

# ROCKY FLATS STEWARDSHIP COUNCIL

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

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

**Monday, September 13, 2010, 8:30 AM – 11:45 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 Business Items
1. Consent Agenda
    - o Approval of meeting minutes and checks
  2. Executive Director's Report
- 8:50 AM Public Comment
- 9:00 AM Board Review of Stewardship Council Activities for 2010 and Initial Review of 2011 Work Plan (briefing memo attached)
- o The 2010 Stewardship Council work plan provides that the board shall review its work for the year. The review shall include an assessment of how the organization can improve in the coming year, focusing on areas of weakness and opportunities for improvement.
  - o The review is a first step in the board approving the 2011 work plan.
  - o The attached draft 2011 work plan is an update of the 2010 plan.
  - o Formal approval of the 2011 work plan will take place at the November 8<sup>th</sup> meeting.
- 9:30 AM FY 11 Budget – Initial Review (briefing memo attached)
- o At this meeting the board will review the draft FY 11 budget. Formal budget hearings will take place at the November 8<sup>th</sup> meeting.
- 9:45 AM Host DOE Quarterly Meeting (briefing memo attached)
- o DOE will brief the Stewardship Council on site activities for the first quarter of 2010 (January – March).
  - o DOE has posted the report on their website and will provide a summary of its activities to the Stewardship Council.
  - o Activities include surface water monitoring, groundwater monitoring, ecological monitoring, and site operations (inspections, maintenance, etc.).

- 10:30 AM Continue Roundtable Discussion on Changes to RFLMA Point of Compliances and Dam Breach EA (briefing memo attached)
- This conversation builds on our conversation at the August 16<sup>th</sup> meeting.
  - The goal of the meeting is to develop an organizational position.
  - As discussed in prior meetings, DOE is proposing to move the existing surface water and groundwater points of compliance stationed along Indiana Street to the eastern edge of the COU.
  - Because DOE will manage ponds A-4, B-5 and C-2 in a flow-through configuration and later breach them, DOE is also proposing to continue to collect water quality data along Woman and Walnut creeks as they leave the federal reservation.
  - The conversation will include the DOE dam breach proposal, as changing the points of compliance, eliminating the batch and release protocols, and breaching the dams are linked activities.

11:30 AM Public comment

- 11:40 AM Updates/Big Picture Review
1. Executive Director
  2. Member Updates
  3. Review Big Picture

Adjourn

Next Meetings: November 8 (2<sup>nd</sup> Monday)  
February 7, 2011

## **Business Items**

- August 16, 2010, draft board meeting minutes
- List of Stewardship Council checks

## **2011 Work Plan**

- Cover memo
- Draft plan

## **2011 Budget**

- Cover memo
- Draft budget

## **ROCKY FLATS STEWARDSHIP COUNCIL**

**Monday, August 16, 2010, 8:30 AM – 11:00 AM**

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

**Board members in attendance:** Clark Johnson (Alternate, Arvada), Lisa Morzel (Director, City of Boulder), Carl Castillo (Alternate, City of Boulder), Meagan Davis (Alternate, Boulder County), Lori Cox (Director, Broomfield), David Allen (Alternate, Broomfield), Shelly Stanley (Alternate, Northglenn), Joe Cirelli (Director, Superior), Chris Hanson (Alternate, Superior), Ron Hellbusch (Alternate, Westminster), Jeannette Hillery (Director, League of Women Voters), Sue Vaughan (Alternate, League of Women Voters), Shirley Garcia (Director, Rocky Flats Cold War Museum), Roman Kohler (Director, Rocky Flats Homesteaders), Arthur Widdowfield (citizen).

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

**Attendees:** Hank Stovall (citizen), Alan King (Broomfield), Raymond Reling (Northglenn), Tamara Moon (Northglenn), Doug Young (Sen. Udall), Steve Berendzen (USFWS), John Dalton (EPA), Vera Moritz (EPA), Carl Spreng (CDPHE), Marilyn Null (CDPHE), Scott Surovchak (DOE-LM), Bob Darr (Stoller), Rick DiSalvo (Stoller), George Squibb (Stoller), John Boylan (Stoller), Lynn Bowdidge (Stoller), Cathy Shugarts (Westminster).

### **Convene/Agenda Review**

Chair Lori Cox convened the meeting at 8:38 a.m. The first item was the consent agenda. Lisa Morzel moved to approve the June Board meeting minutes. The motion was seconded Clark Johnson. The motion passed 11-0. Lisa Morzel moved to approve the checks. The motion was seconded by Roman Kohler. The motion to passed 11-0.

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

David Abelson provided several updates to the Board. First, he mentioned that Rik Getty was out of town and not able to attend the meeting. Next, he referred to a response letter from USFWS that the Board had received in reply to a June Stewardship Council letter regarding funding for the Rocky Flats National Wildlife Refuge. David said the response was a little disappointing, because the primary issue the Board had raised was not addressed.

David mentioned a press conference that was held by the Rocky Mountain Peace and Justice Center in early August regarding samples taken to try to prove offsite contamination around Rocky Flats. He said that the data that was presented in the report does not match the rhetoric that was used. David reiterated that the process to evaluate offsite areas (OU3) led to a decision in the 1990's not to remediate based on acceptable risk levels. The RMPJC reported that, of these four new samples, two showed nothing, and two showed a 'possibility' of plutonium. Scott Surovchak said that DOE will be sending this report for review by a former member of the Rocky Flats Actinide Migration Panel. David will keep the Board updated on any new

information. Vera Moritz added that the two labs used to process these samples were not EPA or state certified, and were not part of the existing voluntary national lab certification program. David said he received press calls from Westword and the Weapons Complex Monitor. He noted that the story surrounding this issue had passed and he did not feel the Stewardship Council needed to address it as a group. He added that, since Representative McKinley was involved with this effort, it will probably factor into his continuing legislative efforts regarding Rocky Flats signage. David also noted that Stewardship Council member Matt Jones had just won a Democratic primary for the State Legislature. If he is elected, David thinks there may be some important changes in how key legislators approach this issue.

David updated the group on the results of a public meeting the previous Tuesday regarding changing the locations of Rocky Flats surface water Points of Compliance (POCs). He said the meeting showed a clear need for looking at the issues of POCs and dam breaching in conjunction. He noted that several letters had been written on these issues by downstream communities and were available on the back table. He asked that, whenever possible, members send this type of correspondence to staff electronically, in order to ensure faster distribution to the other members.

David made an announcement about a DOE Legacy Management conference in Grand Junction November 16-18, 2010, that he said should provide a good opportunity to interact with stakeholders from other Legacy Management sites. There is no registration fee, and members of the Stewardship Council will qualify for the federal rate for lodging, which is heavily discounted. Lisa Morzel asked if an agenda was available. David said it is available online, and there was a link in an email he sent to the Board. David also offered a reminder that next two Stewardship Council meetings will be on the second Monday of the month, rather than the first.

### **Public Comment**

There was none.

### **Roundtable Discussion on Changes to RFLMA Point of Compliances and Dam Breach EA**

The main agenda item for this special meeting was a roundtable discussion regarding DOE's proposal to move the existing surface water and groundwater points of compliance stationed along Indiana Street to the eastern edge of the DOE lands, known as the Central Operating Unit (COU). Because DOE will manage ponds A-4, B-5 and C-2 in a flow-through configuration and later breach them, DOE is also proposing to eliminate the batch and release protocols and replace them with flow-paced sampling. The conversation was designed to include both the DOE dam breach proposal and the changing the points of compliance (including the proposed changes to the sampling protocols), as they are linked activities.

Chair Lori Cox invited DOE and regulator representatives to join the Stewardship Council members at the table. She noted that the comment period for these changes was extended from 30 days to 60 days in response to a request by the City of Broomfield. Because the comment

period will now not close until after the Stewardship Council's September meeting, Board comments no longer need to be approved at today's meeting.

Prior to the discussion, Scott Surovchak with DOE gave a presentation on the proposed changes. He began with a review of site decisions since 2005 when cleanup and closure were completed. In 2006, the site's final remedy decision (CAD/ROD) was issued. This decision determined that the COU required final actions, while the Peripheral OU (POU) required no further action. In 2007, the Rocky Flats Legacy Management Agreement (RFLMA) was signed. Attachment 2 of this agreement includes the actions necessary to ensure that the final remedy is protected. Surface water and groundwater monitoring configurations were specified in this document. Also in 2007, the POU was delisted from CERCLA's National Priorities List and is now the Rocky Flats National Wildlife Refuge.

Scott discussed that the current monitoring locations are the same as they were in 2005 when cleanup was completed. He presented a map of the proposed monitoring point changes. The proposal involves consolidating several existing POCs into two new locations on the eastern boundary of the COU. Scott noted that the primary reason for the proposed changes was the relocation of the DOE site boundary in 2007, when the Refuge was created. The proposal moves the POC locations onto DOE-managed property. This move also meets CERCLA applicable or relevant and appropriate requirements (ARARS) that call for POCs to be close to the 'waste management area boundary' rather than far downstream. Finally, these changes to the POCs align with the Colorado Water Quality Control Commission's Walnut Creek segment configuration.

The proposed new Woman Creek POC is very close to edge of the COU boundary, just off a DOE maintenance road. DOE will add an additional culvert to prevent water from backing up into the monitoring structure. David Abelson asked for clarification about method of sampling that will be used. Scott explained that the new system will involve building a channel and measuring the water column to determine flow rates. A machine will withdraw a certain volume of water at a specified frequency. It will be operated by telemetry. DOE needs to make sure people are there to retrieve the samples and then ready them for shipment to the lab. On heavy flow days, this will pretty much be a full time job. Shelly Stanley asked if this sampling method works in winter. Scott said if the water freezes, there would be no flow. The automated grabs are based on the volume of water, so the schedule will vary by the amount of flow. Shelley said Northglenn operates these systems, and that they have limitations that need to be considered. David Abelson asked Shelly if Northglenn was looking into switching to another sampling method. She said that they were not at this time. Scott further explained that this system will be more representative of the actual water quality than a manual grab sample. He said the manual grab method could miss important events depending on when these samples were taken. Lisa Morzel said that flow-paced sampling is used at Yellowstone all the time.

Shirley Garcia asked how the site will sample for nitrates. Scott said that they will continue to use grab samples for the time being because of the more restrictive holding time requirements for nitrates. George Squibb added that they only need to collect nitrate samples during pond discharges. If it is not acidified and refrigerated, nitrate would be consumed naturally in the sample bottle if it were allowed to sit for a period of time. George said that some studies are

showing that samples that were only acidified (not refrigerated) were good as long as they were sampled within seven days. This is a process the site may use in the future.

The proposed new POC on Walnut Creek would be located just below the confluence of No Name Gulch, North Walnut Creek and South Walnut Creek. Like the Woman Creek POC, it would be located right at the COU boundary. New flumes, using the same concept as existing flumes, would be installed at both new POC locations. Sampling would be done by the method described above, formally known as 'automated flow measurement and sample collection'.

Scott noted that the same analyses and analytes will be used in the evaluation of data at the new POCs. The proposed changes retain the 30-day rolling average for determining reportable conditions. The 12-month rolling average will be used as the compliance value. This is the same as the existing compliance standard for POCs in the COU. He said that the only difference between the two calculations is that a compliance value exceedance may result in penalties. David Abelson noted that when the Soil Action Levels were being crafted, a compromise was made that was related to data evaluation. He said that local governments agreed to support a more restrictive (lower number) soil action level on the condition that the site agreed to use the 30-day reportable condition, which would provide an earlier notice of any potential violation. Shirley Garcia also brought up this issue. She said there was disagreement regarding the use of the 30-day rolling average and the 12-month rolling average. Scott replied that, regardless of which one was used, they would be looking at the same data and making the same calculations.

Arthur Widdowfield asked if they would be getting better samples by moving the POCs upstream to the proposed locations because of any leaching of contaminants that could occur between those locations and Indiana. Scott did not think this would be a significant factor. He added that during remediation it was easier to determine the source of any exceedance because it could usually be traced to a specific project. Now, they have to look at more subtle problems with revegetation or erosion, and it is harder to pinpoint.

Lori Cox asked George to explain the timeline of notification of exceedance. Roughly, it may take two weeks to retrieve a sample from the field, and another day get it ready to ship to the lab. The longest turnaround for a laboratory analysis is for plutonium and americium, which take 28 days because the activity is so low. If there is any result greater than the standard, the site immediately calculates the rolling averages. If there appears to be an exceedance, they would then request a validation of the analysis from the DOE Grand Junction office, which usually takes a few hours. At this point, DOE will have 15 days to issue an official contact record. Once the contact record is issued, this sets a schedule for more comprehensive analysis. George explained that there is no way to do real-time monitoring for radionuclides at these levels. He added that this timeframe is adequate because the standards in place are based on long term exposure. Scott Surovchak added that if they were dealing with higher levels of activity, they could do some kind of real-time screening, but it just is not possible at these levels. Shirley asked what the quickest turnaround time would be. George said it could be done in 14 days as long as the labs can accommodate them. He noted that there are a limited number of labs that can do this level of analysis.

Scott next spoke about the basis for changing boundary wells. These wells are not required by the remedy; they were added to RFLMA. The proposed surface water POCs are downgradient of Area of Concern (AOC) wells. AOC wells are downgradient of contaminant plumes and adjacent to surface water features, and are much closer to source areas. This allows for earlier detection of and response to contaminant migration. Dam foundations direct alluvial groundwater toward surface water, which is monitored by proposed new POCs. The proposed new POCs, like the current POCs, are downgradient of the AOC wells. Lisa asked Scott to point out on the map where the landfills were located, and then confirmed that the AOC wells would catch any contamination from these areas. David Allen suggested that it may make sense to maintain a boundary well at Indiana because of surface water flow being lost into groundwater. Lori Cox asked if there was a web version of the AOC well map. Scott said it was on their website and also in RFLMA. Shirley asked if they monitored for the same analytes at each of the AOC wells. John Boylan said they are different based on each source plume.

Scott said that the proposed modifications were posted on the Community Involvement page of the LM website. The comment due date was extended to September 28. Comments can be emailed or mailed.

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. Shirley asked Carl Spreng and Vera Moritz if they could still meet with Broomfield this week. Carl said that CDPHE's Executive Director had just sent some questions and responses to Broomfield, and that once these had been received and reviewed, he will schedule the meeting. 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.

David Allen updated the Board on Broomfield's work regarding these issues. He handed out a packet containing several detailed letters and requests that Broomfield had sent to the agencies. He said their biggest concern at the moment boiled down to comfort levels. He said Broomfield was comfortable with the current situation, but the proposed changes, when added together, have a negative effect on this comfort level. He said that today's meeting was the first time they had heard a commitment from DOE regarding continued monitoring at Indiana. He said there was



also a new change in operations regarding the plans for operating C-2 in flow-through and they have not seen anything in writing about plans. These physical changes, including the breaching of dams, mean the loss of any ability to contain water from the streams and any potential problems onsite. He said Broomfield was looking forward to continuing discussions, and would like three things to happen. First, they would like the process to slow down. Second, they would like to see the establishment of a water working group similar to the one that operated during closure. Finally, they would like to work collaboratively to identify specific performance measures and triggers to ensure the long-term effectiveness of remedy.

Lori Cox said she assumed that the agencies have a similar wish to continue to work toward consensus and collaboration. Jeannette Hillery said she was glad that DOE had incorporated longer timeframes, and that she agreed with David Allen's description of the need for a level of comfort. She added that she appreciated the level of reporting given to the community, and that continuity may increase the level of comfort. She said she would also like to see discussion of a specific function for the water group that David mentioned. David Abelson noted that the former water working group disappeared after a period of time, and that Broomfield's suggestion was simply to revive something that was endorsed by the Board. Shirley Garcia said that the cities participated as team members in determining the final sampling regime for the site, and that the level of collaboration at that time was more than just sharing data.

Scott Surovchak pointed out that, due to current legal scrutiny regarding FACA issues, DOE had to be very cautious about the format of meetings in which it participates. Jeannette suggested that if the meetings were not called by DOE, these restrictions may not apply. Lori asked whether the water working group had been a subcommittee of the Stewardship Council and was told it was not. She went on to ask Scott how the changes to the Site Operations Guide would be communicated. Scott said that the guide is updated every year and is posted on the website. He added that not much will actually change, because so many procedures are already incorporated regarding sampling. Vera Moritz echoed Scott's statements about FACA issues, saying that things had become very complicated and cumbersome in terms of FACA. Because of this, EPA has been reverting to the more traditional public meeting format. Barb Vander Wall explained that the Stewardship Council is not a FACA group, but cautioned that something like what was being discussed could be subject to this law. Scott said the environment at DOE Headquarters regarding FACA had become really conservative, so much so that any new groups were usually being formed under FACA. Exemptions to FACA have become very difficult.

Ron Hellbusch said that Westminster and the Standley Lake cities supported what David Allen was proposing. They agreed that it is too soon to make some of these decisions although DOE might want to move on. He said he saw flow-through as a form of breaching. He added that the site was still monitoring because there could still be concerns there. Scott Surovchak clarified that DOE had no intention or right to move on from this site and that it will remain federal property forever. Lisa Morzel noted that the Stewardship Council recommended that entire site always be retained by the federal government. She added that the cleanup was done well, given what they were facing, but there are still contaminants onsite. She said she was glad that data points at Indiana will be retained, and that ten years might not even be long enough to keep them.

David Allen requested that the decision to keep monitoring points at Indiana be put in writing and, if it was not, that DOE postpone comments indefinitely. He said he would like to expend efforts on coming to an understanding on where we are going rather than commenting and seeing changes come out incrementally. Shirley Garcia said that the cities were asking for an opportunity for actual input, not just dialogue. They would like to draft something they are all in agreement with. While they are happy with the remedy, they need to be comfortable that new objectives are clearly defined and reasonable, so that the conditions they agreed to pre-closure are being maintained. She said it seemed like they were hearing new things each time there was a meeting. Carl Spreng said that he would be happy to engage the cities in this dialogue once they had received the response to their comments from the CDPHE Executive Director.

Lori Cox asked the Board about desired next steps on this issue. David Abelson said he wanted to throw out an outline to begin discussion of a Board policy on these topics. His thoughts were: 1) DOE should not breach dams 2) The Board will not oppose managing the ponds in flow-through configuration, and will revisit the decision to breach in the future. However, if monitoring shows that there is a problem, DOE should close the dam valves and investigate the source(s) of the problem. 3) DOE should continue collecting water at the same points at Indiana and use these results as part of their decision about whether to breach at a later date. 4) The establishment of new POCs at the outfall of the terminal ponds is acceptable, as long as the Indiana data is used to evaluate water quality.

Lori Cox noted that the Board's April 8<sup>th</sup> letter did not support moving the POCs. Sue Vaughan pointed out that, since that time, the Board had received additional information. She spoke of the importance of being proactive, systematic and cautious. Lori suggested that the Board may need to digest the new information prior to crafting a position. Jeannette Hillery agreed that it may be more prudent to wait to see what was in CDPHE's letter to Broomfield, review the new information and wait until the September meeting to approve a position. Lisa Morzel said that the Board also needed some commitments from DOE regarding the changes they have discussed. Doug Young said he was not clear about how this discussion referenced the Board's earlier 'no action' recommendation for the EA. David Allen suggested sending a letter to DOE re-iterating the Board's position in favor of the no action alternative, and also the desire to work with them on getting more information regarding the other points David Abelson brought up. David Abelson put forward the idea for a simple thumbs-up from Board reflecting their current thoughts. As downstream communities enter into further discussions, this would give them a sense of the Board. David Allen said he wanted to make sure to provide Doug Young with the information he requested. He added that he was concerned about taking a position of support on the flow-through plans without further investigation and discussion at a higher level of detail. He extended his appreciation to everyone for attending this meeting and allowing further discussion of this issue.

### **Public comment**

Hank Stovall began by complimenting the local government entities for their letters outlining their reasons for opposing the EA. He said bureaucrats may think it is fine to ignore the public will, but in this election year, officials will pay attention. He said the Soil Action Levels were flawed until corrected by an independent review. He brought up the concept of a 'failure mode

analysis' and asked if DOE did this after cleanup. Carl Spreng said he was not familiar with the term. Scott Surovchak pointed out that they had completed risk assessments and the CERCLA process. He said Mr. Stovall's question sounded like the fate and transport modeling that the site also completed. Carl added that regulations required detailed risk assessments. Mr. Stovall said that 25-50 curies of plutonium had been released into the air, and is still present. He said that it was too early to breach. He also pointed to the Rocky Flats Grand Jury report and the actinide migration findings. He said that he was concerned about the potential 60-day processing period for water samples. He posed a question about what plans exist if a major, continuous exceedance occurs. He said he hoped this group will not delay in taking a position on these plans.

Doug Young asked if the position of the Stewardship Council was the same as in its previous letter. Lori Cox said that it had not changed as of yet, although it could change at the September meeting, given additional and/or changed information.

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

Clark Johnson announced that he was starting a different job with the City of Arvada that was not related to Rocky Flats and that he would no longer be serving on the Board. He introduced his replacement, Maria VanderKolk, who has previously done some work on Rocky Flats issues.

### **September 13, 2010** (second Monday)

#### *Potential Business Items*

- Initial review of 2011 RFSC budget

#### *Potential Briefing Items*

- Host LM quarterly public meeting
- Surface water briefing – adopt position
- Annual review of RFSC activities
- Begin discussing 2011 RFSC Work Plan

### **November 8, 2010** (second Monday)

#### *Potential Business Items*

- Budget Hearings for 2011 RFSC budget

#### *Potential Briefing Items*

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

Lori asked members to think about attending the DOE-LM conference that David mentioned at the beginning of the meeting. She said the agenda sounded interesting.

Lisa Morzel said she would like to begin all meetings with introductions. Lori said she will add this to future agendas.

The meeting was adjourned at 11:20 a.m.

*Respectfully submitted by Erin Rogers*

7:42 AM

09/02/10

**Rocky Flats Stewardship Council**  
**Check Detail**  
 August 6 through September 2, 2010

Type	Num	Date	Name	Account	Paid Amount	Original Amount
<b>Bill Pm...</b>	<b>1441</b>	<b>8/13/2010</b>	<b>Crescent Strategies, LLC</b>	<b>CASH-Wells Fargo-Operating</b>		<b>-7,008.39</b>
Bill	7/31/...	7/31/2010		Personnel - Contract	-6,850.00	6,850.00
				Telecommunications	-123.40	123.40
				TRAVEL-Local	-19.00	19.00
				Postage	-15.99	15.99
TOTAL					-7,008.39	7,008.39
<b>Bill Pm...</b>	<b>1442</b>	<b>8/13/2010</b>	<b>Jennifer A. Bohn</b>	<b>CASH-Wells Fargo-Operating</b>		<b>-416.50</b>
Bill	10-66	7/31/2010		Accounting Fees	-416.50	416.50
TOTAL					-416.50	416.50
<b>Bill Pm...</b>	<b>1443</b>	<b>8/13/2010</b>	<b>Seter &amp; Vander Wall, P.C.</b>	<b>CASH-Wells Fargo-Operating</b>		<b>-1,320.70</b>
Bill	58565	6/30/2010		Attorney Fees	-1,320.70	1,320.70
TOTAL					-1,320.70	1,320.70
<b>Check</b>	<b>1444</b>	<b>8/13/2010</b>	<b>Qwest</b>	<b>CASH-Wells Fargo-Operating</b>		<b>-26.89</b>
				Telecommunications	-26.89	26.89
TOTAL					-26.89	26.89

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Arthur Widdowfield

## MEMORANDUM

**TO:** Board  
**FROM:** David Abelson  
**SUBJECT:** Board Review of Stewardship Council Activities for 2011 and Initial Review of Draft 2010 Work Plan  
**DATE:** September 2, 2010

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At this meeting the Board will evaluate its efforts for 2010 and start reviewing its 2011 work plan (attached). Any changes to the work plan will be incorporated into a revised draft that will be reviewed, modified as necessary, and approved at the November 8<sup>th</sup> meeting.

### **Review of 2010 Activities**

The 2010 work plan contains the following provision:

“How the Stewardship Council will measure its success is important. Many organizations use sophisticated techniques to measure success, but these are not necessary for the Stewardship Council. Rather each year the Stewardship Council will pause and reflect on its Work Plan elements to help determine its ability to accomplish the stated mission and objectives. The review shall include an assessment of how the organization can improve in the coming year, focusing on areas of weakness and opportunities for improvement.”

The first part of the conversation will be the Board’s assessment. That conversation will then be used to set goals for 2011 and to make changes to the draft 2011 plan.

### **Overview of Draft Plan**

The draft plan we are submitting contains few changes. There are four primary changes we are proposing:

1. Adding provisions about the triennial review
2. Adding provisions about DOE reviewing the Stewardship Council to ensure we still add value as the local stakeholder organization (LSO) for Rocky Flats

3. Adding a provision about continuing to address issues related to the dam breach proposal and decision to move the points of compliance from Indiana Street to the DOE-retained lands
4. Deleting the provision about working with USFWS on the refuge plan as there is insufficient funding to begin implementing the site conservation plan in the coming year

The other changes, I trust, are self-explanatory. Please let me know what questions you have, particularly if there are any items I did not include in the draft work plan.

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## 2011 Work Plan

*DRAFT #1, September 2010*

### Mission:

The mission of the Rocky Flats Stewardship Council is to provide continuing local oversight of activities at the Rocky Flats site and to ensure local government and community interests are met with regards to long-term stewardship of residual contamination and refuge management. The mission also includes providing a forum to track issues related to former site employees and to provide an ongoing mechanism to maintain public knowledge of Rocky Flats, including educating successive generations of ongoing needs and responsibilities regarding contaminant management and refuge management.

