



Environmental Restoration Program Naval Air Station Patuxent River



Restoration Advisory Board Meeting

3 April 2018



Agenda



Introductions

Per- and Polyfluoroalkyl Substances (PFASs)

Basewide Preliminary Assessment of PFASs

Open Discussion

**Future Restoration Advisory Board
Meeting Dates**



Introductions



- Introduce team members



Per- and Polyflouroalkyl Substances



- An emerging class of entirely man-made contaminants
- Found widely in the environment
 - Aqueous film-forming foam (AFFF)
 - Nonstick cookware
 - Cleaning products
 - Cosmetics
 - Paints and varnishes
 - Water resistant clothing





Per- and Polyflouroalkyl Substances



- Environmentally persistent and bioaccumulate
- Includes hundreds of compounds, most still unknown
 - Perfluorooctane sulfonate (PFOS),
 - Perfluorooctanoic acid (PFOA),
 - Perfluorobutanesulfonic acid (PFBS),
 - Perfluorohexanesulfonic acid (PFHXS),
 - Perfluoroheptanoic acid (PFHPA),
 - Perfluorononanoic acid (PFNA)
- PFOS, PFOA, and PFBS are the only PFASs for which a regulatory standard exists



PFAS in the Environment



Firefighter Training



Fire Suppression Systems



Incident Response

Fire training and fire suppression using AFFF
Are primary sources of PFAS contamination



Emerging Contaminant



- Department of Defense
 - Has a reasonable possibility of entering the environment;
 - Presents a potentially unacceptable risk to human health or environment; and
 - Does not have regulatory standards or the regulatory standards are evolving



Emerging Contaminant



- Environmental Protection Agency
 - A chemical or material that is a perceived, potential or real threat to human health or the environment
 - Lack of published health standards

PFAS not a listed CERCLA hazardous substance;
not a recognized contaminant; therefore, not looked
for in past investigations but used widely by military since 1970



Navy PFAS Policy



- October 2014 ASN(I,E&E) Memo
 - “...identify all known and suspected sites where PFOS and/or PFOA may have been released on active and BRAC installations.”

