

PUBLIC WORKS MEMORANDUM
#14-2023

DATE: March 20, 2023

TO: Honorable Mayor Meredith Leighty and City Council Members

THROUGH: Heather Geyer, City Manager *hmg*
Jason Loveland, Interim Deputy City Manager *AL2*

FROM: Kent Kisselman, PE – Director of Public Works *FKK*
Tamara Moon, Environmental Manager

SUBJECT: Rocky Flats Stewardship Council 101

PURPOSE

To provide information to City Council on water quality concerns being followed at the former Rocky Flats Plant nuclear site and the role of the Rocky Flats Stewardship Council. Staff is giving a basic overview of the history of Rocky Flats, the closure process, and current water quality conditions.

BACKGROUND

History

The former Rocky Flats Plant is located northwest of Standley Lake in Jefferson County. Built as part of the post-World War II national defense program, plutonium triggers and shielding machinery were manufactured there. During its approximately 40-year production history, multiple environmental accidents occurred, including fires in plutonium manufacturing buildings, corrosion of 55-gallon drums containing heavy metal and radiological waste, release of tritium to Walnut Creek, and release of detention pond sediments.

Clean Up

Weapons production ended in 1992. The 10-year, \$7 billion cleanup ended with the 2006 Corrective Action Decision/Record of Decision determination that the Central Operable Unit (lands where manufacturing and trigger production occurred) was retained by the Department of Energy and the Peripheral Operable Unit was released to the U.S. Fish and Wildlife Service for use as a wildlife refuge. The site was closed under accelerated remediation. Many, though not all, structures 3 feet below the surface were left in place.

Water Quality

Surface and ground water quality are monitored to determine whether standards are being met. Runoff from Rocky Flats does not enter Standley Lake – it is intercepted by Woman Creek Reservoir and pumped around the lake. Although the site has been closed for over 10 years, there continue to be activities to reduce erosion control and improve water treatment systems. Rocky Flats' legacy will be with Colorado for generations to come.

Stewardship Council

The Rocky Flats Stewardship Council focuses on the post-closure care and management of the site. It is the local stakeholder organization that consists of 10 local governments and four citizen seats. Northglenn, as well as Thornton, Broomfield and Westminster, all have representatives since they are considered “downstream communities” and are the most vulnerable from runoff. The board meets quarterly, and Council Member Rich Kondo currently serves as the Northglenn

representative. Fees depend on the activities of the board. None have been collected for the last three years, as online meetings have significantly reduced costs. In the past fees have been up to \$1,000 per year.

BUDGET/TIME IMPLICATIONS

There are no budget or time implications beyond time and funds spent on the Stewardship Council.

STAFF RECOMMENDATION

This is for informational purposes only.

STAFF REFERENCE

If Council members have any questions, please contact Kent Kisselman, Director of Public Works, at kkisselman@northglenn.org or 303.450.4005.