### Preface: 2011 Challenges and Opportunities

In 2011, the Stewardship Council will complete its 6<sup>th</sup> year of operations. During the year we will conduct the second triennial review. The triennial review provides the framework for the organization (1) to ensure all governments remain committed to the organization, and (2) to realign the organization as necessary. DOE also wants make sure that the Stewardship Council, as the Local Stakeholder Organization (LSO) for Rocky Flats, continues to serve its Congressionally-defined role. These two dialogues will be linked.

**Deleted:** In 2007 jurisdiction over Rocky Flats transferred from DOE's Office of Environmental Management to both DOE's Office of Legacy Management and the Department of the Interior. With this transfer of management responsibility, the Stewardship Council fully stepped into its long-term mission – engage on the range of issues underpinning the long-term management of Rocky Flats and use and protection of the site as a national wildlife refuge.

Some of the challenges and opportunities to address in 2011 will likely include:

- Conducting the aforementioned reviews,
- Building relationships with the new members of the Colorado Congressional delegation (as needed).
- Developing and circulating accurate information about protectiveness of Rocky Flats cleanup.
- Maintaining public awareness and interest in the ongoing management needs at Rocky Flats.
- Reviewing and modifying as necessary organizational systems to ensure members remain engaged and the Stewardship Council functions efficiently.

**Deleted:** As the sole Local Stakeholder Organization (LSO) in the DOE complex, the Stewardship Council has established the framework for how a successful LSO functions. The involvement of the four non-governmental entities on the Stewardship Council provides important ideas and opportunities for engaging broad audiences on issues and histories related to the site. ¶

**Deleted:** Continuing to strengthen the organization's relationship with DOE's Office of Legacy Management (LM)

**Deleted:** Strengthening

**Deleted:** new Administration and



## **Background:**

The Stewardship Council occupies two roles: (1) serving as the LSO for Rocky Flats, and (2) engaging USFWS on the management of the Rocky Flats National Wildlife Refuge.

### Local Stakeholder Organization

Legacy Management approved the LSO Plan for Rocky Flats on December 21, 2005. This Plan identifies how the main responsibilities Congress identified in the legislation authorizing the creation of LSO (Section 3120 of the Fiscal Year 2005 Defense Authorization bill) are to be carried out at Rocky Flats. These responsibilities are summarized as follows:

- Solicit and encourage public participation in appropriate activities relating to the closure and post-closure operations of the site.
- Disseminate information on the closure and post-closure operations of the site to the State and local and Tribal governments in the vicinity of the site, and persons and entities having a stake in the closure or post-closure operations of the site.
- Transmit to appropriate officers and employees of DOE questions and concerns of governments, persons, and entities referred to in the preceding bullet.

In fulfilling these responsibilities, the Stewardship Council has been tasked with helping DOE meet its public involvement obligations identified in the Post-Closure Public Involvement Plan (PCPIP) for Rocky Flats.

### Rocky Flats National Wildlife Refuge

“The Rocky Flats National Wildlife Refuge Act of 2001” established that Rocky Flats shall become a national wildlife refuge following EPA certification that the site has been cleaned to the agreed-upon regulatory standards. In July 2007 DOE conveyed jurisdictional responsibility over nearly 4000 acres to the Department of the Interior for the Rocky Flats National Wildlife Refuge. Additional lands will likely be conveyed in 2011.

In April 2005, USFWS published the Rocky Flats Comprehensive Conservation Plan (CCP), the conservation plan for the Rocky Flats National Wildlife Refuge. The CCP describes the desired future conditions of the Refuge and provides long-range guidance and management direction. Per the CCP, in the coming years USFWS anticipates developing the following “step-down” management plans, which provide specific guidance for achieving the objectives established in the CCP:

1. Vegetation and Wildlife Management Plan
2. Integrated Pest Management Plan
3. Fire Management Plan
4. Visitors Services Plan
5. Health and Safety Plan
6. Historic Preservation Plan

Due to funding restrictions, USFWS has delayed implementation of the CCP, including delaying the timeline for opening the Refuge for public access. As USFWS implements steps to open the

Refuge, the Stewardship Council will work with USFWS and DOE to ensure the current access restrictions to DOE-retained lands remain effective and to address issues as needed.

---

## Work Plan Elements

The Work Plan is divided into the following five sections:

1. DOE Management Responsibilities
2. Former Rocky Flats Workforce
3. Outreach
4. Rocky Flats National Wildlife Refuge
5. Business Operations

### DOE Management Responsibilities

#### Overview:

One of the key roles of the Stewardship Council is to understand and engage the various issues regarding the cleanup and post-closure management of Rocky Flats, and to provide a forum to foster discussions among DOE, the regulatory agencies, and community members.

#### 2011 Activities:

1. Review information regarding the long-term stewardship and management of the Rocky Flats site, including but not limited to the results of the operational and performance monitoring data of site operations and DOE status reports.
2. Work with DOE on implementing its Post-Closure Public Involvement Plan (PCPIP), including the meetings DOE identified in the PCPIP.
3. Review DOE budgets for implementation of DOE responsibilities.
4. Participate in DOE, CDPHE and/or EPA assessment(s) of remedy operations and effectiveness.
5. As needed, evaluate legal and regulatory issues regarding implementation of site-wide long-term stewardship plans and provide information to the Stewardship Council and to the community.
6. Work with DOE and the regulators to understand technical data regarding implementation and effectiveness of cleanup remedies and long-term controls, and provide information to the Stewardship Council and to the community.
7. Transmit to appropriate officers and employees of the DOE questions and concerns of governments, persons and entities regarding Rocky Flats.
8. Continue evaluating DOE's proposal to breach terminal ponds A-4, B-5, and C-2, and to move the points of compliance from Indiana Street to the eastern edge of the Central Operating Unit (COU).
9. Work with USFWS and DOE on interpretative signage on refuge lands that includes history of Rocky Flats and cleanup, and ongoing DOE monitoring and surveillance program.
10. Support the Rocky Flats Cold War Museum efforts to establish a museum and on mechanisms for educating successive generations about the history of Rocky Flats, particularly about residual contamination and continued need for long-term stewardship.

11. Track issues related to transfer of administrative jurisdiction over former mineral parcels from DOE to Department of the Interior for inclusion in the Rocky Flats National Wildlife Refuge.
12. Track the development of Jefferson County Parkway as it relates to Rocky Flats.

**Deleted:** <#>Develop new website to help transmit history of Rocky Flats and ongoing management needs. ¶

## Former Rocky Flats Workforce

### **Overview:**

One of DOE's primary post-closure responsibilities is to manage the health and pension benefits of former site workers. Many of these workers are the constituents of the Stewardship Council governments. Further, the Rocky Flats Homesteaders, which represents more than 1800 former site workers, sits on the Board of the Stewardship Council. For these and other reasons, as noted in the Stewardship Council's IGA, worker issues will continue to play a role for the Stewardship Council.

### **2011 Activities:**

1. Track issues related to the implementation of the Energy Employee Occupational Illness Program Compensation Act (EEOIPCA). Respond as needed.
2. Communicate worker concerns to the Administration and to members of the Colorado Congressional delegation.

**Deleted:** , including ongoing federal legislation and pending review of the program by the General Accountability Office.

## Outreach

### **Overview:**

As the LSO for Rocky Flats, a core responsibility for the Stewardship Council is reaching out to the community and providing a mechanism to educate people about Rocky Flats and the ongoing management needs. As part of this mission it remains essential that the Stewardship Council maintain close communications with DOE, EPA, CDPHE, USFWS and Congress.

The local communities have developed over the period of many years a very good working relationship with the two primary regulatory agencies that oversee the site, EPA and CDPHE. It is imperative that the Stewardship Council continue this tradition of partnership with these agencies.

The Colorado congressional delegation likewise played a critical role in addressing Rocky Flats issues. The Stewardship Council shall remain an important vehicle for addressing issues of concern to the delegation and for providing community interface with the delegation on the numerous site-specific issues and concerns.

### **2011 Activities:**

1. Hold quarterly Board meetings and provide opportunity for public comment and public dialogue.
2. Communicate with other local officials, DOE, state and federal regulators, the Colorado congressional delegation, and other stakeholders about the Stewardship Council's mission and activities, as appropriate.

3. Seek public input and involvement on issues related to DOE and USFWS responsibilities at Rocky Flats.
4. Evaluate Congressional action affecting DOE and USFWS and administrative action that could affect Rocky Flats.
5. Maintain communication with federal and state legislators, as appropriate, and track federal and state legislation as needed.
6. Provide opportunities at meetings and in between meetings for education and feedback.
7. Work with DOE to disseminate information on the cleanup and post-closure operations of Rocky Flats.
8. Participate in local, regional and national forums.
9. Implement mechanisms for the Stewardship Council and the general public to be informed of the results of the monitoring data and other relevant information, recognizing that not all communication between DOE and Rocky Flats constituencies will flow through the Stewardship Council. Options include:
  - o Periodic reports
  - o Email updates
  - o White papers
  - o Letters
  - o Press releases

Deleted: <#>Develop new website focusing on history of the site and ongoing management needs.¶

## Rocky Flats National Wildlife Refuge

### Overview:

A core function of the Stewardship Council is to engage on issues related to the development and management of the future Rocky Flats National Wildlife Refuge. This work includes tracking and addressing issues related to the interface of the Refuge to lands that DOE will retain as part of its management responsibilities.

### 2011 Activities:

1. Work with USFWS on implementation and funding of the Comprehensive Conservation Plan for the Rocky Flats National Wildlife Refuge.
2. Track Congressional action affecting funding for USFWS.
3. Provide a forum for the community to raise issues related to development of management plans and other issues affecting USFWS responsibilities at the Rocky Flats National Wildlife Refuge.

Comment [DA1]: Since DOI will not have funding for the CCP in 2011, I recommend we remove this item for this year.

## Business Operations

### Overview:

Business Operations refers to organizational management responsibilities – conducting the annual audit, hiring staff, submitting financial reports to DOE, adopting annual Work Plan and annual budget, etc.

### 2011 Activities:

1. Conduct Stewardship Council triennial review

2. Work with DOE to ensure the Stewardship Council continues to meet the needs as the LSO for Rocky Flats.

3. Operate Stewardship Council in compliance with state and federal regulations.
  4. Conduct financial audit.
  5. Prepare and adopt the annual work plan and the annual budget.
  6. Submit financial reports to DOE.
  7. Review and renew as necessary consulting agreements.
  8. Provide annual report on activities.
- 
- 

### **Success Measurement Criteria**

How the Stewardship Council will measure its success is important. Many organizations use sophisticated techniques to measure success, but these are not necessary for the Stewardship Council. Rather each year the Stewardship Council will pause and reflect on its Work Plan elements to help determine its ability to accomplish the stated mission and objectives. The review shall include an assessment of how the organization can improve in the coming year, focusing on areas of weakness and opportunities for improvement.

# ROCKY FLATS STEWARDSHIP COUNCIL

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

## MEMORANDUM

**TO:** Board  
**FROM:** David Abelson  
**SUBJECT:** Draft 2011 budget  
**DATE:** September 1, 2010

---

In accordance with Colorado law, attached for your review is the first draft of the Stewardship Council's fiscal year 2011 budget. I have scheduled time at the meeting for you to discuss and modify as necessary this draft. As a unit of local government under the Colorado Constitution, the Stewardship Council must hold budget hearings prior to adopting a final budget. The budget hearings will be held at the November 8<sup>th</sup> meeting. You will adopt the budget at that meeting.

**Overview:** In accordance with the Board's direction in past years, the budget is for more than the anticipated costs (20% above projected costs for 2011). That way the Board has some latitude in how it manages the expenditures. Since its inception, each year the Stewardship Council's budget have declined; expenditures over the past few years, however, have remained fairly level. This proposed budget reflects a net decrease of \$2,550 over the 2010 budget; 2010 was a reduction of \$2,950 over 2009. A comparison of the 2011 and 2010 budgets follows. Below is an accounting of the changes.

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<b>BUDGET CATEGORY</b>	<b>CHANGE FROM FY 2010</b>
------------------------	----------------------------

<b>A. Personnel</b>	<b>\$0.00</b>
<b>B. Fringe Benefits</b>	<b>\$0.00</b>
<b>C. Travel</b>	<b>\$0.00</b>
<b>D. Computer Equipment</b>	<b>\$0.00</b>
<b>E. Supplies</b>	<b>\$0.00</b>
<b>F. Contractual</b>	<b>\$0.00</b>
<b>G. Construction</b>	<b>\$0.00</b>
<b>H. Other</b>	<b>\$2550.00</b>

- Printing: No change
- Postage: No change
- Liability Insurance: No change

- Telephone, email etc.: No change
- Website
  - Hosting: No change
  - Webmaster: Decreased by \$2000
- Subscriptions/Memberships: Decreased by \$550 (decided not to renew *Weapons Complex Monitor*)

**TOTAL NET DIFFERENCE FROM 2010 BUDGET ..... (\$2,550.00)**

**ROCKY FLATS STEWARDSHIP COUNCIL**  
2011 Budget -- DRAFT #1

		<u>2010 Budget</u>	<u>2010 Actual/ Projected Expenses*</u>
<b>A. Personnel</b>	<b>\$ 93,000.00</b>	<b>\$ 93,000.00</b>	<b>\$ 82,200.00</b>
Executive Director and Technical Advisor (\$7750/month for 12 months)			
<b>B. Fringe Benefits</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Benefits</b>	<b>\$ -</b>		
Staff are contract employees			
<b>C. Travel</b>	<b>\$ 5,700.00</b>		
<b>Out of State</b>	<b>\$ 4,500.00</b>	<b>\$ 4,500.00</b>	<b>\$ 1,298.06</b>
National DOE-related trips \$1500/trip X 3 trips			
<b>Local Travel</b>	<b>\$ 1,200.00</b>	<b>\$ 1,200.00</b>	<b>\$ 797.50</b>
\$100/month for 12 months			
<b>D. Computer Equipment</b>	<b>\$ 500.00</b>		
Purchase misc. hardware, software	<b>\$ 500.00</b>	<b>\$ 500.00</b>	<b>\$ -</b>
<b>E. Supplies</b>	<b>\$ 1,200.00</b>		
Supplies (\$100/month for 12 months)	<b>\$ 1,200.00</b>	<b>\$ 1,200.00</b>	<b>\$ 506.87</b>
<b>F. Contractual</b>	<b>\$ 40,100.00</b>		
<b>Attorney &amp; Accounting Services</b>	<b>\$33,500.00</b>		
Legal Services (\$1400/ month for 12 months)	\$ 16,800.00	\$ 16,800.00	\$ 15,973.80
Accounting (\$850/month for 12 months)	\$ 10,200.00	\$ 10,200.00	\$ 5,083.00
Audit Report	\$ 6,500.00	\$ 6,500.00	\$ 4,550.00
<b>Admin. Services</b>	<b>\$ 4,600.00</b>		
Misc. Services: budget notices, etc.	\$ 1,000.00	\$ 1,000.00	\$ 887.29
Minutes Preparation (6 meetings)	\$ 3,600.00	\$ 3,600.00	\$ 2,875.00
<b>Local Government Expenses</b>	<b>\$ 2,000.00</b>	<b>\$ 2,000.00</b>	<b>\$ 1,455.50</b>
Miscellaneous expenses not covered by DOE funds (includes meeting expenses)			
<b>G. Construction</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
None			
<b>H. Other</b>	<b>\$ 16,250.00</b>		
<b>Printing &amp; Copy</b>	<b>\$ 2,000.00</b>	<b>\$ 2,000.00</b>	<b>\$ 1,083.21</b>
<b>Postage</b>	<b>\$ 1,500.00</b>	<b>\$ 1,500.00</b>	<b>\$ 593.64</b>
\$125/month for 12 months			
<b>Liability Insurance</b>	<b>\$ 4,000.00</b>	<b>\$ 4,000.00</b>	<b>\$ 3,480.82</b>
Property Contents/General Liability	\$ 500.00		
Board Members	\$ 3,500.00		
<b>Telephone, email, etc</b>	<b>\$ 3,400.00</b>	<b>\$ 3,400.00</b>	<b>\$ 1,861.05</b>



<b>Website</b>		<b>\$ 3,000.00</b>	<b>\$ 5,000.00</b>	<b>\$ 4,420.00</b>
Hosting	\$ 500.00			
Web master	\$ 2,500.00			
<b>Subscriptions/Memberships</b>		<b>\$ 2,350.00</b>	<b>\$ 2,900.00</b>	<b>\$ 2,015.60</b>
ECA membership	\$ 950.00			
Conference registration fees	\$ 750.00			
Newspapers	\$ 650.00			

<b>J. Indirect Costs</b>	<b>\$ -</b>
--------------------------	-------------

N/A

<b>TOTAL PROPOSED BUDGET</b>	<b>\$ 156,750.00</b>	<b>\$ 159,300.00</b>	<b>\$ 129,081.34</b>
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Net Change from 2010 budget \$ (2,550.00)

**REVENUE FOR 2011**

Local government contributions	\$ 8,000.00
Department of Energy grant	\$125,000.00
RFCLOG carry-over	\$ 23,750.00

**TOTAL** \$156,750.00

\*2010 Actual/Projected Expenses = actual January through July; projected July through December

## **DOE Quarterly Briefing**

- Cover memo
- Annual report (first 34 pages)

# ROCKY FLATS STEWARDSHIP COUNCIL

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

## MEMORANDUM

**TO:** Stewardship Council Board  
**FROM:** Rik Getty  
**SUBJECT:** DOE Quarterly Briefing  
**DATE:** September 1, 2010

---

We have scheduled forty-five minutes for DOE to present its quarterly briefing for the first quarter of 2010 (January – March). The report can be found at:

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

There is no executive summary in the report. We have attached the first 34 pages of the report. More extensive information relative to inspection and water quality results can be found in Appendices A, B, and C of the report link.

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.).

Highlights of the surveillance and maintenance activities are excerpted from the quarterly report as follows (quoting from the report)

### *Annual site inspection*

The annual site inspection was conducted on March 17, 2010. The following categories were inspected or monitored during the inspection:

- Evidence of significant erosion in the Central Operable Unit (COU), and the proximity of this erosion to subsurface features identified in RFLMA Attachment 2, Figure 3 and Figure 4. This monitoring included observation for precursor evidence of significant erosion, such as cracks, rills, slumping, subsidence, and sediment deposition.
- The effectiveness of Institutional Controls (ICs) as determined through any evidence of the violation of any of these controls.

- Evidence of adverse biological conditions, such as unexpected morbidity or mortality.

Marker flags were placed where conditions showed evidence of the three condition categories listed above to track their location for follow up by Site subject matter experts. Areas that required evaluation were documented in the Site Observation Log for evaluation and follow up. Several areas were noted as having evidence of erosion, possible depressions, or holes; however, these appeared to be minor and very limited in area. Most observations were related to metal debris on the surface or trash that was either picked up or marked for subsequent removal and pickup. Rocky Flats field operations subject matter experts will subsequently visit the areas to determine if any observations appear to be significant or require repairs and to collect debris to close out all items in the Site Observation Log. Completion of this work will be reported in the subsequent quarterly reports for 2010.

No evidence of violations of institutional or physical controls was observed. No adverse biological conditions were noted during the inspection.

#### *Environmental Covenant*

On March 19, 2010, an inspection team member verified that the Environmental Covenant for the COU remains in the administrative record and on file with the Jefferson County land records, which are used by the Planning and Zoning Department.

#### *Present Landfill Inspection*

Based on the PLF vegetation monitoring conducted in 2009 and reported in the 2009 annual Report, quarterly PLF vegetation monitoring is no longer required since the PLF vegetation cover has met the success criteria to exit from quarterly monitoring according to requirements in the PLF Monitoring & Maintenance Plan. Although quarterly vegetation monitoring is no longer required for the PLF cover, the PLF vegetation will still be monitored as part of the ongoing general Site vegetation monitoring. The final quarterly PLF vegetation monitoring was conducted on February 17, 2010.

#### *Original Landfill Inspection*

Monthly inspection of the OLF cover is still ongoing. Small cracks, seeps, and slumps were noted during monthly inspections. Appropriate follow-up actions were taken as a result of these inspection results.

#### *Groundwater Treatment Systems*

##### Mound Site Plume Treatment System

Routine maintenance activities continued at the Mound Site Plume Treatment System through the first quarter of CY 2010. These activities included raking the media each week, checking and flushing filters, and inspecting influent and effluent flow conditions.

##### East Trenches Plume Treatment System

Routine maintenance activities continued at the East Trenches Plume Treatment System through the first quarter of CY 2010. These activities included checking influent and effluent flow conditions and water levels in the cells.

### Solar Ponds Plume Treatment System

Routine maintenance activities continued at the Solar Ponds Plume Treatment System through the first quarter of CY 2010. These activities included weekly inspections of the solar/battery systems that power the pumps, the operation of the pumps, and influent and effluent flow conditions. The Phases II and III upgrades that were completed in the second quarter of CY 2009 continued to be a focal point for optimization efforts. A second tracer test was performed on the Phase II cell and determined that preferential flow through the media was not likely. Sampling and analysis of the treatment media in this cell was planned for the second quarter of CY 2010. Optimization efforts in Phase III (such as reducing heat loss from the various cells and vaults, and adjusting carbon dosing rates and influent flow rates) continued.

### *Erosion Control and Re-vegetation*

Maintenance of the Site erosion control features required continued effort throughout the first quarter of 2010, especially following high-wind or precipitation events. Erosion wattles and matting loosened and displaced by high winds or rain were repaired. Erosion controls were installed and maintained for the various projects that were ongoing during the first quarter. Several areas were inter-seeded with additional native species to increase vegetation cover.

### *Water Monitoring Highlights*

There were no pond discharges during the first quarter of 2010.

During the first quarter of CY 2010, the water monitoring network successfully met the targeted monitoring objectives as required by RFLMA and in conformance with RFSOG implementation guidance. The network consisted of 11 automated gauging stations, 10 surface water grab sampling locations, 8 treatment system locations, 99 wells, and 8 precipitation gages. During the quarter, 40 flow-paced composite samples, 2 surface water grab samples, 12 treatment system samples, and 10 groundwater samples were collected.

All water-quality data at the RFLMA POCs remained well below the applicable standards through the first quarter of CY 2010.

All POE analyte concentrations remained below reporting levels as of the end of the first quarter of CY 2010. Erosion and runoff controls, as well as extensive revegetation efforts, have been effective in measurably reducing both sediment transport and constituent concentrations. As of the end of the first quarter of CY 2010, all of the POEs continued to show plutonium-239, plutonium-240, and americium-241 activities well below the RFLMA standards. With the removal of impervious areas (resulting in decreased runoff), the stabilization of soils within the drainages, and the progression of revegetation, water quality is expected to continue to be acceptable.

Groundwater monitoring results will be evaluated as part of the 2010 Annual Report.

### **Plutonium Hit at SW027**

As DOE discussed at the June meeting, in April they recorded a Pu hit at the monitoring station “upstream” of Pond C-2 where the South Interceptor Ditch (SID) enters the pond. (“Upstream” is a misnomer as the SID is not on the stream channel.) DOE took subsequent samples, but they

will have problems validating the sample since the sample does not contain enough water. Without enough water, under the RFLMA it is not yet a reportable condition. Nevertheless, as DOE will discuss at the meeting, they are working to take steps to determine the Pu and Americium values.

Please contact me if you have any questions.

Rocky Flats Site

**Quarterly Report of  
Site Surveillance and  
Maintenance Activities  
First Quarter Calendar Year 2010**

July 2010



U.S. DEPARTMENT OF  
**ENERGY**

Legacy  
Management

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LMS/RFS/S06528

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

**Rocky Flats Site**

**Quarterly Report of Site Surveillance and Maintenance Activities**

**First Quarter Calendar Year 2010**

**July 2010**

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## Appendixes

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- Appendix B Landfill Inspection Forms and Survey Data
- Appendix C Analytical Results for Water Samples—First Quarter CY 2010

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## Abbreviations

AOC	area of concern
CAD/ROD	Corrective Action Decision/Record of Decision
CDPHE	Colorado Department of Public Health and Environment
COU	Central Operable Unit
CY	calendar year
DOE	U.S. Department of Energy
ETPTS	East Trenches Plume Treatment System
gpm	gallons per minute
GWIS	Groundwater Intercept System
IC	institutional control
LM	Office of Legacy Management
µg/L	micrograms per liter
mg/L	milligrams per liter
M&M	monitoring and maintenance
MSPTS	Mound Site Plume Treatment System
OLF	Original Landfill
pCi/L	picocuries per liter
PLF	Present Landfill
PLFTS	Present Landfill Treatment System
POC	point of compliance
POE	point of evaluation
RCRA	Resource Conservation and Recovery Act
RFLMA	<i>Rocky Flats Legacy Management Agreement</i>
RFSOG	<i>Rocky Flats Site Operations Guide</i>
Site	Rocky Flats Site
SPPTS	Solar Ponds Plume Treatment System
WQCC	Water Quality Control Commission

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## 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 *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 Site (the Site). DOE, the U.S. Environmental Protection Agency, and the Colorado Department of Public Health and Environment (CDPHE) have chosen to implement the monitoring and maintenance requirements of the CAD/ROD as described in the *Rocky Flats Legacy Management Agreement (RFLMA)* (DOE 2007a). Attachment 2 of RFLMA defines the Central Operable Unit (COU) remedy surveillance and maintenance requirements, the frequency for each required activity, and the monitoring and maintenance locations. The requirements include environmental monitoring; the maintenance of the erosion controls, access controls (signs), landfill covers, and groundwater treatment systems; and the operation of the groundwater treatment systems. RFLMA also requires that the institutional controls, in the form of use restrictions as established in the CAD/ROD, be maintained.

