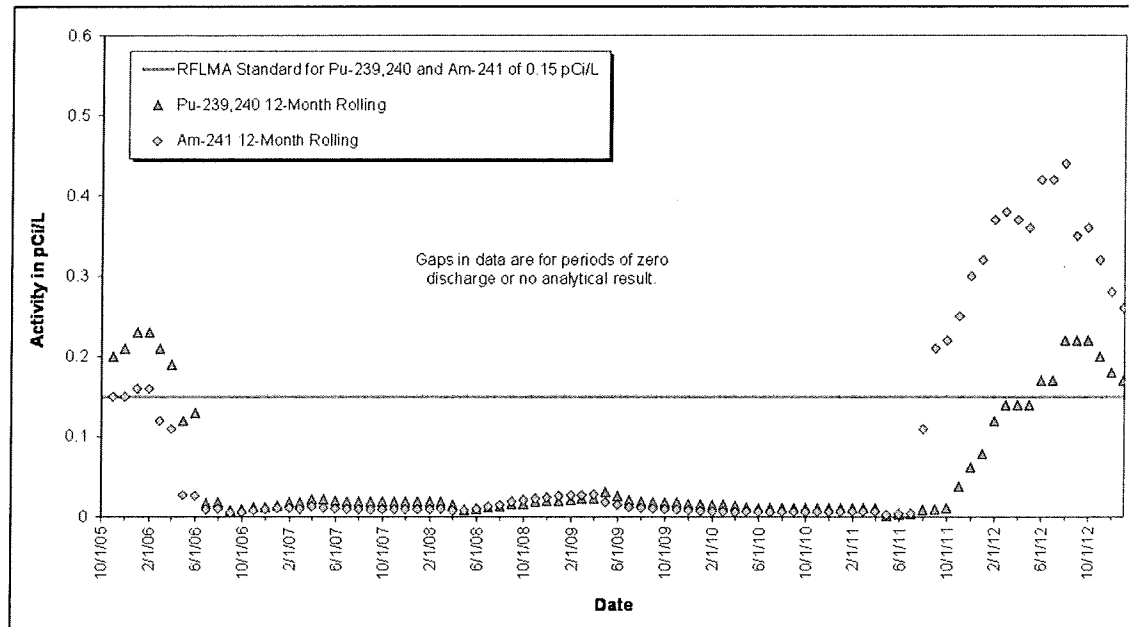


Figure 2. 12-Month Rolling Average Pu-239, 240 and Am-241 Activities for GS10, Post-Closure Period (Figure 30 from DOE, 2013).

DOE continues to perform additional sampling and analysis in response to the reportable conditions to determine the up-gradient sources. Additional sampling work to investigate the U reportable condition has included non-routine and bi-weekly surface water grab sampling, flow-paced composite sampling, and Los Alamos National Laboratory (LANL) isotopic analyses. Additional sampling work to investigate the Pu and Am reportable conditions has included surface water and seep grab sampling, time-paced composite sampling, and

collection of filtered and unfiltered sample pairs. At this point, the specific sources and transport mechanisms associated with the reportable conditions have not yet been identified.

City of Westminster's Concerns

The City of Westminster identified no specific concerns with the proposed work sequence, upgraded flume-type selected, or specific engineering plans; however, the City has two main concerns about performance of this action at this time. The following summarizes these concerns:

1. Westminster Opposes Disturbance of Surface Soils in an Area Upstream of Ongoing Reportable Conditions with Unknown Sources.

As described above, the GS10 location is the focus of an ongoing investigation into multi-year reportable conditions for U, Pu, and Am. Also as noted above, the source of the reportable conditions remains uncertain. While comparable reportable conditions for U at GS10 have been observed post-closure including during primarily-baseflow conditions, the Pu and Am reportable conditions seem to represent something less well understood. Specifically, as shown in Figure 2, Pu and Am 12-month rolling average activities have been well below the standard for most of the post-closure period, with the exception of the end of the first post-closure year. The 2011 and 2012 results represent a change relative to the previous five years. Additionally, the Pu:Am ratio for the recent reportable conditions is less than 1, while the previous post-closure reportable condition (in 2005) had a ratio greater than 1. This could suggest a different source. Finally, the Pu and Am reportable conditions have occurred during low-flowrate periods largely dominated by baseflow, as opposed to storm event conditions envisioned by the Actinide Migration Panel to be the primary concern for transport of Pu and Am. It is understood that there may be colloidal transport to the surface water via seeps; however, sampling results to date have not yet demonstrated this mechanism or found a definitive source. In short, the sources and mechanisms behind the ongoing reportable conditions have not been identified at this time.

Based on this uncertainty, the City of Westminster is concerned about conducting any activities upstream of the current GS10 location while the investigation of ongoing reportable conditions continues. While this area immediately upstream of the GS10 flume is not expected to be a source area based on review of historical sampling results, spills, and operations, DOE notes in its recent Annual Site Report that, given the remaining uncertainty, "the source could be very close to GS10" (in DOE 2013, page 58, paragraph 3). As such, it cannot be ruled out as a possible source area based on existing sampling results for Pu and Am. The area up-gradient of GS10, where fill material is to be placed, should be thoroughly investigated and ruled out as a potential source area before the flume relocation and cut/fill project proceeds. If this area were found to be a source area, a response tailored specifically to the findings should be engineered and implemented.


2. Westminster Does Not Understand the Urgency to Conduct the Proposed Relocation/Upgrades at This Time of Ongoing Investigation at GS10.

As noted above, DOE identified concerns about a slump on the south side of the hillside adjacent to the current GS10 location, the existence of willow saplings around the GS10

flume, and a need to improve flow measurements at the lower flow rates by installing a different type of flume. All of these are reasonable concerns; however, there is no apparent urgency associated with any of these to warrant performance of this action during an investigation of ongoing reportable conditions for multiple analytes. Of these stated concerns, it is recognized that the slump could represent the most pressing concern since it could potentially threaten the sampling station. However, there does not appear to be any imminent threat. DOE indicated verbally in a meeting on April 25, 2013 with the AMP group at the Westminster Legacy Management offices that the slump has been present for over a decade (i.e., not a new or rapidly moving development) and that the existing GS10 flume has shown no adverse effects from the slump at this time. Based on this, the proposed action should be delayed until the area up-gradient of GS10, where fill material is to be placed, is thoroughly investigated and ruled out as a potential source area.

For the reasons identified in this letter, the City of Westminster opposes relocation of the GS10 flume at this time. The City requests that CDPHE withdraw its approval of Contact Record 2013-01 and work with DOE to devise a sampling plan that will eliminate the upstream area in question as a potential contaminant source area prior to reconsidering plans to relocate/upgrade the GS10 flume.

Sincerely,



J. Brent McFall
City Manager
City of Westminster

cc: Carl Spreng, Colorado Department of Public Health and Environment
Vera Moritz, EPA
David Abelson, Rocky Flats Stewardship Council
Mike Happe, City of Westminster
Mike Smith, City of Westminster

Reference

Department of Energy (DOE). 2013. Rocky Flats Annual Report of Site Surveillance and Maintenance Activities—CY 2012. U.S. Department of Energy. Doc. No. S09641. April, 2013.