

ROCKY FLATS STEWARDSHIP COUNCIL

P.O. Box 17670

(303) 412-1200

Boulder, CO 80308-0670

www.rockyflatssc.org

Jefferson County ~ Boulder County ~ City and County of Broomfield ~ City of Arvada ~ City of Boulder
City of Golden ~ City of Northglenn ~ City of Thornton ~ City of Westminster ~ Town of Superior
League of Women Voters ~ Rocky Flats Cold War Museum ~ Rocky Flats Homesteaders
Kim Griffiths

Special COVID-19 Announcement

Board of Directors Meeting

Monday, June 8, 2020, 8:30 – 10:00 AM

Due to COVID-19 social distancing requirements, the Rocky Flats Stewardship Council Board of Directors will meet via WebEx, with an internet/phone link provided by separate notice. The meeting is open to the public. Following the direction of local governments and other public entities throughout Colorado, public engagement is being modified for this virtual meeting.

To ensure the meeting participants are able to hear the information being presented and the members of the Board of Directors are able to engage in conversation, the following meeting-specific protocols have been developed:

1. Public comments during the 8:35 am (approximate time) public comment period are limited to two minutes. Participants must sign up in advance by emailing a request to info@rockyflatssc.org. Requests must be made no later than 5:00 pm (MDT), Thursday, June 4, 2020. Persons submitting requests after this deadline will not be allowed to speak during the public comment period.
2. Public comments on the DOE annual report presentation are limited to written comments. Comments must be sent to info@rockyflatssc.org. All comments sent by 5:00 pm (MDT), Thursday, June 4, 2020, will be forwarded to the Board of Directors prior to the meeting. Comments sent during or following the meeting are also accepted.
3. All written comments, including those sent during or following the meeting, will be posted on the Stewardship Council website 1-2 weeks following the June 8, 2020, meeting.
4. DOE has agreed to respond in writing to comments offered on that agency's annual report. Those responses will be posted on the Stewardship Council website.

Please direct any questions to dabelson@rockyflatssc.org

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Board of Directors Meeting – Agenda **Monday, June 8, 2020, 8:30 – 10:00 AM**

VIA WEBEX

Email info@rockyflatssc.org for WebEx details

- 8:30 AM Convene/Introductions/Agenda Review
- 8:40 AM Public Comment: Comments are limited to the Consent Agenda and non-agenda items. See the “Special COVID-19 Announcement” for details.
- 8:50 AM Business Items
1. Consent Agenda
 - Approval of meeting minutes and checks
 2. Executive Director’s Report
- 8:55 AM Receive Stewardship Council 2019 Financial Audit (briefing memo attached)
- The Board will be briefed on the results of the audit.
 - No material problems were found, and the Stewardship Council was found to be in compliance with all applicable laws and regulations.
- Action item: Approve Motion Accepting Stewardship Council 2019 Financial Audit**
- 9:05 AM Host DOE Annual Meeting (briefing memo attached)
- DOE will brief on site activities for calendar year 2019.
 - DOE has posted the report on its website and will provide a summary of its activities to the Stewardship Council.
 - Activities included surface water monitoring, groundwater monitoring, ecological monitoring, and site operations (inspections, maintenance, etc.).

Public Comment on DOE Briefing: As explained in the “Special COVID-19 Announcement”, all comments must be submitted in writing.

9:45 AM Board Roundtable – Big Picture/Additional Questions/Issue Identification

Adjourn

Upcoming Meetings: September 9, October 28

Business Items

- February 3, 2020, draft board meeting minutes
- List of Stewardship Council checks (two separate, but sequential registers)

2019 Financial Audit

- Cover memo
- Draft financial audit

ROCKY FLATS STEWARDSHIP COUNCIL
Monday, February 3, 2020, 8:30 – 11:15 AM
Rocky Mountain Metropolitan Airport, Terminal Building, Mount Evans Room
11755 Airport Way, Broomfield, Colorado

Board members in attendance: Nancy Ford (Arvada), Sandra McDonald (Alternate, Arvada), Matt Jones (Director, Boulder County), Deven Shaff (Director, Broomfield), Heidi Henkel (Alternate, Broomfield), David Allen (Alternate, Broomfield), Jim Dale (Director, Golden), Libby Szabo (Director, Jefferson County), Joyce Downing (Director, Northglenn), Shelley Stanley (Alternate, Northglenn), Mark Lacis (Director, Superior), Jan Kulmann (Director, Thornton), James Boswell (Alternate, Thornton), Kathryn Skulley (Director, Westminster), Rich Seymour (Alternate, Westminster), Jeannette Hillery (Director, League of Women Voters), Linda Porter (Alternate, League of Women Voters), Roman Kohler (Rocky Flats Homesteaders), Murph Widdowfield (Rocky Flats Cold War Museum), Kim Griffiths

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

Attendees: Scott Surovchak (DOE-LM), Andy Keim (DOE-LM), Gwen Hooten (DOE-LM), Karen Edson (DOE-LM), Kristen Holmes (DOE-LM), Linda Kaiser (Navarro), Hanna Bolton (Navarro), Nicole Lachance (Navarro), Chris Stewart (Navarro), Jody Nelson (Navarro), Ryan Wisniewski (Navarro), John Boylan (Navarro), George Squibb (Navarro), Jennifer Opila (CDPHE), Rob Beierle (CDPHE), Jim Grice (CDPHE), Lindsey Archibald (CDPHE), Laura Dixon (CDPHE), Jeremy Rodriguez (Rep. Perlmutter), Ryan Hanson (Sen. Gardner), Dan Miller (Colorado Department of Law), Ralph Sudowe (CSU), Carl Spreng, Max Dodson

Convene/Agenda Review: Vice Chair Jan Kulmann convened the meeting at 8:40 a.m. The first order of business was introductions of Board members and the audience.

Public Comment: None

Elect Stewardship Council Officers for 2020: Joyce Downing took over as Chair of the meeting. The current Board Officers—Joyce Downing as Chair, Jan Kulmann as Vice Chair, and Jeannette Hillery as Secretary Treasurer—all expressed interest in continuing in their positions. Joyce asked if anyone else was interested in serving in one of these positions. No one responded, so the Board moved to a vote.

Mark Lacis moved to approve Joyce, Jan and Jeannette as Officers. The motion was seconded by Kim Griffiths. The motion passed 11-0.

2020 Meeting Schedule and Notice Provisions: David noted that the proposed 2020 meeting schedule was the same as previous years, except for the June meeting, which will be the second Monday due to conflicts.

Jeannette Hillery moved to approve the 2020 Meeting Schedule and Notice Provisions. The motion was seconded by Jan Kulmann. The motion to accept the minutes and checks passed 11-0.

Consent Agenda: The consent agenda included approval of the minutes from the November 18, 2019, meeting and the checks written since then. David Allen offered one edit to the November meeting minutes. This change referred to the vote count for new member appointments.

Mark Lacin moved to approve the November Board minutes as amended and the checks. The motion was seconded by Jan Kulmann. The motion to accept the minutes and checks passed 11-0.

Executive Director's Report: David introduced the five new Board members for 2020. He noted that Matt Jones was the only elected official who was with the Stewardship Council during cleanup, though at that time he was staff for the City of Boulder. He highlighted how this turnover impacts the upcoming briefings regarding cleanup levels and the Board's understanding of these complex concepts.

David explained that the RFSC works off a five-year DOE Grant, with annual approval of its funding package. The annual amount is \$139K. He said he was expecting funding approval from DOE within the week. He also noted that, although not required, the Stewardship Council undergoes an annual financial audit. This audit will be presented at the June meeting.

He went on to note three ongoing sampling efforts related to Rocky Flats: 1) Fish and Wildlife Service related to new trails, 2) Jefferson County Parkway Authority related to road construction, and 3) local governments related to Federal Lands Access Program (FLAP) grant. He said Broomfield was also doing its own independent sampling. He said all these efforts combined for 450 samples, using the same protocols and the same company doing the analysis. Out of all the samples, just one sample (part of Parkway Authority sampling) was above historic norms, and many are below. David said he would be surprised if any of this changed the risk profiles for Rocky Flats. He noted that many constituents are deeply afraid of Rocky Flats, and the fact that the data does not support this fear does not diminish their fear. Data, he noted based on risk communication studies, cannot be used to argue emotion. He advised that this fear needs to be acknowledged but does not necessarily lead to a change in agency decisions.

Kathryn Skulley asked if there was any way to help her constituents feel better or safer. David said there was no good answer, but that the most important thing for local government officials to do was to listen. He said fortunately citizens have a choice about whether they ever want to go onsite. Joyce Downing said she also encourages people who are concerned to come to the meetings and to learn more. Mark Lacin pointed out that the data can never be 100%, and therefore we can never identify every single hotspot. He highlighted the need to balance decisions and risk tolerance. Kim Griffiths said it appeared to her that opposing opinions are given equal weight in terms within the Stewardship Council. Libby Szabo pointed out the need to be careful to convey to constituents not to be afraid of every television sound bite, but to do research and learn more about the full picture.

Host DOE Quarterly Meeting: DOE was on hand to brief the Board regarding site activities for the third quarter of 2019 (July-September). The full report was posted on the DOE Legacy Management website. Activities included surface water monitoring, groundwater monitoring, ecological monitoring, and site operations (inspections, maintenance, etc.).

Surface Water Monitoring – George Squibb

George began with a quick review of the monitoring requirements, a map of locations and monitoring sites, what constituents they monitor.

At the Original Landfill (OLF), routine surface water sampling in Woman Creek downstream of the OLF (GS59) showed mean concentrations for all analytes below applicable RFLMA water-quality standards. At the Present Landfill (PLF), routine sampling showed concentrations for all analytes below applicable RFLMA water-quality standards.

At location SW027, the 12-month rolling average plutonium concentrations were reportable through April 2019. The average was calculated from a single sample collected in 2018 with 0.16 picocurie per liter (pCi/L) plutonium (the standard is 0.15 pCi/L). See RFLMA Contact Record 2019-01 for more information. There was no flow in 2019 until May 28. The composite sample started on May 28 was still in progress through the end of the quarter. Concentrations at the downstream Woman Creek Point of Compliance (WOMPOC) were not reportable.

No other Point of Evaluation (POE) analyte concentrations were reportable during the quarter, and no Point of Compliance (POC) concentrations were reportable during the quarter.

Kim Griffiths said it appeared that the remedy was working based on sampling results and asked if that was correct. George responded the remedy was working, and that DOE occasionally sees results above the regulatory standards, but that there was a process in place to mitigate when necessary. Kim then asked what would be observed if the remedy was not successful. George said he does not presume to know what we expect to see, but let the monitoring show DOE how to respond. Heidi Henkel asked what was involved with maintaining compliance, and whether this included the financial feasibility of any potential action. George said that agency consultation about possible actions could involve financial decisions, such as a cost-benefit analysis, and that the standards take this into account as well. He noted that many site-specific standards are lower than state standards. David Abelson added that the site water quality standard for plutonium is 100 times stronger (i.e., more protective) than the federal drinking water standard. George noted that Rocky Flats also has water quality standards comparisons at the Points of Evaluation that are not necessarily an indication that the remedy is not protective, but instead trigger consultation among the agencies.

Mark Lacin asked if the site had drawn any conclusions about the affect of weather on sampling results. George said that it depends on the constituent. For example, plutonium attaches to soil so that would affect what they see based on weather conditions. He said uranium mobility was based on groundwater seepage. In that case, lots of runoff brings the groundwater concentrations down as there is reduced seepage into the ground. Kim Griffiths asked if proposed changes to NEPA would affect Rocky Flats. David Abelson said this could apply to trails and a visitor center in the Refuge. Shelley Stanley asked if there was water at SW027 after May. George said there was just a small amount in June. David Allen asked George to explain the difference between grab samples and flow-paced sampling. George said a grab sample is just a manual sample where someone goes to the area and collects water into a sample container. A flow-paced sample involves an automated system that is set by personnel to pull samples based on the flow rate and sampling progress is delivered via telemetry. Scott Surovchak asked George to review the site monitoring system a bit more, focusing on SW027. George explained how different locations have different conditions (slope, wetlands, directions they face, etc.) and these serve to inform the interpretation of the sampling results.

Public Comment: None

Groundwater Monitoring – John Boylan

John first reviewed the RFLMA monitoring network, which includes:

- 10 Resource Conservation and Recovery Act (RCRA) wells (sampled quarterly to evaluate potential impacts from OLF and PLF)
- 9 Area of Concern (AOC) wells and one Surface Water Support location (sampled semiannually). These are in drainages downstream of contaminant plumes and are evaluated for plumes discharging to surface water
- 27 Sentinel wells (sampled semiannually). These are downgradient of treatment systems, edges of plumes, and in drainages, and are used to look for plumes migrating to surface water and treatment system problems
- 42 evaluation wells (sampled biennially – will occur second quarter 2020). These are located within plumes, near source areas, and interior of Central Operable Unit (COU) and are used to evaluate whether monitoring of an area or plume can cease
- 9 treatment system locations (seven are sampled semiannually, and two are quarterly)

During the quarter, only the 10 RCRA wells (at OLF and PLF) were sampled. Results were generally consistent with previous data. Data will be evaluated as part of the 2019 annual report.

Routine maintenance was performed at all three treatments systems: East Trenches Plume Treatment System (ETPTS), Solar Ponds Plume Treatment System (SPPTS), and Present Landfill Treatment System (PLPTS). An external outlet was added at SPPTS, so now they can use a generator to charge the batteries if solar is insufficient. They also finished installation of bird netting over the SPPTS “Big Box”. At the Mound Site Plume Collection System (MSPCS), a transfer line from MSPCS to ETPTS was repaired. A valve was found to have been crushed by elk traffic.

Shelley asked whether there was a floating system to keep bacteria warm enough to work at the SPPTS. John said there were floating tiles to reduce heat loss since the water cannot be heated due to lack of utilities onsite. John was asked what the surface water support location was. He said they do grab sampling there, and it has never been reportable. Deven Shaff asked what potential impacts were being looked for with RCRA wells at the landfills. John said they look at a suite of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polynuclear aromatic hydrocarbons (PAHs), and uranium/metals. Deven asked what is done with any uranium that is found. John said that it is in groundwater and is dissolved. Nothing needs to be done with it, since the levels are not above RFLMA levels. Deven asked about the contaminant plumes. John pointed him to a map in RFLMA. Most are chlorinated solvents, then nitrates and small area of uranium contamination. At times when it would be helpful, the site does a type of analysis that differentiates natural vs manmade uranium.

Public Comment: None

Site Operations – Linda Kaiser

Quarterly Sign Inspections are a physical control under RFLMA. Signs were inspected on August 12, 2019 and all were in good condition and legible.