This report is required in accordance with Section 7.0 of RFLMA Attachment 2. The purpose of this report is to inform the regulatory agencies and stakeholders of the remedy-related surveillance, monitoring, and maintenance activities being conducted at the Site. LM provides periodic communications through several means, such as this report, Web-based tools, and public meetings.

LM prepared the *Rocky Flats Site Operations Guide (RFSOG)* (DOE 2009a) to serve as the primary internal document to guide work to satisfy the requirements of RFLMA and implement best management practices at the Site.

Several other Site-specific documents provide additional detail regarding the requirements described in RFLMA Attachment 2, including all aspects of surveillance, monitoring, and maintenance activities, as well as data evaluation protocols.

A modification to RFLMA Attachment 2, to incorporate several changes since the March 2008 page-change modification, was submitted to CDPHE for approval on September 21, 2009. CDPHE requested minor changes and corrections, which DOE incorporated, and the modification was resubmitted on December 22, 2009, and approved on January 20, 2010. These page changes incorporate the following:

- Changed monitoring locations approved in RFLMA Regulatory Contact Records 2007-07, 2008-04, and 2008-09;
- Changed Original Landfill (OLF) monitoring and inspection criteria based on the *Final Landfill Monitoring and Maintenance Plan, Rocky Flats Environmental Technology Site, Original Landfill (OLF M&M Plan)* (DOE 2006b) modification and the performance of inspections since closure;
- Noted the completion of additional ecological sampling required by RFLMA; and
- Changed surface water standards consistent with revisions promulgated by the Colorado Water Quality Control Commission (WQCC) through November 2009.

Landfill inspection and monitoring tasks follow the format and protocols established in the *Present Landfill Monitoring and Maintenance Plan and Post-Closure Plan* (PLF M&M Plan) (DOE 2008a) and the OLF M&M Plan (DOE 2006b). These plans include detailed information on monitoring groundwater, surface water, subsidence and consolidation, slope stability, soil cover, vegetation, storm water management structures, and erosion in surrounding features so that maintenance actions can be implemented in a timely manner.

A modification to the 2006 OLF M&M Plan was also submitted to CDPHE for review and approval on September 21, 2009. The modification revises the OLF M&M Plan to recognize the implementation of the remedy under RFLMA. As discussed in the *Rocky Flats Site Quarterly Report of Site Surveillance and Maintenance Activities, Second Quarter Calendar Year 2009* (DOE 2009b), the modification also recaps and reflects changes resulting from the OLF geotechnical investigation. CDPHE approved the modification on January 25, 2010.

Monitoring data and summaries of surveillance and maintenance activities for past quarters are available in the quarterly reports. Extensive discussion and evaluation of surveillance, monitoring, and maintenance activities are presented each calendar year in the annual report of Site surveillance and maintenance activities.

This report addresses remedy-related surveillance, monitoring, and operations and maintenance activities conducted at the Site during the first quarter of calendar year (CY) 2010 (January 1 through March 31) and includes:

- Maintenance and inspection of the OLF and Present Landfill (PLF),
- Maintenance and inspection of the four groundwater treatment systems,
- Erosion control and revegetation activities, and
- Routine (in accordance with RFLMA and the RFSOG) water monitoring.

## **2.0 Site Operations and Maintenance**

### **2.1 Annual Site Inspection**

Annual inspection and monitoring of evidence of significant erosion and violation of institutional controls (ICs) is required in accordance with RFLMA Attachment 2, Sections 5.3.4 and 5.3.6. The inspection was conducted on March 17, 2010.

The following categories were inspected or monitored during the inspection:

- Evidence of significant erosion in the COU, and the proximity of this erosion to subsurface features identified in RFLMA Attachment 2, Figure 3 and Figure 4. This monitoring included observation for precursor evidence of significant erosion, such as cracks, rills, slumping, subsidence, and sediment deposition.
- The effectiveness of ICs as determined through any evidence of the violation of any of these controls.
- Evidence of adverse biological conditions, such as unexpected morbidity or mortality.

As part of the IC inspection, verification that the Environmental Covenant remains in the administrative record and on file in Jefferson County records is required annually. In addition, physical controls (i.e., signs placed along the COU fence) were also inspected.

The annual inspection was scheduled so that surface features could be observed adequately after snow cover had melted, once the surface was dry, and before vegetation growth could obscure land surface features.

To conduct this work, knowledgeable DOE, CDPHE, and S.M. Stoller Corporation team staff members (the inspection team) walked down the COU surface to observe the conditions. The areas walked down were designated as Areas A through E and are shown on the maps included in Appendix A. These areas generally coincide with the location of the subsurface features in RFLMA Attachment 2, Figure 3 and Figure 4, or they afforded adequate viewing of the surface in these locations (e.g., sloping areas). Several inspection team members were assigned to walk down a particular area or areas identified on the maps. Reference points, such as well heads and roads, were used to orient the inspection team members within designated inspection areas.

Appendix A of this report also includes the completed inspection checklists and several photographs illustrating noted conditions.

Marker flags were placed where conditions showed evidence of the three condition categories listed above to track their location for follow up by Site subject matter experts. Areas that required evaluation were documented in the Site Observation Log for evaluation and follow up. Several areas were noted as having evidence of erosion, possible depressions, or holes; however, these appeared to be minor and very limited in area. Most observations were related to metal debris on the surface or trash that was either picked up or marked for subsequent removal and pickup. Rocky Flats field operations subject matter experts will subsequently visit the areas to determine if any observations appear to be significant or require repairs and to collect debris to close out all items in the Site Observation Log. Completion of this work will be reported in the subsequent quarterly reports for 2010.

No evidence of violations of institutional or physical controls was observed.

On March 19, 2010, an inspection team member verified that the Environmental Covenant for the COU remains in the administrative record and on file with the Jefferson County land records, which are used by the Planning and Zoning Department.

No adverse biological conditions were noted during the inspection.

## **2.2 Landfills**

### **2.2.1 Present Landfill**

The PLF is inspected quarterly in accordance with the requirements of the PLF M&M Plan (DOE 2008a) and RFLMA (DOE 2007a). Vegetation monitoring has been conducted on the PLF per the requirements in RFLMA Attachment 2, Table 3. The exit strategy for vegetation monitoring as outlined in Table 3 states that when the PLF M&M Plan grassland success criteria have been met, vegetation monitoring is no longer required. Based on the vegetation monitoring

conducted in 2009 and reported in the 2009 Annual Report (DOE 2010), these criteria have been met. Therefore, the specific PLF vegetation monitoring as outlined in RFLMA will no longer be conducted, but rather the PLF vegetation will now be monitored as part of the ongoing general Site vegetation monitoring.

### ***2.2.1.1 Inspection Results***

The routine PLF inspection for the first quarter of CY 2010 was performed on February 25, 2010. The landfill cover vegetation was evaluated on February 17, 2010. No significant problems were observed during these inspections. Refer to Appendix B, which provides the landfill inspection forms, for more information.

### ***2.2.1.2 Settlement Monuments***

The annual settlement monument surveys were performed in December 2009. The next round of surveys will be completed in December 2010. Additional information on the settlement monuments is included in the *Rocky Flats Site Quarterly Report of Site Surveillance and Maintenance Activities, First Quarter Calendar Year 2008* (DOE 2008b).

## **2.2.2 Original Landfill**

The OLF is inspected monthly, in accordance with the requirements in the OLF M&M Plan (DOE 2006b) and RFLMA. It was anticipated that after the first year, the inspection frequency might be reduced to quarterly for an additional 4 years. However, because of observed localized slumping and seep areas, and investigation and repairs to the OLF cover that were being planned at the time, no change to the monthly inspection frequency was recommended in the second 5-year review of the Site (DOE 2007b).

### ***2.2.2.1 Inspection Results***

Routine OLF inspections during the first quarter of CY 2010 were performed on January 28, February 25, and March 30, 2010. The landfill cover vegetation was evaluated on February 16, 2010. Refer to the completed inspection forms in Appendix B for additional information.

A hairline crack that runs along the north and south sides of Berm 1 was noticed during the monthly inspection of the OLF on March 30. The crack is in the same general area as previously documented cracks in Berm 1, as discussed in the 2009 Annual Report (DOE 2010). The crack had a horizontal displacement (width) of approximately ½ inch and no vertical displacement. The crack was filled with Rocky Flats Alluvium and compacted on March 30 to prevent water from infiltrating the subsurface, which could cause further movement.

As discussed in the 2009 Annual Report (DOE 2010), this cracking is consistent with evidence of localized movement being observed at several of the inclinometers installed south of Berm 1 as part of the 2008 geotechnical investigation. Refer to the discussion of the results of the inclinometer monitoring in Section 2.2.2.5 for additional information regarding slope stability monitoring. Figure 1 shows the general location of the crack and the locations of the inclinometers.



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Figure 1. Original Landfill Observed Surface Cracking Location and Inclinometer Locations

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### ***2.2.2.2 Seeps***

Seeps at the OLF were evaluated during the monthly inspections as well as during unscheduled visits. The Seep 4 and 5 area showed areas of saturation during the first quarter of CY 2010 but had no surface flow. This is largely due to the drain that was installed in the channel of Berm 3 to drain water from these two seep locations. Seep 7 showed a surface flow of approximately 0.5 to 4 gallons per minute (gpm) during the first quarter. Seep 8 showed areas of active groundwater seepage at a rate of approximately 2 to 5 gpm throughout the first quarter. The rock drain at the base of the West Perimeter Channel, which channels water from the West Perimeter Channel seep, flowed at a rate of 1 to 4 gpm. Other smaller seeps showed areas of wetness only temporarily after precipitation events. None produced any new surface flow. The heavier seep flows were observed during the March 30 monthly inspection that followed the melting of two successive snowfalls totaling approximately 10 inches.

### ***2.2.2.3 Slumps***

As discussed in the 2009 Annual Report (DOE 2010), areas where the landfill cover is pushed up or rolling are noticeable on the western end of the OLF between Berms 2 and 3. Inspections do not show any surface cracks in the Berm 2 and 3 areas at this time. During the March 30 inspection, the end of Berm 7 was documented as having slumped into the East Perimeter Channel. (Additional erosion controls were added to the slumping area on April 14, 2010, to help prevent erosion in the berm outfall.) The area will continue to be monitored throughout the spring. Further repairs to the Berm 1 crack and Berm 7 slump will be completed once the OLF cover dries out sufficiently. Refer to the discussion on the results of the inclinometer monitoring below for additional information regarding slope stability monitoring.

### ***2.2.2.4 Settlement Monuments***

The OLF settlement monuments were surveyed on March 26, 2010. Preliminary survey data indicate that settling at each monument does not exceed the limits published in the OLF M&M Plan (DOE 2006b). Refer to the survey results in Appendix B for additional information.

### ***2.2.2.5 Inclinometers***

As discussed in the quarterly report for the second quarter of CY 2009 (DOE 2009b), seven inclinometers were installed in boreholes at the OLF in 2008 as part of the geotechnical investigation (Figure 1).

Movement of the inclinometers has been monitored approximately monthly since installation. Inclinometers deflect based on lateral movement of the ground in which they are located, and can deflect enough to cause the inclinometer tubes to break. Once an inclinometer tube breaks, the inclinometer will no longer be monitored. Inclinometer monitoring data provide information on localized soil movement and serve to focus periodic inspections of the soil cover surface for signs of potential instability, such as cracking, vertical displacement, and slumping. A deflection of more than 1 inch is used as a trigger for evaluation of the data by a qualified geotechnical engineer. The engineer determines the significance of the deflection in relation to recommendations for maintenance or repairs to address potential instability in accordance with the OLF M&M Plan (DOE 2006b). A modification to the OLF M&M Plan to revise the text as

appropriate to recognize the implementation of the remedy under RFLMA and the completion of the geotechnical investigation work was discussed in the quarterly report for the second quarter of CY 2009. The modification was submitted for CDPHE review and approval on September 21, 2009.

Inclinometer measurements were taken on January 26, February 24, and March 31, 2010. Very little deflection of the inclinometers was noted in January and February. The March results indicated localized movement associated with the area of the three inclinometers on the west side of the OLF, between diversion Berms 1 and 3 (inclinometers 82208I, 82308I, and 82408I), with approximately 0.25 to 0.5 inch of deflection. The surface cracking in the vicinity of Berm 1 appears consistent with the observed inclinometer deflection.

The deflection noticed in March, which had high precipitation, appears consistent with the findings of the geotechnical investigation that there is an organic layer near the bedrock surface that is a weak zone for the overlying soil, especially if it becomes lubricated by subsurface moisture. Seeps 4 and 7 also showed significant moisture and had surface expressions during this period. As described in Contact Record 2008-07, in 2008, the West Perimeter Channel was regraded, and a channel drain was added to improve the stability of the western side of the OLF cover.

## **2.3 Groundwater Treatment Systems**

Four groundwater treatment systems are operated and maintained in accordance with requirements defined in RFLMA and the RFSOG. Three of these systems (the Mound Site Plume Treatment System [MSPTS], East Trenches Plume Treatment System [ETPTS], and Solar Ponds Plume Treatment System [SPPTS]) include a groundwater intercept trench (collection trench), which is similar to a French drain with an impermeable membrane on the downgradient side. Groundwater entering the trench is routed through a drain pipe into one or more treatment cells, where it is treated and then discharged. The fourth system, the PLF Treatment System (PLFTS), treats water from the northern and southern components of the Groundwater Intercept System (GWIS) and flow from the PLF seep.

### **2.3.1 Mound Site Plume Treatment System**

Routine maintenance activities continued at the MSPTS through the first quarter of CY 2010. These activities included raking the media each week, checking and flushing filters, and inspecting influent and effluent flow conditions.

### **2.3.2 East Trenches Plume Treatment System**

Routine maintenance activities continued at the ETPTS through the first quarter of CY 2010. These activities included checking influent and effluent flow conditions and water levels in the cells.



### **2.3.3 Solar Ponds Plume Treatment System**

Routine maintenance activities continued at the SPPTS through the first quarter of CY 2010. These activities included weekly inspections of the solar/battery systems that power the pumps, the operation of the pumps, and influent and effluent flow conditions.

The Phases II and III upgrades that were completed in the second quarter of CY 2009 continued to be a focal point for optimization efforts. A second tracer test was performed on the Phase II cell and determined that preferential flow through the media was not likely. Sampling and analysis of the treatment media in this cell was planned for the second quarter of CY 2010.

Optimization efforts in Phase III (such as reducing heat loss from the various cells and vaults, and adjusting carbon dosing rates and influent flow rates) continued.

### **2.3.4 PLF Treatment System**

Routine maintenance activities continued at the PLFTS through the first quarter of CY 2010. These activities generally consisted of inspecting the system for any issues or potential problems.

## **2.4 Erosion Control and Revegetation**

Maintenance of the Site erosion control features required continued effort throughout the second quarter of CY 2009, especially following high-wind or precipitation events. Erosion wattles and matting loosened and displaced by high winds or rain were repaired. Erosion controls were installed and maintained for the various projects that were ongoing during the second quarter of CY 2009. Several areas were interseeded with additional native species to increase vegetation cover.

## **3.0 Environmental Monitoring**

This section summarizes the environmental monitoring conducted in accordance with RFLMA.

### **3.1 Water Monitoring**

This quarterly report presents data collected during the first quarter of CY 2010. This section includes:

- A discussion of analytical results for the point-of-compliance (POC), point-of-evaluation (POE), PLF, and OLF monitoring objectives; and
- A summary of area-of-concern (AOC) well, boundary well, evaluation well, and sentinel well monitoring; treatment system monitoring; and Resource Conservation and Recovery Act (RCRA) groundwater monitoring and surface water support monitoring at the Site.

Monitoring locations, sampling criteria, and evaluation protocols for all water monitoring objectives in the following sections are detailed in RFLMA Attachment 2 and the RFSOG. Appendix C provides analytical water quality data for the first quarter of CY 2010.

### 3.1.1 Water Monitoring Highlights

During the first quarter of CY 2010, the water monitoring network successfully met the targeted monitoring objectives as required by RFLMA and in conformance with RFSOG implementation guidance. The network consisted of 11 automated gaging stations, 10 surface water grab-sampling locations, 8 treatment system locations, 99 wells, and 8 precipitation gages. During the quarter, 40 flow-paced composite samples, 2 surface water grab samples, 12 treatment system samples, and 10 groundwater samples were collected.<sup>1</sup>

All water-quality data at the RFLMA POCs remained well below the applicable standards through the first quarter of CY 2010.

All POE analyte concentrations remained below reporting levels as of the end of the first quarter of CY 2010. Erosion and runoff controls, as well as extensive revegetation efforts, have been effective in measurably reducing both sediment transport and constituent concentrations. As of the end of the first quarter of CY 2010, all of the POEs continued to show plutonium-239, plutonium-240, and americium-241 activities well below the RFLMA standards. With the removal of impervious areas (resulting in decreased runoff), the stabilization of soils within the drainages, and the progression of revegetation, water quality is expected to continue to be acceptable.

Groundwater monitoring results will be evaluated as part of the 2010 Annual Report.

### 3.1.2 POC Monitoring

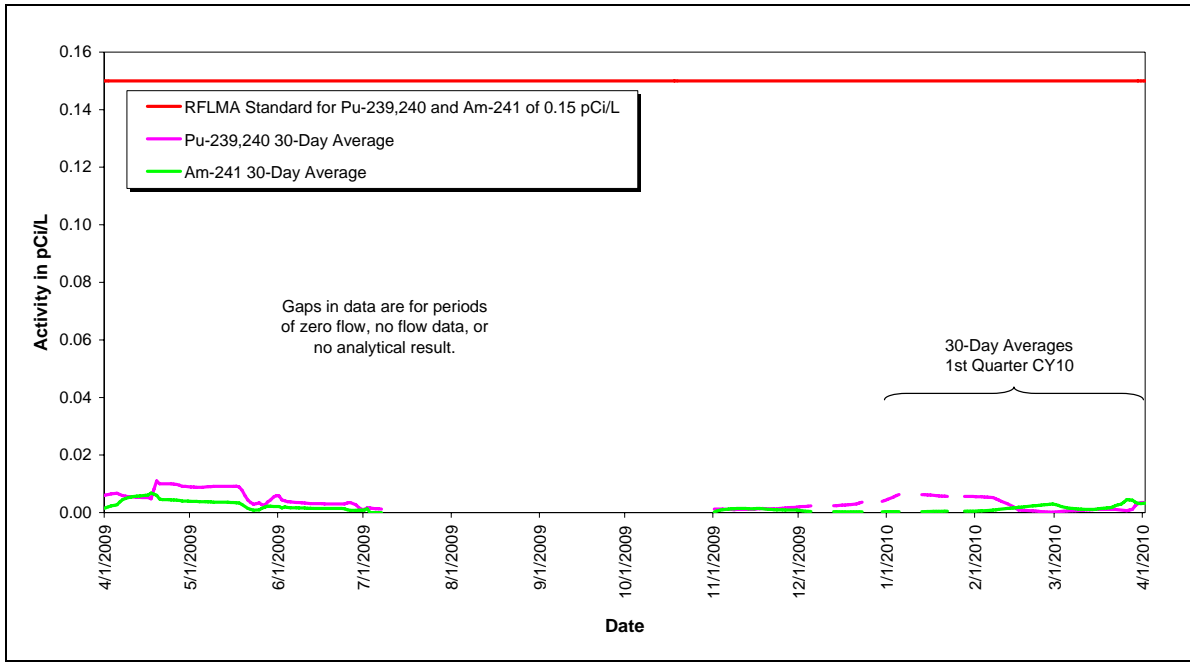
The following sections include summary tables and plots showing the applicable 30-day and 12-month rolling averages for the POC analytes.

#### 3.1.2.1 Location GS01

Monitoring location GS01 is on Woman Creek at Indiana Street. Figure 2 and Figure 3 show no occurrences of reportable 30-day averages for the quarter.

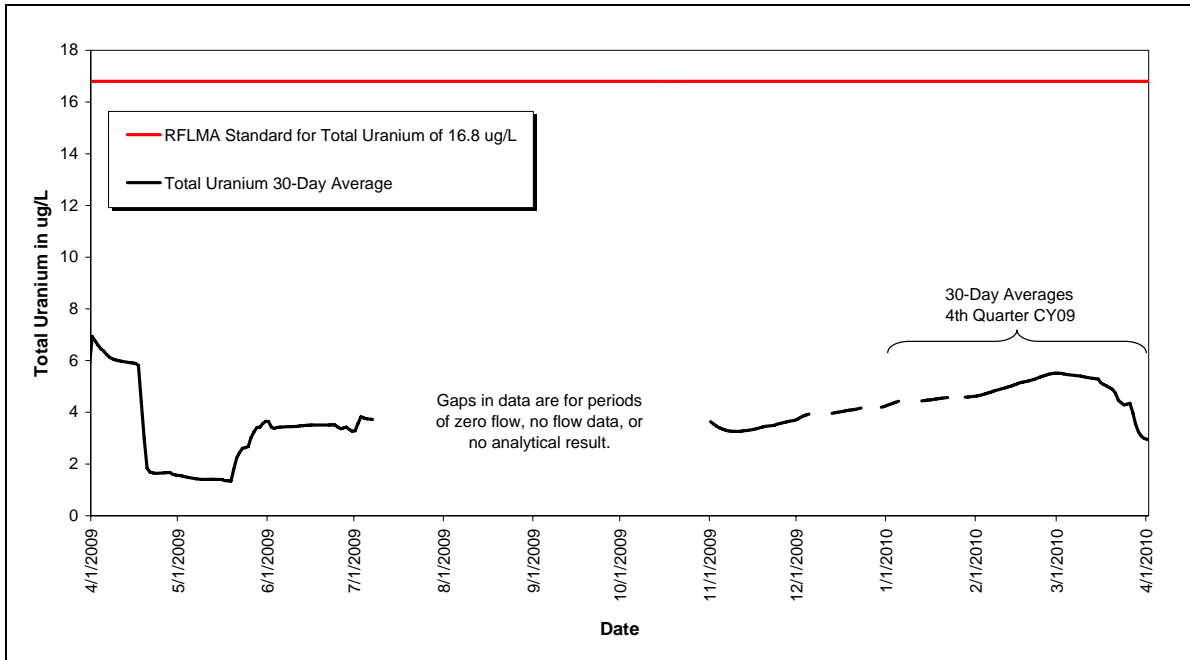
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<sup>1</sup> Composite samples consist of multiple aliquots (“grabs”) of identical volume. Each grab is delivered by the automatic sampler to the composite container at each predetermined flow volume or time interval. During the first quarter of CY 2010, the 40 flow-paced composites comprised 2,497 individual grabs.



pCi/L = picocuries per liter

Figure 2. Volume-Weighted 30-Day Average Plutonium and Americium Activities at GS01: Calendar Year Ending First Quarter CY 2010



µg/L = micrograms per liter

Figure 3. Volume-Weighted 30-Day Average Total Uranium Concentrations at GS01: Calendar Year Ending First Quarter CY 2010

### 3.1.2.2 Location GS03

Monitoring location GS03 is on Walnut Creek at Indiana Street. Figure 4 and Figure 5 show no occurrences of reportable 30-day averages for the quarter.