ATTACHMENT

1. Presentation

INTRODUCTION TO ROCKY FLATS

Shelley Stanley

Water Quality Coordinator

303.450.4067

sstanley@northglenn.org

Special Meeting

March 20, 2023



**CITY OF
Northglenn**

PURPOSE

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PRESENTATION OUTLINE

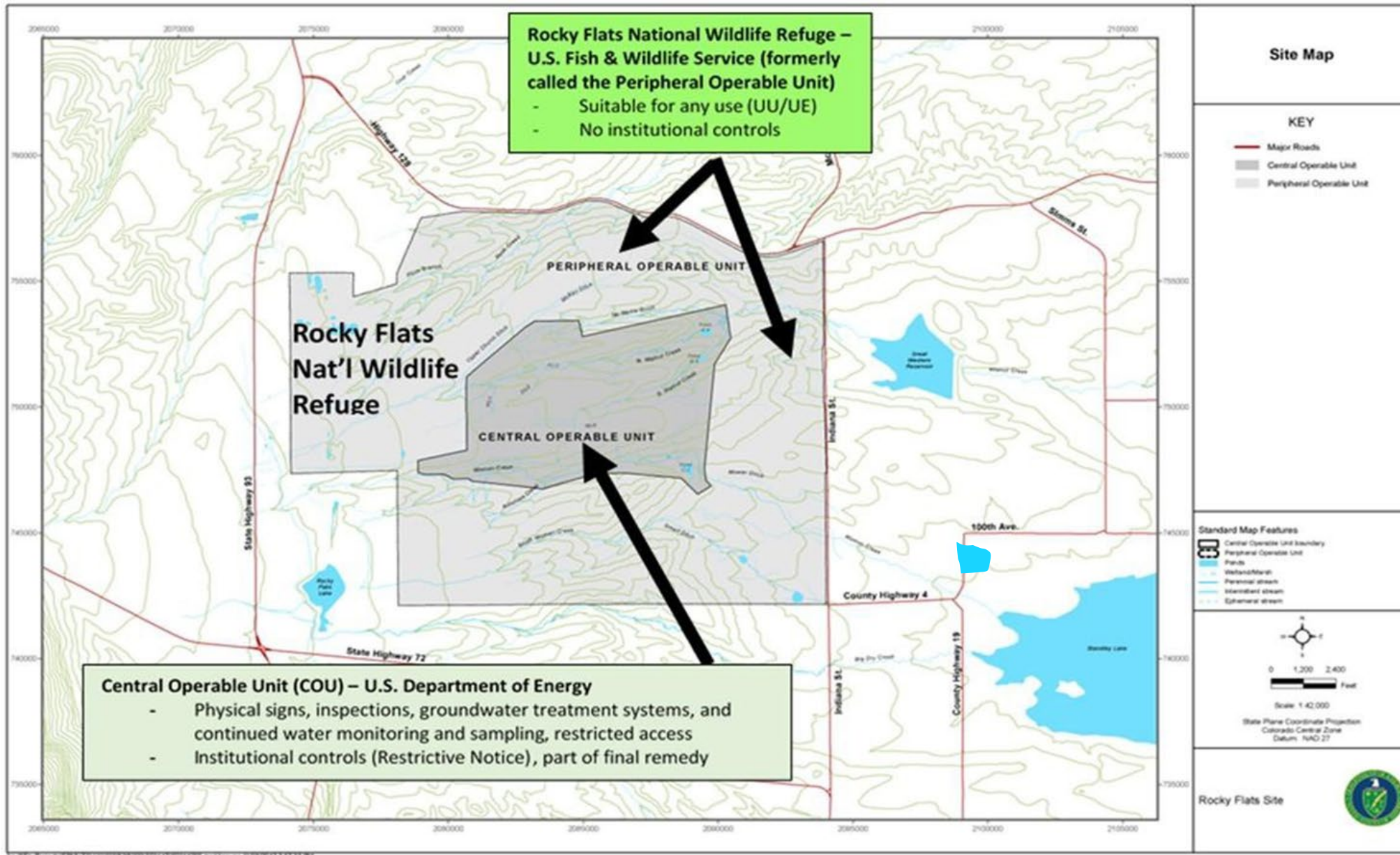
Rocky Flats Legacy

- Production Years – 1952 to 1992
- Closure
 - Physical closure 2005
 - Regulatory closure 2006
- Buffer Zone transferred to US Fish and Wildlife Service (USFWS) creating wildlife refuge, 2007

Rocky Flats Today

- Water quality implications from Rocky Flats runoff
 - Standley Lake
 - Woman Creek Reservoir
 - Big Dry Creek
 - Emerging contaminants (PFAS)





KEY ENVIRONMENTAL LAWS AND REGULATIONS

- **Comprehensive Environmental Response Compensation and Liability Act (CERCLA, the “Superfund” law)**
- **Resource Conservation and Recovery Act (RCRA)/Colorado Hazardous Waste Act (CHWA)**
- **Colorado Water Quality Control Commission, water quality regulations**



TIMELINE

- **1951 – Atomic Energy Commission “Project Apple”**
- **1950s thru 1980s – Plutonium pit productions; environmental releases**
- **1989 – EPA/FBI raid, site added to EPA’s National Priorities List of CERCLA (“Superfund” sites)**
- **1992 – Weapons production mission ends; Federal Facilities Compliance Act amended RCRA**
- **1996 – Rocky Flats Cleanup Agreement signed**

