
Overview

CERCLA Five-Year Review Process

Rocky Flats Site, Colorado Central Operable Unit

Rocky Flats Stewardship Council Meeting
June 6, 2016



U.S. DEPARTMENT OF
ENERGY

Legacy
Management

This Presentation Covers

- CAD/ROD RAOs
- Five-year review purpose
- Five-year review steps
- Finding and interpreting key information
- Community engagement opportunities



CERCLA



RAOs Established in the CAD/ROD

- Groundwater RAO 1
 - Meet groundwater quality standards at AOC wells
 - CWQCC surface water standards
- Groundwater RAO 2
 - Restore contaminated groundwater discharging directly to surface water as base flow, and that is a significant source of surface water, to its beneficial use of surface water protection wherever practicable in a reasonable timeframe
 - Measured at Sentinel wells
 - Prevent significant risk of adverse ecological effects
- Groundwater RAO 3
 - Prevent domestic and irrigation use of groundwater contaminated at levels above MCLs



RAOs (continued)

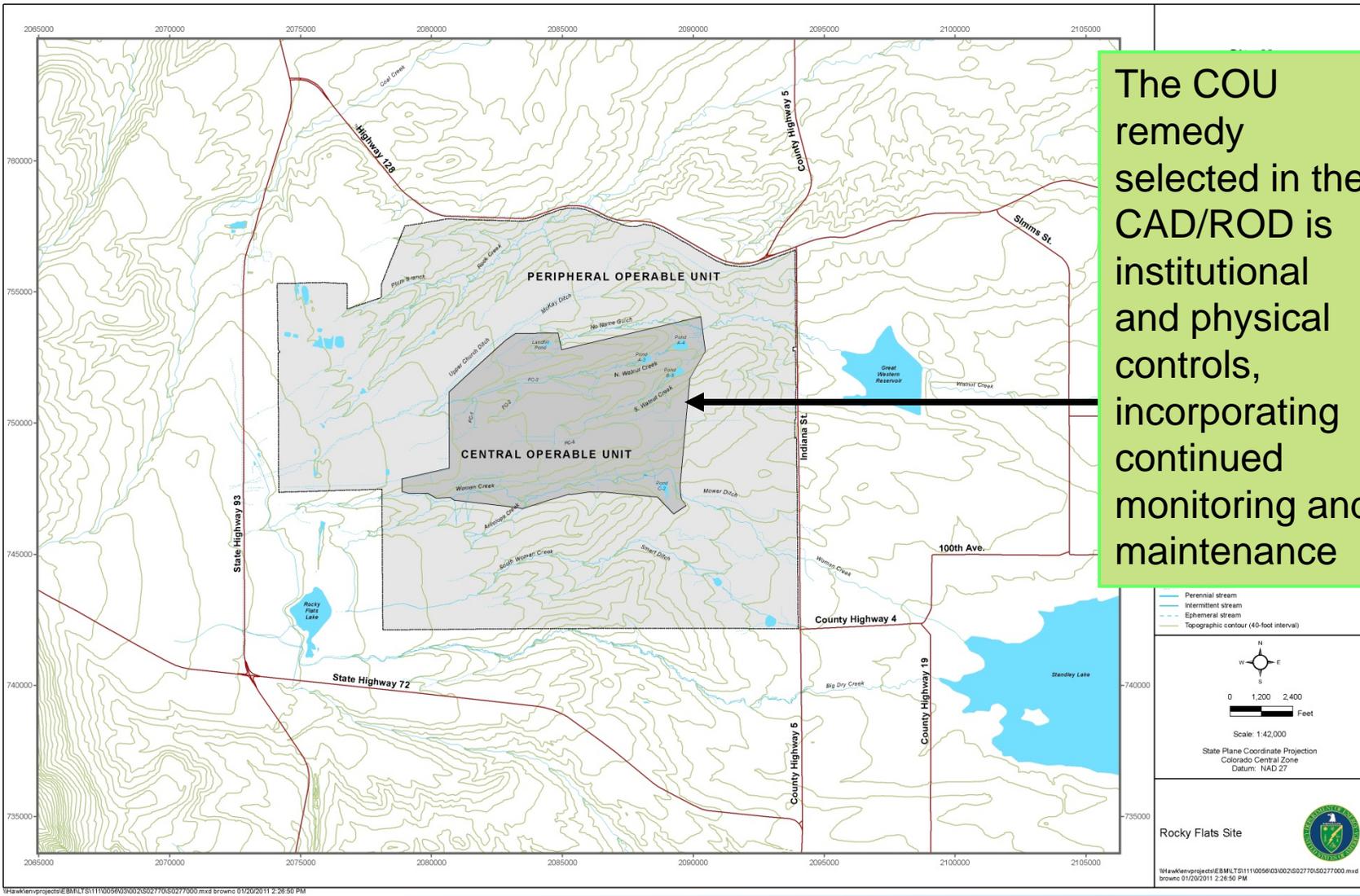
- Surface Water RAO
 - Meet surface water quality standards
 - CWQCC surface water standards
- Soil RAO 1
 - Prevent migration of contaminants to groundwater that would result in exceeding groundwater RAOs
- Soil RAO 2
 - Prevent migration of contaminants that would result in exceeding surface water RAOs
- Soil RAO 3
 - Prevent exposures that result in an unacceptable risk to the wildlife refuge worker
 - Prevent significant risk of adverse ecological effects