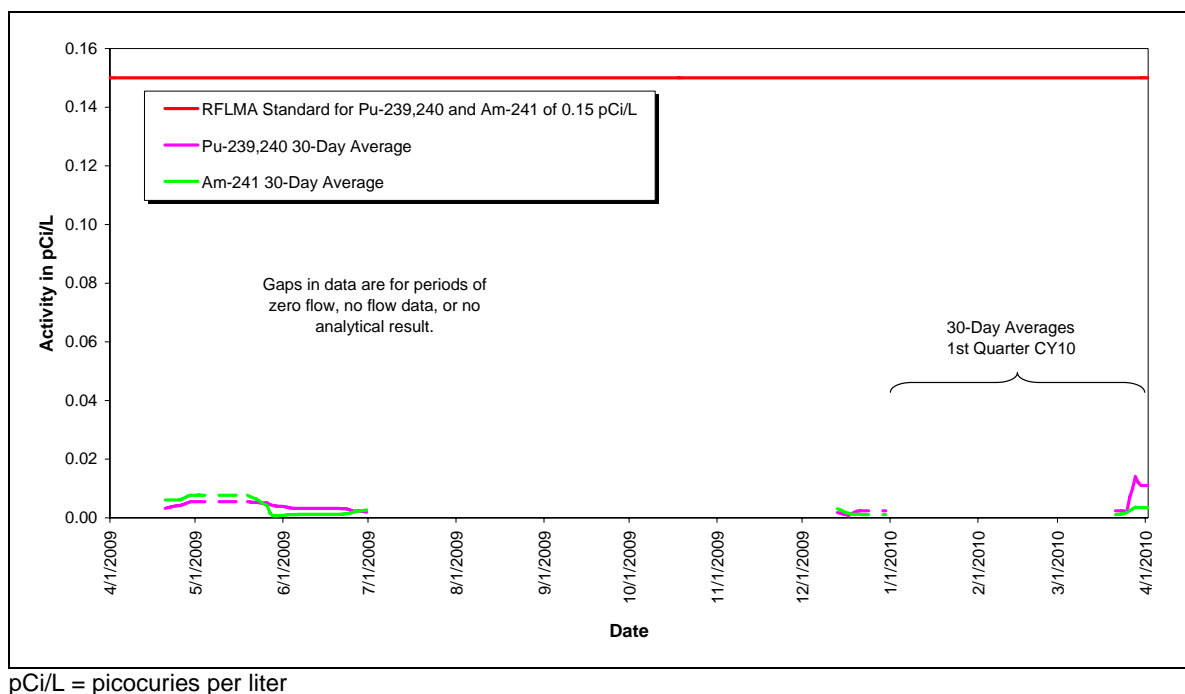


Figure 4. Volume-Weighted 30-Day Average Plutonium and Americium Activities at GS03: Calendar Year Ending First Quarter CY 2010

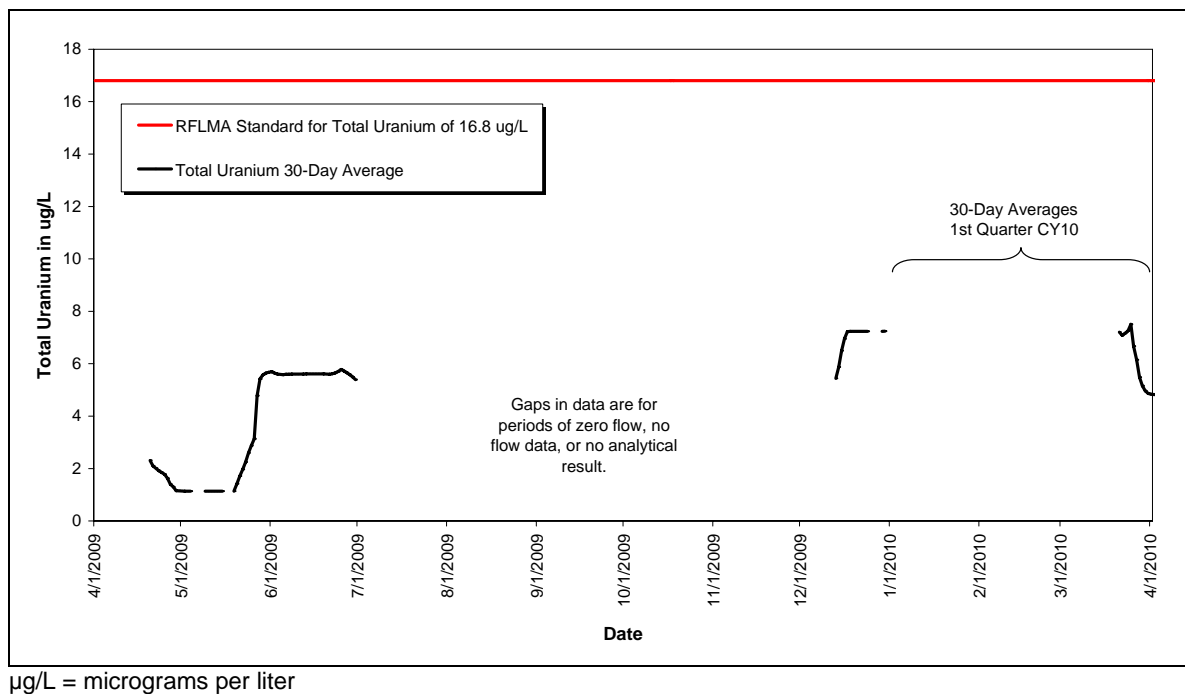
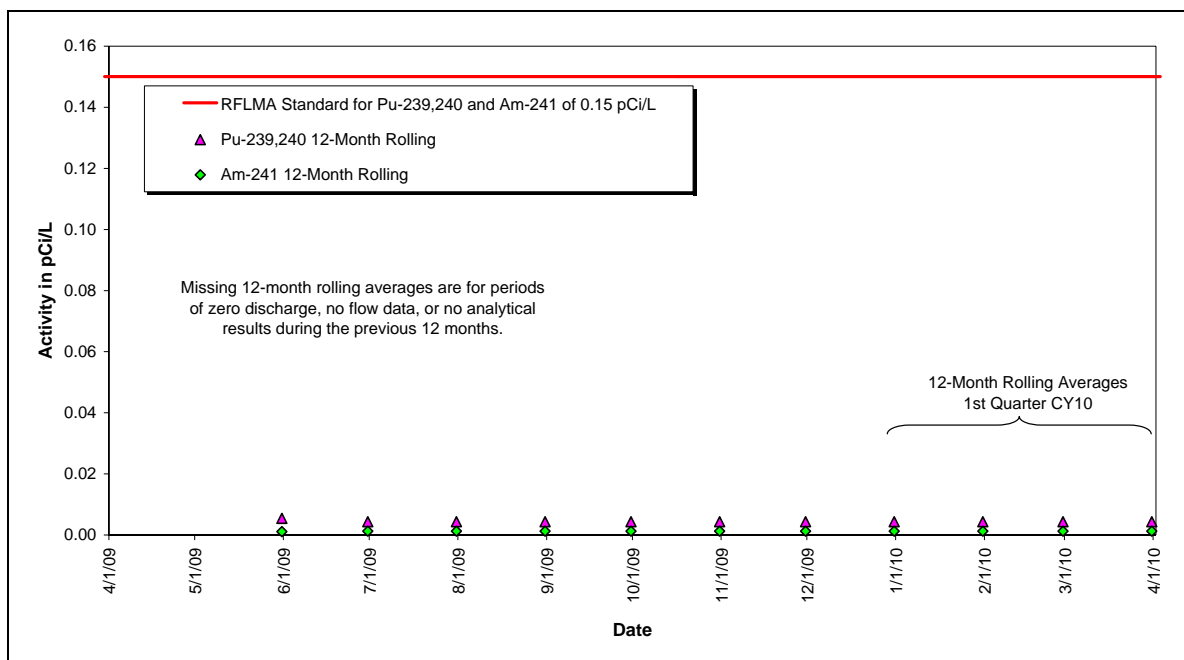


Figure 5. Volume-Weighted 30-Day Average Total Uranium Concentrations at GS03: Calendar Year Ending First Quarter CY 2010

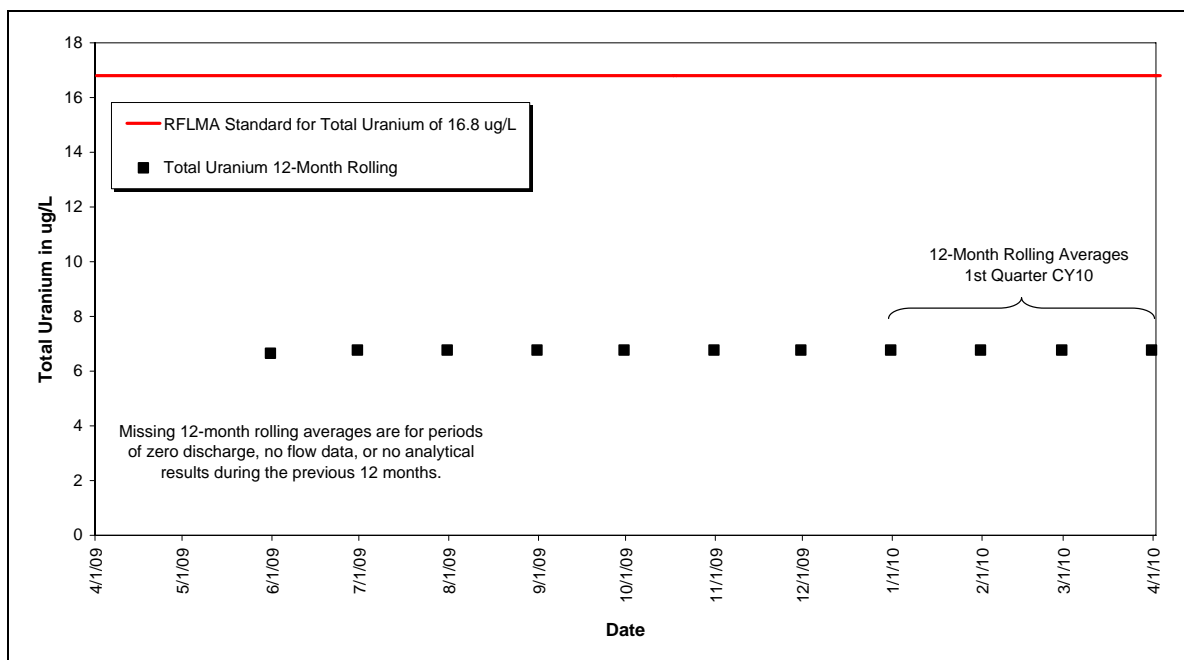
### 3.1.2.3 Location GS08

Monitoring location GS08 is on South Walnut Creek at the outlet of Pond B-5. Figure 6, Figure 7, and Figure 8 show no occurrences of reportable 12-month rolling averages for the quarter.



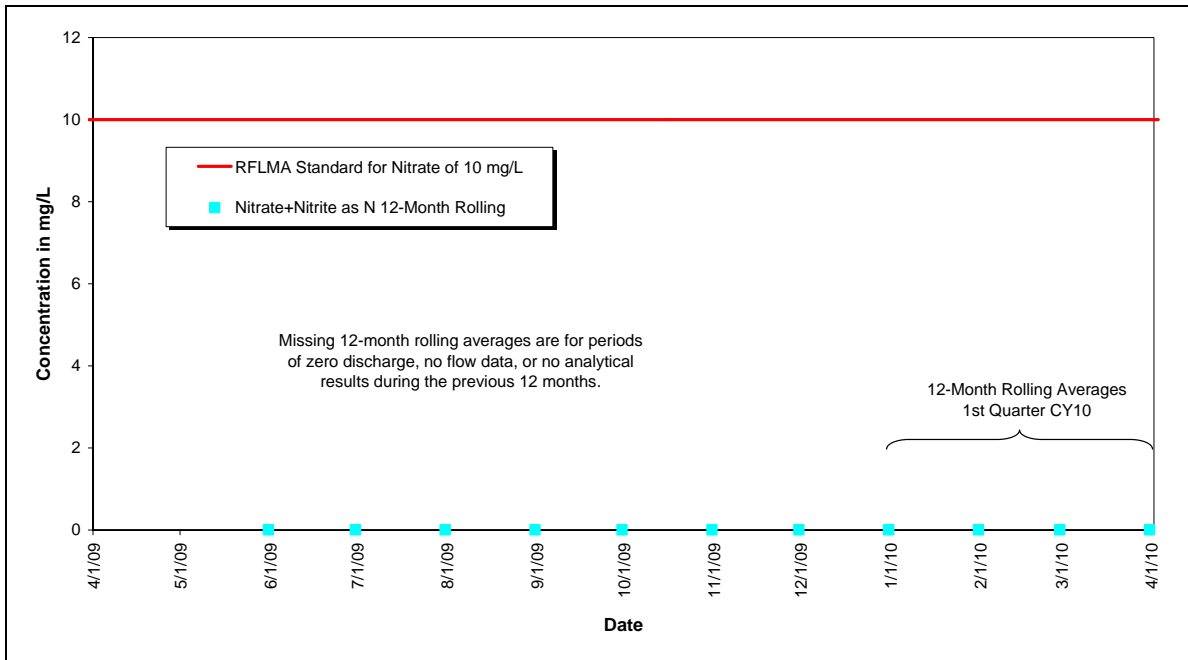
pCi/L = picocuries per liter

Figure 6. Volume-Weighted 12-Month Rolling Average Plutonium and Americium Activities at GS08: Calendar Year Ending First Quarter CY 2010



µg/L = micrograms per liter

Figure 7. Volume-Weighted 12-Month Rolling Average Total Uranium Concentrations at GS08: Calendar Year Ending First Quarter CY 2010

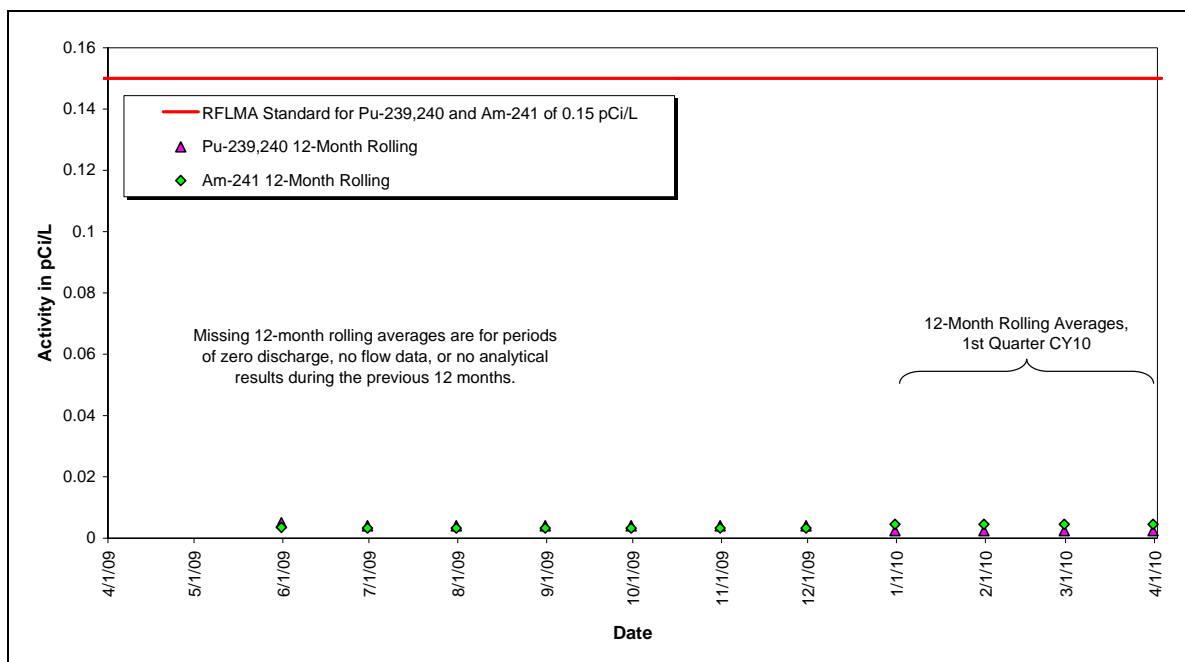


Note: Nitrate + nitrite as nitrogen 12-month averages are conservatively compared to the nitrate standard only. mg/L = milligrams per liter

Figure 8. Volume-Weighted 12-Month Rolling Average Nitrate + Nitrite as Nitrogen Concentrations at GS08: Calendar Year Ending First Quarter CY 2010

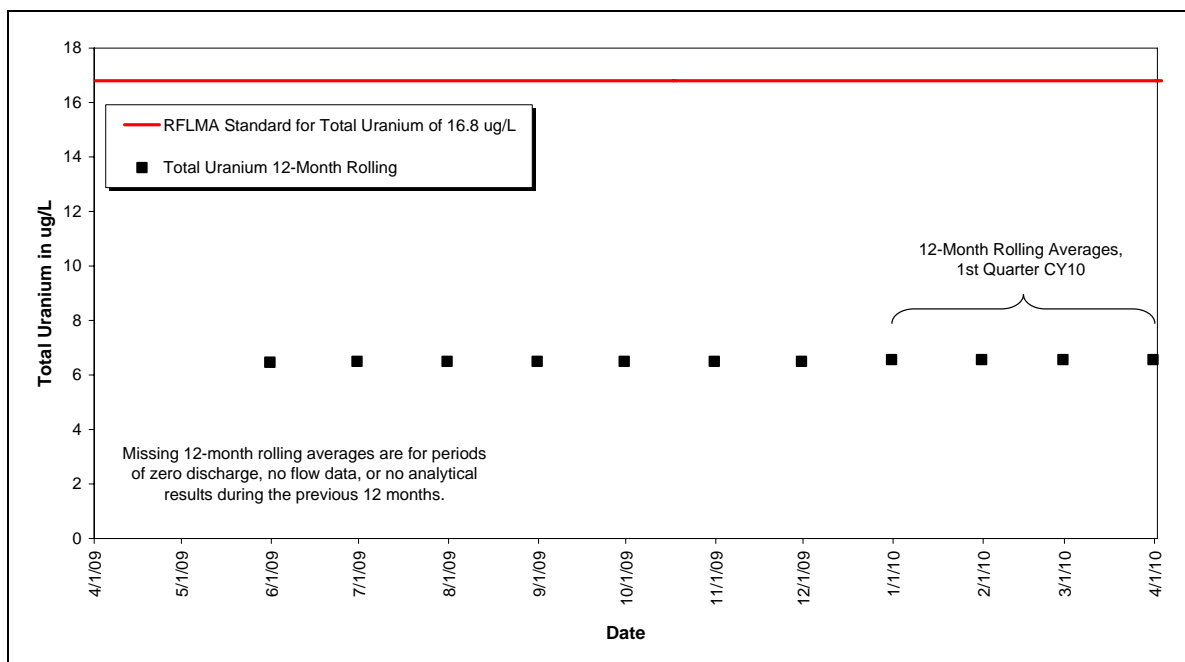
### 3.1.2.4 Location GS11

Monitoring location GS11 is on North Walnut Creek at the outlet of Pond A-4. Figure 9, Figure 10, and Figure 11 show no occurrences of reportable 12-month rolling averages for the quarter.



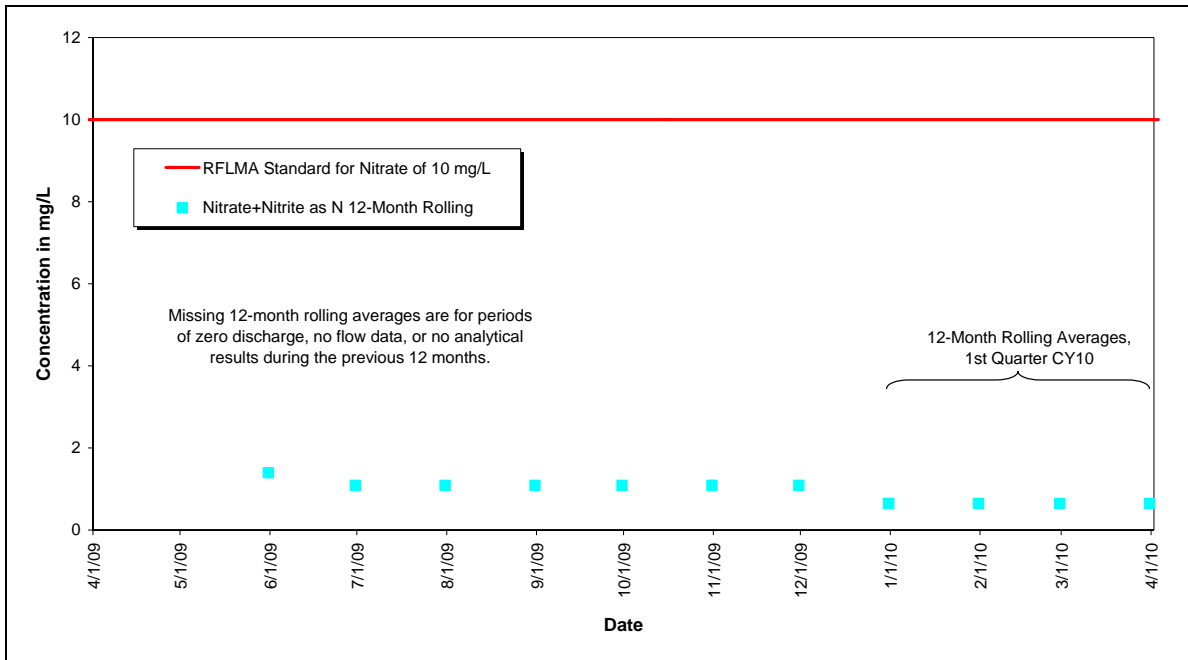
pCi/L = picocuries per liter

Figure 9. Volume-Weighted 12-Month Rolling Average Plutonium and Americium Activities at GS11: Calendar Year Ending First Quarter CY 2010



µg/L = micrograms per liter

Figure 10. Volume-Weighted 12-Month Rolling Average Total Uranium Concentrations at GS11: Calendar Year Ending First Quarter CY 2010



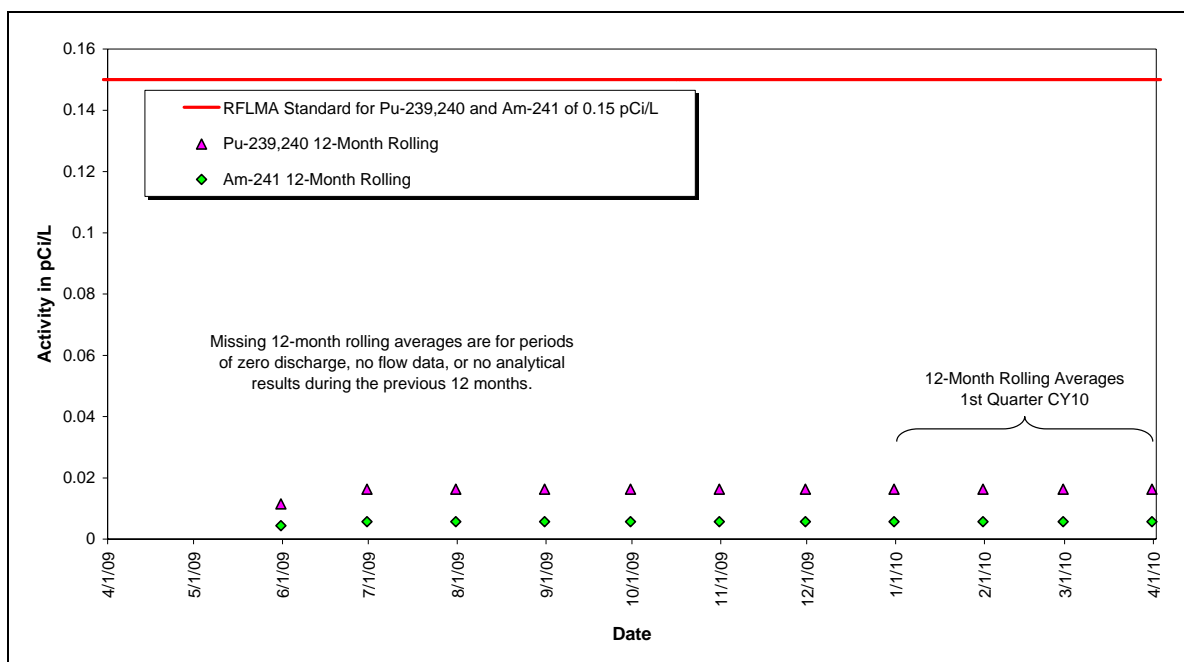
Note: Nitrate + nitrite as nitrogen 12-month averages are conservatively compared to the nitrate standard only. mg/L = milligrams per liter

Figure 11. Volume-Weighted 12-Month Rolling Average Nitrate + Nitrite as Nitrogen Concentrations at GS11: Calendar Year Ending First Quarter CY 2010



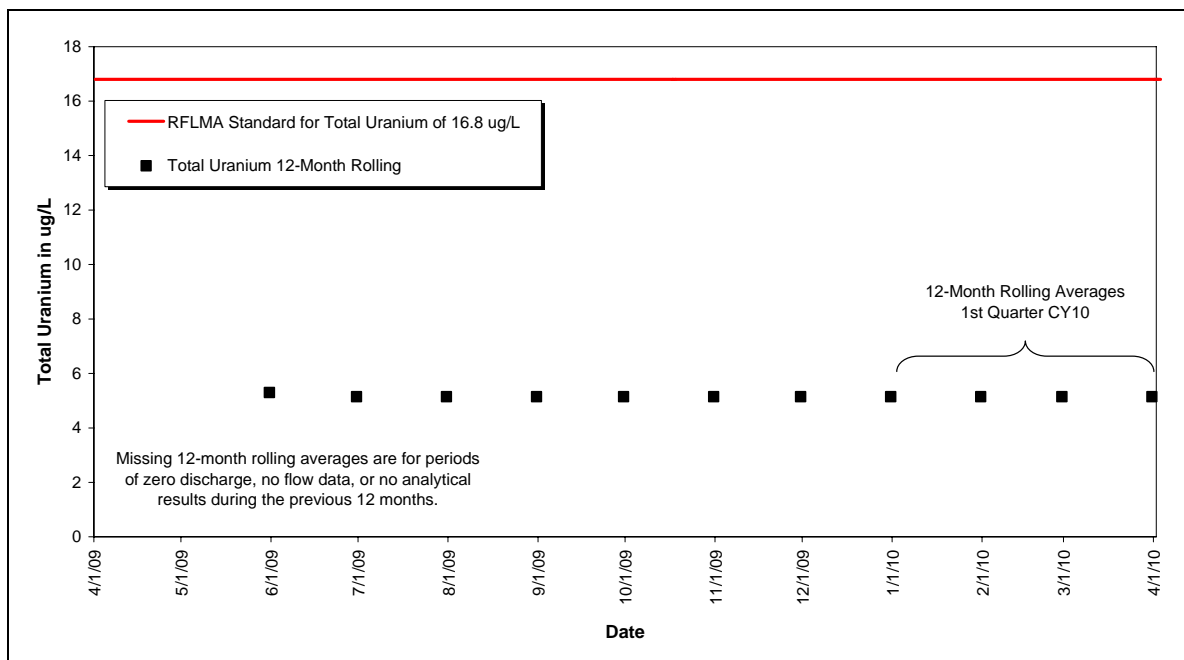
### 3.1.2.5 Location GS31

Monitoring location GS31 is on Woman Creek at the outlet of Pond C-2. Figure 12 and Figure 13 show no occurrences of reportable 12-month rolling averages for the quarter.



pCi/L = picocuries per liter

Figure 12. Volume-Weighted 12-Month Rolling Average Plutonium and Americium Activities at GS31: Calendar Year Ending First Quarter CY 2010



µg/L = micrograms per liter

Figure 13. Volume-Weighted 12-Month Rolling Average Total Uranium Activities at GS31: Calendar Year Ending First Quarter CY 2010

### 3.1.3 POE Monitoring

The following sections include summary tables and plots showing the applicable 30-day and 12-month rolling averages for the POE analytes.

#### 3.1.3.1 Location GS10

Monitoring location GS10 is on South Walnut Creek just upstream of the B-Series ponds. Figure 14 and Figure 15 show no reportable plutonium, americium, or total uranium values during the quarter. In addition, none of the 85th-percentile 30-day average metals concentrations were reportable for the quarter.