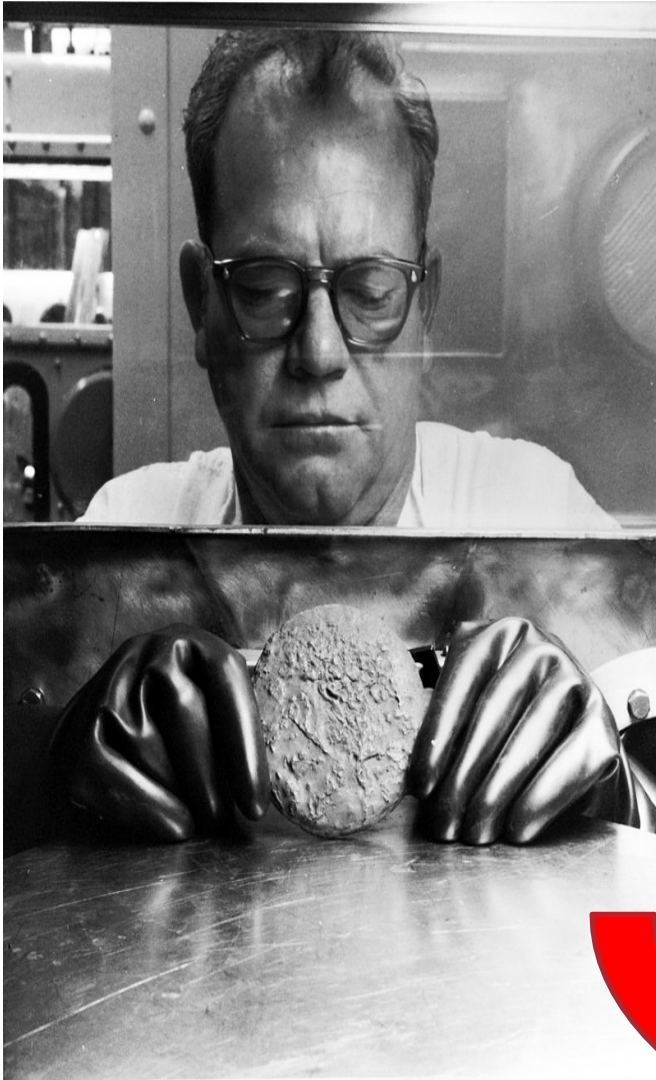


TIMELINE

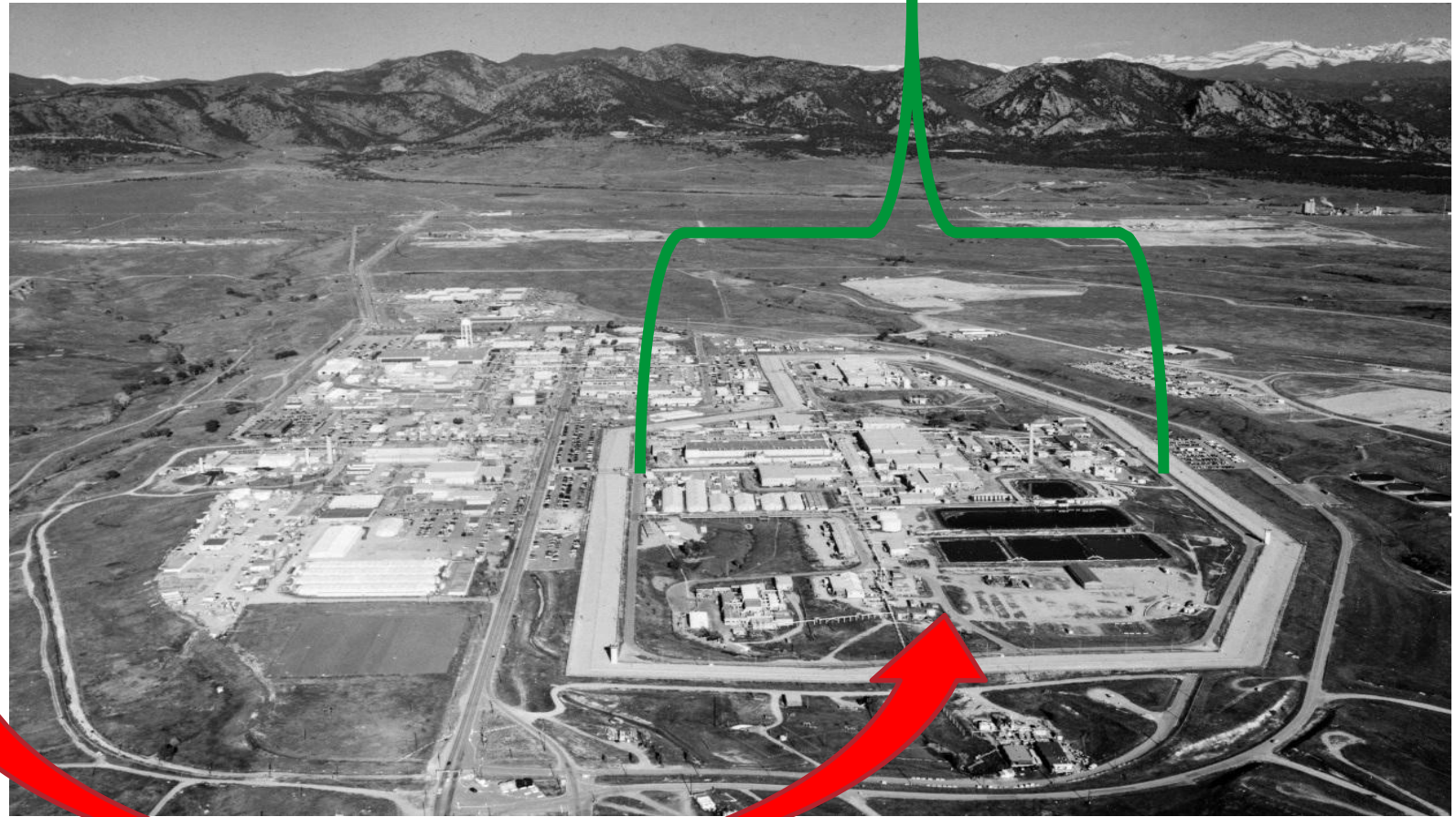
CONT'D

- **1996 thru 2006 – Remedial investigation/feasibility study completed**
- **2006 – Corrective Action Decision/Record of Decision completed**
 - Peripheral Operable Unit (POU) remedy = no action, unlimited use and unrestricted exposure
 - Central Operable Unit (COU) select remedy = monitoring, maintenance, institutional controls, signs, Department of Energy retains COU
- **2006 – Rocky Flats Legacy Management Agreement (RFLMA)**
- **2007 – Transfer of POU land to USFWS Rocky Flats National Wildlife Refuge**





