



## Environmental Restoration Program Naval Air Station Patuxent River



# Public Meeting for Environmental Restoration Site 31 Proposed Remedial Action Plan 19 October 2016



# Agenda



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## Introductions

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### Proposed Remedial Action Plan Environmental Restoration Site 31

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## Open Discussion

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### Future Restoration Advisory Board Meeting Dates



# Introductions



- Introduce team members



# Proposed Remedial Action Plan

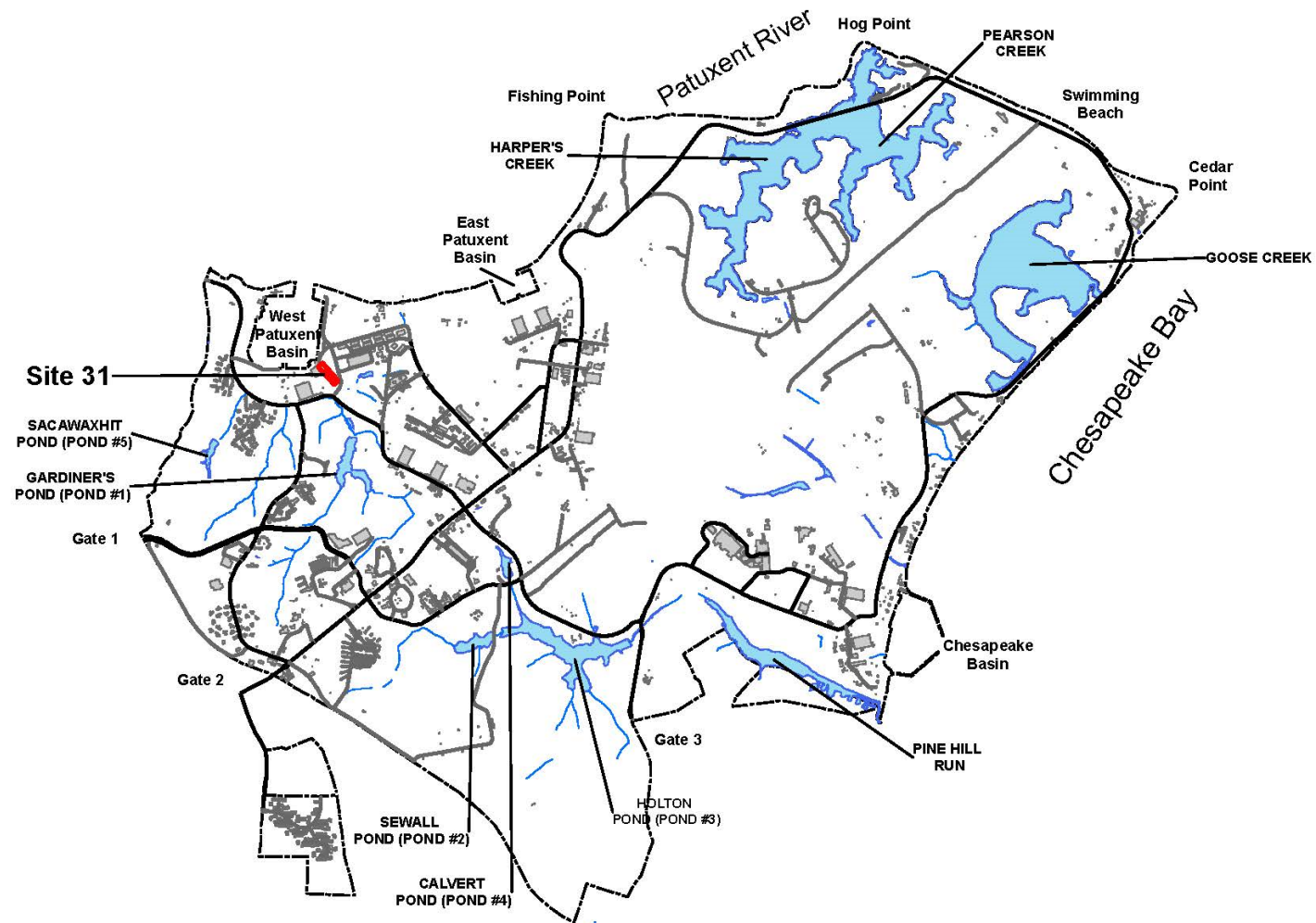


- What is a Proposed Remedial Action Plan (PRAP)?
  - The PRAP identifies the preferred cleanup alternative and facilitates community involvement
  - Public comment period October 3, 2016 – November 1, 2016

Public Affairs Officer, NAS  
Attn: Ms. Patrick Gordon  
22268 Cedar Point Road, Building 409, Room 207  
Patuxent River, MD 20670-1154