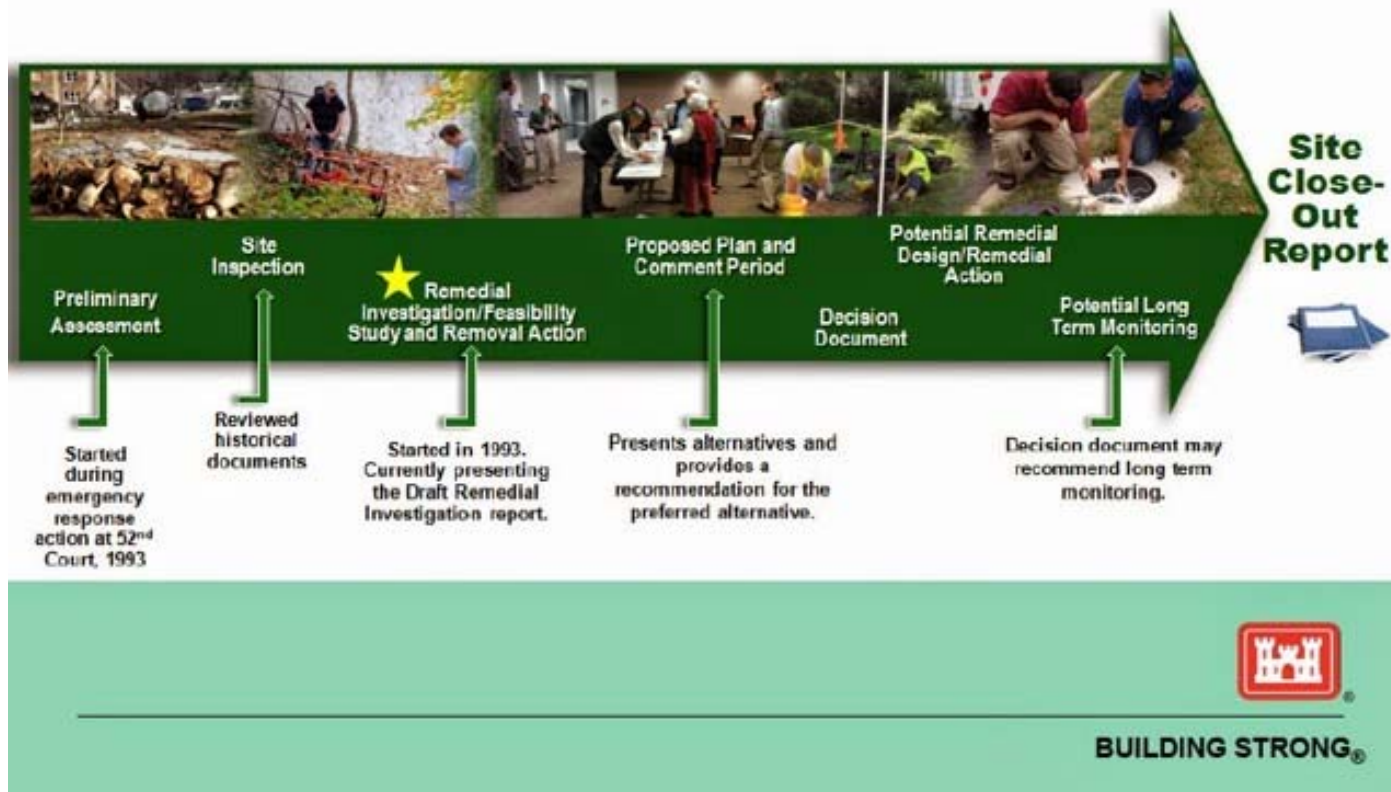


Comprehensive Environmental Response Compensation and Liability Act



CERCLA Process

(The Comprehensive Environmental Response, Compensation, and Liability Act)



Environmental Restoration Program NAS Patuxent River



Basewide Preliminary Assessment



- Identify locations where possible PFAS releases occurred from past operations and to provide an initial assessment of possible contamination migration pathways and receptors
 - Reviewed historical records
 - Incident reports, spill reports, AFFF purchase receipts
 - Conducted interviews with current and former base personnel
 - Visited each suspected site to evaluate topography and drainage patterns
 - Evaluated and prioritized each site for further investigation



Results



- 16 Sites identified
 - Firefighter training areas
 - Firefighter demonstration areas
 - Firetruck and equipment check areas
 - Fire suppression systems in building and hangars
 - Crash response sites
 - Plating facilities with mist suppression systems