At the OLF, monthly and weather-related inspections were conducted on July 18, August 20, and September 17, 2019. They observed a tension crack and two small holes above Berm 4. These will be addressed by the stabilization subcontractor. During a weather-related inspection on July 3, minor sediment buildup behind erosion controls was removed.

Settlement monuments were surveyed on September 3, 2019. Vertical settling was within design limits. The slope stabilization design was completed on May 6, and the construction notice to proceed was issued August 26. Mobilization and site preparation took place for the slope stabilization project in September. As part of the slope stabilization project, they are inserting large concrete anchor blocks. As of the date of the briefing, about 100 of 263 of these were complete.

Also, at the OLF, the East Subsurface Drain continues to function as designed. The Seep 10 siphon operated during quarter. Approximately 1,410,000 gallons was diverted since seasonal startup in March 2019. This water would historically surface, flow downgradient, and then saturate and potentially destabilize the slump area as it flowed to the East Perimeter Channel. The temporary groundwater intercept system operated during most of the quarter and was shut down on September 25 due to construction activity in the area. Since seasonal startup on May 17, approximately 222,000 gallons were diverted.

At the PLF, the quarterly inspection took place on August 14 and a weather-related inspection was performed on July 3.

Site road maintenance was conducted from July 15 to August 1, 2019. 4.2 miles of primary gravel roads were regraded, and dust suppressant was applied. Three curves near the OLF were widened to allow passage of trucks. Several two tracks were also maintained, and water bars were added to the ETPTS road to minimize future rutting.

At the North Walnut Creek Slump, data collection from piezometers was continued where possible. Slump monitoring points were surveyed on July 3, August 8, and September 3. Maximum movement since baseline (September 5, 2017) was approximately 2 feet vertically. Scarp crack largely remained closed due to elk traffic in the area but were open 1/4 to 1/2 inch in places. Small cracking continued in the Interceptor Trench System Sump access road. Quarterly activities also included construction of a surface water diversion channel upgradient of the SPPTS road, with improvement/ realignment of rock crossings.

Site Ecology – Jody Nelson

Jody reported that ecology activities during the quarter included:

- Preble's mouse mitigation monitoring
- Wetland mitigation monitoring
- Revegetation monitoring
- Forb nursery monitoring
- Weed mapping
- Prairie dog surveys (no active towns in COU)
- Shrub/tree survival counts
- Photopoint monitoring
- Project support

Matt Jones asked if there were any concerns about overpopulation of elk. Jody said there are about 250 in the herd and that USFWS is looking at this. Scott Surovchak said that USFWS has tagged two elk so far (looking to do more) and are looking at how they use the area.

DOE Briefing on the Cleanup Levels and Protectiveness of the Remedy: Scott Surovchak briefed on the basis for the cleanup, the decision to delist the lands that now comprise the Refuge and transportation corridor from CERCLA, risk, and related issues. This conversation is foundational to CDPHE’s April 2020 briefing on soil sampling by the Jefferson Parkway highway authority.

Scott began by explaining Rocky Flats’ history as a key site in the U.S. nuclear weapons complex from 1951 through 1989. The site was comprised of a 385 acre “Industrial Area”, surrounded by a 6,200 acre “Buffer Zone”. During production years, most of the contamination was inside the buildings; however, some contamination was also released outside of the buildings. Scott also described the type of metal/machining work that was conducted including the use of protective gloveboxes.

In 1989, plutonium operations at Rocky Flats were suspended. Cleanup and closure took place between 1994 and 2005, and included environmental remediation, building decommissioning and decontamination (D&D) and building demolition. Scott’s presentation included photos taken during cleanup. Scott noted that significant DOE complex integration was required to support Rocky Flats closure, as waste from cleanup and demolition were shipped to various sites across the U.S. for disposal and/or re-use.

Scott highlighted the environmental configuration of the site once all cleanup had concluded, including two primary surface water drainage pathways (Woman Creek and Walnut Creek). He also noted that the Rocky Flats does not impact any groundwater drinking water sources, although its shallow groundwater layer is a potential transport pathway.

Historic contamination at Rocky Flats includes:

Radionuclides

- Plutonium (Pu)
- Americium (Am)
- Uranium (U)

Other contaminants

- Metals
- Nitrate
- Organic compounds (solvents)

During cleanup, efforts were made to understand potential offsite plutonium contamination. Numerous studies collected offsite samples. Some sample results immediately east of the site are above background levels (highest = 6.5 pCi/g; most are near background). Concentrations west, north, and south of the site are within range of background.

The final regulatory decision for Operable Unit 3 (offsite areas) determined that no cleanup action was necessary to protect human health or the environment because contaminant levels were so low. Scott noted that this decision was based on a 3-volume RCRA Facility Investigation/Remedial Investigation report that provided data on surface water, groundwater, surface soil, subsurface soil, sediments, and air. See Volume I:

http://www.lm.doe.gov/cercla/documents/rockyflats_docs/OU03/OU03-A-000465.pdf

In terms of onsite plutonium contamination, more than 7,200 locations have been sampled since June 1991. More than 220,000 results were used to evaluate the nature and extent of surface-soil contamination. Air monitoring at the site was done to monitor for potential releases. That included effluent monitoring (monitoring emissions in exhaust from building stacks and vents), and ambient monitoring (concentration of contaminants measured in the “outside” air—onsite, at the perimeter, and in the communities). Monitoring equipment was upgraded periodically as regulations changed and science and technology advanced. Scott displayed maps of the monitoring locations, both onsite and offsite.

Air samplers collected not only site-derived radionuclides, but also naturally occurring and background radionuclides (particularly uranium isotopes). As a result, naturally occurring uranium made up most of the reported annual measured dose. All historical data were shown to be significantly under the relevant standard and support the exclusion of air monitoring from the current monitoring program.

The Actinide Migration Evaluation (AME) Panel was formed in 1996 to develop a scientific understanding of actinide transport at the site and help guide cleanup decisions based on science. These independent experts were asked to:

- Carefully examine site data
- Direct collection of new data
- Recommend and perform experiments and analyses with computer models (numerous studies conducted)
- Help to quantify actinide migration pathways (air, biological, surface water, groundwater)

The AME Pathway Analysis Summary Report can be found at:

http://www.lm.doe.gov/cercla/documents/rockyflats_docs/SW/SW-A-004544.PDF

Scott next spoke about the concept of risk, and reviewed radiation risks. He explained the CERCLA risk model, which looks at the additional risk of developing cancer, based on certain exposure scenarios. The target risk range is to keep additional cancer risk to an individual to 1 in 10,000 to 1 in 1,000,000. people. In Colorado, currently 50% of men and 1/3 of women get cancer during their lifetime.

In 2003, the Rocky Flats Cleanup Agreement (RFCA) modifications included the establishment of Radionuclide Soil Action Levels (RSALs) and the procedures for applying them. Action levels are numeric levels that, when exceeded, trigger an evaluation, remedial action, and/or management action. These levels were set by the agencies, based on input from:

- AME advisory group
- Stakeholder Focus Group
- RSALs Oversight Panel
- RSALs Working Group
 - Regulatory analysis
 - Computer modeling
 - RSAL calculations
 - New scientific information
 - Determining cleanup levels at other sites

Scott reviewed some key points about the RSALs. They were based on risk-based approach:

- Lifetime excess cancer risk: 0.00001 (or 1×10^{-5})
- Calculations include exposure time, exposure scenarios

The levels were based on input from multiple working groups, Citizen organizations and computer models. The RFCA parties agreed to require actions for soils with plutonium activity levels greater than 50 pCi/g (although the actual risk-based calculated value was much higher, 116 pCi/g).

An accelerated action process was created under RFCA. Individual Hazardous Substance Sites (IHSS) were investigated and characterized using EPA-approved methods in accordance with RFCA. Contaminated soil was excavated, packaged, and removed. Remedial actions were completed and documented, then reviewed by regulatory agencies. Approved actions were compiled in the HRR (The HRR is Appendix B of the RCRA Facility Investigation – Remedial Investigation/Corrective Measures Study – Feasibility Study Report for the Rocky Flats Environmental Technology Site).

Scott reviewed several of the cleanup projects, including 903 Pad, which was the primary source of plutonium and americium in surface soil. During the 903 Pad soil remediation project, tents were used to enclose excavation areas. 32,000 tons of soil was removed, including 900 grams of plutonium. Clean fill dirt was then added on top. Air and water quality were continually compliant throughout the work. This project was completed in December 2003. Cleanup of the 903 Lip Area (east of 903 Pad) was done to remove soil in concentrations greater than 50 pCi/g. The area was approximately 34 acres. Stringent dust and erosion controls were used. This project was completed in September 2004.

The overall site remedy included two distinct groupings:

1. Central Operable Unit (COU). This area includes the former production area, the ponds and the two landfills. Response actions include: Institutional controls, physical controls, and continued monitoring (because of residual contamination and to protect the remedy from human intrusion).
2. Peripheral Operable Unit (POU). This area, now the Rocky Flats National Wildlife Refuge, largely includes much of the former Buffer Zone. The area is suitable for unlimited use and unrestricted exposure (based on conservative exposure assumptions).

The Corrective Action Decision/Record of Decision for Rocky Flats Plant (USDOE) Peripheral Operable Unit and Central Operable Unit (CAD/ROD) can be found at:

http://www.lm.doe.gov/Rocky_Flats/Regulations.aspx

Scott ended his presentation with this brief summary:

- Characterization of site contaminants = Extensively sampled
- Regulatory process to guide cleanup = Rigorous CERCLA process with public participation
- Cleanup standards = Conservative
- Resulting risk = Low
- Environmental monitoring = Long-term, ongoing monitoring

Heidi Henkel asked about effects of the different kinds of radiation. Scott noted that Rocky Flats was mostly alpha radiation and the most important pathway is inhalation and the potential cancer risk was a long-term timeframe. He referenced a Manhattan Project monitoring study on workers that inhaled a higher number of radioactive particles only to find one potential cancer potentially associated with their direct and significant plutonium exposure. Nancy Ford asked Scott to confirm that there were still a lot of unknowns related to risks. Scott said this was not really the case, and that there is a lot known about what radiation does inside the body. David Abelson also pointed to the very conservative assumptions that were built into the risk scenarios as one way to address the uncertainty Nancy noted. He added that there is more known about high doses, and less about low dose. In the absence of some of this data, they used assumption that there was a linear relationship from high dose effect to corresponding low dose effects. He said that current studies are indicating that this was probably extremely conservative (i.e. Hiroshima survivor study, hormesis/adaptation to low dose).

Board Roundtable: Jeannette Hillery noted that Census 2020 was coming soon and that she hoped local governments were getting everything into place. Barb Vander Wall noted that she had distributed Oaths of Office for Board members to sign and asked that everyone return them to her.

Big Picture/Additional Questions/Issue Identification

April 6, 2020

Potential Business Items

- TBD

Potential Briefing Items

- Understanding Risk – Continued
- CDPHE Soil Sampling Results

June 8, 2020

Potential Business Items

- TBD

Potential Briefing Items

- TBD

Issues to watch:

- Soil sampling results
- Dam Breach
- Uranium exceedances in surface water
- Trichloroethylene (TCE) exceedances in groundwater

The meeting was adjourned at 11:58 a.m.

Respectfully submitted by Erin Rogers.

Rocky Flats Stewardship Council

Check Detail 2020

January 18 through March 24, 2020

Type	Num	Date	Name	Account	Paid Amount	Original Amount
Check		01/29/2020		CASH-Wells Fargo-Operating		-3.50
				Admin Services-Misc Services	-3.50	3.50
TOTAL					-3.50	3.50
Check		02/28/2020		CASH-Wells Fargo-Operating		-3.50
				Admin Services-Misc Services	-3.50	3.50
TOTAL					-3.50	3.50
Check	2024	02/13/2020	Century Link	CASH-Wells Fargo-Operating		-26.02
				Telecommunications	-26.02	26.02
TOTAL					-26.02	26.02
Bill Pmt -Check	2025	02/13/2020	Blue Sky Bistro	CASH-Wells Fargo-Operating		-290.00
Bill	3857	01/29/2020		Misc Expense-Local Government	-290.00	290.00
TOTAL					-290.00	290.00
Bill Pmt -Check	2026	02/13/2020	Crescent Strategies, LLC	CASH-Wells Fargo-Operating		-7,946.52
Bill	1/31/20 Billing	01/31/2020		Personnel - Contract	-7,750.00	7,750.00
				TRAVEL-Local	-37.95	37.95
				Postage	-15.99	15.99
				Telecommunications	-92.58	92.58
				Supplies	-50.00	50.00
TOTAL					-7,946.52	7,946.52
Bill Pmt -Check	2027	02/13/2020	Jennifer A. Bohn	CASH-Wells Fargo-Operating		-532.00
Bill	20-07	01/31/2020		Accounting Fees	-532.00	532.00
TOTAL					-532.00	532.00
Bill Pmt -Check	2028	02/13/2020	Seter & Vander Wall, P.C.	CASH-Wells Fargo-Operating		-3,296.00
Bill	79611	12/31/2019		Attorney Fees	-2,125.00	2,125.00
Bill	79787	01/31/2020		Attorney Fees	-1,171.00	1,171.00
TOTAL					-3,296.00	3,296.00
Check	2029	03/10/2020	Century Link	CASH-Wells Fargo-Operating		-25.97
				Telecommunications	-25.97	25.97
TOTAL					-25.97	25.97
Bill Pmt -Check	2030	03/10/2020	Crescent Strategies, LLC	CASH-Wells Fargo-Operating		-8,356.10
Bill	2/29/20 Billing	02/29/2020		Personnel - Contract	-7,750.00	7,750.00
				TRAVEL-Local	-47.73	47.73
				Postage	-15.99	15.99
				Telecommunications	-92.58	92.58
				TRAVEL-Out of State	-449.80	449.80
TOTAL					-8,356.10	8,356.10
Bill Pmt -Check	2031	03/10/2020	Erin Rogers	CASH-Wells Fargo-Operating		-675.00
Bill	3/5/20 Billing	02/29/2020		Personnel - Contract	-575.00	575.00
				Website	-100.00	100.00
TOTAL					-675.00	675.00
Bill Pmt -Check	2032	03/10/2020	Jennifer A. Bohn	CASH-Wells Fargo-Operating		-579.50
Bill	20-15	02/29/2020		Accounting Fees	-579.50	579.50
TOTAL					-579.50	579.50
Bill Pmt -Check	2033	03/10/2020	Seter & Vander Wall, P.C.	CASH-Wells Fargo-Operating		-2,104.73
Bill	79936	02/29/2020		Attorney Fees	-2,104.73	2,104.73
TOTAL					-2,104.73	2,104.73