# Site Location



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# Site Layout



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# History



- Building 307 was used to conduct airplane parts maintenance and testing
  - Cleaning aircraft tires
  - Repairing fiberglass ray domes
  - Painting aircraft ground handling equipment
- Activities required the use of solvents, specifically trichloroethene (TCE)





# History



- Prior to 1970, waste liquids flowed into floor drains that discharged to an open ditch north and east of the building
- In 1970, a floor sump was constructed to convey the liquids to aboveground drums
- At the same time, the ditch was enclosed in a storm drain





# Site Layout



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## Investigation/Removal History



- 1984-1987 – Initial Assessment Study
- 1999 – Site Screening Investigation
- 2004 – Expanded Site Investigation
- 2005 – Engineering Evaluation/Cost Analysis
- 2007 – Interim Removal Action (small soil removal)
- 2008 – 2016 Remedial Investigation



# Remedial Investigation



- Soil, groundwater, sediment, and surface water sampling
- Vapor intrusion testing
- Findings
  - Volatile organic compounds (VOCs), specifically TCE and its natural degradation products are present in groundwater
  - Some metals contamination remains in soil
  - Vapors not identified in indoor air at elevated concentrations



# Remedial Investigation

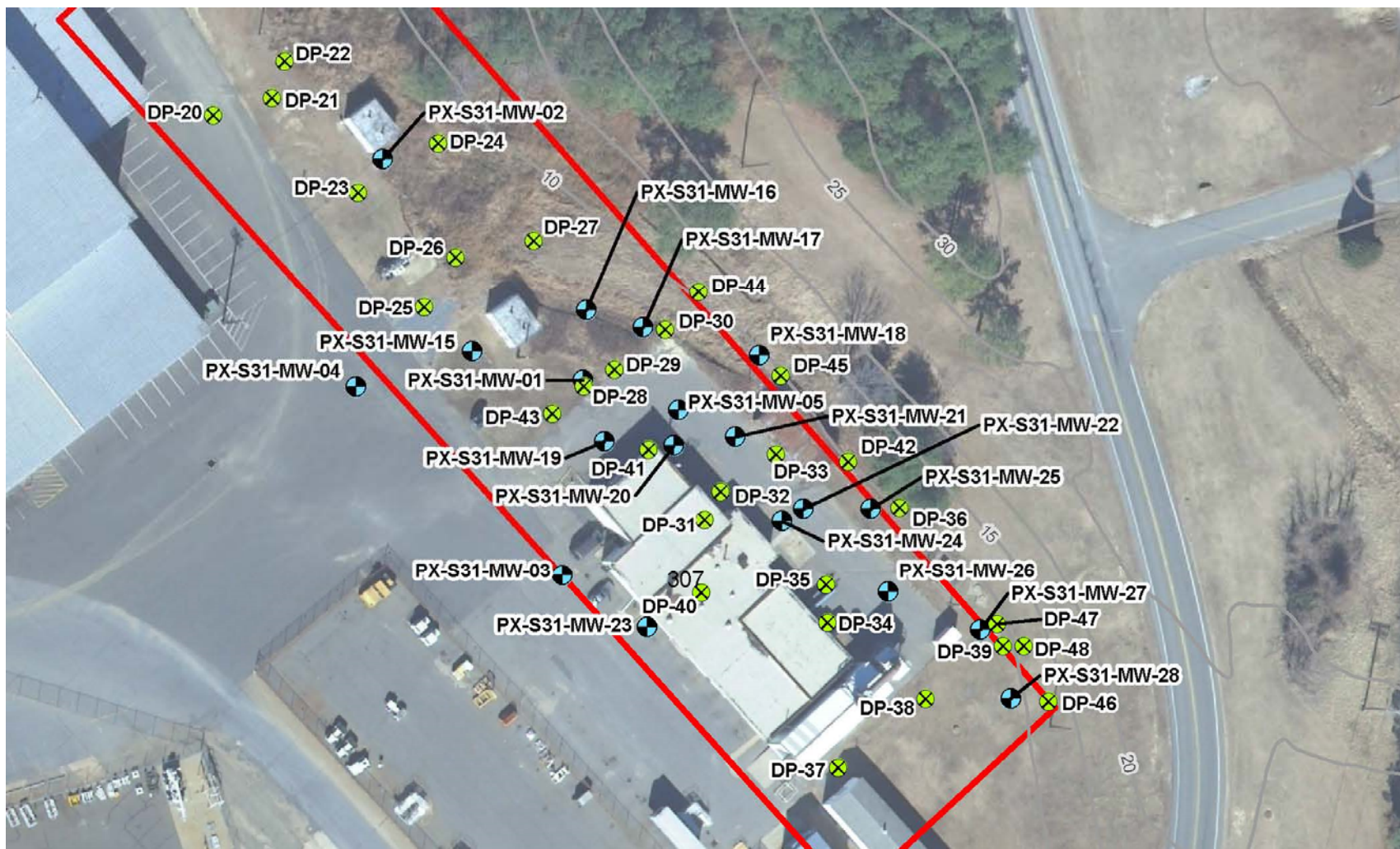


- Risk Summary
  - Human health risks are present associated with the hypothetical future consumption of groundwater
  - Ecological risk due to residual metals in soil