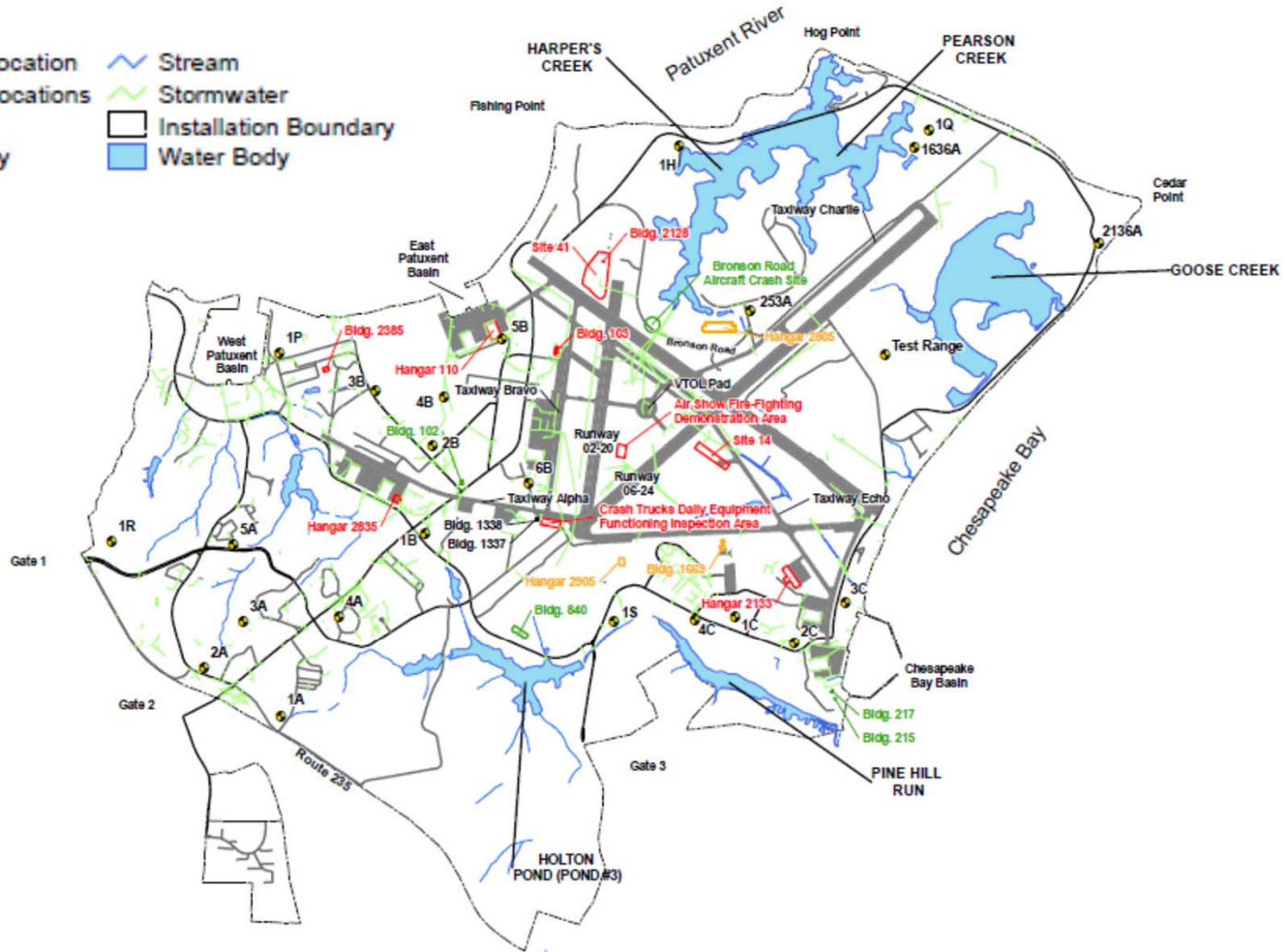


Results



Legend

- Potable Well Location
- ~ Stream
- ~ Stormwater
- High Priority
- Medium Priority
- Low Priority
- Installation Boundary
- Water Body



Environmental Restoration Program NAS Patuxent River



Prioritization of Sites



- High Priority Sites (9)
 - Known FTAs, daily equipment-check areas, demonstration areas, fire suppression systems identified as having had large releases
- Medium Priority Sites (4)
 - Sites with fire suppression systems identified as having moderate releases
- Low Priority Sites (3)
 - Sites with uncertainty due to the timing and/or quantity of AFFF released and small, one-time releases



Path Forward



- Complete regulatory review of draft PA report
- Finalize list of sites and report
- Initiate Site Inspections at all sites
 - Collect and analyze soil and groundwater samples
- Close sites at which no PFAS found
- Initiate Remedial Investigations at those sites where PFAS identified