Rocky Flats Stewardship Council
Check Detail 2020
March 25 through May 13, 2020

Type	Num	Date	Name	Account	Paid Amount	Original Amount
Check		03/28/2020		CASH-Wells Fargo-Operating		-3.50
				Admin Services-Misc Services	-3.50	3.50
TOTAL					-3.50	3.50
Check	2034	04/07/2020	Century Link	CASH-Wells Fargo-Operating		-25.98
				Telecommunications	-25.98	25.98
TOTAL					-25.98	25.98
Bill Pmt -Check	2035	04/07/2020	Crescent Strategies, LLC	CASH-Wells Fargo-Operating		-8,096.52
Bill	3/31/20 Billing	03/31/2020		Personnel - Contract	-7,750.00	7,750.00
				TRAVEL-Local	-37.95	37.95
				Postage	-15.99	15.99
				Telecommunications	-92.58	92.58
				Meeting Expense	-200.00	200.00
TOTAL					-8,096.52	8,096.52
Bill Pmt -Check	2036	04/07/2020	Jennifer A. Bohn	CASH-Wells Fargo-Operating		-456.00
Bill	20-23	03/31/2020		Accounting Fees	-456.00	456.00
TOTAL					-456.00	456.00
Bill Pmt -Check	2037	04/07/2020	Seter & Vander Wall, P.C.	CASH-Wells Fargo-Operating		-117.75
Bill	80215	03/31/2020		Attorney Fees	-117.75	117.75
TOTAL					-117.75	117.75
Check	2038	05/04/2020	Century Link	CASH-Wells Fargo-Operating		-26.20
				Telecommunications	-26.20	26.20
TOTAL					-26.20	26.20
Bill Pmt -Check	2039	05/04/2020	Crescent Strategies, LLC	CASH-Wells Fargo-Operating		-7,876.97
Bill	4/30/20 Billing	04/30/2020		Personnel - Contract	-7,750.00	7,750.00
				TRAVEL-Local	-18.40	18.40
				Postage	-15.99	15.99
				Telecommunications	-92.58	92.58
TOTAL					-7,876.97	7,876.97
Bill Pmt -Check	2040	05/04/2020	Fiscal Focus Partners, LLC	CASH-Wells Fargo-Operating		-4,000.00
Bill	1300	04/05/2020		Annual Audit	-4,000.00	4,000.00
TOTAL					-4,000.00	4,000.00
Bill Pmt -Check	2041	05/04/2020	HUB International	CASH-Wells Fargo-Operating		-2,973.61
Bill	2020Quote	05/01/2020		Insurance	-2,973.61	2,973.61
TOTAL					-2,973.61	2,973.61
Bill Pmt -Check	2042	05/04/2020	The Hartford	CASH-Wells Fargo-Operating		-500.00
Bill	11599945 4/20/20	05/01/2020		Insurance	-500.00	500.00
TOTAL					-500.00	500.00
Check	2043	05/04/2020	VOID	CASH-Wells Fargo-Operating		0.00
TOTAL					0.00	0.00
Bill Pmt -Check	2044	05/04/2020	Jennifer A. Bohn	CASH-Wells Fargo-Operating		-522.50
Bill	20-32	04/30/2020		Accounting Fees	-522.50	522.50
TOTAL					-522.50	522.50

ROCKY FLATS STEWARDSHIP COUNCIL

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www.rockyflatssc.org

Jefferson County ~ Boulder County ~ City and County of Broomfield ~ City of Arvada ~ City of Boulder
City of Golden ~ City of Northglenn ~ City of Thornton ~ City of Westminster ~ Town of Superior
League of Women Voters ~ Rocky Flats Cold War Museum ~ Rocky Flats Homesteaders
Kim Griffiths

MEMORANDUM

TO: Board
FROM: David Abelson
SUBJECT: 2019 Stewardship Council Financial Audit
DATE: May 28, 2020

Attached for your review is Fiscal Focus Partners' draft 2019 financial audit of the Rocky Flats Stewardship Council. They did not find any material deficiencies and issued a clean audit.

The Stewardship Council is not required by either state law or the DOE grant to secure an audit. However, an independent audit is an important check that confirms both the Board and staff are managing the finances in accordance with applicable laws and regulations.

Eric Barnes will present the audit to the Board and will be prepared to answer your questions. The Stewardship Council will need to formally accept the audit at the meeting.

Action Item: Approve motion accepting Stewardship Council's 2019 audit

Rocky Flats Stewardship Council

FINANCIAL STATEMENTS

With Independent Auditor's Report

December 31, 2019

DRAFT

Rocky Flats Stewardship Council

BASIC FINANCIAL STATEMENTS

December 31, 2019

Independent auditor’s reportI

Basic financial statements:

Government-wide financial statements:

 Statement of net position 1

 Statement of activities 2

Fund financial statements:

 Balance sheet – governmental fund..... 3

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

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

Notes to financial statements 6

DRAFT



INDEPENDENT AUDITOR'S REPORT

To the Board of Directors
Rocky Flats Stewardship Council
Boulder, Colorado

We have audited the accompanying financial statements of the governmental activities and each major fund of Rocky Flats Stewardship Council (the Council) as of and for the year ended December 31, 2019, and the related notes to the financial statements, which collectively comprise the Council's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

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

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

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities and each major fund of Rocky Flats Stewardship Council, as of December 31, 2019, and the respective changes in financial position thereof, and the respective budgetary comparison for the General Fund for the year then ended in accordance with accounting principles generally accepted in the United States of America.

I

Fiscal Focus Partners, LLC

Other Matters

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

Lakewood, Colorado
April X, 2020

DRAFT

ROCKY FLATS STEWARDSHIP COUNCIL
STATEMENT OF NET POSITION
December 31, 2019

	Governmental Activities
ASSETS	
Cash and cash equivalents	\$ 208,511
Other receivable	888
Total assets	209,399
LIABILITIES	
Accounts payable	11,342
Unearned grant revenue	4,036
Total liabilities	15,378
NET POSITION	
Restricted for grant expenditures	4,036
Unrestricted	189,985
Total net position	\$ 194,021

DRAFT

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

ROCKY FLATS STEWARDSHIP COUNCIL
STATEMENT OF ACTIVITIES
For the Year Ended December 31, 2019

<u>Functions/Programs</u>	<u>Program Revenue</u>			<u>Net (Expense)</u> <u>Revenue and</u> <u>Changes in Net</u> <u>Position</u>	
	<u>Expenses</u>	<u>Charges for</u> <u>Services</u>	<u>Operating</u> <u>Grants and</u> <u>Contributions</u>	<u>Capital Grants</u> <u>and</u> <u>Contributions</u>	<u>Governmental</u> <u>Activities</u>
Primary government	\$ 133,168	\$ -	\$ 140,861	\$ -	\$ 7,693
Total primary government	\$ 133,168	\$ -	\$ 140,861	\$ -	7,693
General revenues:					
Interest income					63
Total general revenues					63
Change in net position					7,756
Net position - beginning					186,265
Net position - ending					\$ 194,021

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

ROCKY FLATS STEWARDSHIP COUNCIL

**BALANCE SHEET
GOVERNMENTAL FUND**

December 31, 2019

	General Fund	Total Governmental Funds
ASSETS		
Cash and cash equivalents	\$ 208,511	\$ 208,511
Other receivable	888	888
Total assets	209,399	209,399
 LIABILITIES AND FUND BALANCES		
LIABILITIES		
Accounts payable	11,342	11,342
Unearned grant revenue	4,036	4,036
Total liabilities	15,378	15,378
 FUND BALANCES		
Restricted for:		
Grant expenditures	4,036	4,036
Unassigned:		
General government	189,985	189,985
Total fund balances	194,021	194,021
Total liabilities and fund balances	\$ 209,399	
Net position of governmental activities		\$ 194,021

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

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

For the Year Ended December 31, 2019

	Total General Fund and Governmental Funds
REVENUES	
Grants	\$ 124,954
Contributions from local governments and nonprofit organizations	15,907
Interest income	63
Total revenues	140,924
EXPENDITURES	
General government	
Annual audit	4,000
Accounting fees	4,627
Attorney fees	11,925
Administrative service	45
Insurance	3,468
Local government	1,406
Meeting expense	900
Personnel - contract	96,750
Postage	648
Subscriptions/membership dues	1,375
Supplies	343
Telecommunications	1,690
Travel - local	873
Travel - out of state	4,968
Website	150
Total expenditures	133,168
Net change in fund balances	7,756
Fund balances - beginning	186,265
Fund balances - ending	\$ 194,021
 Change in net position- Statement of Activities	 \$ 7,756

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

ROCKY FLATS STEWARDSHIP COUNCIL

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

For the Year Ended December 31, 2019

	Original and Final Budget	Actual	Variance with Final Budget Favorable (Unfavorable)
Revenues			
U.S. Department of Energy - Office of Legacy Management	\$ 139,000	\$ 124,954	\$ (14,046)
Contributions from local governments	10,000	15,907	(5,907)
Carry over - Rocky Flats Coalition of Local Governments	8,250	-	(8,250)
Interest income	-	63	63
Total revenues	157,250	140,924	(28,140)
Expenditures			
General government			
Personnel	94,150	96,750	(2,600)
Travel	7,300	5,841	1,459
Equipment	500	-	500
Supplies	1,200	1,243	(43)
Contractual	39,500	22,003	17,497
Insurance	4,000	3,468	532
Postage	1,500	648	852
Printing	2,000	-	2,000
Subscriptions/membership dues	2,400	1,375	1,025
Telecommunications	2,700	1,690	1,010
Website	2,000	150	1,850
Total expenditures	157,250	133,168	24,082
Net change in fund balance	-	7,756	7,756
Fund balance - beginning of year	177,989	186,265	8,276
Fund balance - end of year	\$ 177,989	\$ 194,021	\$ 16,032

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

Rocky Flats Stewardship Council
NOTES TO FINANCIAL STATEMENTS

December 31, 2019

Note 1 – Summary of significant accounting policies

Reporting entity

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

The Council was formed for the purpose of overseeing all post-closure Rocky Flats activities. The legislative and administrative power of the Council is vested with a Board of Directors not to exceed 14 voting members. Members are community stakeholder representatives, selected by the remaining Board of Directors upon application, and have a right to appoint a Director to the Board.

Under the terms of the IGA, the status of the Council is to be reviewed periodically by the local governments which are parties to the agreement to determine whether the Council will continue in existence. Also under the terms of the IGA, the Council is established as an "enterprise", as defined by Article X, Section 20 of the Colorado constitution, commonly referred to as the Taxpayer's Bill of Rights, or Tabor (Note 7).

The Council has no employees and all operations and administrative functions are contracted.

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

As of December 31, 2019, no component unit has been identified as reportable to the Council, nor is the Council a component unit of any other primary governmental entity.

Rocky Flats Stewardship Council

**NOTES TO FINANCIAL STATEMENTS
(continued)
December 31, 2019**

Government-wide and fund financial statements

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

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

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

Separate financial statements are provided for governmental funds. Major individual governmental funds are reported as separate columns in the fund financial statements.

Measurement focus, basis of accounting and financial statement presentation

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

Governmental fund financial statements are reported using the *current financial resources measurement focus* and the *modified accrual basis of accounting*. Revenues are recognized as soon as they are both measurable and available. Revenues are considered to be available when they are collectible within the current period or soon enough thereafter to pay liabilities of the current period. For this purpose, the government considers revenues to be available if they are collected within 60 days of the end of the current fiscal period. Expenditures generally are recorded when a liability is incurred, as under accrual accounting.

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

Rocky Flats Stewardship Council

**NOTES TO FINANCIAL STATEMENTS
(continued)
December 31, 2019**

The government reports the following major governmental fund:

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

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

Use of estimates

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

Cash and cash equivalents

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

Capital assets

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

The cost of normal maintenance and repairs that do not add to the value of the asset or materially extend the life of the asset are not capitalized. Improvements are capitalized and depreciated over the remaining useful lives of the related fixed assets, as applicable. Depreciation expense is computed using the straight-line method for all assets, based on the estimated useful lives of the assets, estimated at 3 years.

Fund equity

Fund balance for governmental funds should be reported in classifications that comprise a hierarchy based on the extent to which the government is bound to honor constraints on the specific purposes for which spending can occur. Governmental funds report up to five classifications of fund balance: non-spendable, restricted, committed, assigned, and unassigned. Because circumstances differ among governments, not every government or every governmental fund will present all of these components. The following classifications describe the relative strength of spending constraints:

Rocky Flats Stewardship Council

**NOTES TO FINANCIAL STATEMENTS
(continued)
December 31, 2019**

Non-spendable fund balance – The portion of fund balance that cannot be spent because it is either not in spendable form (such as inventory) or is legally or contractually required to be maintained intact.

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

Committed fund balance – The portion of fund balance constrained for specific purposes according to limitations imposed by the Council's highest level of decision making authority, the Board of Directors, prior to the end of the current fiscal year. The constraint may be removed or changed only through formal action of the Board of Directors.

Assigned fund balance – The portion of fund balance that is constrained by the government's intent to be used for specific purposes, but is neither restricted nor committed. Intent is expressed by the Board of Directors to be used for a specific purpose. Constraints imposed on the use of assigned amounts are more easily removed or modified than those imposed on amounts that are classified as committed.

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

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

As of December 31, 2019, the Council had \$4,036 restricted by grantors for expenses connected with monitoring of post-closure Rocky Flats activities. The remaining balance of \$189,985 is considered by the council to be unassigned.

Budgetary information

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

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

Rocky Flats Stewardship Council

**NOTES TO FINANCIAL STATEMENTS
(continued)
December 31, 2019**

Cash and Investments

Cash and investments as of December 31, 2019 are classified in the accompanying statements as follows:

Statement of net position:	
Cash and cash equivalents	<u>\$ 208,511</u>

Deposits with Financial Institutions

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

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

At December 31, 2019, all of the Council's deposits were covered by insurance provided by the federal government. The Council was not subject to custodial credit risk at December 31, 2019.

The Council's cash deposits at December 31, 2019 are as follows:

	<u>Carrying Balance</u>	<u>Bank Balance</u>
Deposits with financial institutions	<u>\$ 208,511</u>	<u>\$ 208,717</u>
Total cash and cash equivalents	<u>\$ 208,511</u>	<u>\$ 208,717</u>

Investments

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

Rocky Flats Stewardship Council

**NOTES TO FINANCIAL STATEMENTS
(continued)
December 31, 2019**

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

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

As of December 31, 2019, the Council had no investments.

Note 3 – Capital Assets

An analysis of the changes in capital assets for the year ended December 31, 2019 follows:

	Balance 12/31/18	Additions	Deletions	Balance 12/31/19
Capital assets being depreciated:				
Furniture and equipment	\$ 442	\$ –	\$ –	\$ 442
Total capital assets	442	–	–	442
Accumulated depreciation	(442)	–	–	(442)
Capital assets, net	\$ –	\$ –	\$ –	\$ –

Note 4 – Net position

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

Net investment in capital assets consists of capital assets, net of accumulated depreciation. As of December 31, 2019, the Council had no net investment in capital assets.