# Sampling Locations

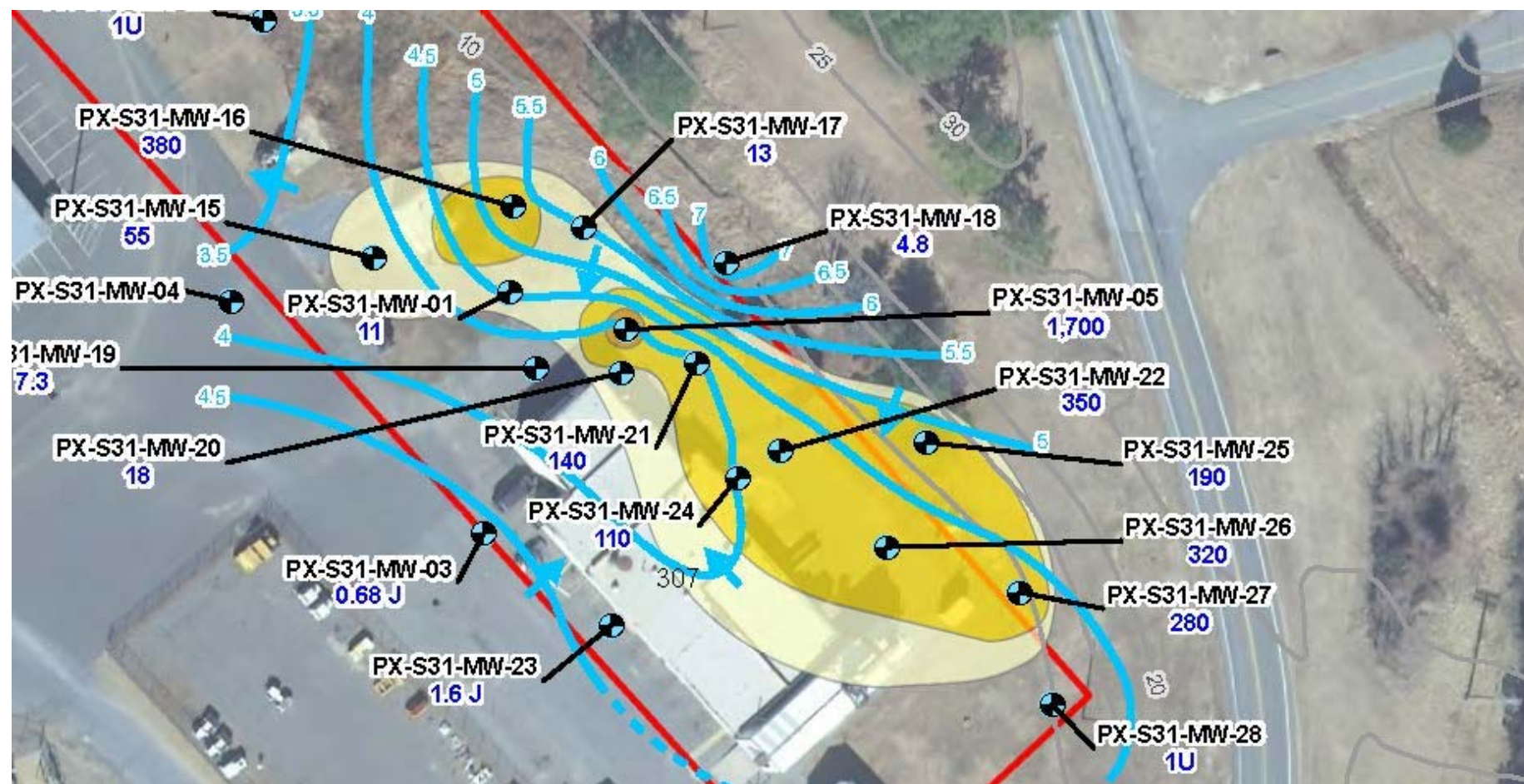


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# VOC Concentration Map





# Clean-Up Options



- No action (used as a baseline)
- Soil excavation and groundwater extraction
- Soil excavation and insitu bioremediation
- Soil excavation, target zone treatment and monitored natural attenuation





# Evaluation Criteria



- Protection of human health and the environment
- Compliance with appropriate laws and regulations
- Short-term effectiveness
- Long-term effectiveness
- Reduction of contaminants
- Implementability
- Cost
- State acceptance
- Community acceptance



