DERP Forum

Strengthening Relationships with our Regulatory Partners

St. Louis, Missouri May 8-9, 2019

SERDP & ESTCP Efforts in Support of the Cleanup Program

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8 May 2019

DoD's Environmental Technology Programs



Strategic Environmental Research and Development Program

Science and Technology

- Fundamental research to impact DoD environmental land management
- Advanced technology development to address near-term needs



Environmental Security Technology Certification Program

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Demonstration/Validation

- Innovative cost-effective environmental and energy technology demonstrations
- Promote technology implementation by direct insertion and partnering with end users and regulators
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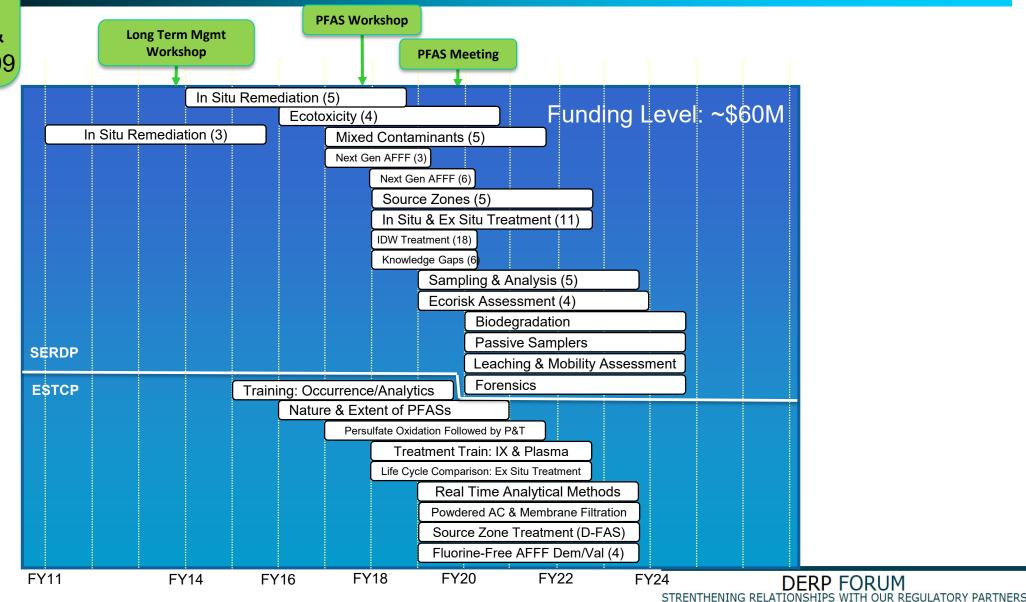
Program Areas

- Energy and Water
- Environmental Restoration
- Munitions Response
- Resource Conservation and Climate Change
- Weapons Systems and Platforms



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EPA published provisional health advisory for PFOS & PFOA in January 2009



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SERDP & ESTCP Efforts on PFAS EPA published provisional health **PFAS Workshop** advisory for PFOS & Long Term Mgmt Workshop **PFAS Meeting** PFOA in January 2009 In Situ Remediation (5) Funding Level: ~\$60M Ecotoxicity (4) In Situ Remediation (3) Mixed Contaminants (5) Next Gen AFFF (3) Next Gen AFFF (6) Source Zones (5) In Situ & Ex Situ Treatment (11) IDW Treatment (18) Knowledge Gaps (6 Sampling & Analysis (5) Ecorisk Assessment (4) Biodegradation **Passive Samplers** SERDP Leaching & Mobility Assessment Forensics ESTCP Training: Occurrence/Analytics Nature & Extent of PFASs Persulfate Oxidation Followed by P&T Treatment Train: IX & Plasma Life Cycle Comparison: Ex Situ Treatment **Real Time Analytical Methods** Powdered AC & Membrane Filtration Source Zone Treatment (D-FAS) Fluorine-Free AFFF Dem/Val (4) FY11 **FY14 FY18** FY20 **FY22 FY24** FY16 **DERP FORUM** STRENTHENING RELATIONSHIPS WITH OUR REGULATORY PARTNERS

