



# Fort George G. Meade



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## Operable Unit No. 4 – Status Update (Performance Based Acquisition #2)

### Restoration Advisory Board Meeting January 20, 2011

John Cherry—ARCADIS





# Operable Unit-4 & LPA



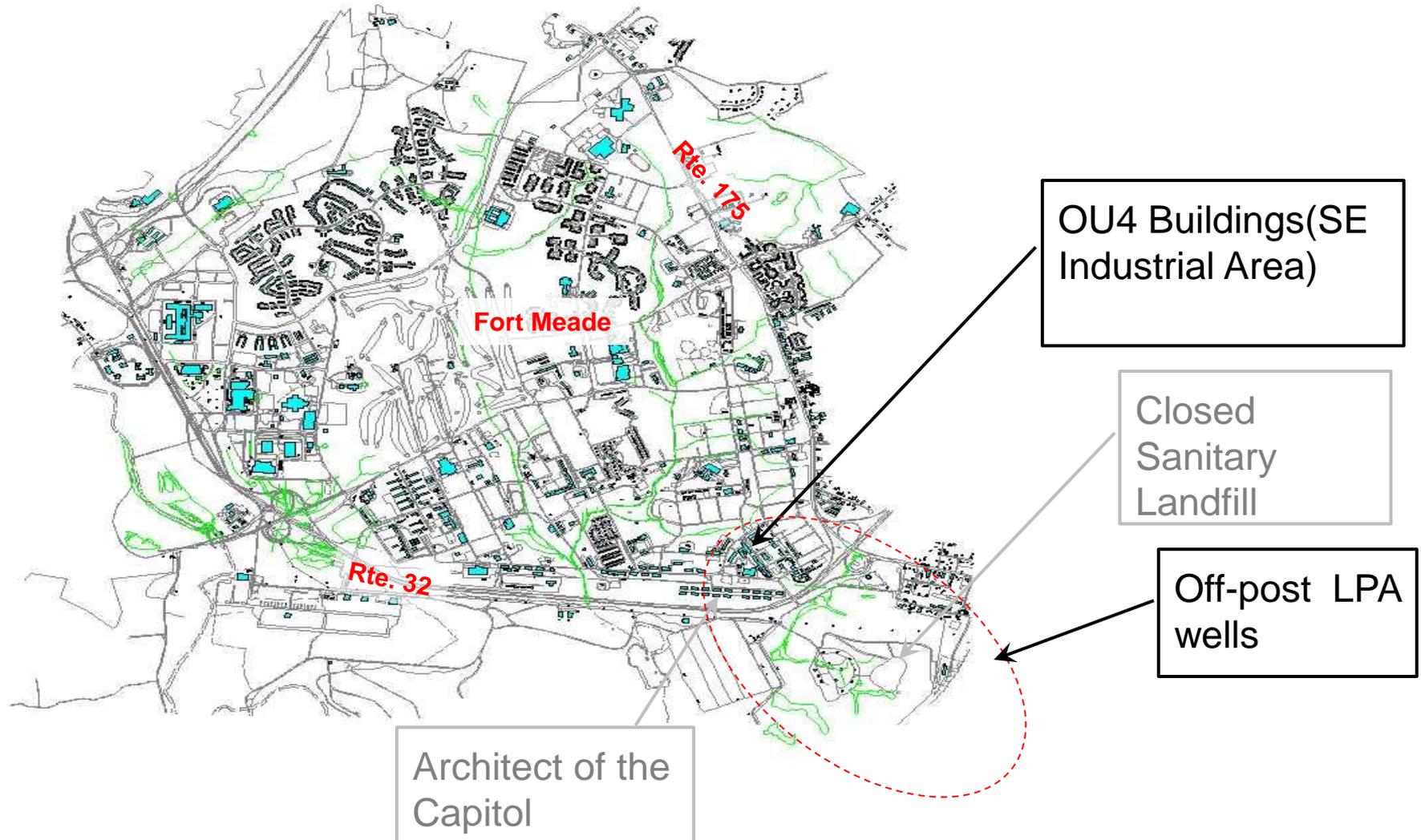
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## TOPICS