Restricted assets include net position that are restricted for use either externally imposed by creditors, grantors, contributors, or laws and regulations of other governments or imposed by law through constitutional provisions or enabling legislation. As of December 31, 2019, the Council had \$4,036 of restricted net position.

As of December 31, 2019, the Council had unrestricted net position of \$189,985.

Rocky Flats Stewardship Council

**NOTES TO FINANCIAL STATEMENTS
(continued)
December 31, 2019**

Note 5 - Risk management

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

Note 6 - Concentration

The Council receives the majority of its funding through a grant from the U.S. Department of Energy (DOE). The DOE grant has a current expiration date of February 28, 2022.

Note 7 - Tax, spending and debt limitation

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

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

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

DOE Annual Report Briefing

- Cover memo
- Excerpts of the annual report

ROCKY FLATS STEWARDSHIP COUNCIL

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City of Golden ~ City of Northglenn ~ City of Thornton ~ City of Westminster ~ Town of Superior
League of Women Voters ~ Rocky Flats Cold War Museum ~ Rocky Flats Homesteaders
Kim Griffiths

MEMORANDUM

TO: Stewardship Council Board of Directors
FROM: Melissa Weakley and David Abelson
SUBJECT: DOE's 2019 Annual Report Briefing
DATE: May 18, 2020

DOE will present an overview its 2019 Annual Report of Site Surveillance and Maintenance Activities, which can accessed here: https://www.lm.doe.gov/Rocky_Flats_Archive.pdf#2019. Annual Report highlights are included below.

- **Site-Wide:** The annual site-wide inspection was conducted on March 29, 2019.
 - No evidence of violations of the institutional or physical controls was observed.
 - Minor depressions around former building areas were noted (none appeared significant).
- **Present Landfill (PLF):** Per the Rocky Flats Legacy Management Agreement (RFLMA), the regulatory document that guides agency activities, the PLF was inspected quarterly (February, May, August, and November), with two additional weather-related inspections in March and July.
 - No significant issues were observed.
- **Original Landfill (OLF):** Per the RFLMA, the OLF was inspected monthly. Two additional weather-related inspections (i.e. after significant precipitation events) were conducted in March and July. The OLF was also monitored weekly as a Best Management Practice.
 - No slumping at the OLF hillside was observed. Minor cracking was observed above Berm 4 (within the waste footprint) and Berm 5 (outside the waste footprint).
 - Construction on the OLF Stabilization Project began in August 2019 and is scheduled to be completed in 2020.
 - Soil from the 2017 slump that blocked the East Perimeter Channel was removed as part of the OLF Stabilization Project (see attached DOE **Figure 4**).
 - Minor maintenance of the OLF cover was conducted throughout the year as needed to fill small cracks and erosion gullies.
 - The pumps in the temporary groundwater intercept wells were fully operational by mid-June and were shut down in late September, prior to the onset of freezing temperatures. The pumps are on standby for potential use in 2020.
- **North Walnut Creek Slump (NWCS):** The NWCS, located on the hillside east of the Solar Ponds Plume Treatment System (SPPTS), was monitored monthly (see attached DOE **Figure 9**).
 - Slope creep continued through 2019, with greater movement during wetter periods.
 - To divert storm water away from the NWCS area, a swale and rock crossing was installed upgradient of the NWCS in October 2019.

- Groundwater elevations continued to be measured via piezometers installed at the NWCS. These data, along with the geotechnical slope stability evaluation completed in 2018, will be used to help determine the path forward for this unstable hillside.
- **Solar Ponds Plume Treatment System (SPPTS):** The SPPTS continued to treat nitrate effectively. The lagoon is not designed to treat uranium, although some uranium is removed.
 - Effluent concentrations of nitrate met RFLMA standards throughout the year, except for a couple of weeks in February and April, when cold temperatures impaired bacterial activity.
 - The SPPTS decreased uranium concentrations somewhat, but uranium treatment improvements are planned for the near future. Potential uranium treatment technologies for the SPPTS are being studied. Uranium treatment at the SPPTS will be subject to final tests, design, and construction in the 2020–2023 timeframe.
- **East Trenches Plume Treatment System (ETPTS):** The ETPTS now treats water from both the East Trenches and the Mound Site.
 - Effluent concentrations met all applicable RFLMA standards throughout the year.
- **Groundwater Monitoring:** Groundwater quality at the Site in 2019 was largely consistent with that in previous post-closure years.
 - Area of Concern (AOC) well 10304, located in the south-central portion of the COU (see attached DOE **Figure 12**), was reportable for trichloroethene (TCE) (i.e. above the RFLMA standard of **2.5 ug/L**) in the 2nd quarter (**3.5 ug/L**) but was not reportable in the 4th quarter 2019 (**2.1 ug/L**). Samples were collected from Woman Creek location SW10200 concurrently with AOC well 10304; TCE was not detected in these samples.
- **Surface Water Monitoring: A total of 80** samples from 8 gaging stations and 6 grab sampling locations were collected and analyzed.
 - Analyte concentrations at all Point of Compliance (POC) monitoring locations (see attached DOE **Figure 3**) were below reportable levels during 2019.
 - The 12-month rolling average concentrations from June 2018–April 2019 (**0.159 pCi/L**) at RFLMA Point of Evaluation (POE) monitoring location SW027 (see attached DOE **Figure 3**) were above the RFLMA standard for plutonium (**0.15 pCi/L**), which is a reportable event. Due to low flow, however, the 12-month rolling average values include results from only a single composite sample collected on May 3–4, 2018. Because of low flow at SW027 in 2019, insufficient water volume was available for laboratory analysis, and no samples could be collected. Therefore, no 12-month rolling averages can be calculated, and SW027 is no longer reportable for plutonium.
- **Ecological Monitoring:** Revegetation and wetland monitoring activities were conducted.
 - Revegetation efforts continue to be successful.
 - No active black-tailed prairie dog towns were observed within the Site boundaries.

Attachments

2019 Annual Report Cover Page, Table of Contents, and Abbreviations

Overview of 2019 Contact Records (Table 1)

OLF Slump Areas 2015-2017

North Walnut Creek Slump

Monitoring Locations near AOC Well 10304

Water Routing Schematic

Historical and Post-Closure Contaminant Concentration Figures: plutonium, americium, uranium, nitrate

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

Calendar Year 2019

Overview

April 2020



U.S. DEPARTMENT OF
ENERGY

Legacy
Management

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Appendix B	Water Quality Data
Appendix C	Landfill Inspection Forms, Fourth Quarter CY 2019
Appendix D	Data Evaluation Flowcharts Reproduced from the RFLMA
Appendix E	2019 RFLMA Contact Records and Written Correspondence

Abbreviations

AOC	Area of Concern
BMP	best management practice
CAD/ROD	Corrective Action Decision/Record of Decision
CDPHE	Colorado Department of Public Health and Environment
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COU	Central Operable Unit
CR	contact record
CY	calendar year
DOE	U.S. Department of Energy
EPA	U.S. Environmental Protection Agency
ETPTS	East Trenches Plume Treatment System
FR	<i>Federal Register</i>
ICs	institutional controls
LM	Office of Legacy Management
NOIPD	Notice of Intent for Partial Deletion
NPL	National Priorities List
NWCS	North Walnut Creek Slump
OLF	Original Landfill
OU	operable unit
PLF	Present Landfill
POC	Point of Compliance
POE	Point of Evaluation
POU	Peripheral Operable Unit
PQL	practical quantitation limit
RCRA	Resource Conservation and Recovery Act
RFCA	<i>Final Rocky Flats Cleanup Agreement</i>
RFLMA	<i>Rocky Flats Legacy Management Agreement</i>
SPPTS	Solar Ponds Plume Treatment System
TCE	trichloroethene

Table 1. Actions Approved by the RFLMA Parties

Activity	Status as of December 31, 2019	CR No./ CP Date	Approval Date
Reportable Condition for AOC well 10304	Actions Implemented. A reportable condition for trichloroethene (TCE) at AOC well 10304 was confirmed following validation of results from the sample collected in the fourth quarter of 2018. Sampling in 2019 included concurrent grab sampling at Woman Creek location SW10200 for the duration of the reportable condition. Results from well 10304 for the fourth quarter of 2019 were below the TCE standard, ending the reportable condition. TCE was not detected in any sample collected from location SW10200.	Consultation Posting 010819	01/08/2019
Reportable condition for plutonium at POE SW027	Actions Implemented. These actions regard the reportable condition for the 12-month rolling average for plutonium at Point of Evaluation (POE) SW027, which exceeded the applicable RFLMA Table 1 standard of 0.15 picocuries per liter. DOE provided notification of this reportable condition to the agencies and public via email on January 17, 2019. Monitoring continues at SW027 and at the downstream POC WOMPOC. Supplemental monitoring also continues at tributary location GS51 (former 903 Pad area). Vegetation and erosion controls upstream of GS51 continued to be evaluated and maintained; no additional erosion control measures were deemed necessary or undertaken in 2019.	2019-01	03/20/2019
OLF Stabilization Project with Soil Disturbance Review Plan	Actions Ongoing. The project activities described in CR 2019-02 were in process through the end of CY 2019. These activities include the installation of reaction blocks (anchor tieback plates) to stabilize the OLF hillside in response to the slumping soil cover. The project is expected to be completed by fall 2020.	2019-02	07/12/2019
NWCS Storm Water Diversion and Soil Disturbance Review Plan	Actions Implemented. The project activities described in CR 2019-03 were conducted from late September into early October 2019. This project installed an earthen swale along the crest of the NWCS hillside along the Solar Ponds Plume Treatment System (SPPTS) access road. The objective of this installation is to divert storm water around the NWCS hillside to limit slumping and reduce erosion in the area.	2019-03	07/30/2019
NWCS Area and SPPTS Subsurface Investigation and Soil Disturbance Review Plan	Actions Implemented. Subsurface investigation activities were proposed in the contact record to gather additional data for geotechnical analysis and install piezometers and/or inclinometers for the evaluation of groundwater availability. The information gathered from this project will be utilized in future decisions to address slumping soils in the area. Field activities associated with the investigation have been placed on hold and are expected to be performed within the second half of the 2020 calendar year.	2019-04	08/29/2019
OLF geotechnical investigation work	Actions Implemented. The geotechnical investigation activities described in this CR were completed in the summer of 2018. This investigation is part of the larger OLF stabilization project, completion of which is expected in 2019–2020.	2018-01	02/07/2018
Minor modifications to the OLF inspection form	Actions Ongoing. Approval of this CR allowed the use of a modified inspection form for OLF inspections. Use of the modified inspection form began after approval of the CR. The OLF M&M Plan should be revised to adopt the modified form in 2020, after long-term hillside stabilization measures are in place at the landfill.	2018-02	02/20/2018

Table 1. Actions Approved by RFLMA Parties (continued)

Activity	Status as of December 31, 2019	CR No./ CP Date	Approval Date
NWCS 2017 maintenance	Actions Implemented. The project activities described in CR 2017-03 were conducted from early spring 2017 through the end of 2017. The bulk of field activities for the geotechnical drilling portion of the project were completed in December 2017; however, three inclinometers were installed as a field change in early January 2018. This field change was approved by CDPHE in late December 2017 (Field Change Concurrence 121917). This project is part of the larger NWCS slope stabilization effort scheduled for completion in 2022–2023.	2017-03	3/27/2017
Notification of maintenance activities at OLF Berms 6 and 7	In January 2018, LM provided a briefing to the RFLMA Parties describing the maintenance actions to be conducted at the OLF on Berms 6 and 7. Notification of this briefing (Notification 020818) was documented as written correspondence and was posted on the LM webpage in connection with CR 2015-06. This notification was for information only and did not require approval by the RFLMA Parties.	2015-06	--
Reportable condition at the OLF	Actions Implemented. The initial repair to the slump on the east side of the OLF was completed in January 2015. Subsequent slope movement in 2016 and 2017 prompted additional evaluation, repairs, and installation of both permanent and temporary groundwater diversion measures in an effort to reduce slumping during the design and implementation of permanent stabilization measures. The comprehensive slope stabilization evaluation at OLF continued through 2017. A final stabilization design is anticipated to be implemented in 2020. This reportable condition will remain open until the RFLMA Parties determine that the reportable condition no longer exists. In October 2018, LM provided a briefing to the RFLMA Parties on the progress of the long-term OLF stabilization project. Notification of this briefing (Notification 110618) was documented as written correspondence and was posted on the LM webpage in connection with CR 2013-02. This notification was for information only and did not require approval by the RFLMA Parties.	2013-02	10/21/2013

Notes:

Actions Implemented means that the original activities (e.g., installation of wells, treatment system upgrades) authorized by the approved CR have been completed and installation of erosion controls, reseeded, or both, is in progress or completed. This designation does not necessarily signify that the larger project (i.e., follow-on actions or data evaluation) that may be authorized by different CRs has been completed. For example, if a CR approved the installation of piezometers for collection of water-level measurements, the **Actions Implemented** designation simply means that the piezometers were installed, not that data collection or evaluation of data for the project is complete.

Actions Ongoing means that the original activities (e.g., installation of wells, treatment system upgrades) authorized by the approved CR are in progress.

Evaluation Ongoing typically applies to CRs documenting reportable conditions. This designation means that the actions (e.g., additional sampling, mitigating actions) included in the plan and schedule for the evaluation of the approved CR for the reportable condition are still in progress.

