

Air Force Civil Engineer Center



Fire Training Area– 1 (FTA-1) PFAS Groundwater Interim Remedial Action

**Joint Base Cape Cod
Cleanup Team Meeting
9 Apr 2025**



Overview



- **Background**
 - **Ashumet Valley (legacy) Remedy**
 - **Ashumet Valley/FTA-1 PFAS**
- **Proposed FTA-1 PFAS Groundwater Interim Remedial Action**



Ashumet Valley (legacy) Remedy

- Ashumet Valley (AV) Plume
 - Contaminants of Concern (COCs)
 - Volatile Organic Compounds (VOCs): tetrachloroethylene (PCE) and trichloroethylene (TCE)
 - manganese, thallium
 - AV plume caused by discharges from Fire Training Area-1 (FTA-1) and former wastewater treatment plant (WWTP) operations/disposal
 - FTA-1 shut down in 1985; WWTP shut down in 1995
 - Contaminated soil has been removed or treated; no on-going VOC sources
 - AV Treatment System started in 1999
 - Removed over 373 lbs of VOCs from groundwater
 - Shut down in 2022 – will be re-started for PFAS



COCs: PCE, TCE, manganese, thallium

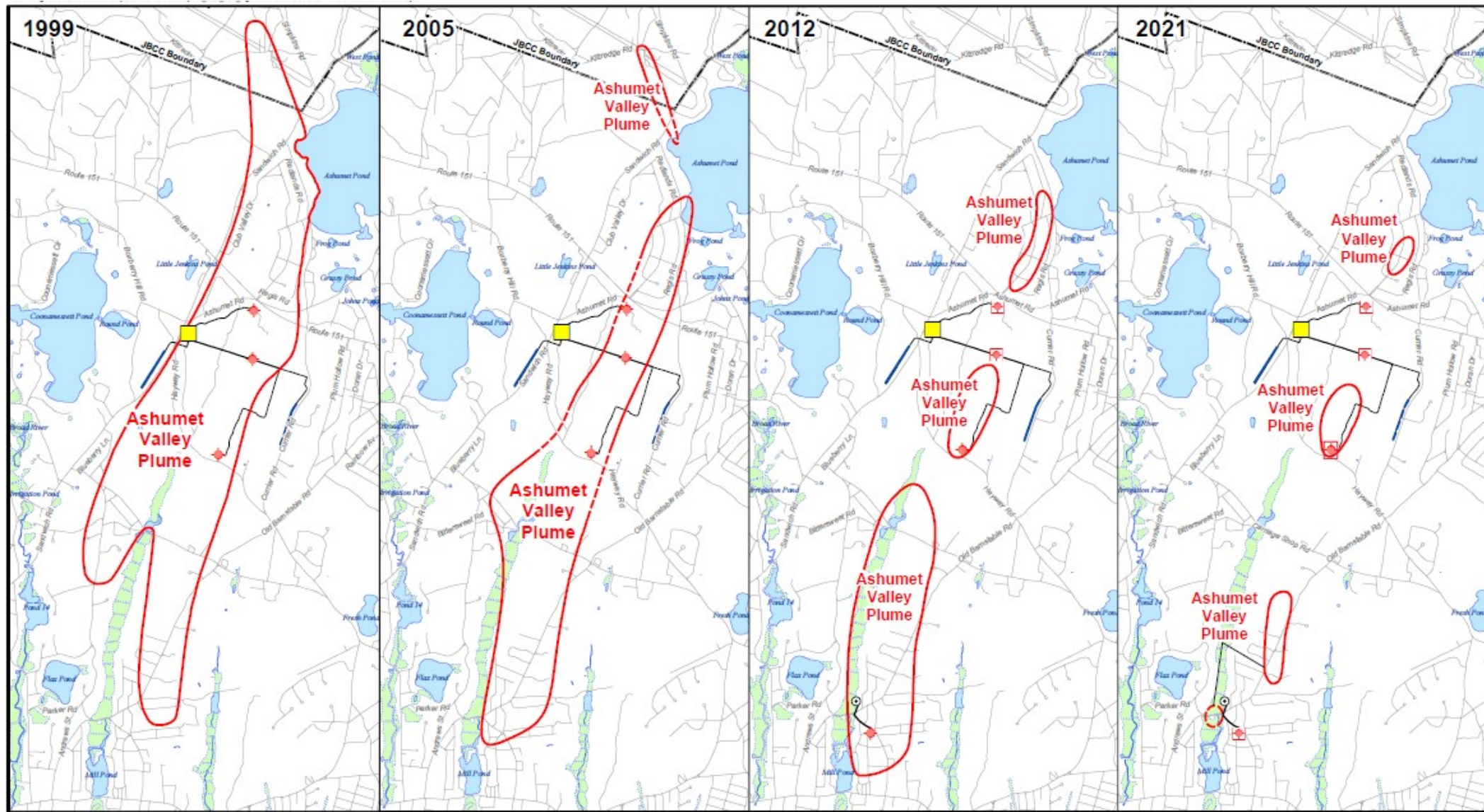


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- The map displays the Ashumet Valley Plume, outlined in yellow, extending from the Former MMR Sewage Treatment Plant in the north towards the south. Key monitoring locations are marked with blue dots and labeled with codes: USFW0347067, USFW0300030, USFW0382C, USFW0385A, USFW037199, USFW1232A, USFW03703, USFW01102, USFW01117, USFW044023, USFW0104, USFW0106, and USFW1235A. Black dots indicate specific monitoring points: 95EW0701, 95EW0702, and 