Plutonium pit production
for nuclear weapons

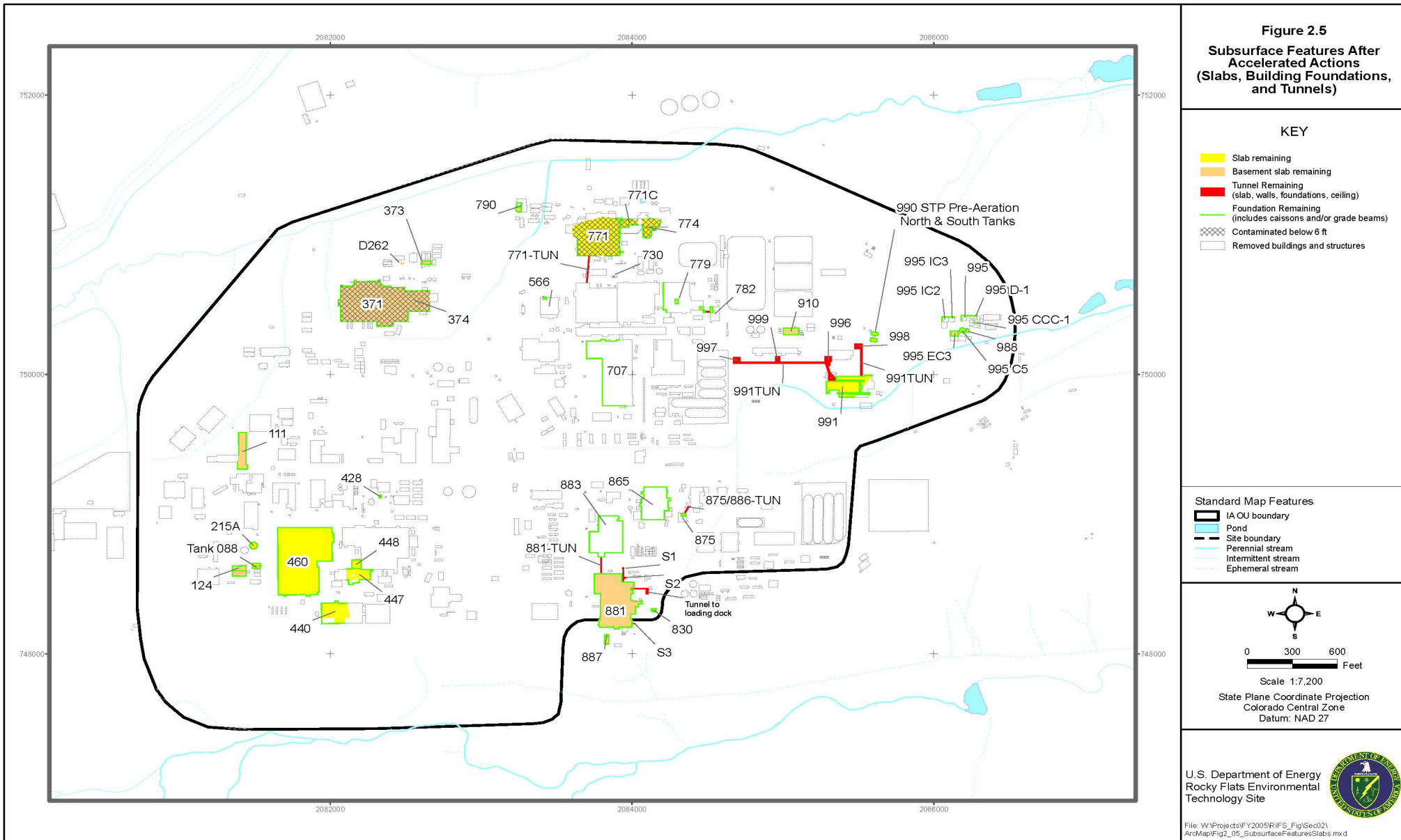


High security zone





Figure 2.5
Subsurface Features After Accelerated Actions (Slabs, Building Foundations, and Tunnels)