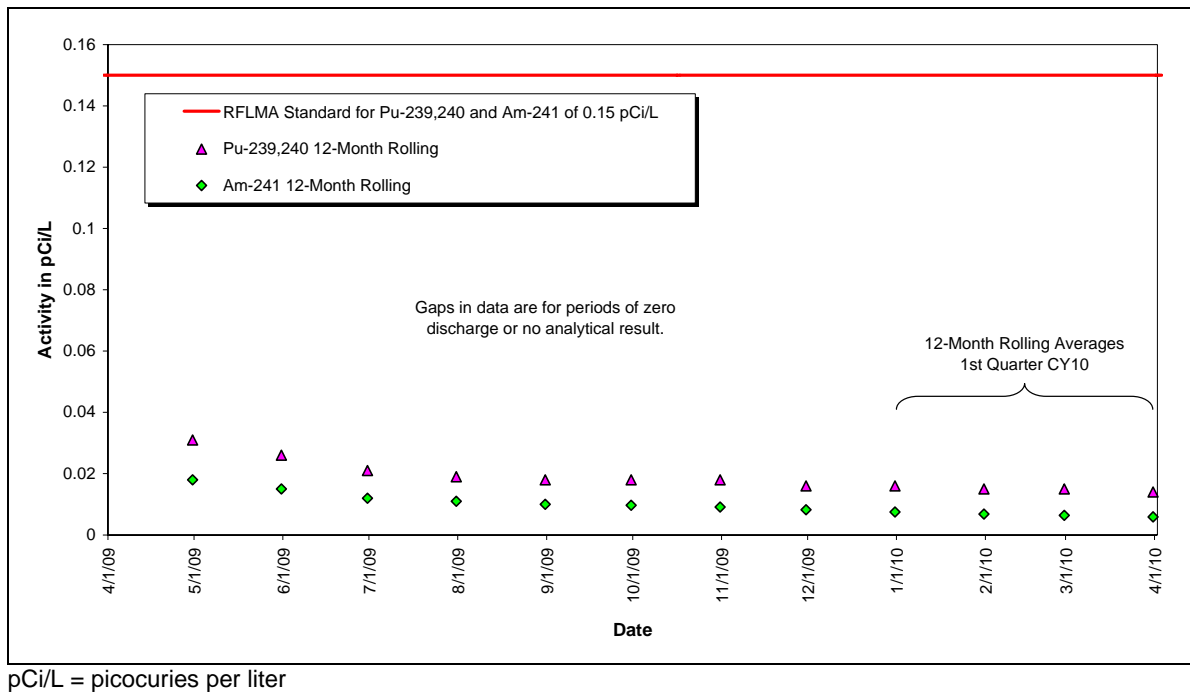
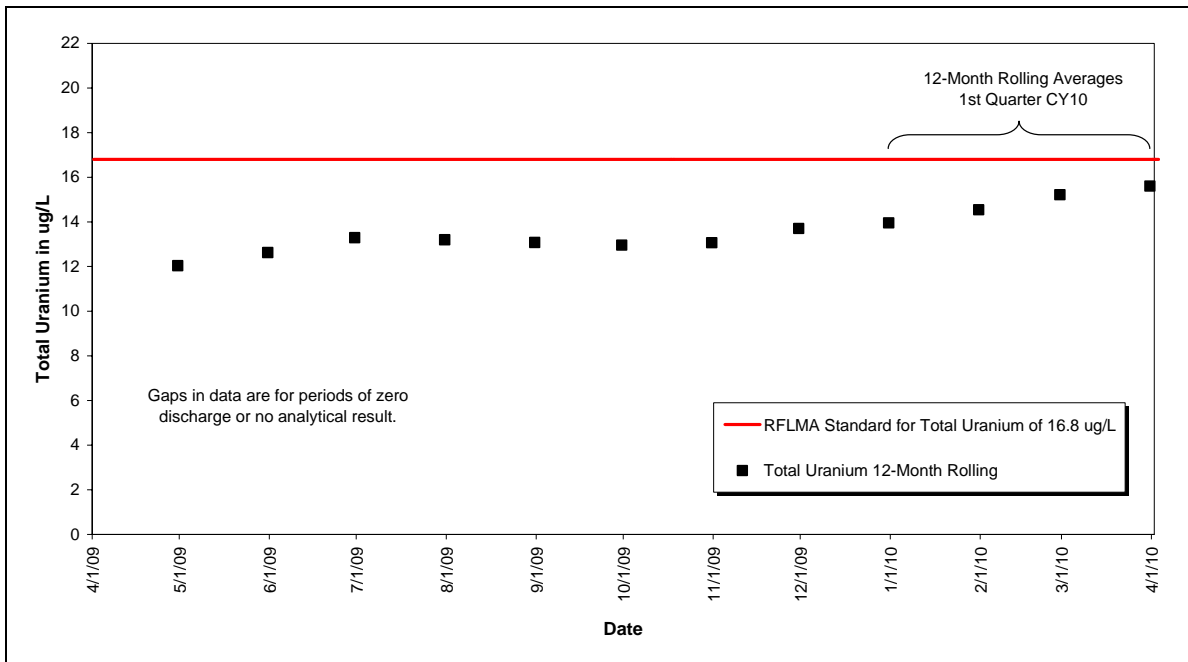


Figure 14. Volume-Weighted Average Plutonium and Americium Compliance Values at GS10: Calendar Year Ending First Quarter CY 2010

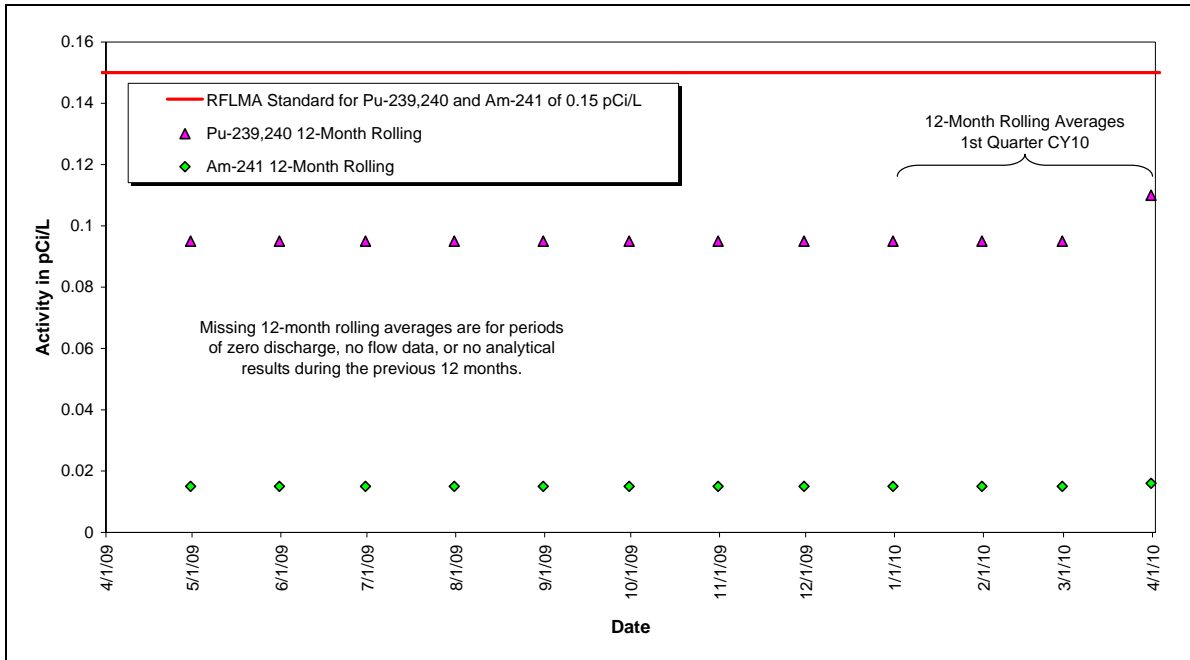


µg/L = micrograms per liter

Figure 15. Volume-Weighted Average Total Uranium Compliance Values at GS10: Calendar Year Ending First Quarter CY 2010

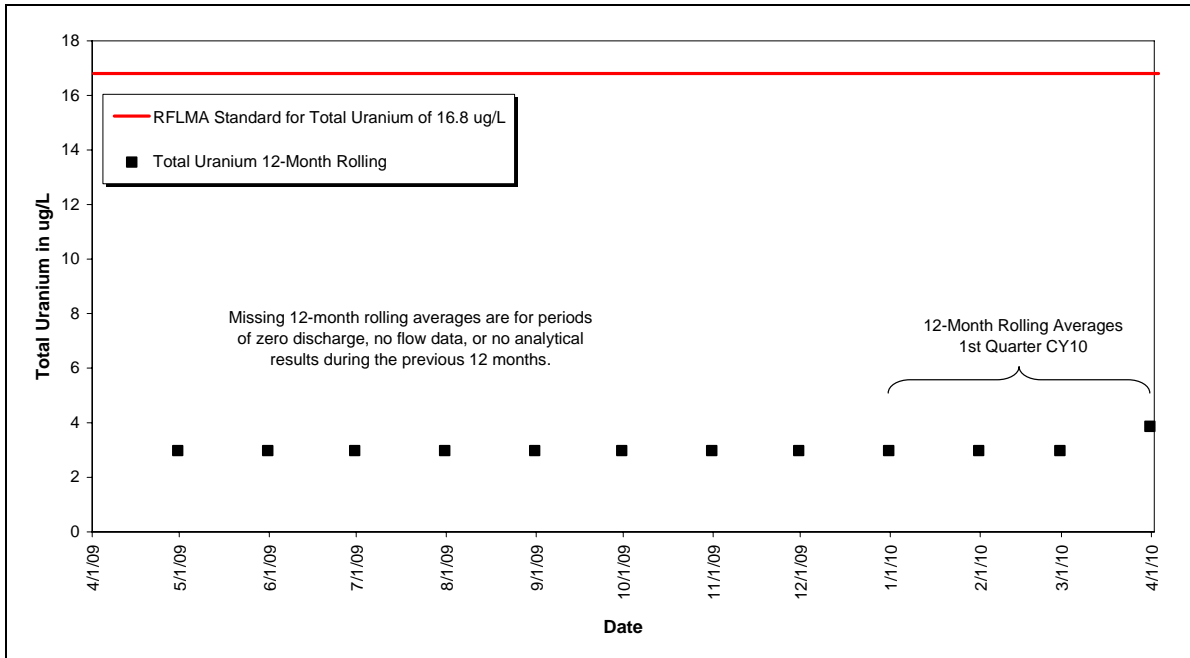
### 3.1.3.2 Location SW027

Monitoring location SW027 is at the end of the South Interceptor Ditch at the inlet to Pond C-2. Figure 16 and Figure 17 show no reportable plutonium, americium, or total uranium values during the quarter. In addition, none of the 85th-percentile 30-day average metals concentrations were reportable for the quarter.



pCi/L = picocuries per liter

Figure 16. Volume-Weighted Average Plutonium and Americium Compliance Values at SW027: Calendar Year Ending First Quarter CY 2010

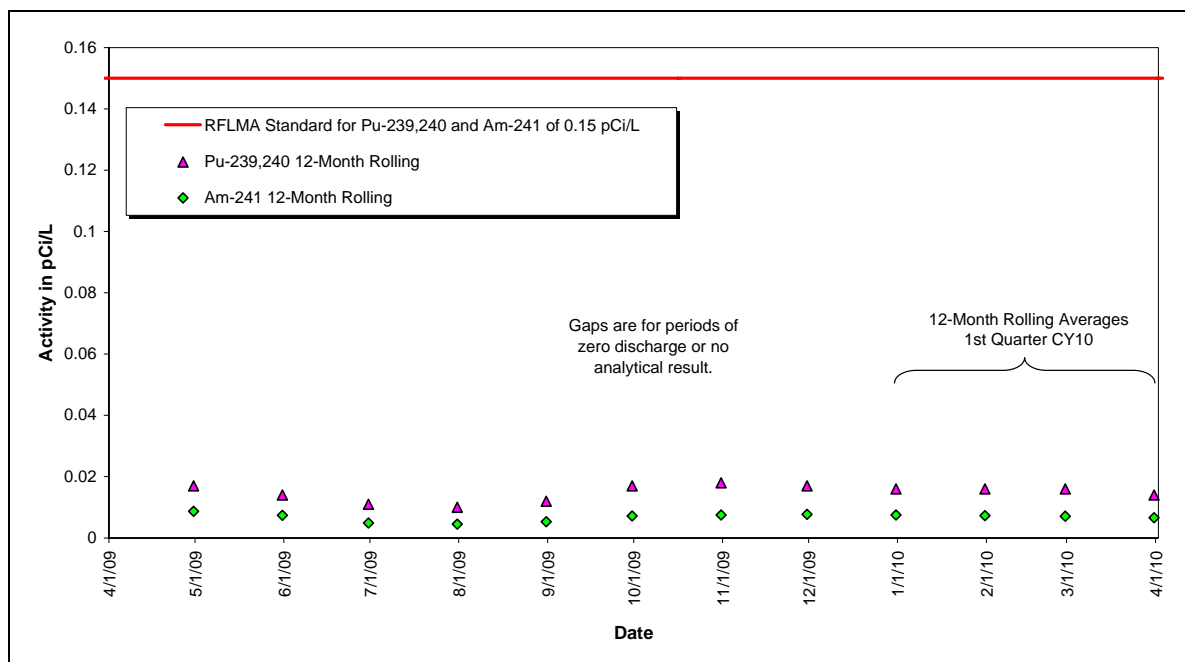


ug/L = micrograms per liter

Figure 17. Volume-Weighted Average Total Uranium Compliance Values at SW027: Calendar Year Ending First Quarter CY 2010

### 3.1.3.3 Location SW093

Monitoring location SW093 is on North Walnut Creek 1,300 feet upstream of the A-Series ponds. Figure 18 and Figure 19 show no reportable plutonium, americium, or total uranium values during the quarter. None of the 85th-percentile 30-day average metals concentrations were reportable for the quarter.



pCi/L = picocuries per liter

Figure 18. Volume-Weighted Average Plutonium and Americium Compliance Values at SW093: Calendar Year Ending First Quarter CY 2010

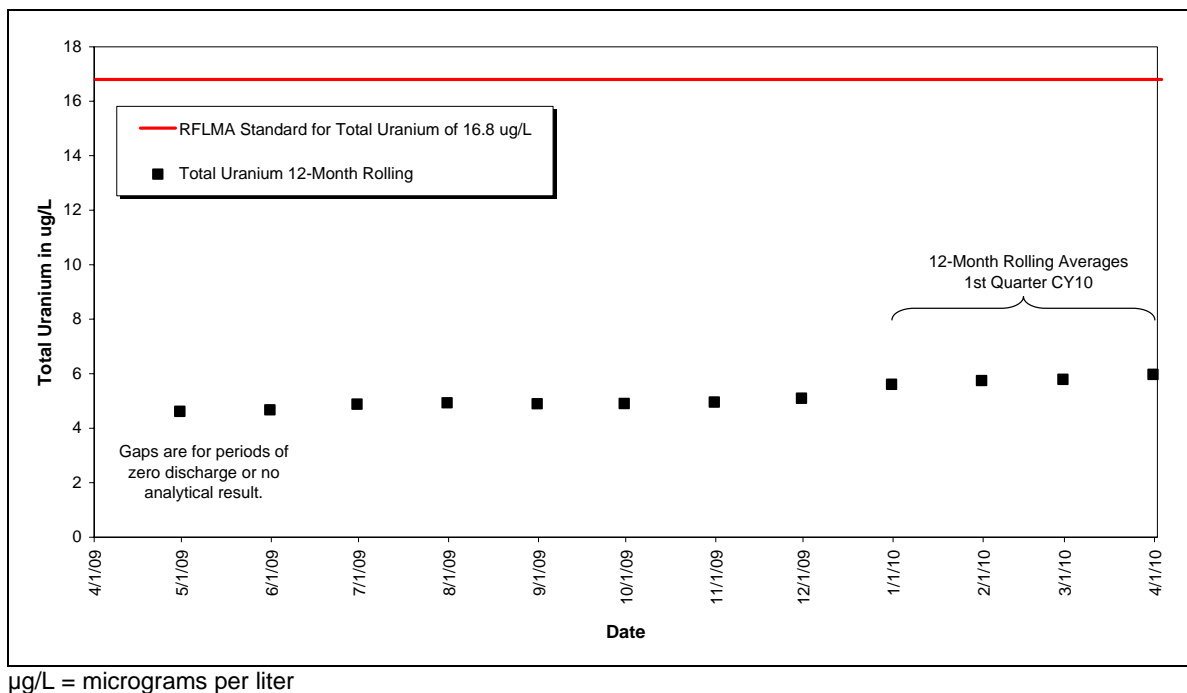


Figure 19. Volume-Weighted Average Total Uranium Compliance Values at SW093: Calendar Year Ending First Quarter CY 2010

### 3.1.4 AOC Wells and Surface Water Location SW018

AOC wells and SW018 were not scheduled for RFLMA monitoring in the first quarter of CY 2010.

### 3.1.5 Boundary Wells

Boundary wells were not scheduled for RFLMA monitoring in the first quarter of CY 2010.

### 3.1.6 Sentinel Wells

Sentinel wells were not scheduled for RFLMA monitoring in the first quarter of CY 2010.

### 3.1.7 Evaluation Wells

Evaluation wells were not scheduled for RFLMA monitoring in the first quarter of CY 2010.

### 3.1.8 PLF Monitoring

All RCRA groundwater monitoring wells at the PLF were sampled during the first quarter of CY 2010. Analytical results (Appendix C) will be discussed and statistically evaluated as part of the 2010 Annual Report. Section 3.1.10.4 discusses surface water monitoring at the PLF.

### **3.1.9 OLF Monitoring**

All RCRA groundwater monitoring wells at the OLF were sampled during the first quarter of CY 2010. Analytical results (Appendix C) will be discussed and statistically evaluated as part of the 2010 Annual Report.

During the third quarter of CY 2009, when routine surface water sampling was performed at Woman Creek downstream of the OLF (GS59), all available analytical results were less than the applicable surface water standards. (Results from composite samples for the period September 22 through November 17, 2009, were not available for this report.)

### **3.1.10 Groundwater Treatment System Monitoring**

As described in Section 2.3, contaminated groundwater is intercepted and treated in four areas of the Site. The MSPTS, ETPTS, and SPPTS include a groundwater intercept trench. Groundwater entering the trench is routed through a drain pipe into one or more treatment cells, where it is treated and then discharged to surface water. The PLFTS treats water from the northern and southern components of the GWIS and flow from the PLF seep.

#### ***3.1.10.1 Mound Site Plume Treatment System***

MSPTS monitoring locations were not scheduled for RFLMA sampling in the first quarter of CY 2010.

#### ***3.1.10.2 East Trenches Plume Treatment System***

ETPTS monitoring locations were not scheduled for RFLMA sampling in the first quarter of CY 2010.

#### ***3.1.10.3 Solar Ponds Plume Treatment System***

SPPTS monitoring locations were not scheduled for RFLMA sampling in the first quarter of CY 2010. Non-RFLMA samples were collected at several locations to support continuing evaluation and optimization of the Phase II and Phase III upgrades. These data will be discussed in the 2010 Annual Report.

#### ***3.1.10.4 PLF Treatment System***

During the collection of the January 27, 2010, sample at the system influent (location PLFSEEPINF), the flow rate was 1.20 gpm. As of March 31, 2010, the Landfill Pond outlet remained in an open configuration.

During the first quarter of CY 2010, routine sampling of the treated effluent exiting the system (location PLFSYSEFF) showed that no analyte concentrations were greater than the applicable surface water standard.

### 3.1.11 Pre-Discharge Monitoring

Pre-discharge samples are collected prior to discharge at Ponds A-4, B-5, and C-2 on North Walnut Creek, South Walnut Creek, and Woman Creek, respectively.

No pre-discharge samples were collected during the first quarter of CY 2010.

## 4.0 Adverse Biological Conditions

No evidence of adverse biological conditions (e.g., unexpected mortality or morbidity) was observed during monitoring and maintenance activities in the first quarter of CY 2010.

## 5.0 References

DOE (U.S. Department of Energy), 2006a. *Corrective Action Decision/Record of Decision for Rocky Flats Plant (USDOE) Peripheral Operable Unit and Central Operable Unit*, September.

DOE (U.S. Department of Energy), 2006b. *Final Landfill Monitoring and Maintenance Plan, Rocky Flats Environmental Technology Site, Original Landfill*, Rocky Flats Environmental Technology Site, Golden, Colorado, February.

DOE (U.S. Department of Energy), 2007a. *Rocky Flats Legacy Management Agreement*, March 14.

DOE (U.S. Department of Energy), 2007b. *Second Five-Year Review Report for the Rocky Flats Site, Jefferson and Boulder Counties, Colorado*, Office of Legacy Management, September.

DOE (U.S. Department of Energy), 2008a. *Present Landfill Monitoring and Maintenance Plan and Post-Closure Plan*, Office of Legacy Management, Rocky Flats Environmental Technology Site, Golden, Colorado, March.

DOE (U.S. Department of Energy), 2008b. *Rocky Flats Site Quarterly Report of Site Surveillance and Maintenance Activities, First Quarter Calendar Year 2008*, Office of Legacy Management, July.

DOE (U.S. Department of Energy), 2009a. *Rocky Flats Site Operations Guide*, LMS/RFS/S03037, Office of Legacy Management, January.

DOE (U.S. Department of Energy), 2009b. *Rocky Flats Site Quarterly Report of Site Surveillance and Maintenance Activities, Second Quarter Calendar Year 2009*, Office of Legacy Management, October.

DOE (U.S. Department of Energy), 2009c. *Rocky Flats Site Annual Report of Site Surveillance and Maintenance Activities, Calendar Year 2008*, Office of Legacy Management, April.

DOE (U.S. Department of Energy), 2010. *Rocky Flats Site Annual Report of Site Surveillance and Maintenance Activities, Calendar Year 2009*, Office of Legacy Management, April.



## **POCs and Dam Breach**

- Cover memo
- Letters from Stewardship Council, members governments, and the Woman Creek Reservoir Authority

# ROCKY FLATS STEWARDSHIP COUNCIL

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

## MEMORANDUM

**TO:** Board  
**FROM:** David Abelson  
**SUBJECT:** Continuing Discussion -- Changes to Monitoring Points of Compliance and Dam Breach EA  
**DATE:** September 2, 2010

---

At this meeting, we will continue discussing DOE's plan to move the surface water and groundwater points of compliance (POCs) from Indiana Street to the eastern boundary of the DOE-managed lands (known as the Central Operating Unit or COU). As we did at the August 16<sup>th</sup> meeting, we will also weave into this discussion the dam breach environmental assessment (EA), as moving the POCs and the dam breach are linked activities.

In preparation for the conversation, please review the draft meeting minutes that are included in this packet. Also, please review your August 16<sup>th</sup> meeting packet as it contains the proposed RFLMA modifications and corresponding contact record. (If you do not have the meeting packet, you can find it on the Stewardship Council's website:  
<http://www.rockyflatssc.org/agendas.html>)

There are a few updates since the August meeting:

1. Broomfield met with Martha Rudolph, CDPHE's executive director. I've been told that CDPHE will establish a group to focus on water issues. One of Broomfield's requests that they discussed at the August meeting was DOE and/or the agencies re-establishing the water working group, a collaborative effort during cleanup aimed at proactively addressing water quality issues. CDPHE's group would be composed of the downstream communities, CDPHE, DOE, EPA, and congressional staff. It would work to include the downstream communities in any decision-making process.
2. Broomfield met with Ray Plienness and Thomas Pauling, both with DOE's Office of Legacy Management. Broomfield tells me they conveyed their concerns and received a commitment from Ray and Thomas to take their concerns under consideration and return with a path forward regarding the EA. Ray will not issue the EA until he formulates this path forward and conveys that strategy to Broomfield.

### **Modification to DOE's Proposal**

One modification to its proposal that DOE discussed at the August meeting was continuing to take water samples at the current monitoring points along Indiana so long as it manages the terminal ponds in a flow through condition. (The dams are not slated to be breached until 2018-2020, so the ponds would be managed in a flow-through condition until that time.) That data gathered would not be part of a regulatory compliance program, but would provide needed water quality data that would help DOE, the regulatory agencies, and communities, among others, evaluate the impact of breaching the terminal ponds.

### **Straw Man Policy Proposal**

At the August meeting, in order to spur conversation, I offered the following straw man for the board's consideration. These ideas were presented as a target to help shape a conversation with the goal of adopting a board recommendation.

- 1) DOE should not breach dams
- 2) The board will not oppose managing the ponds in flow-through configuration, and will revisit the decision to breach in the future. However, if monitoring shows that there is a problem, DOE should close the dam valves and investigate the source(s) of the problem.
- 3) DOE should continue collecting water at the same points along Indiana where they currently test water quality, and use these results as part of their decision about whether to breach at a later date.
- 4) The establishment of new POCs at the outfall of the terminal ponds is acceptable, as long as the Indiana data is also used to evaluate water quality.

In order to have time to digest the aforementioned modification to DOE's proposal, the board opted not to try to formulate a policy at this meeting, but agreed to wait until the September meeting.

### **Letters**

Attached are letters the Stewardship Council and local governments have issued on the POCs. If I am missing any relevant letters about the POCs, please forward them to me and I will circulate them.

Please let me know what questions you have. Thanks.