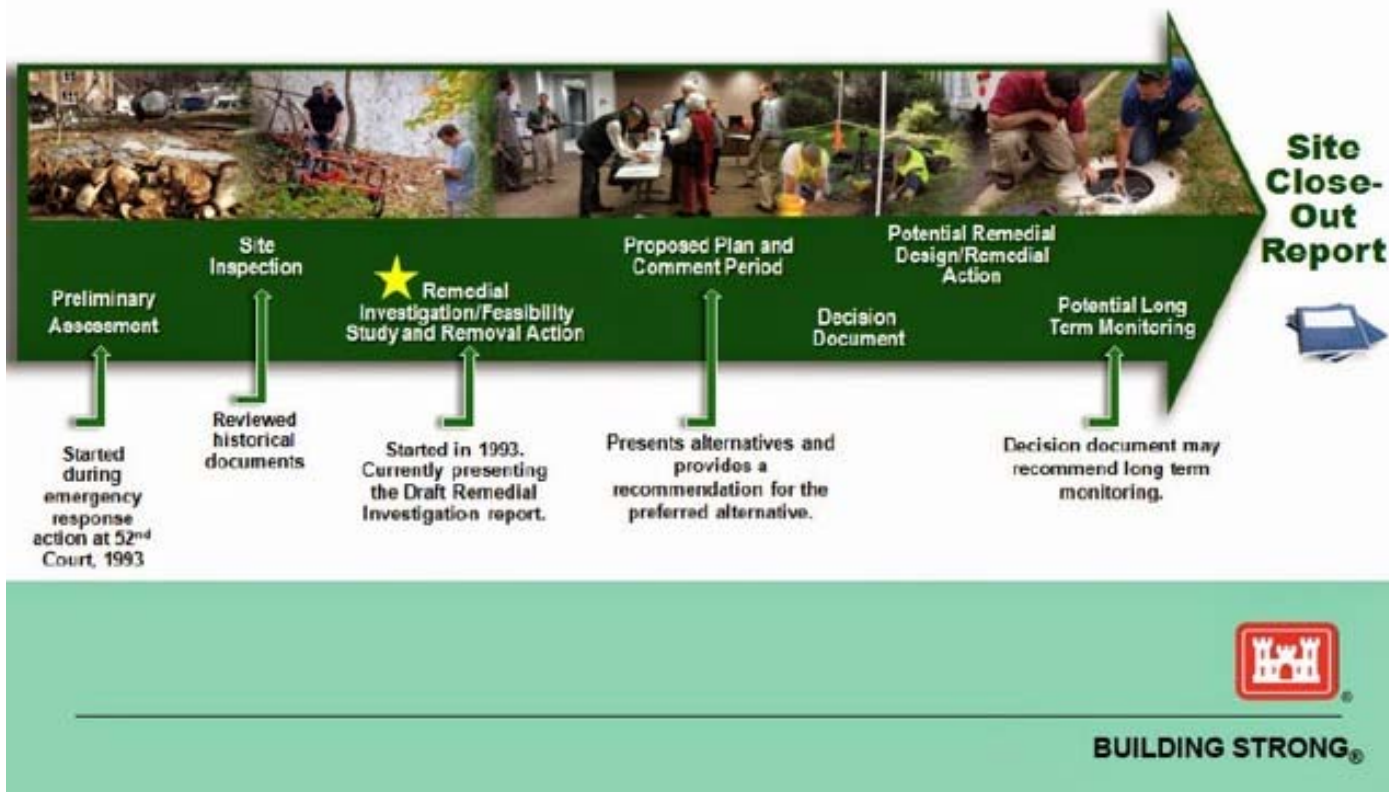


Comprehensive Environmental Response Compensation and Liability Act



CERCLA Process

(The Comprehensive Environmental Response, Compensation, and Liability Act)



Environmental Restoration Program NAS Patuxent River



Questions/Open Discussion



- Questions?
- Comments?
- Input?



Proposed Future RAB Meeting Schedule



- Fall 2018: 23 October 2018
- Spring 2019: March/April 2019



Environmental Restoration Program



Enjoy your summer and
make it a safe one!