Abbreviations:

AOC = Area of Concern; CP = consultation posting; NWCS = North Walnut Creek Slump; POE = Point of Evaluation; SPPTS = Solar Ponds Plume Treatment System; TCE = trichloroethene; WALPOC = Walnut Creek Point of Compliance

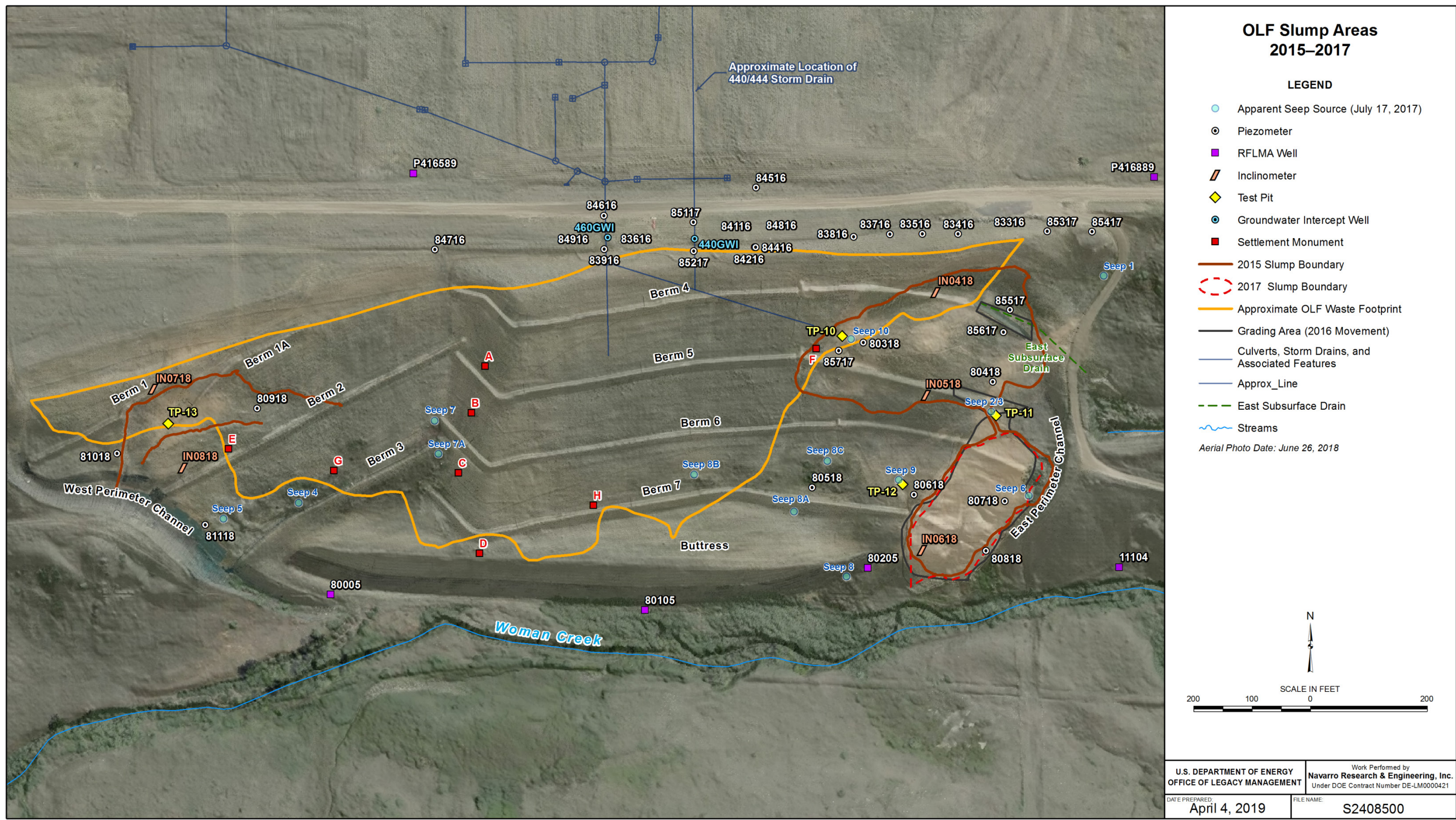
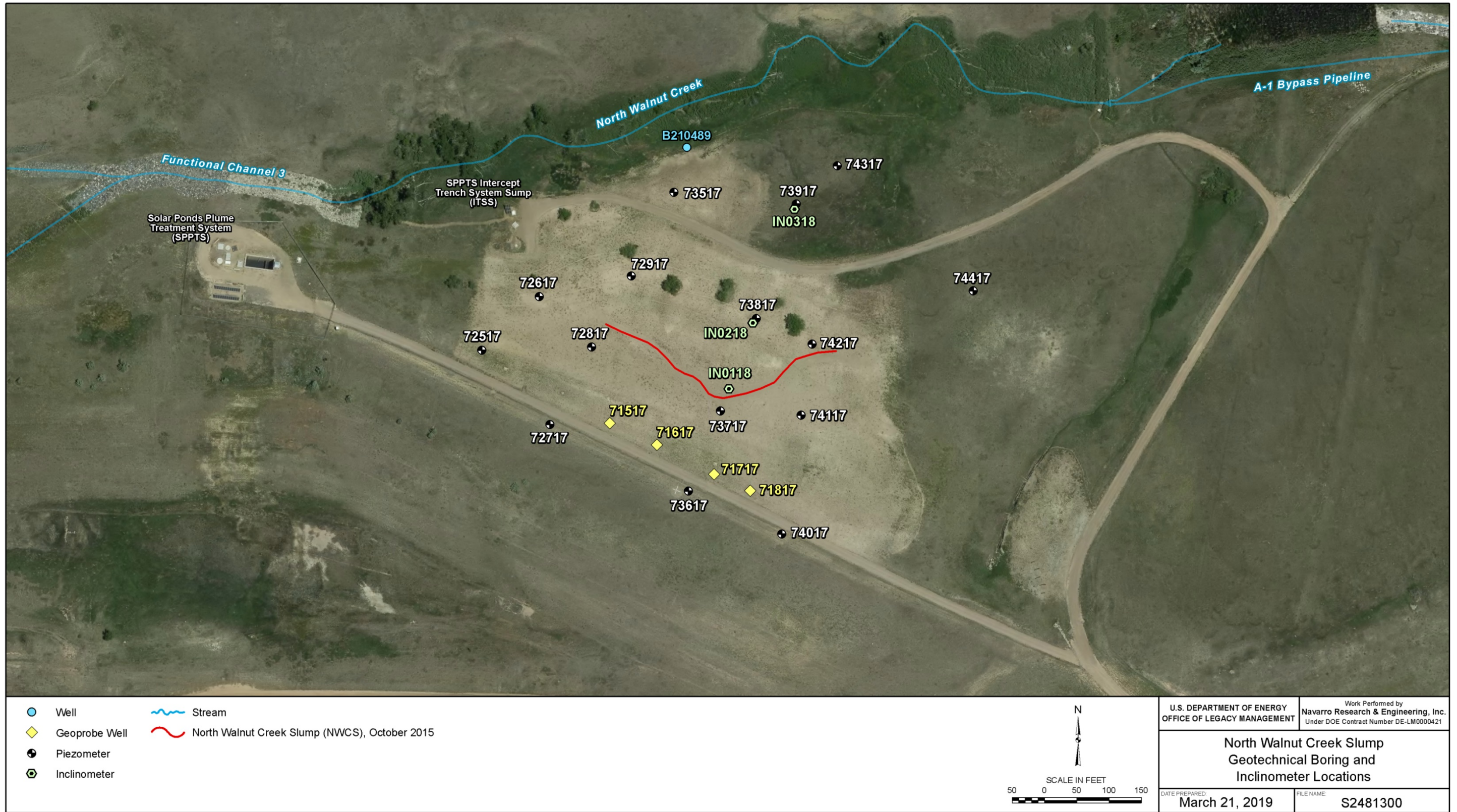


Figure 4. Original Landfill, Rocky Flats Site, Colorado



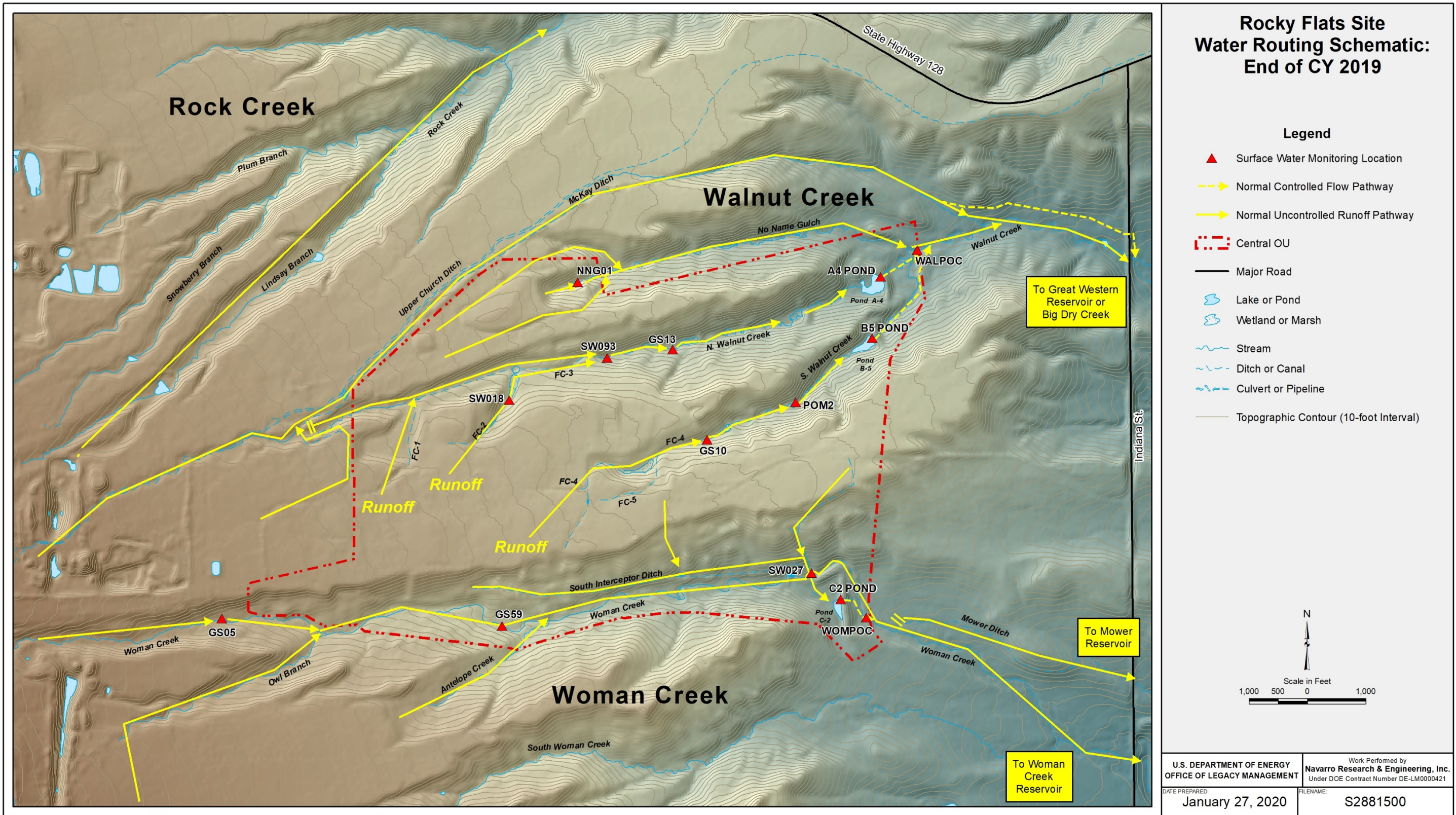
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Figure 9. North Walnut Creek Slump Geotechnical Project Features, Rocky Flats Site



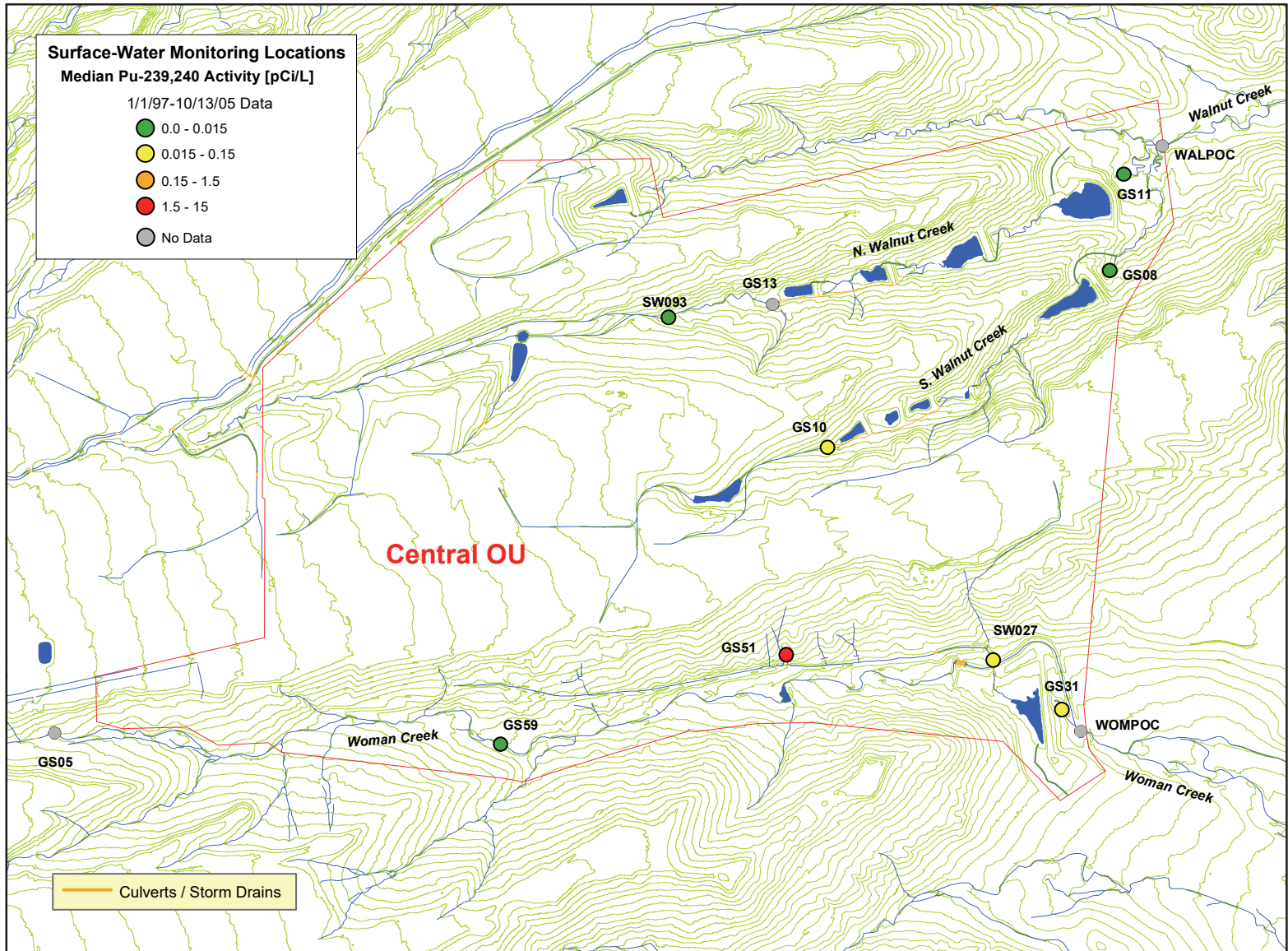
Note: RFLMA groundwater monitoring locations are illustrated as red circles, and special (non-RFLMA) surface water locations are illustrated as blue squares.