# ROCKY FLATS STEWARDSHIP COUNCIL

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

April 8, 2010

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

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

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

**RE: Rocky Flats Legacy Management Agreement – Proposed Removal of Terminal Ponds and New Surface Water Monitoring and Compliance Points**

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

As the Department of Energy (DOE)-designated Local Stakeholder Organization for Rocky Flats, the Rocky Flats Stewardship Council is expressing its support of the downstream communities to advocate for retaining the terminal ponds A-4, B-5 and C-2. In addition, if any proposed changes include the removal of the terminal ponds and/or the establishment of new surface water monitoring and compliance points with consideration of groundwater in alluvium, the parties should consider such action as a *significant change* from existing requirements of the Rocky Flats Legacy Management Agreement (RFLMA). The downstream communities, which are asset holders that collectively represent more than 300,000 residents, have expressed their support of retaining the terminal ponds, which serve as their last measure of protection to protect surface water quality.

The communities favor maintaining the terminal ponds primarily based on two concerns: 1) uncertainties resulting from an insufficient post-closure period of record for assessing hydrologic conditions at the site, and 2) the inability to fully evaluate the effectiveness of the remedy due to the ongoing construction activities, recent operational changes, and future plans for phased modifications at landfills and groundwater treatment systems.

In addition, the downstream communities cannot support the establishment of new surface water monitoring and compliance points due to:

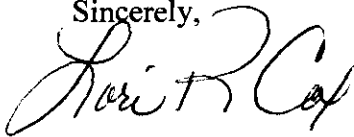
1. The lack of information related to the monitoring frequency, standards, and requirements associated with the new sites;
2. The uncertainty on how collected data will be used to measure remedy performance, maintain public and environmental safety, comply with regulatory standards, and demonstrate the effectiveness of the existing physical and institutional controls; and
3. The absence of a Contingency Plan to ensure downstream surface water quality is protected at all times.

However, in the event that a 300-foot wide right-of-way located adjacent to Indiana Street is transferred for a future roadway, the existing regulatory Points of Compliance must be relocated to the federal property boundary.

Finally, we request that DOE host a formal public meeting on the proposed changes to the Rocky Flats Legacy Management Agreement within the first two weeks after the document is published and that DOE establishes a minimum 60-day public comment period.

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

Sincerely,



Lori Cox  
Chair

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



July 30, 2010

COPY

Ms. Martha Rudolph  
Executive Director  
Colorado Department of Public Health and Environment  
4300 Cherry Creek Drive South  
Denver, CO 80246-1530

**Re: Rocky Flats Site - Proposal by U.S. Department of Energy, Office of Legacy Management to Breach the Dams and Modify Site Monitoring System - Request to Bring the Proposal to a Halt**

Dear Ms. Rudolph:

Thank you for taking the time to meet with us on June 14, 2010, to discuss our concerns regarding the proposal by the U.S. Department of Energy's Office of Legacy Management ("DOE-LM") to make changes to the monitoring requirements and operations at the Rocky Flats site (the "Proposal"). The Proposal includes the breaching of the dams of the ponds at Rocky Flats.

For the reasons enumerated in this letter, it is Broomfield's position that the DOE-LM Proposal needs to come to an immediate halt, and we are requesting that the CDPHE do all within its power and authority to bring the Proposal to a halt.

As we discussed at our meeting, the City and County of Broomfield (Broomfield) has significant concerns with the Proposal. As you know, Rocky Flats made "triggers" for nuclear weapons and had a storied history. On site at Rocky Flats were plutonium, tritium, beryllium, nitrates, boron, organic solvents (such as trichloroethene, tetrachloroethene, and carbon tetrachloride), metals (such as chromium) and other radioactive and non-radioactive elements (collectively the "elements"). Over the years, releases from Rocky Flats of many of these elements, including plutonium and tritium, occurred and impacted adjacent areas. The subject ponds at Rocky Flats have helped to provide downstream areas a level of protection from being impacted by possible additional releases of these elements. Broomfield has voiced its strong opposition to the DOE-LM's Proposal because of insufficient information and because of concerns that the Proposal is not necessary and is not in the best interests of the area's public health, safety, and welfare.

**INCREASING LEVELS OF PLUTONIUM AND AMERICIUM**

In a prior letter, dated 7/27/10, I provided you monitoring results from the Rocky Flats site that show the levels of plutonium and americium at tested locations are increasing. (Please note that the letter inadvertently made reference to groundwater monitoring instead of surface water monitoring data.) The point is that these monitoring results are representative of and are further reasons for our concerns regarding the DOE-LM's Proposal.

Ms. Martha Rudolph  
Colorado Department of Public Health & Environment  
July 30, 2010  
Page 2

In addition, during our review of the DOE-LM *Annual Report of Site Surveillance and Maintenance Activities at the Rocky Flats, Colorado, Site Calendar Year 2009* (2009 Annual Report), we noticed other alarming data for plutonium and americium on Walnut Creek and Woman Creek. As shown Attachment 1 (Figure 3-134) and Attachment 2 (Figure 3-136) from the 2009 Annual Report, the plutonium load increases by 81% and americium load increases by 180% between the Walnut Creek terminal ponds and the Indiana Street monitoring sites. What is particularly troubling is that the 2009 Annual Report simply states that the gain is occurring and does not identify the source of the increase.

Similar gains are also occurring on Woman Creek, but at even greater rates. Plutonium and americium loads at the Woman Creek monitoring site at Indiana Street are over 20 times higher than just downstream of the terminal pond -see Attachment 3 (Figure 3-141) and Attachment 4 (Figure 3-143).

Further, the 2009 Annual Report also shows that plutonium and americium continue to migrate away from the industrial area through surface water and are being deposited behind the terminal ponds. The data on Attachment 5 (Figure 3-153) and Attachment 6 (Figure 3-155) shows that the terminal ponds on Walnut Creek have removed 84% of the plutonium and 93% of the americium, respectively. Pond C-2 on Woman Creek is performing in the same manner. Between 83% and 84% of the plutonium and americium load is being removed from the water flowing into Pond C-2 (see Attachment 7 - Figure 3-161 and Attachment 8 - Figure 3-163). All of this raises questions, such as, "What is going to happen to the materials that have settled behind the dams during operations and after regulatory closure once the terminal ponds are breached?" The potential for downstream migration will be further compounded by the unexplained gains that are already occurring.

### **PRIOR REQUESTS**

During our meeting of 6/14/10, Broomfield made several requests of the CDPHE. Given that the clock is ticking on the DOE-LM Proposal and the CDPHE has not yet been able to respond to Broomfield's requests, I thought it would be well to re-state the requests for your immediate reference.

#### ***Request 1. Change Decision and Provide Information Regarding Excavation Greater Than 3 Feet***

During the 6/14/10 meeting, Broomfield requested:

- That the CDPHE reverse its approval for the DOE-LM to excavate greater than 3 feet on the Rocky Flats site; and
- That the CDPHE provide us a copy of any correspondence from the Colorado Attorney General's Office regarding the CDPHE's authority to approve Contract Record 2010-02 for excavations greater than 3 feet for the dams of ponds A-3, A-4, B-5, C-2 and the

present landfill. This correspondence was referenced by a CDPHE staff member during a June 10, 2010, meeting with the Rocky Flats downstream communities.

These requests are important to Broomfield because the remediation documents include the following restriction: "Excavation, drilling and other intrusive activities below a depth of 3 feet are prohibited, except for remedy-related purposes and routine or emergency maintenance of existing utility easement, in accordance with pre-approved procedures" (the Restriction).

The Restriction is included in the following documents:

- Corrective Action Decision/Record of Decision for Rocky Flats Plant (USDOE) - Peripheral Operable Unit and Central Operable Unit, September 2006;
- Rocky Flats Legacy Management Agreement, March 14, 2007; and
- Environmental Covenant (for the Central Operating Unit of the Rocky Flats Environmental Technology Site), December 4, 2006.

The Restriction was included in the remediation documents to provide assurances that future excavations would not compromise the integrity of the measures taken to allow radioactive and other toxic waste to remain buried and left on the Rocky Flats site. Now, the DOE-LM is proposing to violate this very important Requirement that was an integral part of the aforementioned documents.

We will very much appreciate the CDPHE providing Broomfield the information requested and advising Broomfield whether the CDPHE will reverse its decision regarding the proposed greater than 3 feet excavation.

### ***Request #2. Maps***

At the 6/14/10 meeting, we asked if the CDPHE had maps and related information showing:

- What chemicals were buried and where at Rocky Flats before the clean-up;
- What chemicals remain buried and where at Rocky Flats after the clean-up ; and
- Information regarding what measures the DOE-LM is taking to deal with the chemicals that remain buried at Rocky Flats.

As I recall, the CDPHE's Howard Roitman thought the CDPHE might have these maps. However, Broomfield has not, to date, received the requested maps. We would appreciate the CDPHE providing Broomfield copies of the maps and related information or, in the alternative, advising Broomfield that the CDPHE does not have the maps.



Ms. Martha Rudolph  
Colorado Department of Public Health & Environment  
July 30, 2010  
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If the CDPHE does not have the maps and information requested, then it is Broomfield's follow-up request that the CDPHE demand that the DOE-LM produce such maps and information for the public's review and do so in a manner that is clear, readily understandable, and lends itself to a layman's understanding.

It seems to us that such maps and related information that clearly and concisely show what Broomfield requested would have been prepared by the DOE-LM before the DOE-LM initiated its Proposal. It would have been prudent and in the public interest to have these maps and information in a form and content that facilitate public review of the DOE-LM Proposal. The public should not be expected to go through reams and reams of reports and data to try to determine what was and what remains buried at Rocky Flats. If the DOE-LM Proposal is to be effectively reviewed, all involved parties, including the CDPHE and area cities and counties, need to have a clear understanding of what elements remain both on and below the ground and where on the Rocky Flats site and what the potential is for these elements to leave the Rocky Flats site and negatively impact adjacent areas. A case in point is the increased levels of plutonium and americium that are being detected. In the face of this, the DOE-LM is proposing to weaken the Rocky Flats monitoring requirements. This is incomprehensible.

#### **REQUEST FOR CDPHE'S ASSISTANCE REGARDING BROOMFIELD'S PRIOR REQUEST TO THE DOE-LM FOR INFORMATION**

In Broomfield's June 1, 2010, letter to the DOE-LM regarding the Draft Environmental Assessment (EA) to breach the dams on the ponds, Broomfield requested certain information that Broomfield considers necessary to analyze the proposed modifications to the remediation.

Broomfield requested that prior to releasing the final EA, and before it considers a FONSI, or modified-FONSI, the DOE-LM provide the requested information. A list of the information requested is included in Attachment 9 to this letter. Broomfield requested the information to enable Broomfield to review the technical aspects of the proposed modification. Without the information, the risks of the proposed modifications cannot be adequately assessed.

To date, none of the requested information has been provided by the DOE-LM.

We request that the CDPHE insist that the DOE-LM provide the information requested by Broomfield prior to the issuance of a final EA and that the City be given adequate time to review the material.

#### **REQUEST FOR AN IMMEDIATE HALT TO THE DOE-LM'S PROPOSAL**

It is Broomfield's position that the DOE-LM Proposal needs to come to an immediate halt for the following reasons:

1. Dangerous elements remain at Rocky Flats.

2. The DOE-LM's reports show that there are increasing levels of plutonium and americium at monitoring locations on Rocky Flats.
3. The DOE-LM has not and apparently does not intend to respond to Broomfield's comments and requests for information regarding the proposed breach of the dams of the ponds at Rocky Flats (see Attachment 9).
4. Broomfield has unanswered questions regarding the decision making process involved with CDPHE's decision to approve the DOE-LM's proposal to excavate greater than 3 feet for the dams of ponds A-3, A-4, B-5, C-2 and the present landfill.
5. Broomfield has requested that the CDPHE reverse its decision to approve the excavation of greater than 3 feet, but has not yet received an answer from the CDPHE.
6. The DOE-LM has not provided necessary information to demonstrate that its proposed changes in the Rocky Flats' monitoring requirements and operations will not adversely impact on the area's public health, safety, and welfare.
7. One of the DOE-LM's stated reasons for its Proposal is that it will reduce Rocky Flats' operating costs. However, the DOE's projected cost savings does not include a professional present value analysis, the savings are not significant, and are not worth the resulting risk to the area's public health, safety, and welfare.
8. Considering the magnitude of potential adverse impacts of the DOE-LM Proposal, a full Environmental Impact Statement rather than an Environmental Assessment should be conducted.
9. There is no compelling need for the DOE-LM Proposal and, accordingly, there is no need for the DOE-LM to move forward with its Proposal.
10. No further proposals by the DOE-LM to change the Rocky Flats monitoring requirements and operations should be made by the DOE-LM until and after the CDPHE, the Rocky Flats Stewardship Council, Broomfield, and other downstream cities and counties have concurred that such proposals are worthy of consideration.

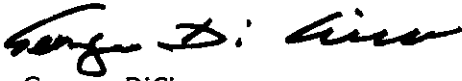
We respectfully request that the CDPHE do all within its authority and power to bring this ill-conceived DOE-LM Proposal to an immediate halt.

As you know, the DOE-LM is having a public meeting on 8/10/2010 regarding the proposed changes to the Rocky Flats surface water monitoring sites and enforcement standards. We would very much appreciate having your response to this letter and our requests before that meeting date.

Ms. Martha Rudolph  
Colorado Department of Public Health & Environment  
July 30, 2010  
Page 6

Please know your help is very much appreciated.

Sincerely,



George DiCiero  
City and County Manager

Enclosures

Cc: Lori Cox, Broomfield's Representative on the Rocky Flats Stewardship Council  
Pat Quinn, Broomfield Mayor  
Broomfield City Council  
Alan King, Broomfield Public Works Director  
David Allen, Broomfield Deputy Public Works Director  
Bill Tuthill, Broomfield City and County Attorney  
Charles Ozaki, Broomfield Deputy City and County Manager  
Kevin Standbridge, Broomfield Assistant for Community Development  
Rosann Doran, Broomfield Public Information Officer  
John Watson, Berenbaum Weinshienk, PC  
Doug Young, Senator Udalls' Office  
Zane Kessler, Senator Bennett's Office  
Andy Schultheiss, Representative Polis' Office  
Dave Geiser, DOE-LM  
Ray Plieness, DOE-LM  
Scott Surovchak, DOE-LM  
Dr. Steven Chu, Secretary of Energy  
James Martin, USEPA  
Carol Rushin, USEPA  
Larry Svoboda, USEPA  
Vera Moritz, USEPA  
Howard Roitman, CDPHE  
Joe Schieffelin, CDPHE  
Carl Spreng, CDPHE  
Steve Berendzen, USFWS  
Joe Nims, Women Creek Reservoir Authority  
Brent McFall, Westminster City Manager  
Cathy Sugarts, City of Westminster  
Shelley, Stanley, City of Northglenn  
Bud Elliot, city of Thornton  
David Abelson, Rocky Flats Stewardship Council