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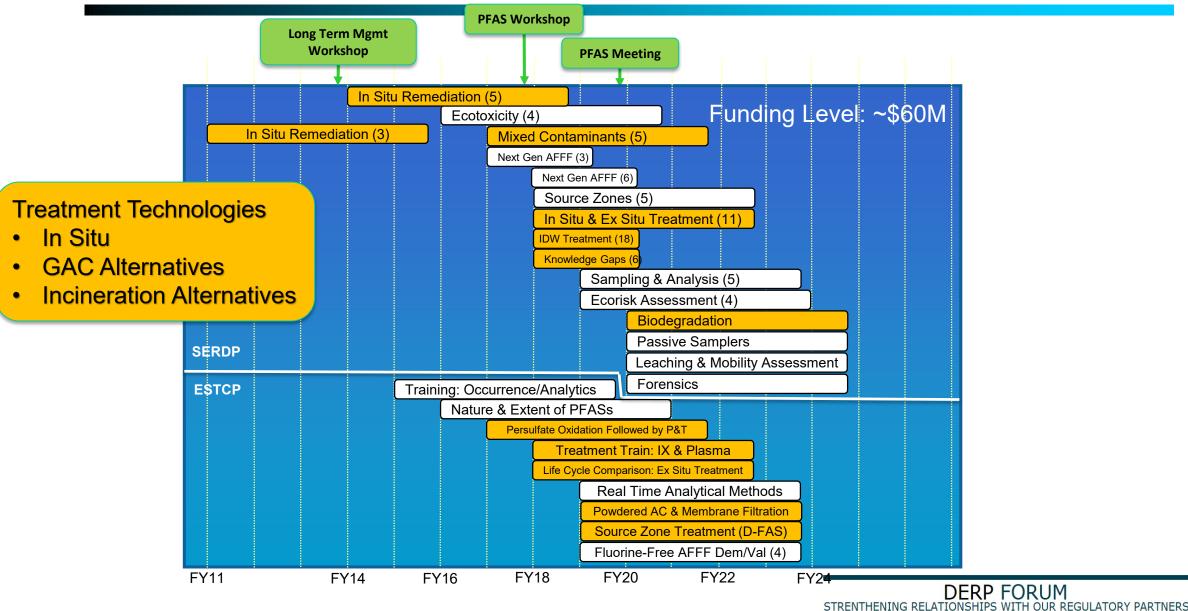
PFAS Workshop

- In May 2017, SERDP and ESTCP sponsored a two-day workshop: Research and Development Needs for Management of DoD's PFAS Contaminated Sites to:
 - Review the current state of the science regarding PFAS contamination in general, and AFFF in particular
 - Evaluate current and potential characterization and remediation technologies
 - Prioritize research and demonstration opportunities that can improve remediation performance and efficiency, and ultimately reduce the costs to manage sites.
 - Summarize findings in a workshop report.

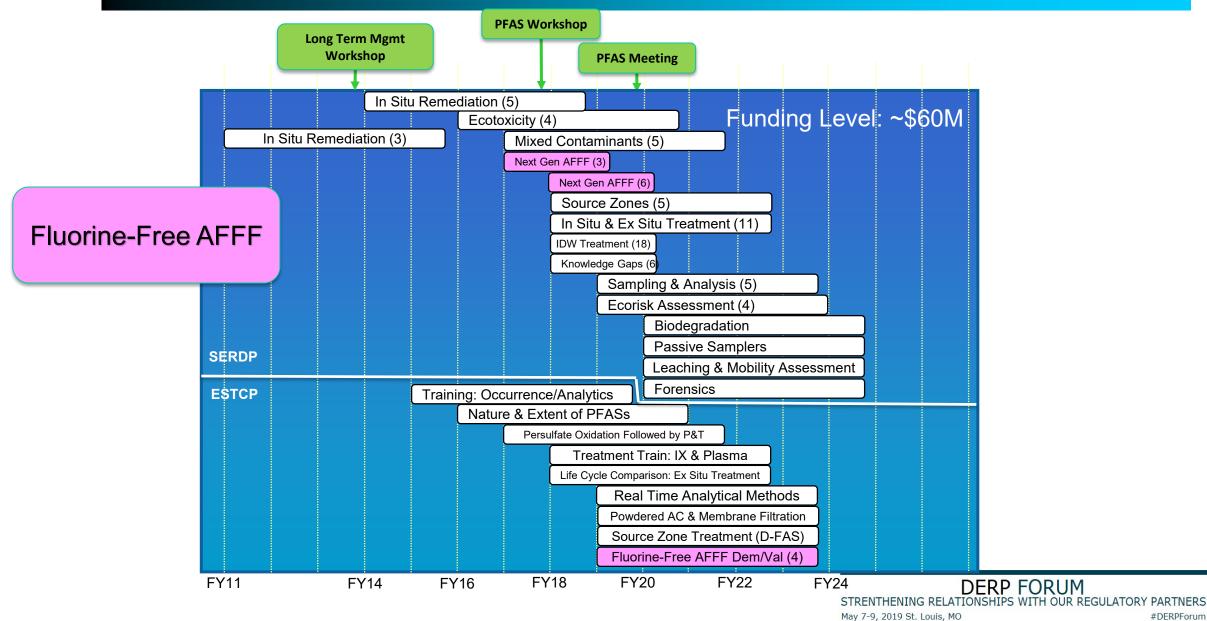
28 Research, Demonstration and Technology Transfer Needs Identified