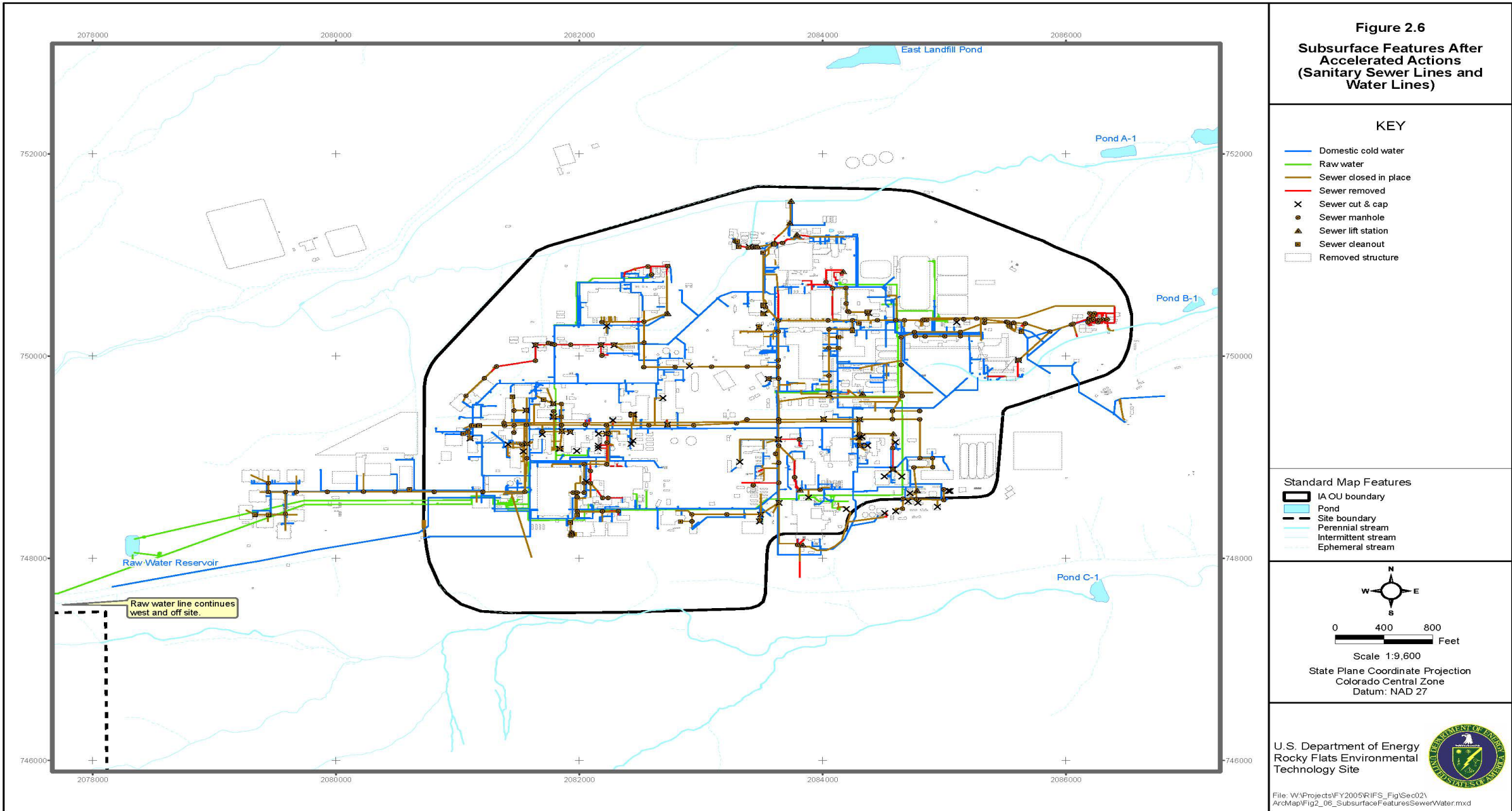


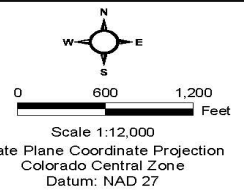
Figure 2.7
Subsurface Features After
Accelerated Actions
(Culverts and Storm Drains)

KEY

- Culverts (retain and remain operational)
- Culverts and storm drains (retained and plugged ends)
- Removed structure

Standard Map Features

- IA OU boundary
- Pond
- Site boundary
- Perennial stream
- Intermittent stream
- Ephemeral stream