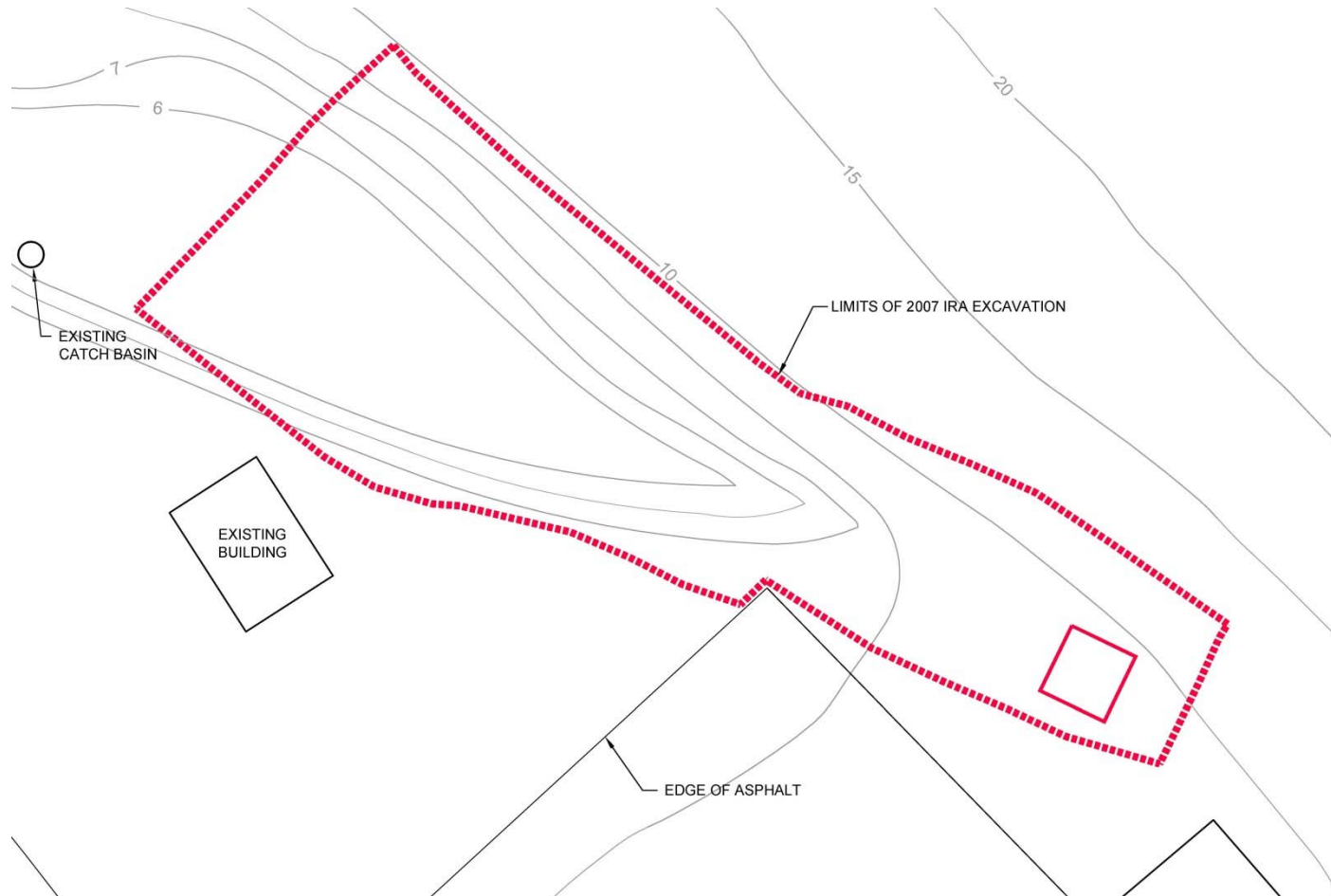
## Preferred Cleanup Alternative



- Soil excavation and insitu bioremediation
  - Remove metals-impacted soils and dispose in approved landfill
  - Inject vegetable oil into the ground to induce natural bacteria to degrade VOCs
    - Monitor results
    - Reinject if necessary
  - Employ land use controls to ensure that consumption of groundwater is prevented



# Soil Excavation





# Insitu Bioremediation



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## Path Forward and Timeframe



- Sign Record of Decision (winter 2016/2017)
- Contract for cleanup was awarded earlier this year
- Draft work plan is under review
- Mobilize for fieldwork (spring 2017)
- Monitor results 2017-2027



## Questions/Open Discussion



- Questions?
- Comments?
- Input?



# Proposed Future RAB Meeting Schedule\*



- Spring 2017: 12 April 2017
- Fall 2017: 1 November 2017

\*Dates are tentative





# Environmental Restoration Program



Have a good fall and winter -  
we'll see you in the spring!