Figure 12. Monitoring Locations in the Vicinity of AOC Well 10304, Including SW10200



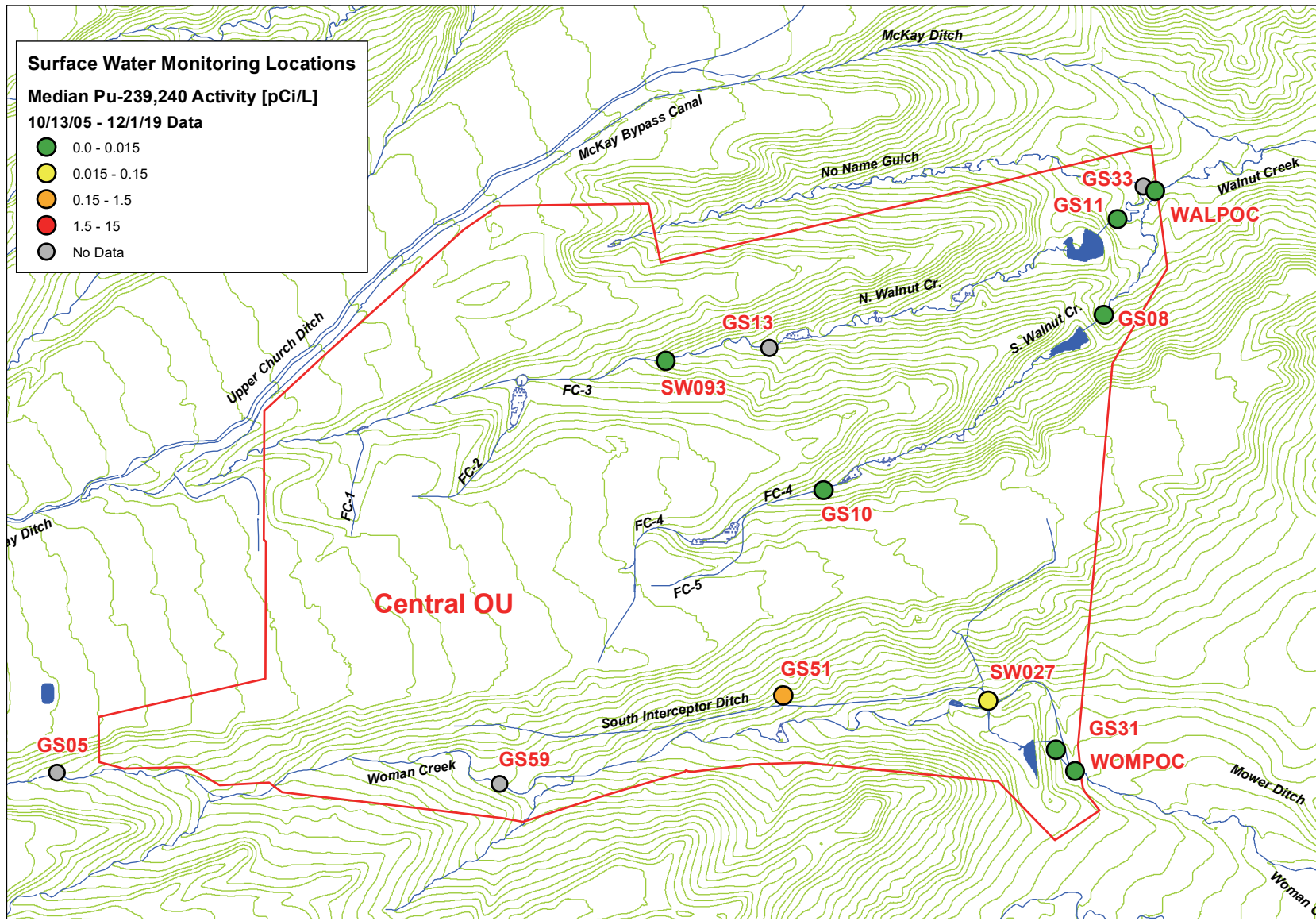
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Figure 3. Rocky Flats Site Water Routing Schematic: End of CY 2019



Note: Only locations with four or more results are mapped.

Figure 90. Median Plutonium Concentrations for January 1, 1997–October 13, 2005



Note: Only locations with four or more results are mapped. Dams A-1 through A-3 and B-1 through B-4 were breached in 2009-2012.

Figure 91. Postclosure Median Plutonium Concentrations

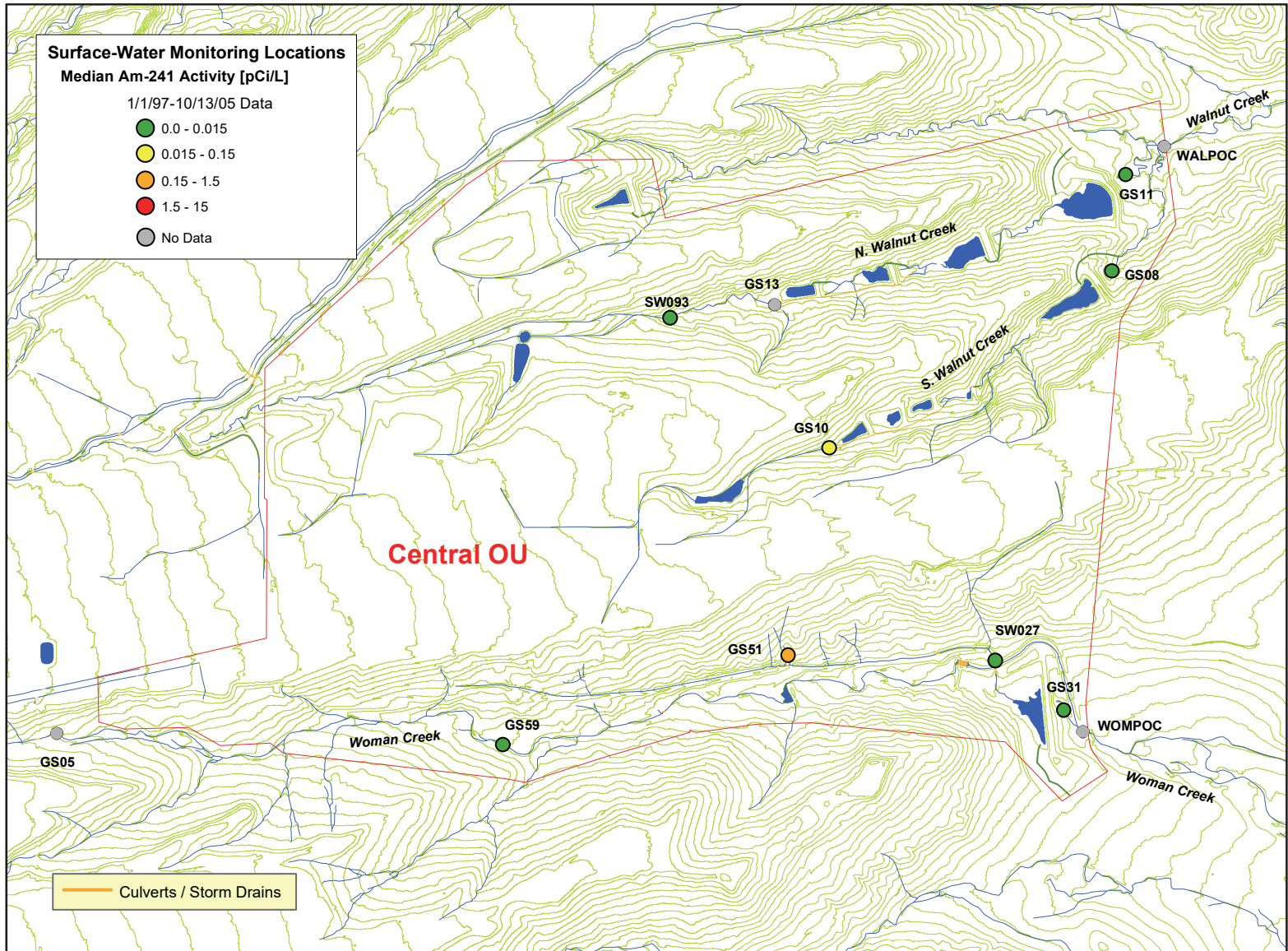
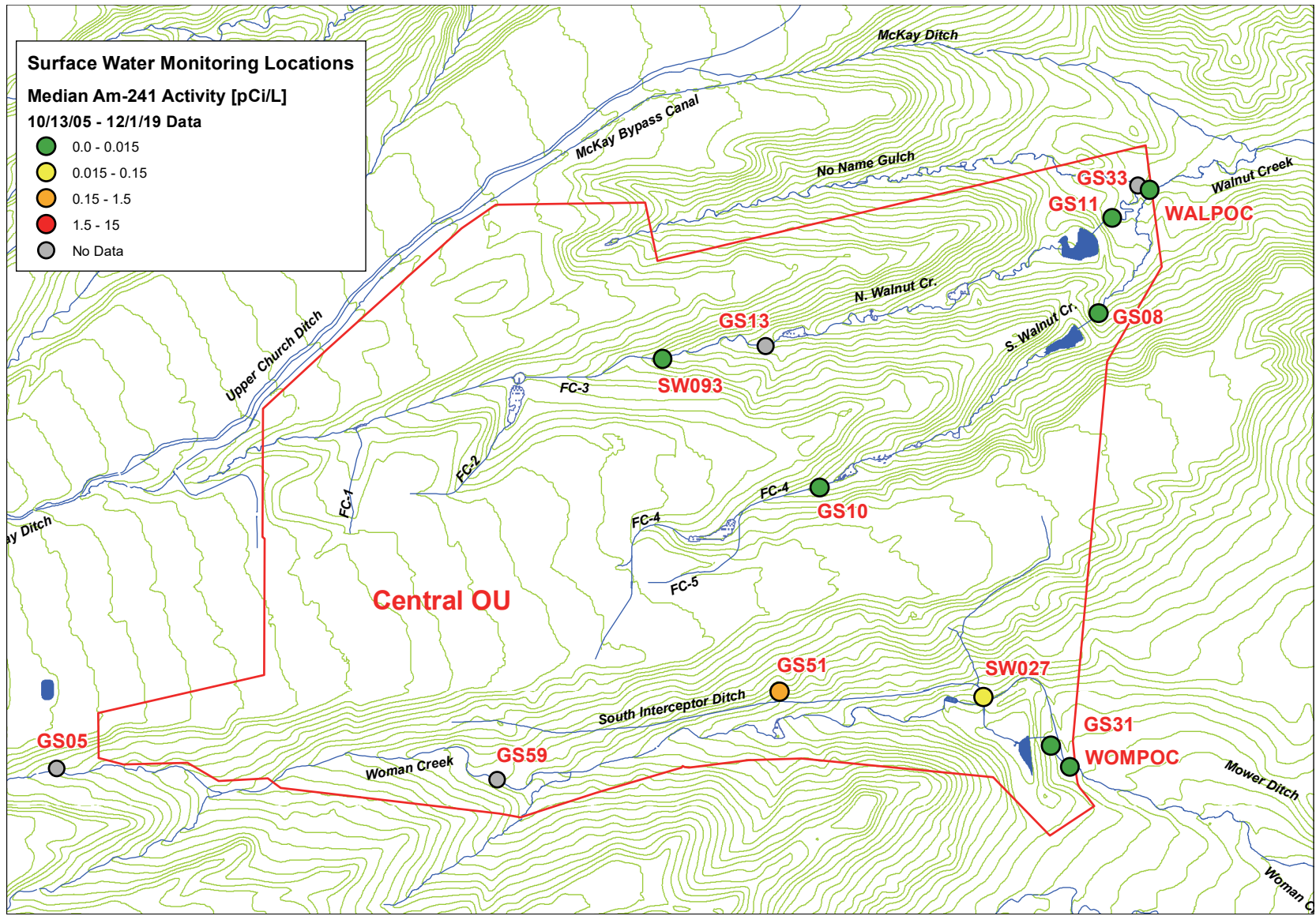
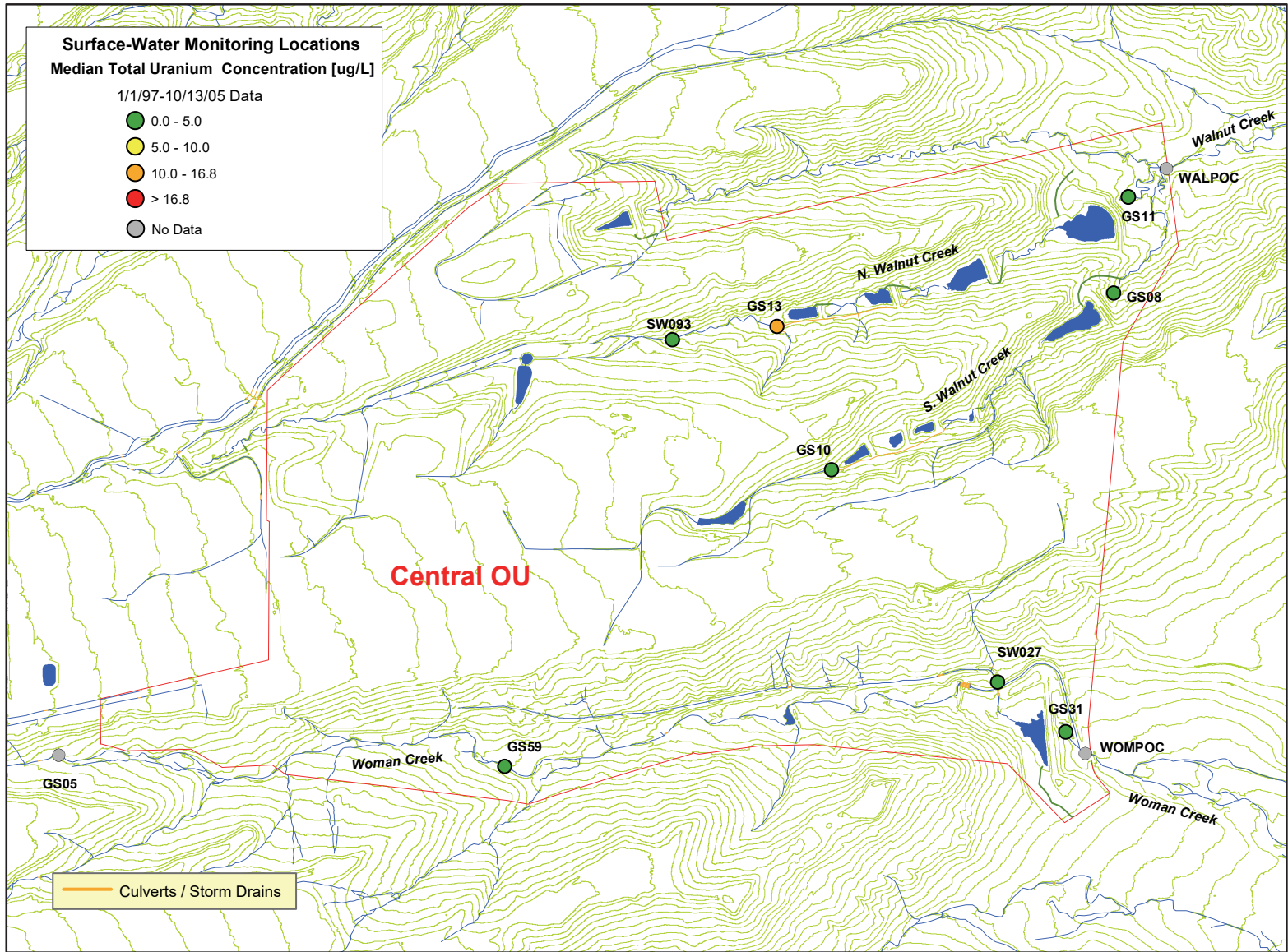