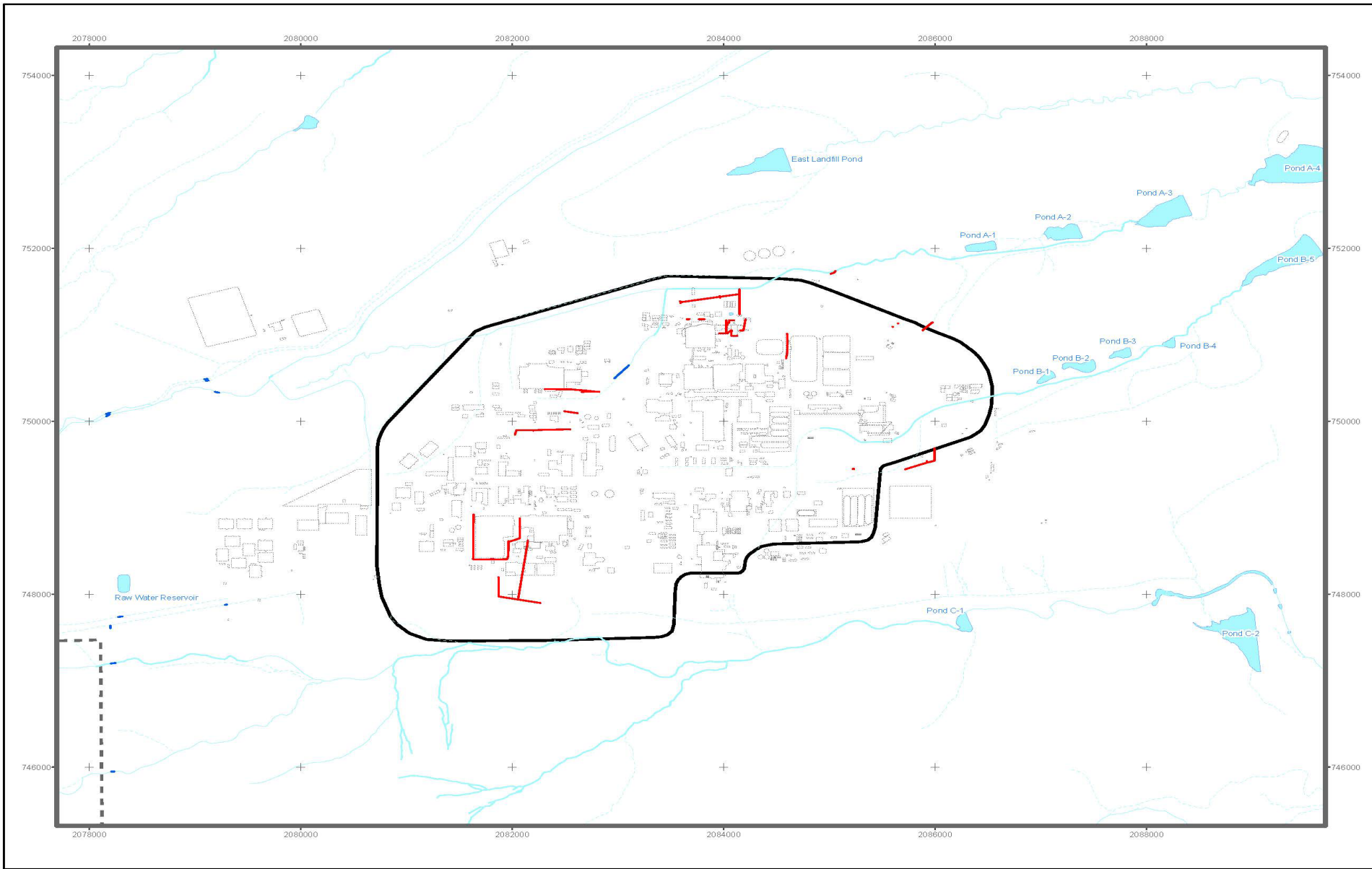


Scale 1:12,000
 State Plane Coordinate Projection
 Colorado Central Zone
 Datum: NAD 27

U.S. Department of Energy
 Rocky Flats Environmental
 Technology Site



File: W:\Projects\FY2005\RIFS_Fig\Sec021
 ArcMap\Fig2_07_SubsurfaceFeatures\Culverts.mxd



ONGOING ACTIVITIES

- **Three groundwater treatment systems**
 - Solar Ponds Plume Treatment System (SPPTS)
 - Mound Site Plume Treatment System/East Trenches Plume Treatment System (MSPTS/ETPTS)
 - Present Landfill Treatment System (PLTS)
- **Groundwater and surface water monitoring and sampling**
- **Ecological monitoring**
- **Quarterly and annual reporting**



ONGOING ACTIVITIES

CONT'D

- **Original and present landfill inspections**
- **Operations and present landfill inspections**
- **Sign and institutional control monitoring and inspections**
- **Triparty Rocky Flats Legacy Management Agreement consultations**
- **Community involvement and communications**
- **Records**



WRAP UP

- **Timing: Issues remain**

- Jefferson Parkway
- Refuge trail connection
- PFAS
- Climate Change - site resiliency



- **Perspective / Opinion**

- Lots of information and misinformation
- Value in listening to all sides
- No shortage of conflict and emotion
- Generally good intentions on all sides



QUESTIONS?

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