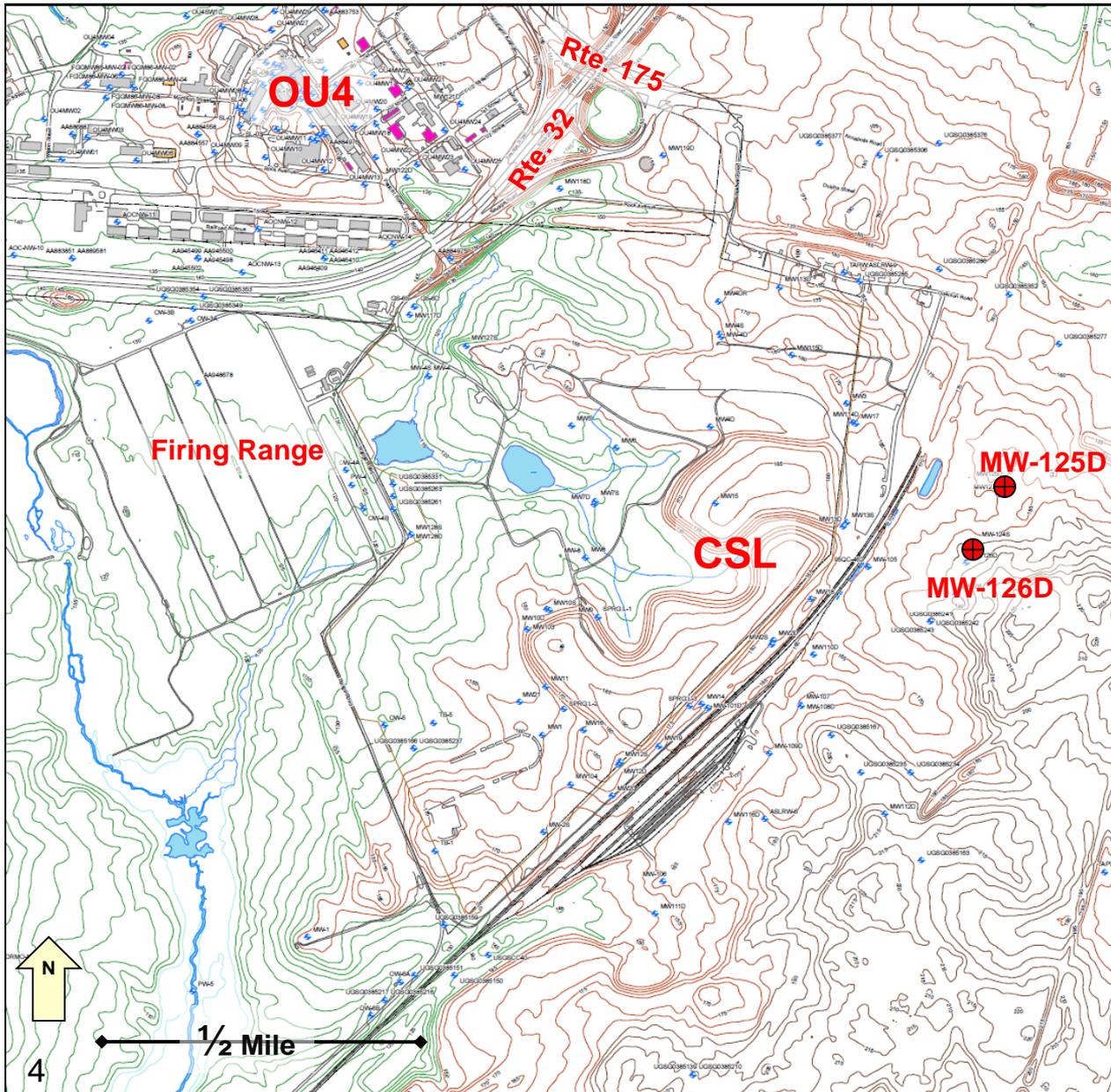
- OU4 Recap/Overview (for new RAB members)
- Review of regional geologic structure
- Summary of planned Off-Post Remedial Investigation (RI) activities
- Next Steps



# OU4/LPA Overview



# OU4/LPA Overview



GW contamination found in off-post wells (CCl<sub>4</sub>, PCE, TCE) MW-126D

Potential off-post receptors include residences with private drinking water wells

Off-post Interim Measures completed

Data showing connectivity between OU4 and off-Post detections

Potential PCE/TCE sources identified in OU4

Elevated CCl<sub>4</sub> detected downgradient of OU4

# OU4 – Historical Buildings



Image Source: Google Earth Pro; Image U.S. Geological Survey; (c) 2010 Europa Technologies; (c) 2010 Google.