Figure 92. Median Americium Concentrations for January 1, 1997–October 13, 2005



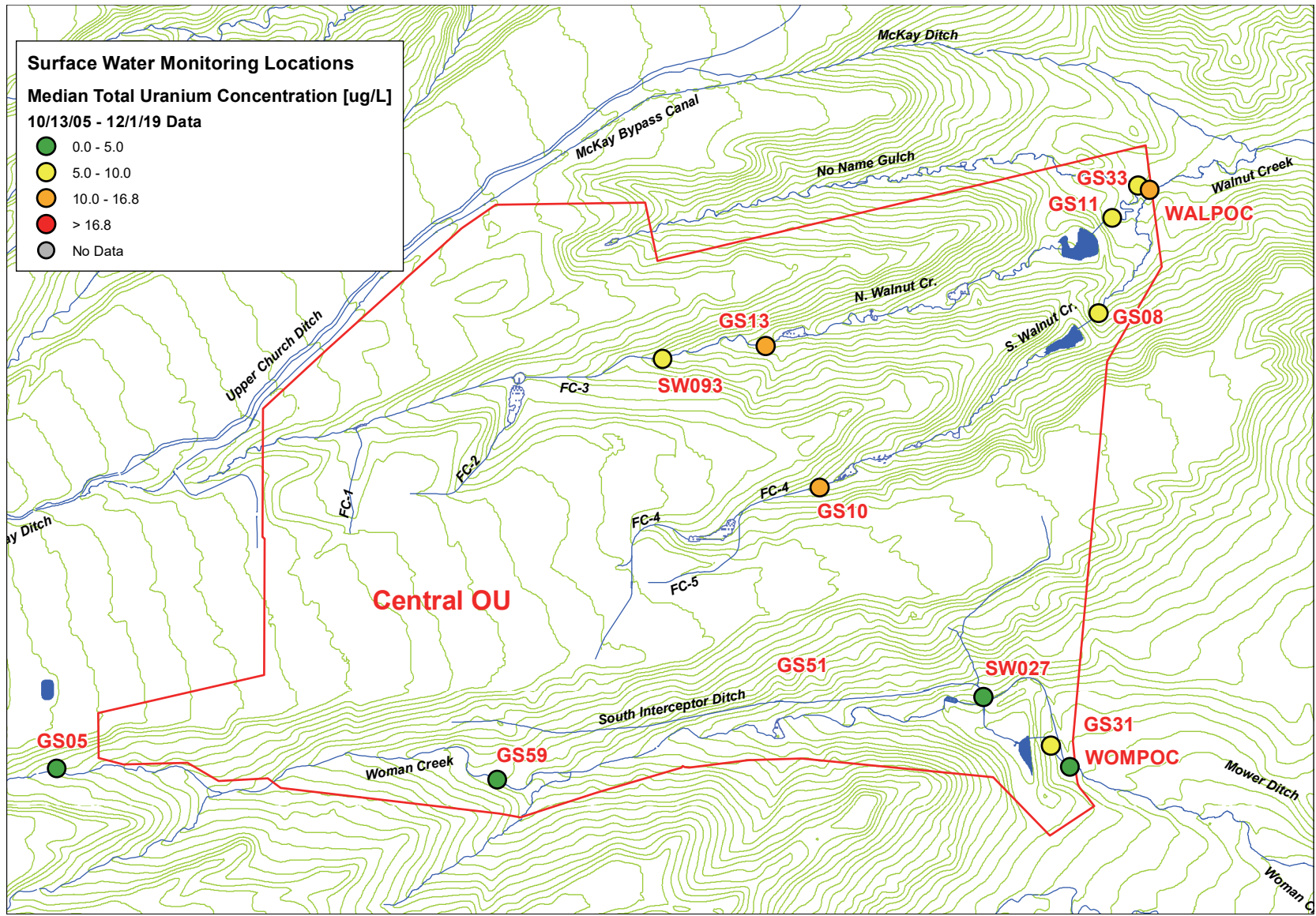
Note: Only locations with four or more results are mapped.

Figure 93. Postclosure Median Americium Concentrations



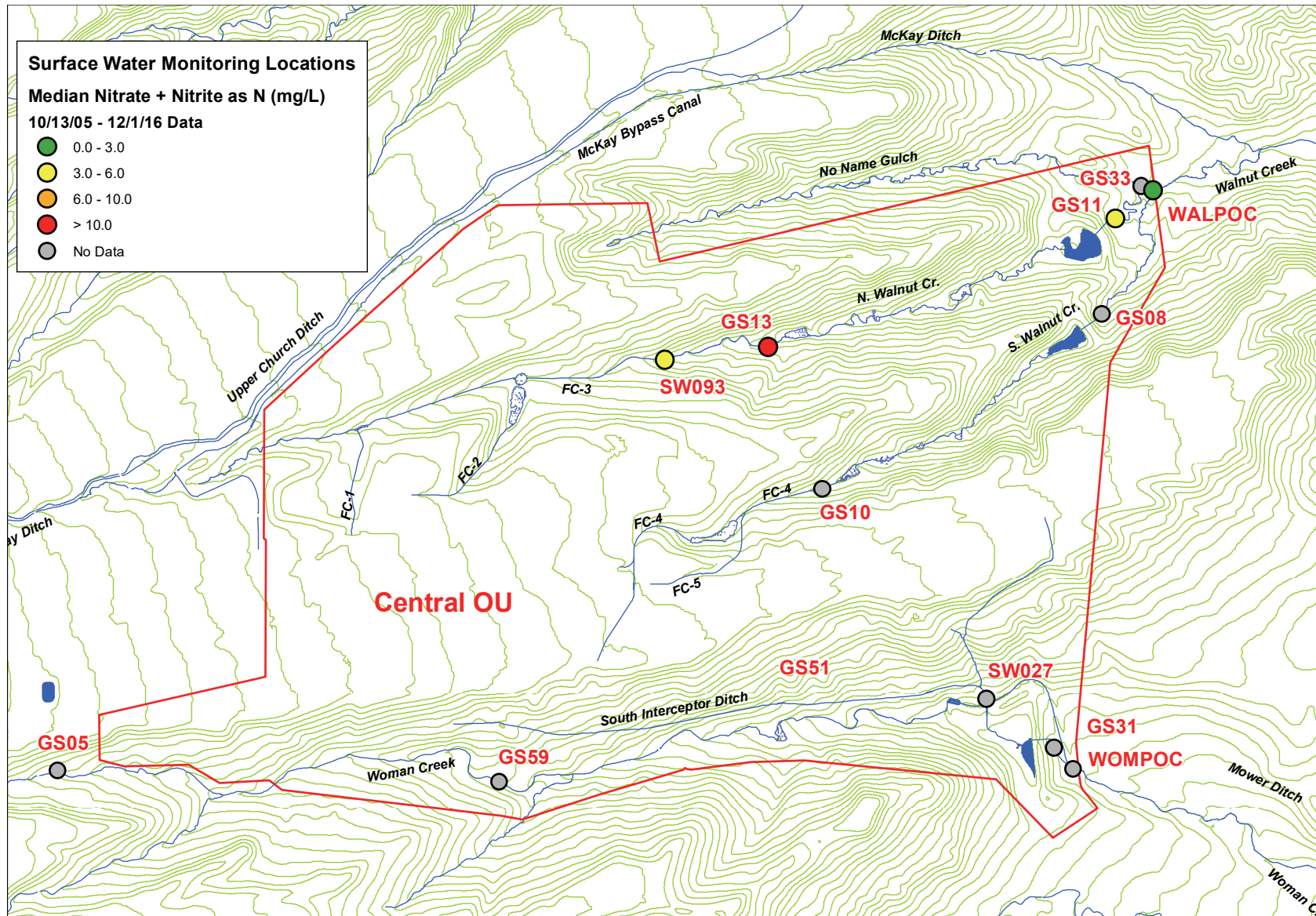
Note: Only locations with four or more results are mapped.

Figure 94. Median Uranium Concentrations for January 1, 1997–October 13, 2005



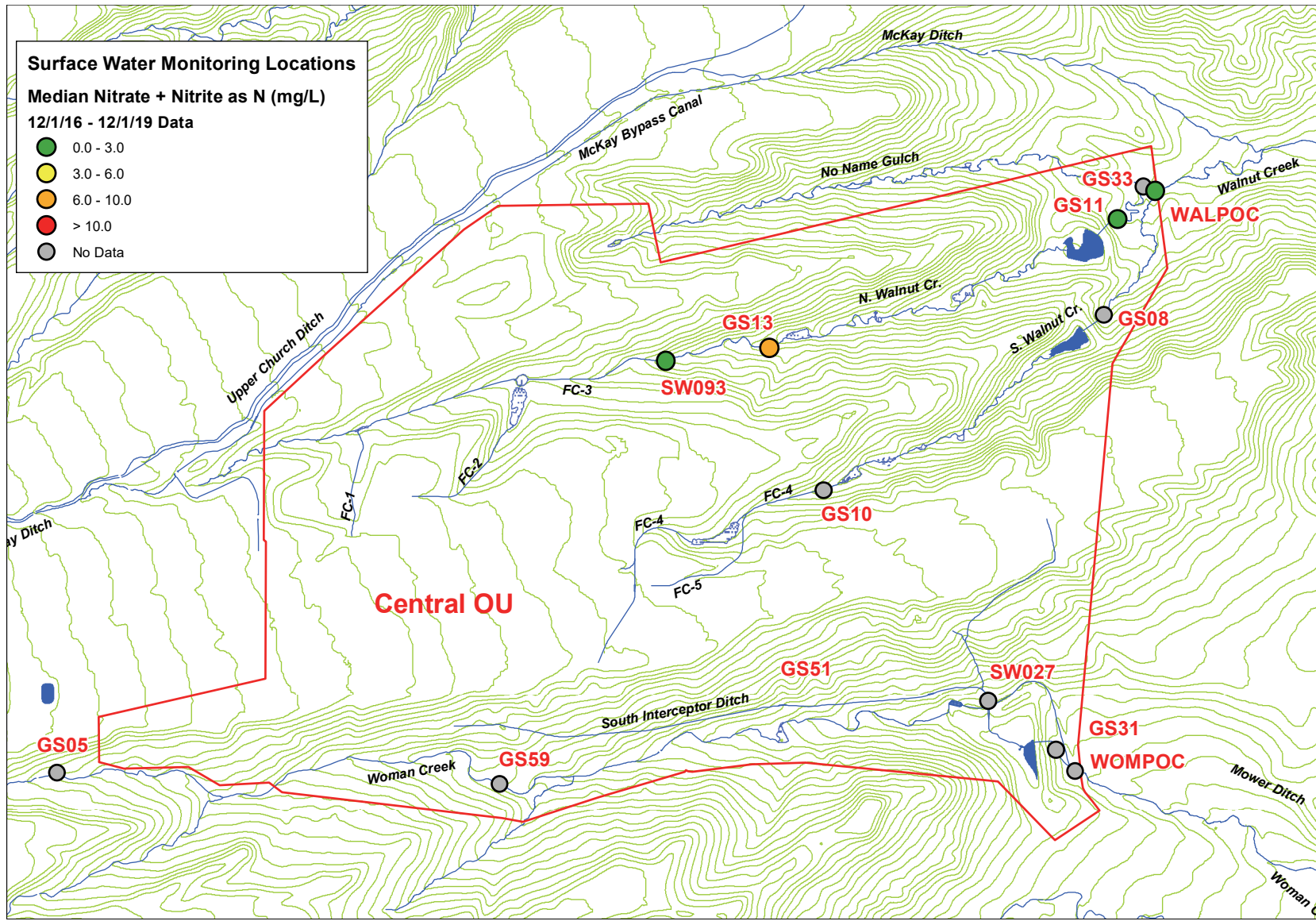
Note: Only locations with four or more results are mapped.

Figure 95. Postclosure Median Uranium Concentrations



Note: Only locations with four or more results are mapped.

Figure 96. Postclosure Median Nitrate + Nitrite as Nitrogen Concentrations (October 13, 2005–December 1, 2016)



Note: Only locations with four or more results are mapped.

Figure 97. Postclosure Median Nitrate + Nitrite as Nitrogen Concentrations (December 1, 2016–December 31, 2019)

Appendix

- Acronym List

Rocky Flats Acronym List
 Prepared for the Rocky Flats Stewardship Council
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Acronym or Term	Means	Definition
Alpha radiation		A type of radiation that is not very penetrating and can be blocked by materials such as human skin or paper or one inch of air. Alpha radiation presents its greatest risk when it is inhaled or ingested. Plutonium, the radioactive material of greatest concern at Rocky Flats, produces this type of radiation.
Am	americium	A man-made radioactive element that is a byproduct of plutonium (Pu) production. Am emits gamma radiation, which can penetrate many types of protective shielding. During the production era at Rocky Flats, Am was chemically separated from Pu to reduce personnel exposures.
AME	Actinide Migration Evaluation	An exhaustive, years-long study by independent researchers who studied how actinides such as plutonium, americium, and uranium move through the soil and water at Rocky Flats.
AMP	Adaptive Management Plan	Additional water quality sampling and analysis that DOE is conducting, beyond the normal environmental assessments, to inform decisions regarding future breaches of remaining dams.
AOC well	Area of Concern well	A particular type of groundwater well.
B	boron	An inorganic compound that has been found in some surface water and groundwater samples at Rocky Flats.
Be	beryllium	A very strong and lightweight metal that was used at Rocky Flats in the manufacture of nuclear weapons. Exposure to beryllium is now known to cause respiratory disease in those persons sensitive to it.
Beta radiation		A type of radiation that is more penetrating than alpha (but less penetrating than gamma). Beta particles can be stopped after traveling through 10 feet of air or a thin layer of glass or metal. Some forms of uranium emit beta radiation.
BMP	Best Management Practices	A term used to describe actions taken by DOE that are not required by regulation but warrant action.
BZ	Buffer Zone	The portion of the Rocky Flats site that was added during production to provide a "buffer" between the neighboring communities and the industrial portion of Rocky Flats. The buffer zone covered approximately 6,100 acres. Most of the buffer zone lands now make up the Rocky Flats National Wildlife Refuge.
CAD/ROD	Corrective Action Decision/Record of Decision	The complete final plan for cleanup and closure for Rocky Flats. The Federal/State laws that governed the cleanup at Rocky Flats required a document of this sort.
CCP	Comprehensive Conservation Plan	The refuge plan adopted by the U.S. Fish and Wildlife Service in 2007.
CDPHE	Colorado Department of Public Health and Environment	The state agency that regulates Rocky Flats.