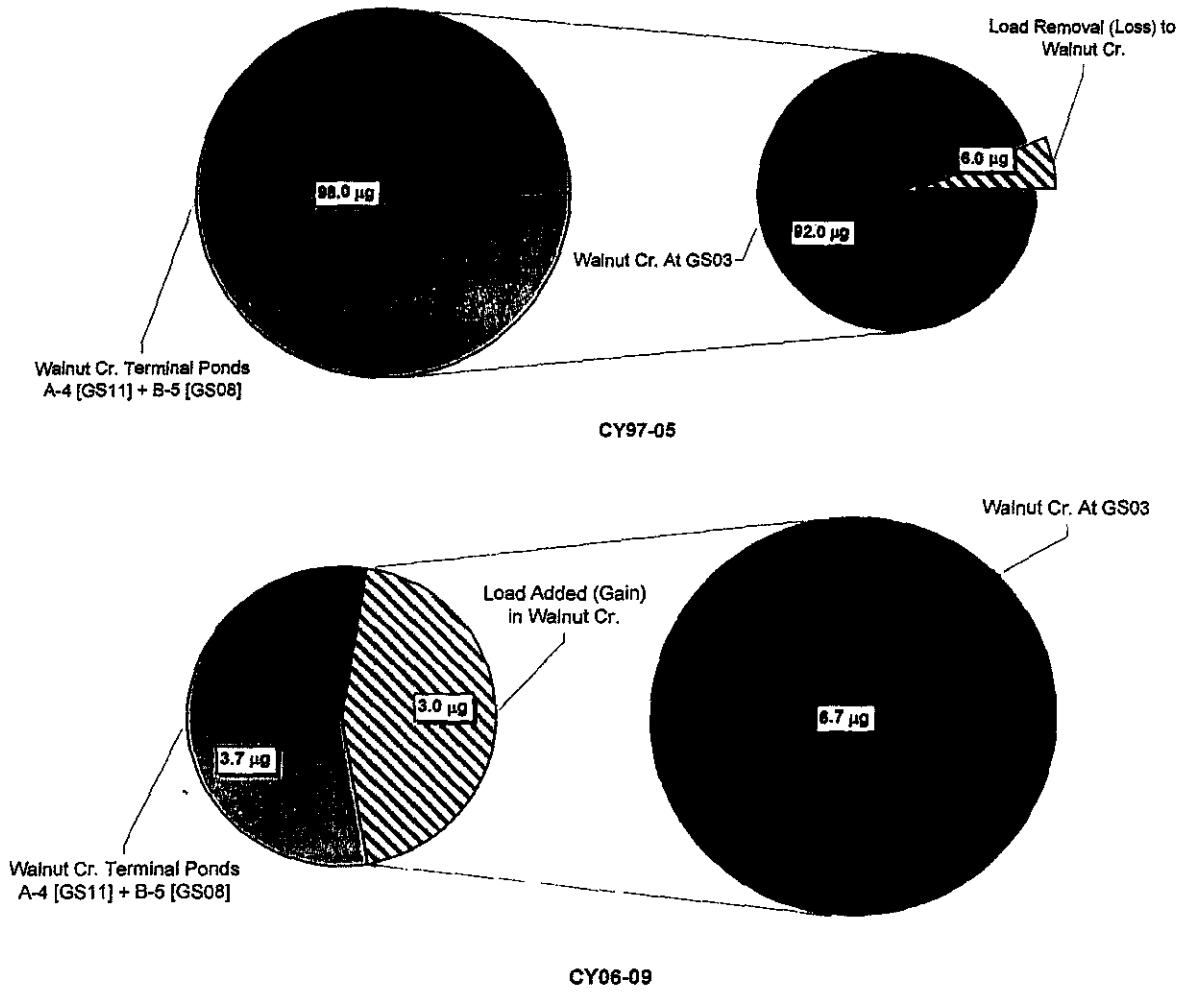


Figure 3-134. Relative Average Annual Pu Load Totals at GS03, GS08, and GS11

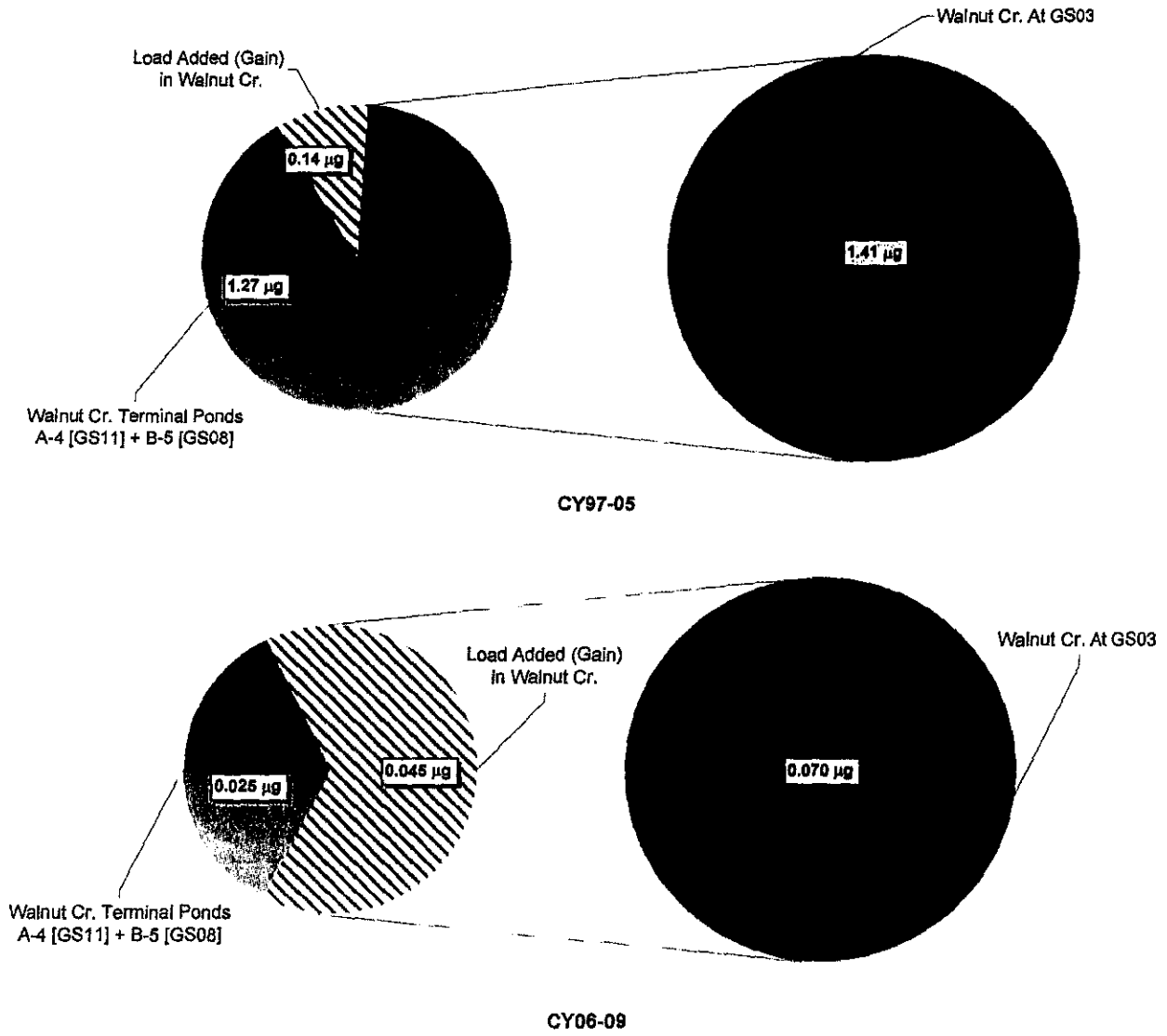


Figure 3-136. Relative Average Annual Am Load Totals at GS03, GS08, and GS11

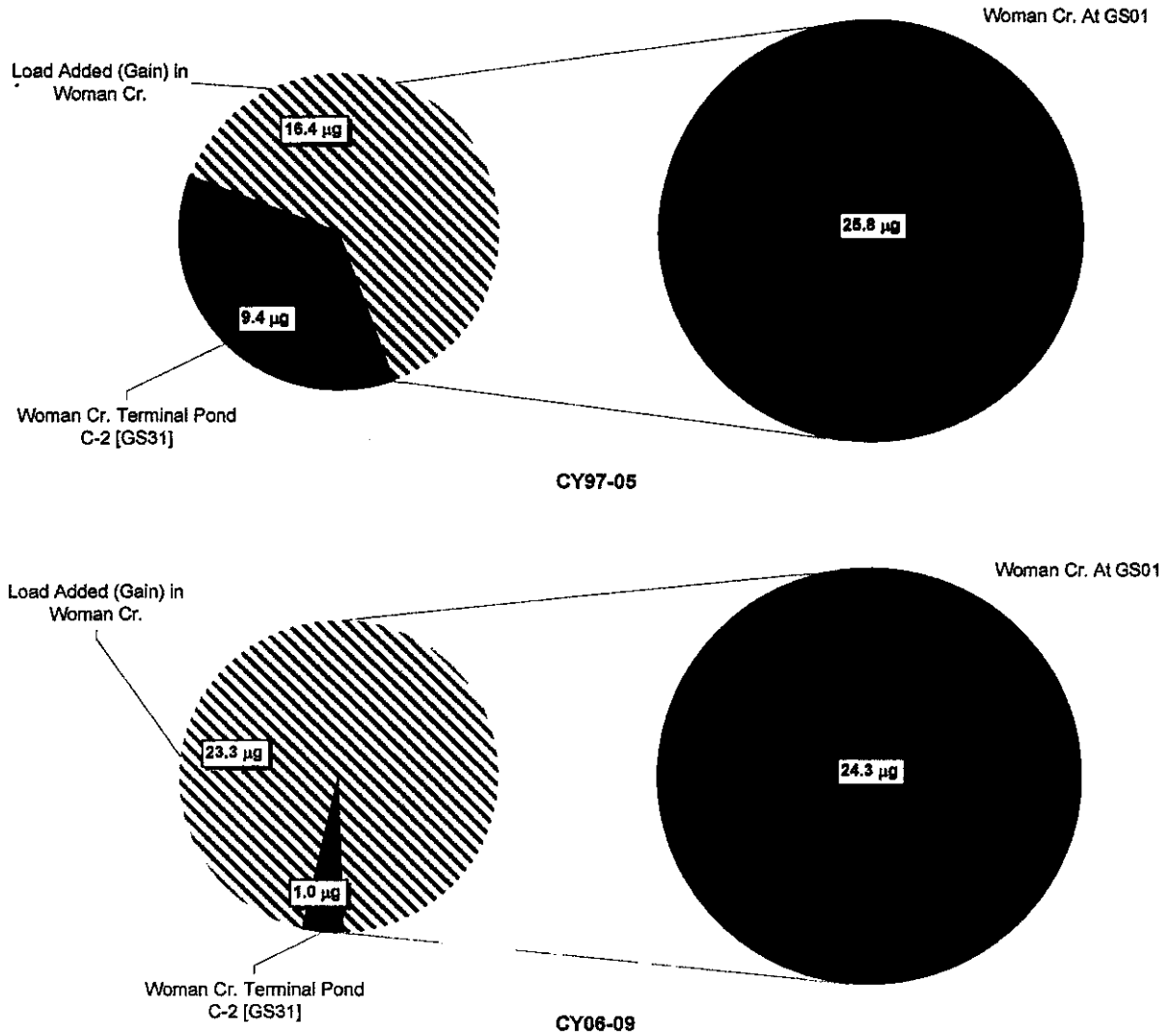


Figure 3-141. Relative Average Annual Pu Load Totals at GS01 and GS31

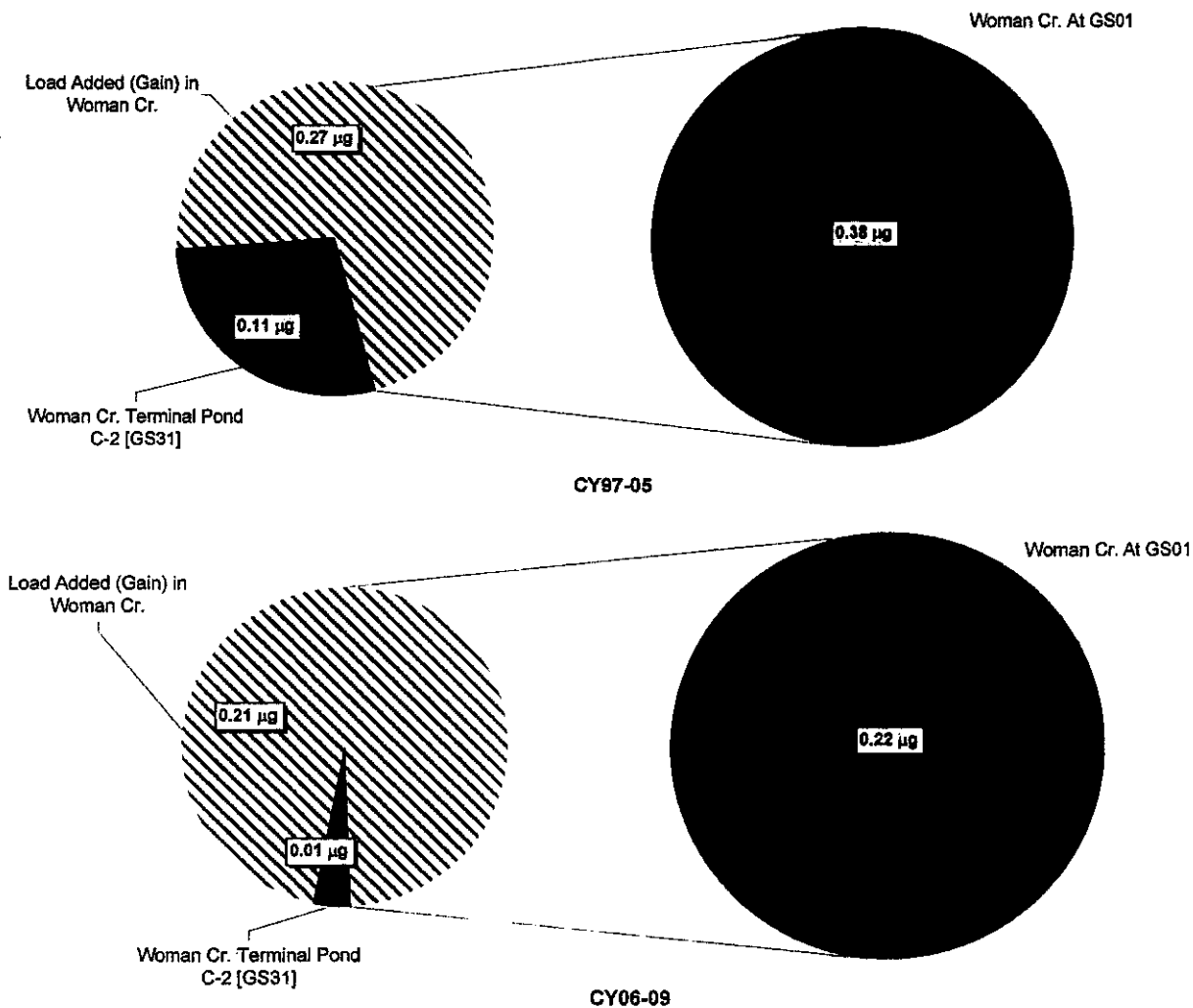


Figure 3-143. Relative Average Annual Am Load Totals at GS01 and GS31

Table 3-64. Total U Loads at GS01 and GS31: CY 2003-2009

Calendar Year	Total U (g)	
	Pond C-2 (GS31)	POC GS01
2003	129	790
2004	92	808
2005	115	918
2006	0; No C-2 discharge	235
2007	0; No C-2 discharge	1,016
2008	0; No C-2 discharge	174
2009	95	761
<b>Total</b>	<b>430</b>	<b>4,702</b>

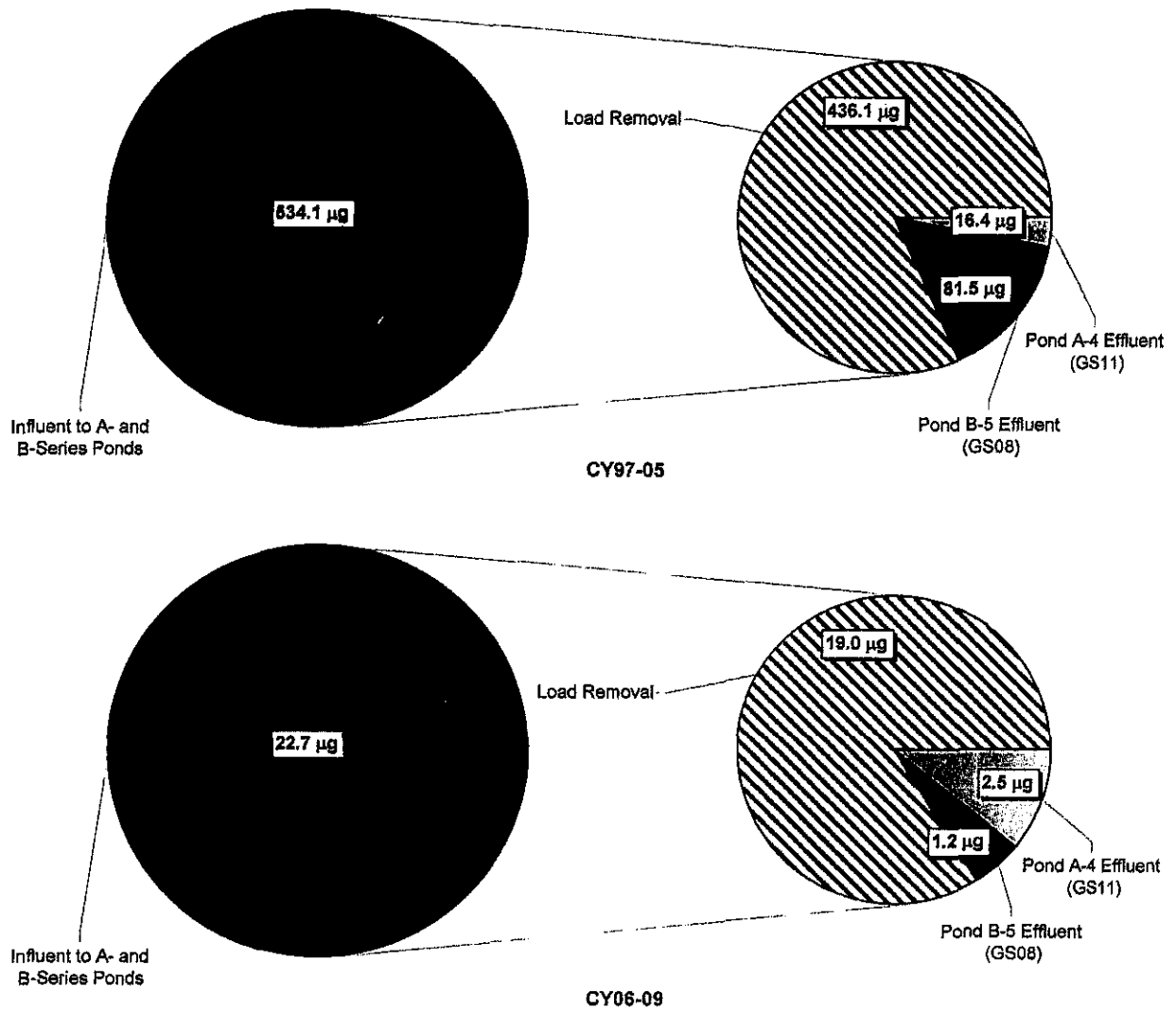


Figure 3-153. Relative Average Annual Pu Load Totals for the A- and B-Series Ponds



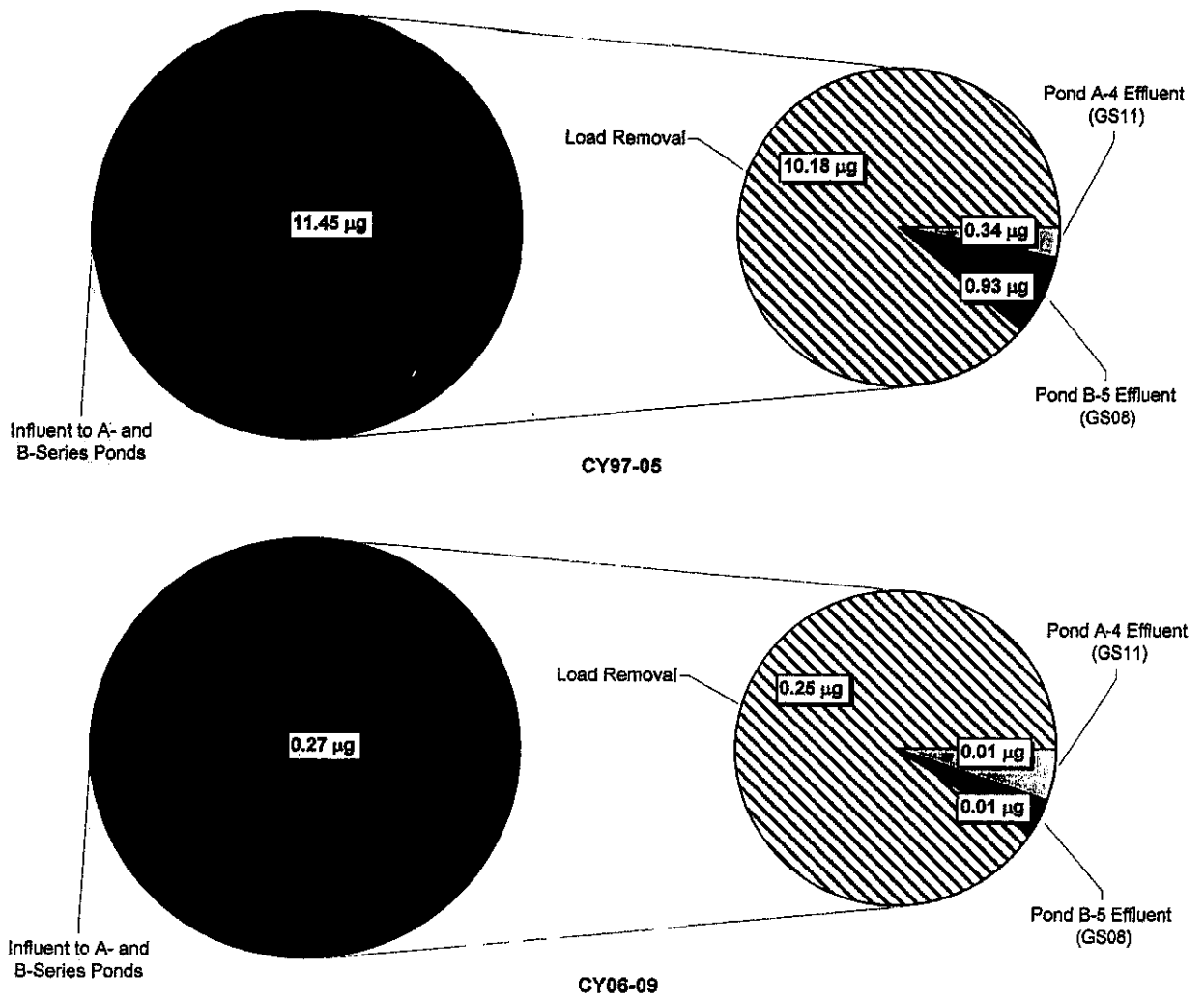


Figure 3-155. Relative Average Annual Am Load Totals for the A- and B-Series Ponds

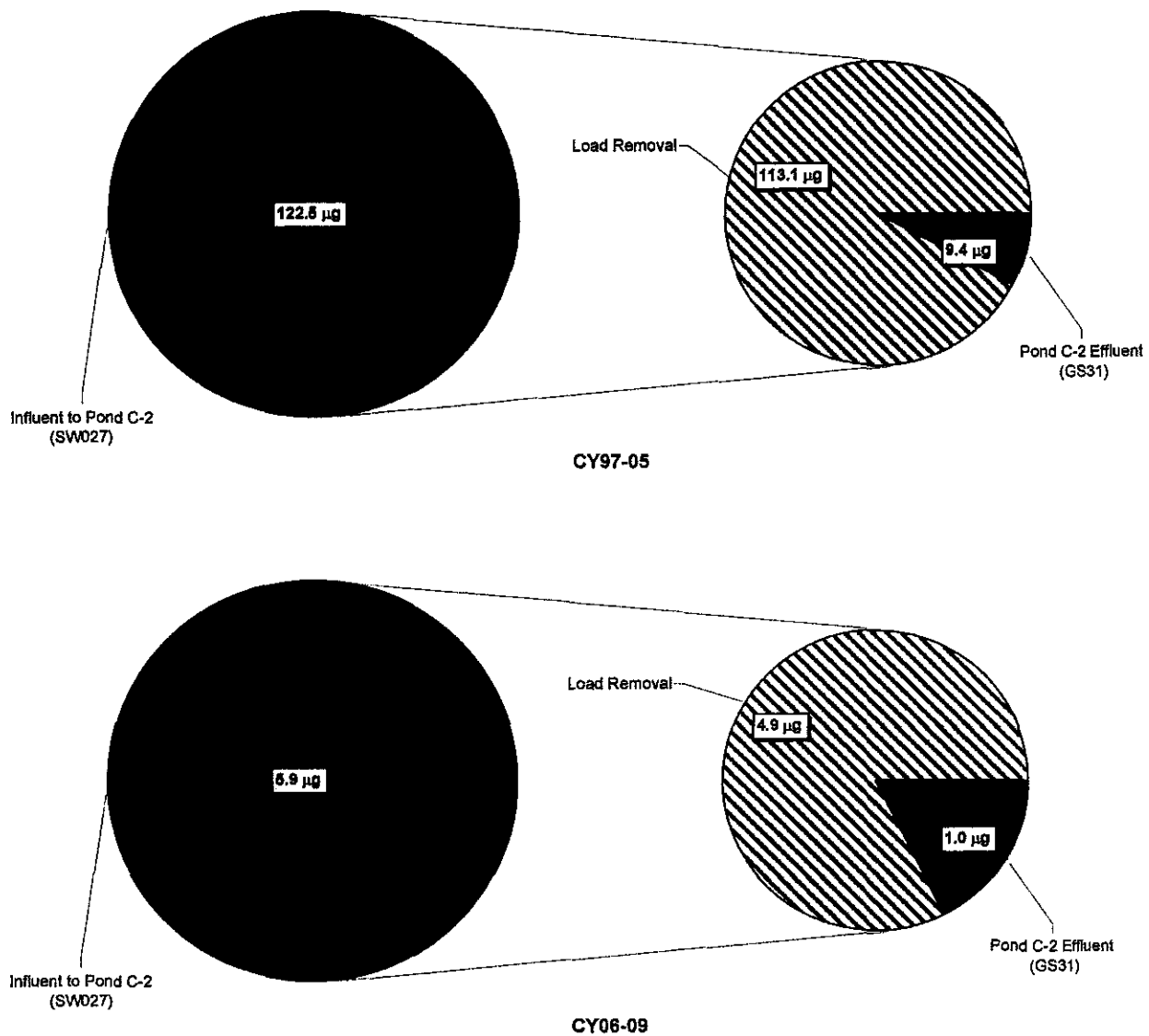


Figure 3-161. Relative Average Annual Pu Load Totals for Pond C-2

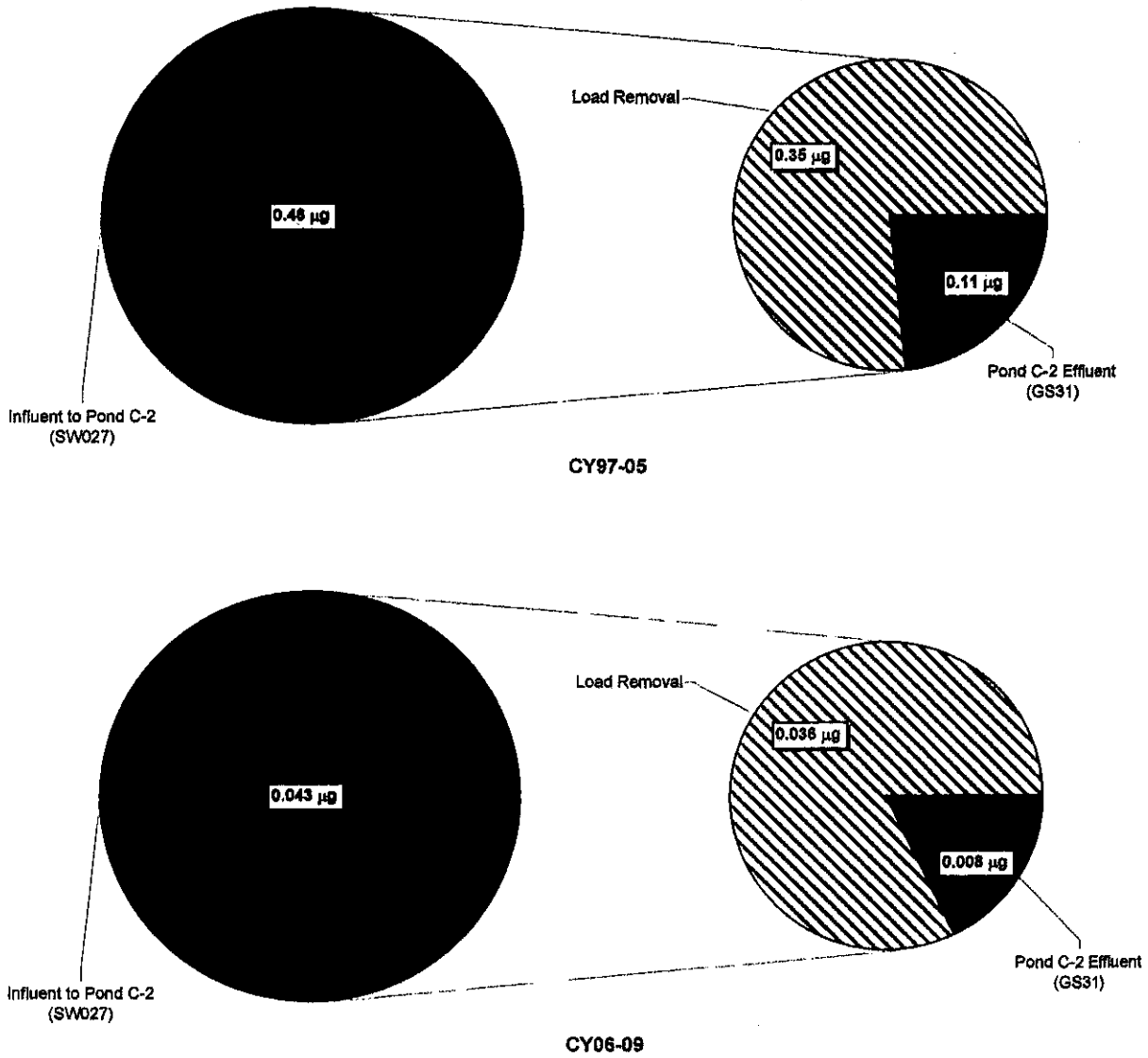


Figure 3-163. Relative Average Annual Am Load Totals for Pond C-2

List of Questions and Information Requests Sent to DOE-LM

- 1.) Please provide the rationale as to why DOE-LM would have the authority to violate the RFLMA and the intent of the CAD/ROD and the Proposed Plan.
- 2.) Please provide the exception to the regulation that would allow DOE-LM to intentionally discharge water that does not meet surface water standards to waters of the state.
- 3.) Provide the process to ensure the RFLMA is enforced to meet surface water standards prior to release.
- 4.) Please provide the associated contingency plan to contain the leachate if it exceeds the RFLMA surface water standard.
- 5.) Include the notification process, schedule to contain water, monitoring methodology, and notification process to downstream communities.
- 6.) Please provide the modeling and evaluation that was performed to determine impacts to downstream watersheds if surface water leaves the site that does not meet the regulatory standards.
- 7.) Please provide more information about the evaluation DOE-LM performed to address wildfires to ensure there are not direct, indirect, and cumulative impacts to human health and the environment related to the certainty of increased runoff from an uncontrolled fire.
- 8.) Please identify the Contingency Plan that would be implemented to prevent major erosion and release of sediment off-site.
- 9.) We request that DOE-LM provide us with the details of their Contingency Plans for the events identified in these comments.
- 10.) How will monitoring of groundwater seeps downstream of the proposed dams be evaluated?
- 11.) Please provide additional information to address how groundwater and seeps downstream of the breached ponds will be monitored to ensure water quality leaving the site is maintained.
- 12.) Please provide the analysis that the agency performed to validate the EA's rationale pertaining to its determination that there would be minimal impact to groundwater.
- 13.) Please identify the direct impacts, indirect impacts, and cumulative impacts and the modeling associated with the EA's statement.
- 14.) Was this analysis validated and if so, by whom?
- 15.) Did the evaluation consider drought years, wet years, floods, and fires?
- 16.) Please provide the details concerning how the groundwater alluvium was evaluated and how those results will be considered as part of the Points-of-Compliance.
- 17.) What will the sampling methodology be for the groundwater alluvium?
- 18.) To ensure that the RFLMA is adhered to, please provide DOE-LM's rationale for the assumption that the Draft EA sufficiently evaluates all water quality impacts for the proposed action in order to make a Finding of No Significant Impact (FONSI) and does not warrant an Environmental Impact Statement (EIS).

- 19.) What changes have occurred since 2004 to conclude that the remaining dams no longer provide a water quality benefit?
- 20.) Please provide the documentation that supports this conclusion.
- 21.) Please provide in table format, the supporting data for each location and include the highest concentration and the lowest.
- 22.) Has sediment transport been modeled with the associated storm events?
- 23.) Did Wright Water Engineers, Inc. determine the peak flow in the event of a wildfire with no vegetation as part of the report attached to the EA as Appendix D?
- 24.) What would the erosion rates be and would channeling contribute to sediment transport?
- 25.) Please provide information that supports what appears to be DOE-LM's determination that the dams are failing or are suffering from other conditions that would help us make a determination concerning the safety of the dams.
- 26.) Please clarify which sampling results are expected to have increased variability and provide information as to the magnitude, frequency, and basis for calculation that was used to make this conclusion.
- 27.) How will the variability be monitored?
- 28.) How many data points will be collected and under what site conditions?
- 29.) Please provide the information on the application of surface water standards via summary statistics.
- 30.) Please provide an analysis of, and the justification for, elimination of 95% of one type of habitat (i.e., open-water habitat) as the proper trade-off for the theoretical potential gain for riparian habitat, particularly in light of the fact that the project site is located in a part of Colorado that is mainly a prairie grassland ecosystem.
- 31.) Please provide the evaluations that DOE-LM prepared to determine the enhancements to, and the viability of, the wetlands.
- 32.) Please provide the data to document the negative impacts the current system has on habitat.
- 33.) Please identify how human activities impact the ecosystems and the alterations that such activities have created at the site for the past 30 years.
- 34.) If contaminants flow offsite, what is the impact to the offsite habitat?
- 35.) Have offsite impacts to habitats been evaluated?
- 36.) Please provide us with the agency's assessment of the change in downstream habitat from the original habitat in 1979 as compared to today's habitat.
- 37.) Please provide a proper assessment of the reduction in wetlands based on the current configuration of wetlands at the site.

- 38.) Why is it necessary to collect several years of additional information and data related to habitat development and ecological changes related to the proposed flow-through condition that will be created at the terminal dams in the A and B series, but not at the terminal dam in the C series?
- 39.) How can the draft EA properly state that there will be enhanced habitat and ecological conditions that will result from the dam breaches, while simultaneously stating at the May 18, 2010 public meeting that several additional years of information and data compilation will need to be gathered at two of the three terminal dams to determine the exact habitat and ecological conditions which will result from the flow-through conditions?
- 40.) Why is DOE-LM treating the terminal dams associated with the A- and B- series ponds differently than dam for Pond C-2?
- 41.) Please provide the methods of evaluation and basis for success of the proposed flow-through operations.
- 42.) Please clarify how DOE-LM determined cost savings associated with the proposed action.
- 43.) Provide a comparison of costs against the potential cost for corrective actions to address a release of offsite contamination.
- 44.) Has a cost benefit analysis been prepared to make a comparison between the actual cost and increased risk?
- 45.) Please provide the following financial information:
- Annual cost to inspect the dams;
  - Annual cost to draft reports associated with the ponds;
  - Annual cost to perform O&M activities for the ponds;
  - Annual cost for sampling to ensure compliance;
  - The estimated construction costs to breach the dams;
  - The cost saving that would be made if the proposed action is implemented; and
  - A comparison of these dam-related costs to the overall costs of the remedy to date, and as compared to expected future costs for the entire remedy.
- 46.) When dredging the sediments and soil from the ponds and dams, will any sampling be performed to determine if there are any contaminants in the sediments?