- Historical remedial investigation activities completed in all of these potential source areas.
- ARCADIS completed supplemental investigation in 2010.

# Supplemental Remedial Investigation Activities

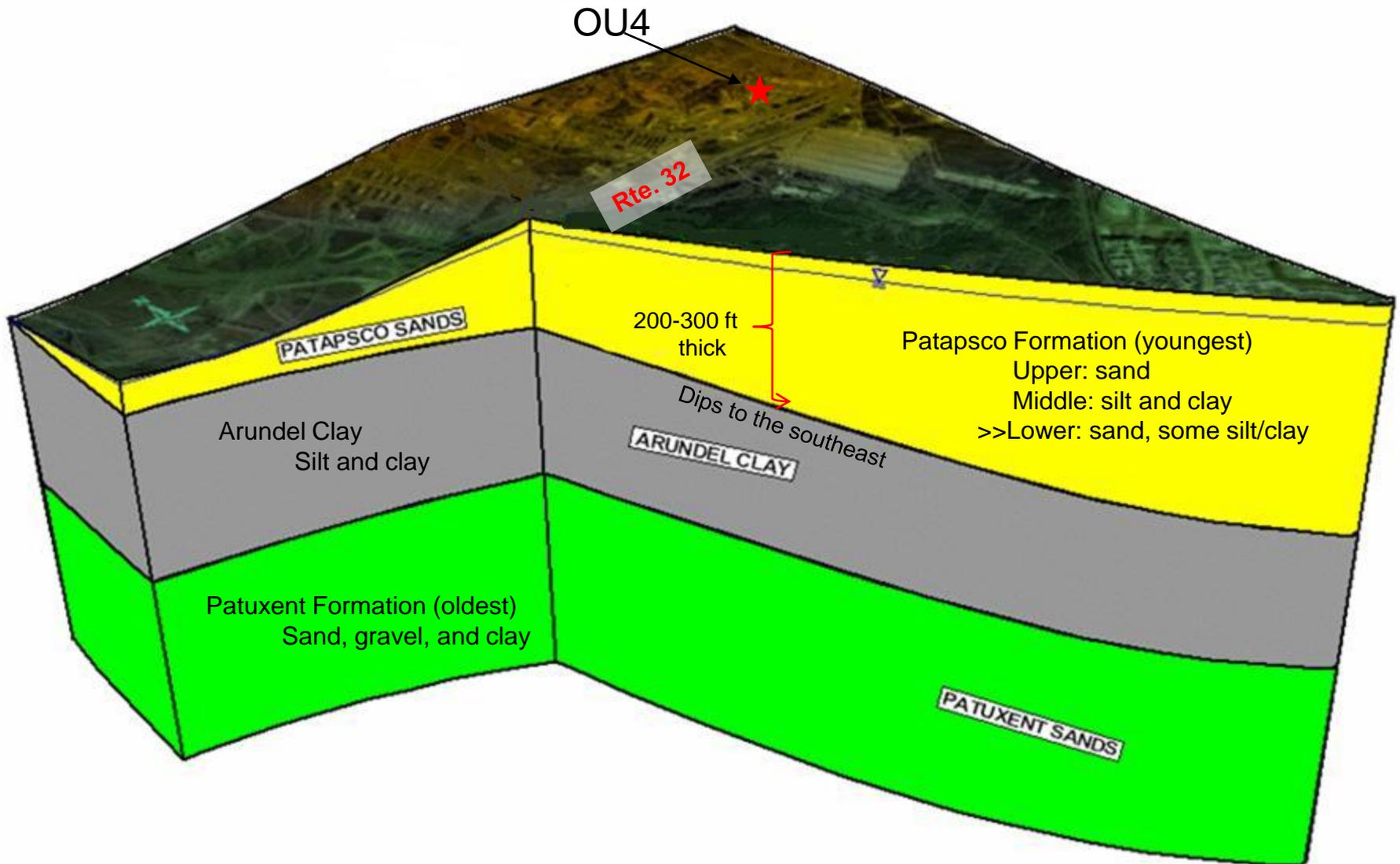
## Objectives

- ❑ Complete delineation at OU4.
- ❑ Determine source/nature and extent of VOCs in LPA.
- ❑ Develop a regional conceptual site model based on understanding of geology and hydrogeology.
- ❑ Determine and implement appropriate remedies for OU4/LPA.