PFAS Workshop – Major Findings

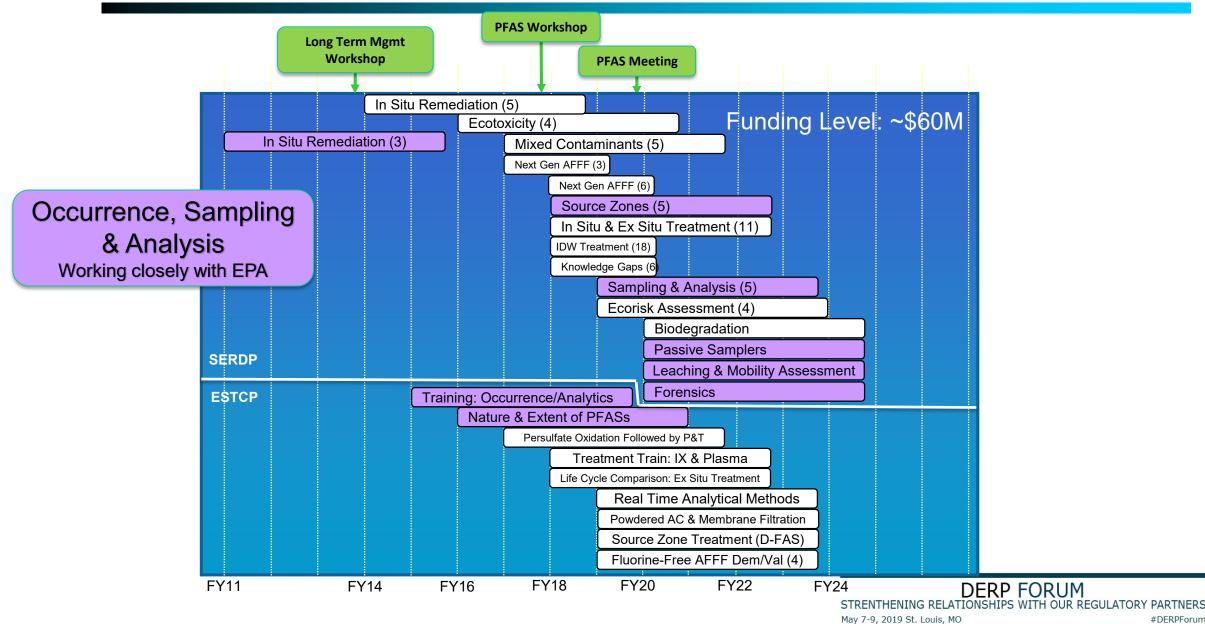
- Fate and transport properties
- Bioavailability, biomagnification
- Toxicity
- Development of on-site technologies for concentrated PFAS waste streams
- **PFAS forensics**
- Sampling
- Treatment technology demonstrations
- Technology transfer needs