CERCLA Five-Year Review

- The last Rocky Flats COU five-year review was completed August 2012
 - LM Internet location:
http://www.lm.doe.gov/Rocky_Flats/Regulations.aspx
 - This was the third COU five-year review
- The fourth five-year review must be completed by August 2017





The COU remedy selected in the CAD/ROD is institutional and physical controls, incorporating continued monitoring and maintenance



Who Conducts the Rocky Flats Review?

- DOE, as the CERCLA federal lead agency under Executive Order 12580, *Superfund Implementation*
 - The DOE review will follow EPA's *Comprehensive Five-Year Review Guidance*, dated June 2001
 - EPA guidance and other information can be found at: <http://www.epa.gov/superfund/cleanup/postconstruction/5yr.htm>
 - LM, the LM support contractor, CDPHE, and EPA staff will comprise the review team



Five-Year Review Steps

Notify the public

Public notices are issued when the review process begins and when the final report is released

Review key documents

CAD/ROD and RAOs, monitoring and maintenance reports, new investigations, and technical memos

Assess protectiveness

Review protectiveness

Review and analyze data

Analyze contaminant data

Conduct interviews and site inspection

May involve site workers, community members and Jefferson County to confirm environmental covenant

Write report

Assess protectiveness of remedies



Protectiveness Determination

- The purpose of the five-year review is to determine if a site remedy remains protective of human health and the environment
- EPA will either concur with LM protectiveness determination or the agency may make an independent finding
- The review addresses three questions to assess the protectiveness of a remedy



Protectiveness Determination

Question A

- Is the remedy functioning as intended?
- The review team will examine:
 - The technical performance of the remedy against the RAOs
 - Monitoring data
 - System performance
 - Operation and maintenance
 - Effectiveness of physical and institutional controls



Protectiveness Determination

Question B

- Are the exposure assumptions, toxicity data, cleanup levels, and RAOs still valid?
- The review team will identify:
 - If exposure scenarios have changed
 - If toxicity factors or ARARs have changed
 - If changes in exposure, toxicity factors/ARARs affect protectiveness of remedy
 - If RAOs need updating



Protectiveness Determination

Question C

- Has any other information come to light that could call into question the protectiveness of the remedy?
 - The team will consider new information not addressed or anticipated in the CAD/ROD that could call into question the protectiveness of the remedy

Note: Remedy selection decisions are not reopened, but are evaluated against new requirements, if any.