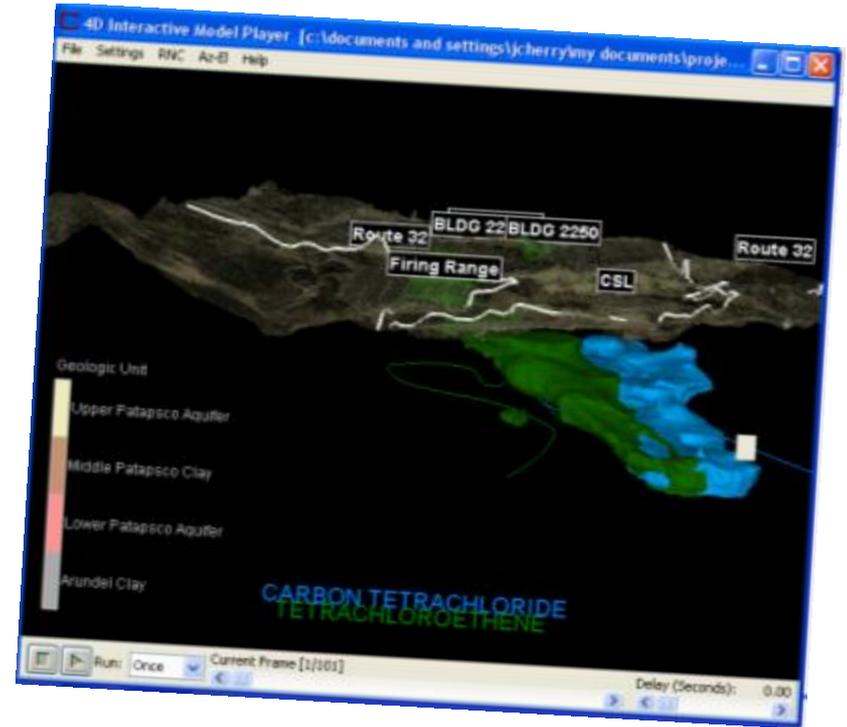




# Regional Geologic Structure



# Regional Geologic Structure 3D Visualization Tool



[Interactive Demo]