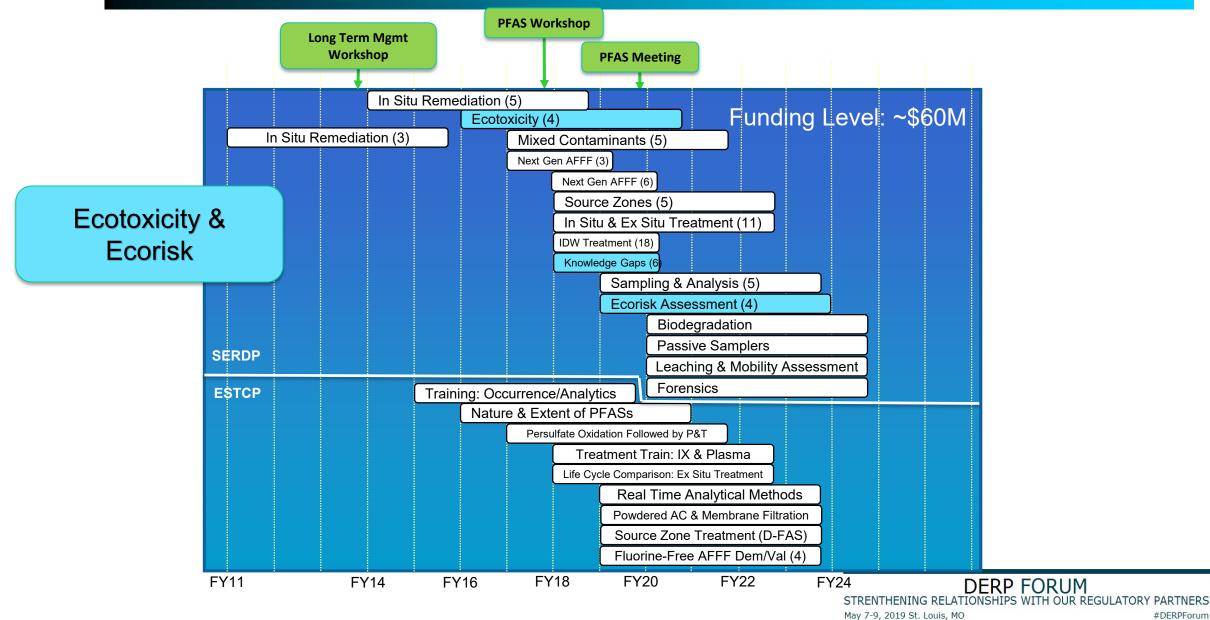


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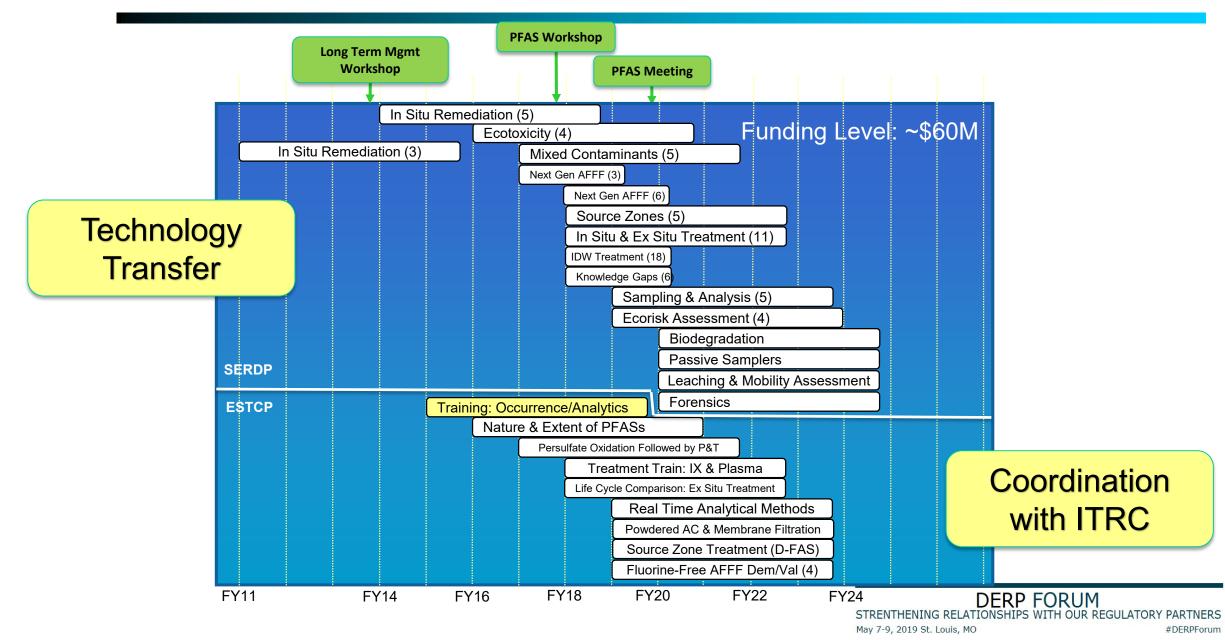


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PFAS Project Meeting

- In July 2019, SERDP and ESTCP will be hosting a project meeting for projects addressing characterization, sampling and analysis, and treatment. Meeting will consist of:
 - Continuing project presentations
 - Proof of concept project debriefs
 - Poster session
 - Strategic discussions on data gaps
 - EPA presentation on status of analytical methodologies
 - Australian DoD update on treatment processes
 - Significant findings published in summary workshop



December 3-5, 2019 at the Marriott Wardman

Plenary session the first morning then two days of technical sessions and one day of short courses

Expected Attendance: 1000

SERDP & ESTCP

www.serdp-estcp.org