August 5, 2010

Dr. Steven Chu  
Secretary of Energy  
U.S. Department of Energy  
1000 Independence Ave., SW  
Washington, DC 20585

**Re: Rocky Flats Site - Proposal by U.S. Department of Energy, Office of Legacy Management to Breach the Dams and Modify Site Monitoring System - Request to Bring the Proposal to a Halt**

Dear Dr. Chu:

The City and County of Broomfield (Broomfield) has significant concerns regarding the proposal by the U.S. Department of Energy's Office of Legacy Management ("DOE-LM") to make changes to the monitoring requirements and operations at the Rocky Flats site (the "Proposal"). The Proposal includes the breaching of the dams of the ponds at Rocky Flats.

For the reasons enumerated in this letter, it is Broomfield's position that the DOE-LM Proposal needs to come to an immediate halt, and we are requesting that you do all within your power and authority to bring the Proposal to a halt.

As you know, Rocky Flats made "triggers" for nuclear weapons and had a storied history. On site at Rocky Flats were plutonium, tritium, beryllium, nitrates, boron, organic solvents (such as trichloroethene, tetrachloroethene, and carbon tetrachloride), metals (such as chromium) and other radioactive and non-radioactive elements (collectively the "elements"). Over the years, releases from Rocky Flats of many of these elements, including plutonium and tritium, occurred and impacted adjacent areas. The subject ponds at Rocky Flats have helped to provide downstream areas a level of protection from being impacted by possible additional releases of these elements. Broomfield has voiced its strong opposition to the DOE-LM's Proposal because of insufficient information and because of concerns that the Proposal is not necessary and is not in the best interests of the area's public health, safety, and welfare.

#### **INCREASING LEVELS OF PLUTONIUM AND AMERICIUM**

In a letter to the Colorado Department of Public Health and Environment (CDPHE), dated June 27, 2010 (see Attachment 1), we noted that monitoring results from the Rocky Flats site show increasing levels of plutonium and americium. (Please note that the letter inadvertently made reference to groundwater monitoring instead of surface water monitoring data.) The point is that these monitoring results are representative of and are further reasons for our concerns regarding the DOE -LM's Proposal.

In addition, during our review of the DOE-LM *Annual Report of Site Surveillance and Maintenance Activities at the Rocky Flats, Colorado, Site Calendar Year 2009* (2009 Annual Report), we noticed other alarming data for plutonium and americium on Walnut Creek and Woman Creek. As shown in Attachment 2 (Figure 3-134) and Attachment 3 (Figure 3-136) from the 2009 Annual Report, the plutonium load increases by 81% and americium load increases by 180% between the Walnut Creek terminal ponds and the Indiana Street monitoring sites. What is particularly troubling is that the 2009 Annual Report simply states that the gain is occurring and does not identify the source of the increase.

Similar gains are also occurring on Woman Creek, but at even greater rates. Plutonium and americium loads at the Woman Creek monitoring site at Indiana Street are over 20 times higher than just downstream of the terminal pond - see Attachment 4 (Figure 3-141) and Attachment 5 (Figure 3-143).

Further, the 2009 Annual Report shows that plutonium and americium continue to migrate away from the industrial area through surface water and are being deposited behind the terminal ponds. The data on Attachment 6 (Figure 3-153) and Attachment 7 (Figure 3-155) shows that the terminal ponds on Walnut Creek have removed 84% of the plutonium and 93% of the americium, respectively. Pond C-2 on Woman Creek is performing in the same manner. Between 83% and 84% of the plutonium and americium load is being removed from the water flowing into Pond C-2 [see Attachment 8 (Figure 3-161) and Attachment 9 (Figure 3-163)].

All of this raises questions, such as, "What is going to happen to the materials that have settled behind the dams during operations and after regulatory closure once the terminal ponds are breached?" The potential for downstream migration will be further compounded by the unexplained gains that are already occurring.

#### **PRIOR REQUESTS FOR INFORMATION**

Broomfield has made several requests of the DOE-LM both verbally and in writing to provide additional information related to the Proposal. Given that the clock is ticking on the DOE-LM Proposal and the DOE-LM has not yet been able to respond to Broomfield's requests, I thought it would be well to re-state our requests for your immediate reference.

#### ***Request #1. Provide Information Supporting DOE-LM's Plans to Excavate Greater Than 3 Feet***

"Excavation, drilling and other intrusive activities below a depth of 3 feet are prohibited, except for remedy-related purposes and routine or emergency maintenance of existing utility easement, in accordance with pre-approved procedures" (the Restriction).

The Restriction is included in the following documents:

- Corrective Action Decision/Record of Decision for Rocky Flats Plant (USDOE) – Peripheral Operable Unit and Central Operable Unit, September 2006;



- Rocky Flats Legacy Management Agreement, March 14, 2007; and
- Environmental Covenant (for the Central Operating Unit of the Rocky Flats Environmental Technology Site), December 4, 2006.

The Restriction was included in the remediation documents to provide assurances that future excavations would not compromise the integrity of the measures taken to allow radioactive and other toxic waste to remain buried and left on the Rocky Flats site. Now, the DOE-LM is proposing to violate this very important Restriction that was an integral part of the aforementioned documents.

We will very much appreciate the DOE-LM providing Broomfield the information including but not limited to any recent risk assessments, health based studies, sediment migration and transport analysis, or other investigations that supports the proposed greater than 3 feet excavation.

***Request #2. Maps***

Broomfield has repeatedly asked the DOE-LM and CDPHE for maps and related information showing:

- What chemicals were buried and where at Rocky Flats before the clean-up;
- What chemicals remain buried and where at Rocky Flats after the clean-up ; and
- Information regarding what measures the DOE-LM is taking to deal with the chemicals that remain buried at Rocky Flats.

Broomfield has not, to date, received the requested maps. We would appreciate the DOE-LM providing Broomfield copies of the maps and related information or, in the alternative, advising Broomfield that the DOE-LM does not have the maps.

If the DOE-LM does not have the maps and information requested, then it is Broomfield's follow-up request that the DOE-LM produce such maps and information for the public's review and do so in a manner that is clear, readily understandable, and lends itself to a layman's understanding. It seems to us that such maps and related information that clearly and concisely show what Broomfield requested would have been prepared by the DOE-LM before the DOE-LM initiated its Proposal. It would have been prudent and in the public interest to have these maps and information in a form and content that facilitate public review of the DOE-LM Proposal.

The public should not be expected to go through reams and reams of reports and data to try to determine what was and what remains buried at Rocky Flats. If the DOE-LM Proposal is to be effectively reviewed, all involved parties, including the CDPHE and area cities and counties, need to have a clear understanding of what elements remain both on and below the ground and where on the Rocky Flats site and what the potential is for these elements to leave the Rocky Flats site and negatively impact adjacent areas. A case in point is the increased levels of

plutonium and americium that are being detected. In the face of this, the DOE-LM is proposing to weaken the Rocky Flats monitoring requirements. This is incomprehensible.

***Request #3. Disposition of Broomfield's Comments on the Draft Environmental Assessment (EA) to Breach the Dams on the Ponds***

In Broomfield's June 1, 2010, letter to the DOE-LM regarding the Draft Environmental Assessment (EA) to breach the dams on the ponds, Broomfield requested certain information that Broomfield considers necessary to analyze the proposed modifications to the remediation.

Broomfield requested that prior to releasing the final EA, and before it considers a FONSI, or modified-FONSI, the DOE-LM provide the requested information. A list of the information requested is included in Attachment 10 to this letter. Broomfield requested the information to enable Broomfield to review the technical aspects of the proposed modification. Without the information, the risks of the proposed modifications cannot be adequately assessed.

**REQUEST FOR AN IMMEDIATE HALT TO THE DOE-LM'S PROPOSAL**

It is Broomfield's position that the DOE-LM Proposal needs to come to an immediate halt for the following reasons:

1. Dangerous elements remain at Rocky Flats.
2. The DOE-LM's reports show that there are increasing levels of plutonium and americium at monitoring locations on Rocky Flats.
3. The DOE-LM has not and apparently does not intend to respond to Broomfield's comments and requests for information regarding the proposed breach of the dams of the ponds at Rocky Flats (see Attachment 10).
4. Broomfield has unanswered questions regarding the decision making process involved with CDPHE's decision to approve the DOE -LM's Proposal to excavate greater than 3 feet for the dams of ponds A-3, A-4, B-5, C-2 and the present landfill.
5. Broomfield has requested that the CDPHE reverse its decision to approve the excavation of greater than 3 feet, but has not yet received an answer from the CDPHE.
6. The DOE-LM has not provided necessary information to demonstrate that its proposed changes in the Rocky Flats' monitoring requirements and operations will not adversely impact on the area's public health, safety, and welfare.
7. One of the DOE-LM's stated reasons for its Proposal is that it will reduce Rocky Flats' operating costs. However, the DOE's projected cost savings does not include a professional cost benefit analysis, the savings are not significant, and are not worth the resulting risk to the area's public health, safety, and welfare.

8. Considering the magnitude of potential adverse impacts of the DOE-LM Proposal, a full Environmental Impact Statement rather than an Environmental Assessment should be conducted for the breaching of the dams.
9. There is no compelling need for the DOE-LM Proposal and, accordingly, there is no need for the DOE-LM to move forward with its Proposal.
10. No further proposals by the DOE-LM to change the Rocky Flats monitoring requirements and operations should be made by the DOE-LM until and after the Rocky Flats Stewardship Council, Broomfield, and other downstream cities and counties have concurred that such proposals are worthy of consideration.

We respectfully request that the DOE-LM do all within its authority and power to bring this ill conceived Proposal to an immediate halt.

As you know, the DOE-LM is having a public meeting on August 10, 2010, regarding the proposed changes to the Rocky Flats surface water monitoring sites and enforcement standards. In addition, comments on the proposed changes to the surface water monitoring sites are due on August 27, 2010. We would very much appreciate having your response to this letter and our requests by August 20, 2010.

Please know your help is very much appreciated.

Sincerely,



George DiCiero  
City and County Manager

Enclosures

cc: Lori Cox, Broomfield's Representative on the Rocky Flats Stewardship Council  
Broomfield Mayor and City Council  
Bill Tuthill, Broomfield City and County Attorney  
Charles Ozaki, Broomfield Deputy City and County Manager  
Kevin Standbridge, Broomfield Assistant for Community Development  
Rosann Doran, Broomfield Public Information Officer  
Jennifer Hoffman, Assistant to Broomfield City and County Manager  
Alan King, Broomfield Public Works Director  
David Allen, Broomfield Deputy Public Works Director

Dr. Steven Chu  
Department of Energy  
August 5, 2010  
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John Watson, Berenbaum Weinshienk, PC  
Doug Young, Senator Udalls' Office  
Zane Kessler, Senator Bennet's Office  
Andy Schultheiss, Representative Polis' Office  
Bill Holden, Representative Perlmutter's Office  
Dave Geiser, DOE-LM  
Ray Plieness, DOE-LM  
Scott Surovchak, DOE-LM  
James Martin, USEPA  
Carol Rushin, USEPA  
Larry Svoboda, USEPA  
Vera Moritz, USEPA  
Martha Rudolph  
Howard Roitman, CDPHE  
Joe Schieffelin, CDPHE  
Carl Spreng, CDPHE  
Steve Berendzen, USFWS  
Josh Nims, Women Creek Reservoir Authority  
Brent McFall, Westminster City Manager  
Ron Hellbusch, City of Westminster  
Cathy Sugarts, City of Westminster  
William Simmons, Northglenn City Manger  
David Willett, City of Northglenn  
Shelley, Stanley, City of Northglenn  
Bud Elliot, City of Thornton  
David Abelson, Rocky Flats Stewardship Council



August 16, 2010

Mr. Ray Plieness,  
Director of Site Operations  
Department of Energy, Office of Legacy Management  
2597 B ¾ Road  
Grand Junction, Colorado 81503

**RE: Proposed Changes to Rocky Flats Surface Water Configuration  
Environmental Assessment, dated April 2010**

Mr. Plieness:

The U.S. Department of Energy (DOE) is conducting an Environmental Assessment (EA) for proposed changes to Rocky Flats Surface Water Configuration that includes breaching certain dams on holding ponds on the site. At one time, DOE staff suggested that a Final EA and record of decision could be issued August 2010.

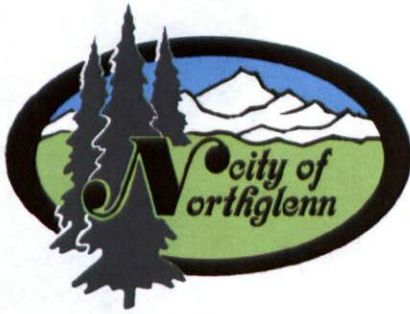
The City and County of Broomfield requests that the issuance of the final EA and the record of decision be postponed until Broomfield and the other downstream communities have an opportunity to meet with DOE, EPA, and CDPHE staff to discuss the possibility of modifications to DOE's proposed changes.

We look forward to your response on our requested postponement of the Final EA and record of decision. We appreciate the opportunity to discuss this crucial decision and to work with DOE, EPA and CDPHE. If you have any questions, please contact Mr. Alan King of my staff at (303) 438-6362.

Sincerely,

A handwritten signature in blue ink that reads "George Di Ciero".

George Di Ciero  
City and County Manager  
City and County of Broomfield



Office of the City Manager  
11701 Community Center Drive  
PO Box 330061  
Northglenn, Colorado 80233-8061  
Phone (303) 450-8709  
FAX (303) 450-8798

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May 27, 2010

*Sent via Email and U.S. Mail*

May 27, 2010

Ms. Martha Rudolph  
Colorado Department of  
Public Health and Environment  
4300 Cherry Creek Drive South  
Denver, CO 80246-1530

**RE: Rocky Flats Legacy Management Agreement, Points of Compliance**

Dear Ms. Rudolph:

The City of Northglenn is writing with respect to a possible revision to the Rocky Flats Legacy Management Agreement ("RFLMA") concerning changes to points of compliance. We recently learned that the Colorado Department of Public Health and Environment is reviewing the Department of Energy's ("DOE") request to move certain points of compliance a significant distance upstream on Woman and Walnut Creeks. The City of Northglenn would strongly oppose this move.

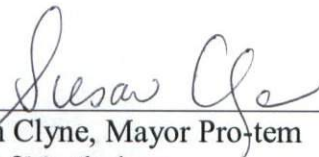
The points of compliance that are of concern are GS01 and GS03 ("the Indiana Street Points of Compliance"). Located on Woman and Walnut Creeks, respectively, immediately West of Indiana Street, these points are where water leaves federally controlled land. Historically, GS01 and GS03 have been used to confirm that DOE is in compliance with relevant water quality standards. The DOE's proposal, as we understand it, is to move these points of compliance approximately three quarters of a mile upstream to the Central Operable Unit boundary, abandoning the Indiana Street Points of Compliance. Moving these points upstream means that water flowing off a significant portion of federal lands, those retained by the US Fish and Wildlife Service, are no longer subject to compliance testing at Indiana Street. Maintaining the points of compliance at their current locations provides our citizens with assurances that water leaving the former Rocky Flats Site meets relevant water quality standards.

This proposal is premature, at best. Regulatory closure of the former Rocky Flats Site occurred in 2006. There are still a number of ongoing DOE remedial efforts at the Site that still

do not conform to the requirements of the RFLMA. Furthermore, the hydrology has not stabilized. With removal of impervious surfaces, the site is moving from surface water to a groundwater dominated site. Groundwater chemistry, on the site, is spatially and seasonally variable. There is significant groundwater contributions to Woman Creek from the US Fish and Wildlife Service lands which would not be captured if the Indiana Street Points of Compliance were moved to the Central Operable Unit boundary. In light of these activities, and in light of changing hydrology, Northglenn feels that there is not a sufficient data record to reach a meaningful conclusion on the long term flow regime of both the Woman and Walnut Creek watersheds to justify removal of the Indiana Street Points of Compliance. Northglenn joins in the comments submitted by the Woman Creek Reservoir Authority and the City of Westminster.

Northglenn has actively participated in efforts to protect Standley Lake, our drinking water supply, from potentially polluted runoff from Rocky Flats and will continue to be involved in activities that are protective of both our drinking water supply and the citizens of the downstream communities. We strongly urge you to reconsider supporting any future proposal to eliminate the Indiana Street points of compliance or at the very least, consider the proposed revisions to be a major modification. We would welcome the opportunity to discuss these matters with you in greater detail if necessary.

Sincerely,

  
\_\_\_\_\_  
Susan Clyne, Mayor Pro-tem  
City of Northglenn

cc via email: Carl Spreng, CDPHE  
Joe Schieffelin, CDPHE  
Josh Nims, Woman Creek Reservoir Authority  
David Abelson, Rocky Flats Stewardship Council



## WESTMINSTER

May 21, 2010

*Via Email and U.S. Mail*

Ms. Martha Rudolph, Executive Director  
Colorado Department of Public Health and Environment  
4300 Cherry Creek Drive South  
Denver, Colorado 80246-1530

City of Westminster  
Office of the  
Council

4800 West 92nd Avenue  
Westminster, Colorado  
80031

303-658-2400  
FAX 303-706-3921

Nancy McNally  
Mayor

Chris Dittman  
Mayor Pro Tem

Bob Briggs  
Councillor

Mark Kaiser  
Councillor

Mary Lindsey  
Councillor

Scott Major  
Councillor

Faith Winter  
Councillor

Re: Indiana Street Points of Compliance

Dear Ms. Rudolph:

I am writing with respect to a possible revision to the Rocky Flats Legacy Management Agreement ("RFLMA") concerning changes to points of compliance at the former Rocky Flats Plant Site. City staff recently learned that the Colorado Department of Public Health and Environment ("CDPHE") may be supporting the Department of Energy's (DOE) request to revise the RFLMA to move certain points of compliance a significant distance upstream on Woman and Walnut Creeks. I am hopeful that this is incorrect, but if not, the City of Westminster strongly urges you to reconsider this position.

At present, points of compliance GS-1 and GS-3 under RFLMA are located on Woman and Walnut Creeks, respectively, immediately before those Creeks reach Indiana Street (the "Indiana Street Points of Compliance"). These are the points where water flowing through the former Rocky Flats Plant Site, including the groundwater which daylights to these streams, leaves federally controlled land. Historically, the Indiana Street Points of Compliance have been used to confirm that DOE is in compliance with relevant water quality standards. The current proposal, as we understand it, is to revise the RFLMA to move these points of compliance approximately three quarters of a mile upstream onto the Central Operable Unit and no longer require DOE testing of waters leaving federally controlled lands at the Indiana Street Points of Compliance. The City of Westminster strongly opposes this move.

For many years, Westminster has actively participated in efforts to adopt protective standards on both Woman and Walnut Creeks. Moreover, the City played a significant role in protecting its drinking water supply by constructing the Standley Lake Protection Project. Because of those efforts, Woman Creek flows now bypass Standley Lake, a major public drinking water supply, and are released to Walnut Creek just east of Indiana Street. As





a result, Woman Creek flows no longer reach the City's main drinking water supply. The water in Walnut Creek, however, continues to flow through the communities of Broomfield and Westminster after leaving federal lands. This water then reaches Big Dry Creek, and continues to flow through portions of Thornton and Northglenn.

Both Walnut Creek and Big Dry Creek provide many important recreational opportunities to Westminster citizens as the water flows through the City's municipal boundary. Westminster citizens live and recreate next to these streams. As a result, it is extremely important to Westminster that the quality of water leaving the former Rocky Flats Plant Site meets relevant standards. The Indiana Street Points of Compliance provide Westminster, and other downstream cities, with important assurances in this regard. Moving these points of compliance upstream simply means that flows off a significant portion of federal lands are no longer subject to compliance testing at Indiana Street. This, in turn, eliminates the City's ability to fully assure the citizens that water leaving the federal lands meets relevant standards and can safely flow through the community. Based on these concerns, the City urges you to oppose any effort to revise RFLMA to relocate the Indiana Street Points of Compliance upstream.

Westminster very much values the long-standing working relationship we have enjoyed over the years with the Colorado Department of Public Health and Environment on Rocky Flats issues and would welcome the opportunity to discuss these matters with you in greater detail, if necessary. If you have any questions or concerns, please contact Westminster staff Josh Nims 303-658-2180 or Cathy Shugarts 303-658-2462 in the City's Public Works and Utilities Department. Thank you for your attention to this matter.

Sincerely,

Nancy McNally, Mayor

cc via email: Steve Gunderson, CDPHE  
Carl Spreng, CDPHE  
Joyce Downing, Northglenn Mayor  
Erik Hansen, Thornton Mayor  
Pat Quinn, Broomfield Mayor  
David Abelson, Rocky Flats Stewardship Council  
Senator Udall's Office  
Senator Bennett's Office  
Representative Polis' Office  
Brent McFall, Westminster City Manager



*Woman Creek Reservoir Authority*

*4800 W. 92<sup>nd</sup> Avenue*

*Westminster, Colorado 80031*

*Phone (303) 658-2180*

*FAX (303) 706-3927*

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May 26, 2010

*Via Email and U.S. Mail*

Ms. Martha Rudolph  
Executive Director  
Colorado Department of Public Health  
& Environment  
4300 South Cherry Creek Drive  
Denver, Colorado 80246-1530

Re: Indiana Street Points of Compliance under the Rocky Flats Legacy Management Agreement

Dear Ms. Rudolph:

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. § 29-1-204.2. 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.

By way of background, Woman Creek Reservoir was completed in 1996 as part of the Standley Lake Protection Project, a federally funded project designed to provide an extra layer of protection to the downstream municipal drinking water supplies in Standley Lake from activities at the Rocky Flats Plant site. Woman Creek Reservoir operations contemplate the diversion of all Woman Creek flows into the reservoir, and the subsequent release of water to the Walnut Creek basin, near Great Western Reservoir, thereby severing the hydrologic connection between Woman Creek and Standley Lake. Water released from Woman Creek Reservoir then combines with the native flows in Walnut Creek and flows through portions of the communities of Broomfield and Westminster before reaching Big Dry Creek, which, in turn, flows through portions of Thornton until it reaches the South Platte River. I have attached a general schematic of the relevant components of the Standley Lake Protection Project for your review.

I am writing to echo the recent concerns raised by the City of Westminster relative to a potential change in the Rocky Flats Legacy Management Agreement ("RFLMA"). It has recently come to our attention that the Department of Energy, ("DOE"), wishes to revise the RFLMA and thereby move the Indiana Street Points of Compliance from their historical locations, (where both Woman and Walnut Creeks cross Indiana Street), a significant distance upstream. DOE is seeking the support of the Environmental Protection Agency ("EPA") and CDPHE for this proposed RFLMA revision. The Authority is still reviewing the RFLMA requirements related to revisions, but, at the outset, wishes to go on record as opposing any such revisions. The Authority urges the CDPHE to oppose any such revisions as well.

I will not restate the concerns of the downstream municipal entities contained in Westminster's letter of May 21, 2010. Certainly, the members of the Authority are supportive of the positions set forth in that letter. Rather, I want to focus on the concerns of the Authority itself as an owner of land, and operator of a reservoir, immediately adjacent to the federal lands that comprise the former Rocky Flats site.

As required by the terms of RFLMA, DOE is responsible for testing the quality of the water in Woman Creek at the Indiana Street Point of Compliance and assuring that the flows leaving federal lands meet relevant standards. Any proposal to move the Indiana Street Points of Compliance upstream reduces the Authority's level of protection from water quality incidents related to both current and past activities on the former Rocky Flats site. Woman Creek is a gaining stream on the federal lands during times of the year. This is likely due, in part, to groundwater contributions from the former "buffer zone" lands that now comprise the National Wildlife Refuge. Removing compliance testing under RFLMA at the federal land boundary at the Indiana Street Point of Compliance would mean that the water gained would not be tested before leaving federal lands. More importantly, the Indiana Street Point of Compliance is critical to Woman Creek Reservoir operations. To the extent an exceedance of relevant water quality standards occurs at the Indiana Street Point of Compliance, DOE has agreed to take certain actions to address the issue. If no exceedance occurs, water is released from Woman Creek Reservoir to the Walnut Creek basin. Moving the compliance point upstream on Woman Creek undermines the assurances under RFLMA that all flows leaving the former Rocky Flats site comply with the relevant water quality standards, since all such flows would no longer be tested under the DOE proposal. It is critically important to maintain compliance testing and the related assurances that all flows leaving the federal lands comply with relevant standards. The Authority is particularly reliant on these assurances, as they form the basis for release of water to the Walnut Creek basin. For these reasons, I ask that you oppose any DOE request to revise the RFLMA to move the Indiana Street Points of Compliance upstream.

The Authority would welcome the opportunity to discuss its concerns with you in greater detail at your convenience and appreciates your attention to this matter.

Sincerely,



Josh Nims  
President  
Woman Creek Reservoir Authority

cc via email: Steve Gunderson, CDPHE  
Carl Spreng, CDPHE  
David Abelson, RFSC  
Senator Udall's Office  
Senator Bennet's Office  
Representative Polis' Office  
Mark Aguilar, Environmental Protection Agency

Ms. Martha Rudolph

May 26, 2010

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Ray Plienness, Legacy Management

Scott Surovchak, Legacy Management

David Willett, City of Northglenn

Bud Elliot, City of Thornton

Mike Smith, City of Westminster

David Allen, City and County of Broomfield

Shelley Stanley, Woman Creek Reservoir Authority Board

Ed Lanyon, Woman Creek Reservoir Authority Board

Ron Hellbusch, City of Westminster