# RI Phase 2 Work Plan - 2011

## Phase Objectives:

1. Refine the CSM for the LPA in the off-post areas.
2. Delineate the VOC plumes in the LPA

## Scope Summary:

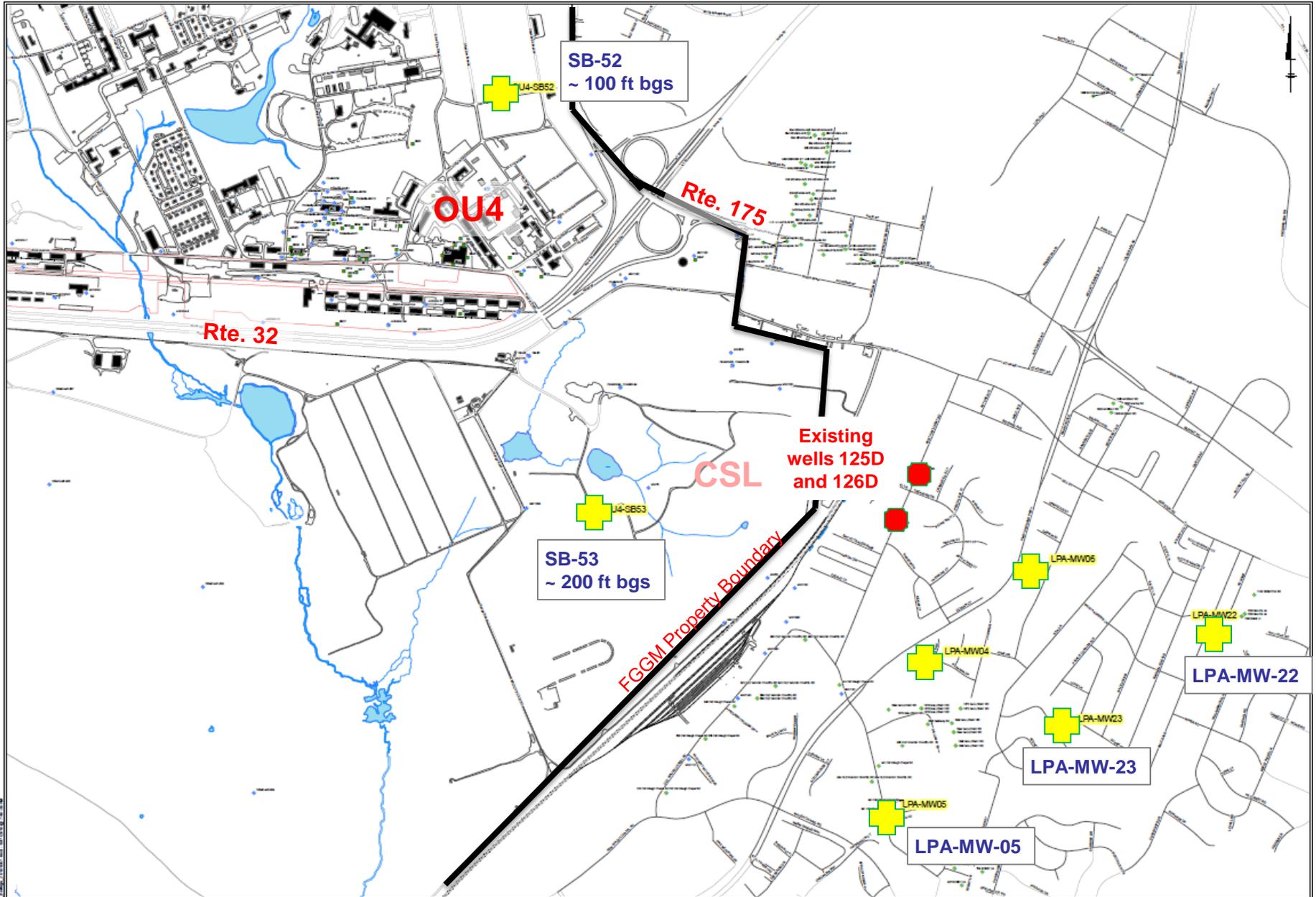
- 7 additional borings/wells (2 on-post and 5 off-post)
- Update CSM and 3D model
- Regional groundwater sampling

## Approach:

- Rotasonic drilling; vertical profiling; monitoring well installation; frequent communication with EPA & MDE.



# RI Phase 2 Work Plan (Off-Post Drilling Locations)





# OU4 & LPA – Next Steps



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January – February 2011

AACO right-of-way agreements for off-post drilling locations under Army review.

February – April 2011

Off-post drilling

Summer 2011

Finalize Remedial Investigation/Feasibility Study (RI/S)





# Acronyms and Abbreviations



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AOC	Architect of the Capitol	MCL	Maximum Contaminant Level
APM	Assistant Project Manager	MIP	Membrane interface probe
BGS	Below ground surface	MPC	Mid Patapsco Clay
BTEX	Benzene, toluene, ethylbenzene, xylene	OU4	Operable Unit No. 4
CCl <sub>4</sub>	Carbon tetrachloride	PBA	Performance-Based Acquisition
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PCE	Tetrachloroethene
CPT	Cone penetrometer	PM	Project Manager
CSL	Closed Sanitary Landfill	PPB	Parts Per Billion
CSM	Conceptual Site Model	RAB	Restoration Advisory Board
DD	Decision Document	RAR	Remedial Action Report
FGGM	Fort George G. Meade	RC	Response Complete
FS	Feasibility Study	RI	Remedial Investigation
FT	Feet	RIP	Remedy-in-Place
FY	Fiscal Year	SL	Soil
GW	Groundwater	TCE	Trichloroethene
ID	Identification	UPA	Upper Patapsco Aquifer
LPA	Lower Patapsco Aquifer	µg/L	micrograms per liter
		VOCs	Volatile Organic Compounds





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