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Acronym or Term	Means	Definition
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act	Federal legislation that governs the Rocky Flats cleanup. Also known as the Superfund Act.
cfs	cubic feet per second	A volumetric measure of water flow.
COC	Contaminant of Concern	A hazardous or radioactive substance that is present at Rocky Flats.
COU	Central Operable Unit	A CERCLA term used to describe the DOE-retained lands (about 1,300 acres) at Rocky Flats. The COU overlays the former Industrial Area (where manufacturing activities took place) and contains all engineered elements of the remedy (two landfills and four groundwater treatment systems) and areas of residual subsurface contamination.
CR	Contact Record	A regulatory procedure where CDPHE reviews a proposed action by DOE and either approves the proposal as is or requires changes to the proposal before approval. CRs apply to a wide range of activities performed by DOE. After approval, the CR is posted on the DOE-Legacy Management (LM) website and the public is notified via email.
Cr	chromium	Potentially toxic metal used at Rocky Flats.
CRA	Comprehensive Risk Assessment	A series of analyses that assess human health risks and risks to the environment (flora and fauna).
D&D	decontamination and decommissioning	The process of cleaning up and tearing down buildings and other structures.
DG	Discharge Gallery	The location where the treated effluent of the Solar Ponds Plume Treatment System (defined below) empties into North Walnut Creek.
DOE	U.S. Department of Energy	The federal agency that manages portions of Rocky Flats. The site office is the Office of Legacy Management (LM).
EA	Environmental Assessment	A study required by NEPA (defined below) when a federal agency proposes an action that could impact the environment. The agency is responsible for conducting the analysis to determine what, if any, impacts to the environment might occur due to a proposed action.
EIS	Environmental Impact Statement	An evaluation that is undertaken by a government agency when it is determined, via the EA, that a proposed action by the agency may have significant impacts to the environment.
EPA	U.S. Environmental Protection Agency	The federal agency that regulates Rocky Flats activities.
EEOICPA	Energy Employees Occupational Illness Compensation Program Act	An act passed by Congress in 2000 to compensate sick nuclear weapons workers and certain survivors.

Acronym or Term	Means	Definition
ETPTS	East Trenches Plume Treatment System	The treatment system near the location of the East Waste Disposal Trenches. This system treats groundwater emanating from the trenches that is contaminated with organic solvents, as well as groundwater routed from the Mound Plume Site Collection System. Treated effluent flows into South Walnut Creek.
FC	functional channel	Man-made stream channels constructed during cleanup to help direct water flow.
FACA	Federal Advisory Committee Act	The federal law that regulates federal advisory boards. The law requires balanced membership and open meetings with published Federal Register meeting dates.
Gamma Radiation		The most penetrating type of radiation at Rocky Flats. Thick, dense shielding is necessary to protect against gamma rays. Americium (Am) is a strong gamma emitter.
GAO	Government Accountability Office	Congressional investigative office that reports to Congress.
g	gram	A metric unit of mass.
gpm	gallons per minute	A volumetric measure of water flow.
GWIS	Groundwater Intercept System	A below-ground system that directs contaminated groundwater toward the Solar Ponds Plume and East Trenches Plume Treatment Systems.
IA	Industrial Area	The central core of Rocky Flats where all manufacturing activities took place. The IA covered 385 of Rocky Flats's 6,500 acres.
IC	Institutional Control	Administrative and legal controls employed to protect the integrity of the remedies in place and minimize the potential for human exposure to residual contamination.
IGA	intergovernmental agreement	A cooperative agreement between local governments that establishes the framework of the Stewardship Council.
IHSS	Individual Hazardous Substance Site	A name given during cleanup to a discrete area of known or suspected contamination. There were formerly over two hundred IHSSs at Rocky Flats.
ITPH	interceptor trench pump house	The location where contaminated groundwater collected by the interceptor trench is pumped to either the Solar Ponds Plume Treatment System or the East Trenches Plume Treatment System.
L	liter	Metric measure of volume (slightly larger than a quart).
LANL	Los Alamos National Laboratory	One of the US government's premier research institutions located near Santa Fe, NM. LANL is continuing to conduct highly specialized water analysis for Rocky Flats. Using sophisticated techniques, LANL is able to determine the percentages of both naturally occurring and man-made uranium, which helps to inform water quality decisions.
LHSU	lower hydrostratigraphic unit	Hydrogeological term for deep unweathered bedrock that is hydraulically isolated from the upper hydrostratigraphic unit (see UHSU). Data show that site COCs have not contaminated the LHSU.

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Acronym or Term	Means	Definition
LM	Legacy Management	DOE office responsible for overseeing activities at closed sites.
LMPIP	Legacy Management Public Involvement Plan	A plan that follows DOE and EPA guidance on public participation and outlines the methods of public involvement and communication used to inform the public of site conditions and activities. It was previously known as the Post-Closure Public Involvement Plan (PCPIP).
O&M/OM&M	Operations, monitoring, and maintenance	Term that describes ongoing activities at Rocky Flats.
MOU	Memorandum of Understanding	The formal agreement between EPA and CDPHE specifying that CDPHE is the lead post-closure regulatory agency with EPA providing assistance when needed.
MSPCS	Mound Site Plume Collection System	The system that collects groundwater and routes it to the ETPTS for treatment.
MSPTS	Mound Site Plume Treatment System	The remediation system formerly in place (reconfigured in 2016) to treat groundwater contaminated with organic solvents emanating from the Mound Site (a portion of Rocky Flats where waste barrels were buried).
NEPA	National Environmental Policy Act	Federal legislation that requires the federal government to perform analyses of environmental consequences of major projects or activities.
nitrates		Contaminant of concern originating from Solar Ponds wastes. Nitrates have been detected in the North Walnut Creek drainage. Nitrates are very soluble in water and move readily through the aquatic environment.
Np	neptunium	A man-made radioactive isotope that is a by-product of nuclear reactors and plutonium production.
NPL	National Priorities List	A list of Superfund sites. The refuge lands were de-listed from the NPL, while the DOE-retained lands are still on the NPL because of residual groundwater contamination and associated remediation activities.
NWCS	North Walnut Creek Slump	Slumping observed on the hillside east of the Solar Ponds Plume Treatment System.
OLF	Original Landfill	Hillside dumping area of about 20 acres that was used from 1951 to 1968. The OLF underwent remediation with the addition of a soil cap and groundwater monitoring locations.
OU	Operable Unit	A distinct area within a cleanup site. These areas may address geographic areas, specific problems, or medium (e.g., groundwater, soil) where a specific action is required.
PCE	perchloroethylene (a.k.a. tetrachloroethylene)	A volatile organic solvent used in past operations at Rocky Flats.
pCi/g	picocuries per gram	A unit of radioactivity in soil.
pCi/L	picocuries per liter	A unit of radioactivity in water. CDPHE's regulatory limit for Pu and Am in surface water at Rocky Flats is 0.15 pCi/L. This standard is 100 times stricter than the EPA's drinking water standard.

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Acronym or Term	Means	Definition
PLF	Present Landfill	Landfill constructed in 1968 to replace the OLF. During site remediation, the PLF was closed under RCRA regulations with an extensive cap and monitoring system.
PMJM	Preble's Meadow Jumping Mouse	A species of mouse found along the Front Range that is on the endangered species list. There are several areas in the Refuge and COU that provide adequate habitat for the mouse, usually found in drainages. Any operations that are planned in potential mouse habitat are strictly controlled.
POC	Point of Compliance (surface water)	A surface water monitoring location at Rocky Flats where contaminant concentrations must be in compliance with federal and state standards for hazardous constituents. Violations of water quality standards at the points of compliance could result in DOE receiving financial penalties.
POE	Point of Evaluation (surface water)	A surface water monitoring location at Rocky Flats where water quality is monitored. There are no financial penalties associated with water quality exceedances at these locations, but DOE may be required to develop a plan of action to improve the water quality.
POU	Peripheral Operable Unit	A CERCLA term used to describe the 4,800-acre area surrounding the Central Operable Unit.
Pu	plutonium	A metallic substance that was fabricated to form the core, or "trigger", of a nuclear weapon. Formation of these triggers was the primary production mission of the Rocky Flats site. There are different forms of plutonium, called isotopes. Each isotope is known by a different number, such as plutonium 239 (Pu-239) and plutonium 241 (Pu-241). Pu-239 is the primary radioactive COC at Rocky Flats.
RCRA	Resource Conservation and Recovery Act	Federal law regulating hazardous waste. In Colorado, EPA delegates to CDPHE the authority to regulate hazardous wastes.
RFCA	Rocky Flats Cleanup Agreement	The regulatory agreement that governed cleanup activities. DOE, EPA, and CDPHE were signatories.
RFCAB	Rocky Flats Citizen Advisory Board	The group formed as part of DOE's site-specific advisory board network. The RFCAB provided community feedback to DOE on a wide variety of Rocky Flats issues from 1993 through regulatory closure in 2006.
RFCLOG	Rocky Flats Coalition of Local Governments	The predecessor organization of the Rocky Flats Stewardship Council.
RFETS	Rocky Flats Environmental Technology Site	The moniker for Rocky Flats during cleanup years.
RFLMA	Rocky Flats Legacy Management Agreement	The post-cleanup regulatory agreement between DOE, CDPHE, and EPA that governs site activities. The CDPHE has the lead regulatory role, with support from EPA as required.
RFNWR	Rocky Flats National Wildlife Refuge	The 4,000 acres of Rocky Flats where unrestricted use is allowed. This land is now a wildlife refuge.

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Acronym or Term	Means	Definition
RFSOG	Rocky Flats Site Operations Guide	The nuts-and-bolt guide for post-closure site activities performed by DOE and its contractors.
RSAL	Radionuclide Soil Action Level	Concentration of radionuclide in soil above which remedial action should be considered so that people are not exposure to radiation doses above permitted levels.
SEP	Solar Evaporation Ponds	An area of Rocky Flats used in the 1950s to hold excess wastewater generated during manufacturing operations. Wastewater that could not be treated in the onsite treatment plant was sent to open-air holding ponds where solar energy was utilized to evaporate and concentrate the waste. The original SEPs were unlined, and substantial quantities of uranium and nitrates made their way into groundwater. As a result, the Solar Ponds Plume Treatment System was constructed to treat contaminated groundwater before it emerged as surface water in North Walnut Creek.
SID	South Interceptor Ditch	A water feature designed to intercept runoff from the southern portion of the COU. The SID flows from west to east into Pond C-2. Woman Creek water does not enter Pond C-2, but is diverted around Pond C-2 through the Woman Creek Diversion Canal.
SPPTS	Solar Ponds Plume Treatment System	Engineered system designed to treat groundwater contaminated with uranium and nitrates. The nitrates originate from the former solar evaporation ponds, which had high levels of nitric acid. The uranium is primarily naturally occurring. Effluent from the SPPTS flows into North Walnut Creek.
SVOCs	semi-volatile organic compounds	Organic compounds that are not as volatile as solvent-related VOCs. SVOCs are found in many environmental media at Rocky Flats. They are found in materials like oil, coal, asphalt, and tar.
TCE	trichloroethylene	A volatile organic compound used as a solvent in past site operations. TCE is also a degradation product of PCE.
U	uranium	Naturally occurring radioactive element. There were two primary isotopes of U used during production activities. The first was enriched U, which contained a very high percentage (>90%) of U-235 and was used in nuclear weapons. The second isotope was U-238, also known as depleted uranium. U-238 has low levels of radioactivity.
ug/L or µg/L	micrograms per liter	A unit of contaminant concentration in water.
UHSU	upper hydrostratigraphic unit	A hydrogeological term describing the surficial materials and weathered bedrock found at Rocky Flats. The UHSU is hydraulically isolated from the lower hydrostratigraphic unit (see LHSU). Groundwater in some UHSU areas of Rocky Flats is contaminated with site-related COCs, while groundwater in other UHSU areas is not impacted. All groundwater in the UHSU emerges to surface water before it leaves Rocky Flats.

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Acronym or Term	Means	Definition
USFWS	United States Fish & Wildlife Service	The agency within the US Department of the Interior that is responsible for maintaining the nation-wide system of wildlife refuges, among other duties. The regional office is responsible for the RFNWR.
UUUE	unlimited use and unrestricted exposure	A regulatory term used to describe residual risk remaining after a site has been remediated. In 2007, the Peripheral Operable Unit (POU) was found to be suitable for unlimited use and unrestricted exposure (based on risk calculations). EPA removed the POU (now largely the Rocky Flats National Wildlife Refuge) from the EPA's National Priorities List of CERCLA or "Superfund" sites.
VOC	volatile organic compound	These compounds include cleaning solvents that were used in the manufacturing operations at Rocky Flats. The VOCs used at Rocky Flats include carbon tetrachloride (often called carbon tet), trichloroethene (TCE), perchloroethylene (PCE), and methylene chloride.
WALPOC	Walnut Creek Point of Compliance	The surface water Point of Compliance on Walnut Creek, at the COU boundary.
WCRA (or "the Authority")	Woman Creek Reservoir Authority	The group composed the cities of Westminster, Northglenn, and Thornton. These cities use Standley Lake as part of their drinking water supply network. Surface water from Rocky Flats formerly flowed through Woman Creek to Standley Lake, but the Woman Creek Reservoir was constructed to sever that connection. The Authority has an operations agreement with DOE to manage the Woman Creek Reservoir.
WOMPOC	Woman Creek Point of Compliance	The surface water Point of Compliance on Woman Creek, at the COU boundary.
WQCC	Water Quality Control Commission	State board within CDPHE tasked with overseeing water quality issues throughout the state. DOE has petitioned the WQCC several times in the last few years regarding water quality issues.
WRW	Wildlife Refuge Worker	User scenario on which exposure risks are calculated.
ZVI	zero valent iron	A type of fine iron particles formerly used to treat VOCs in the ETPTS and MSPTS.