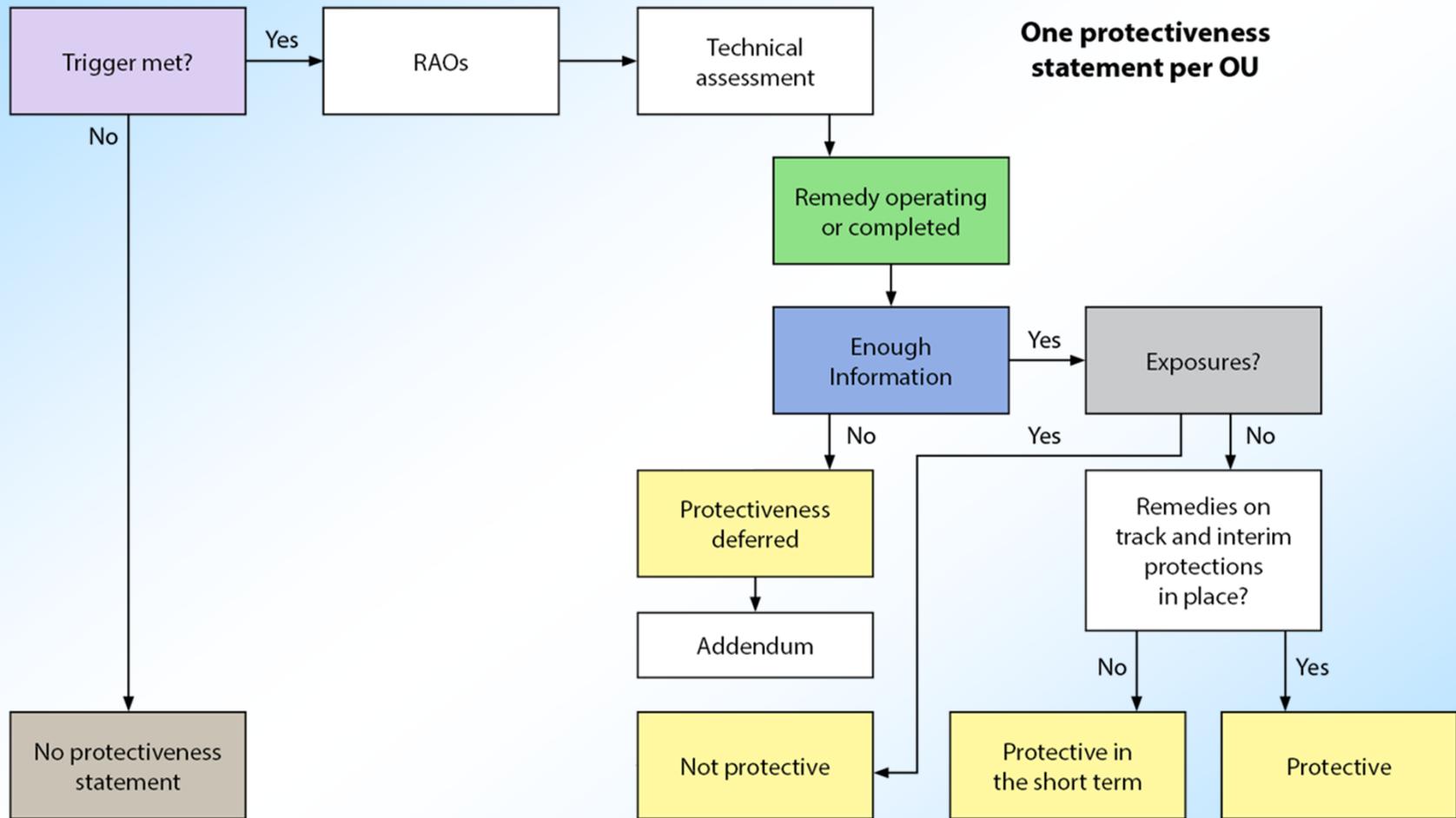


Protectiveness Statements

- Protective
- Protective in the short term
- Will be protective
- Protection deferred
- Not protective



Choosing a Protectiveness Determination



Five-Year Review Conclusions

- Determine which protectiveness statement applies
 - Determine whether remedy is, or is expected to be, protective of human health and the environment
 - Identify issues
 - Recommend follow-up actions
- Remedy may be protective even though further actions are recommended



Data Review and Analysis

- Drawn from RFLMA 2012 through 2016 Annual Reports
 - The monitoring data set consists of validated data from January 1, 2012, through December 31, 2016
 - Data for monitoring locations specified in RFLMA will be used
- Site inspections – Annual RFLMA inspection results through March 2017 (expected date of next inspection) will be used
- The status of any issues or recommendations from previous five-year reviews will be reviewed and reported



RFLMA Evaluations

- RFLMA specifies certain evaluations will be done as part of CERCLA periodic reviews
- Besides the protectiveness questions, the scope will include:
 - Reviewing whether new technologies may reduce the need to rely on institutional controls and recommending follow up
 - Recommending continuing, discontinuing, or changing any remedy component
 - Recommending changes to landfill inspection and monitoring frequencies



Community Involvement and Notification

- Publication of notice that a review is being conducted
- Post fact sheet on the Rocky Flats website
- Provide status at RFSC meetings
- Notify public when the review report is completed
- Submit the draft *Fourth Five-Year Review Report* to EPA for approval and CDPHE for concurrence around expected date of June 2017
- Publish Notice of Completion in August 2017



Public Input

- The public has had, and continues to have, the opportunity to provide input through RFSC
- Public input associated with the five-year review is being accepted now, during the planning and review process
 - Mail
 - Rocky Flats Site Fourth Five-Year Review Comments
U.S. Department of Energy Office of Legacy Management
11025 Dover Street, Suite 1000
Westminster, CO 80021
 - Email
 - rfinfo@lm.doe.gov

Note: The public will be notified when the final report is released.