95EW0704. The plume is labeled in red text. The map also shows various ponds (e.g., Deep Pond, Crystal Pond, Cockscomb Pond, Round Pond, Jordan Pond, Pine Pond, Frog Pond) and other geographical features like the WPC Boundary, FTA-1 Source Area, FTA-2/LF-2, and PFSA. Three large blue arrows point to specific areas: the Former MMR Sewage Treatment Plant, the central part of the plume near 95EW0702, and the southern part of the plume near 95EW0704.



Ashumet Valley Groundwater

Temporal Cleanup Progress





Ashumet Valley/FTA-1 PFAS



- What are per- and polyfluoroalkyl substances (PFAS)?
 - A large class of chemicals found in many consumer products, as well as in industrial products such as certain firefighting agents called aqueous film forming foam (AFFF or “A Triple F”).
 - The known sources of PFAS at JBCC are primarily associated with AFFF discharges to the ground surface.
 - Investigation of PFAS at JBCC began in 2014.



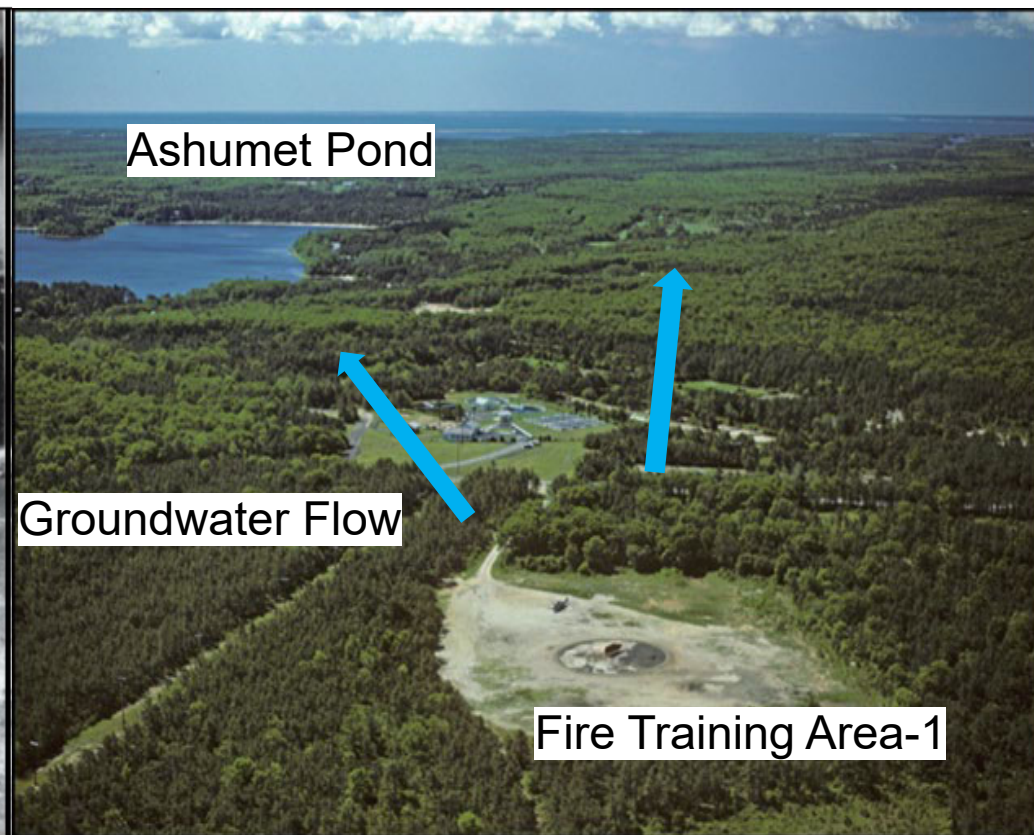
Ashumet Valley/FTA-1 PFAS



- The primary source of PFAS to Ashumet Valley is from FTA-1
 - PFAS plume is called “FTA-1” to distinguish it from Ashumet Valley plume with legacy contaminants
- FTA-1 operated from 1958 – 1985
 - Use of AFFF with PFAS began in 1970
- Additional AFFF release in 1997
 - AFFF used to suppress a fire during thermal treatment of the FTA-1 soils to remove VOC contamination
- Ashumet Valley (FTA-1) PFAS Supplemental Remedial Investigation (RI) completed Mar 2024



Ashumet Valley/FTA-1 PFAS



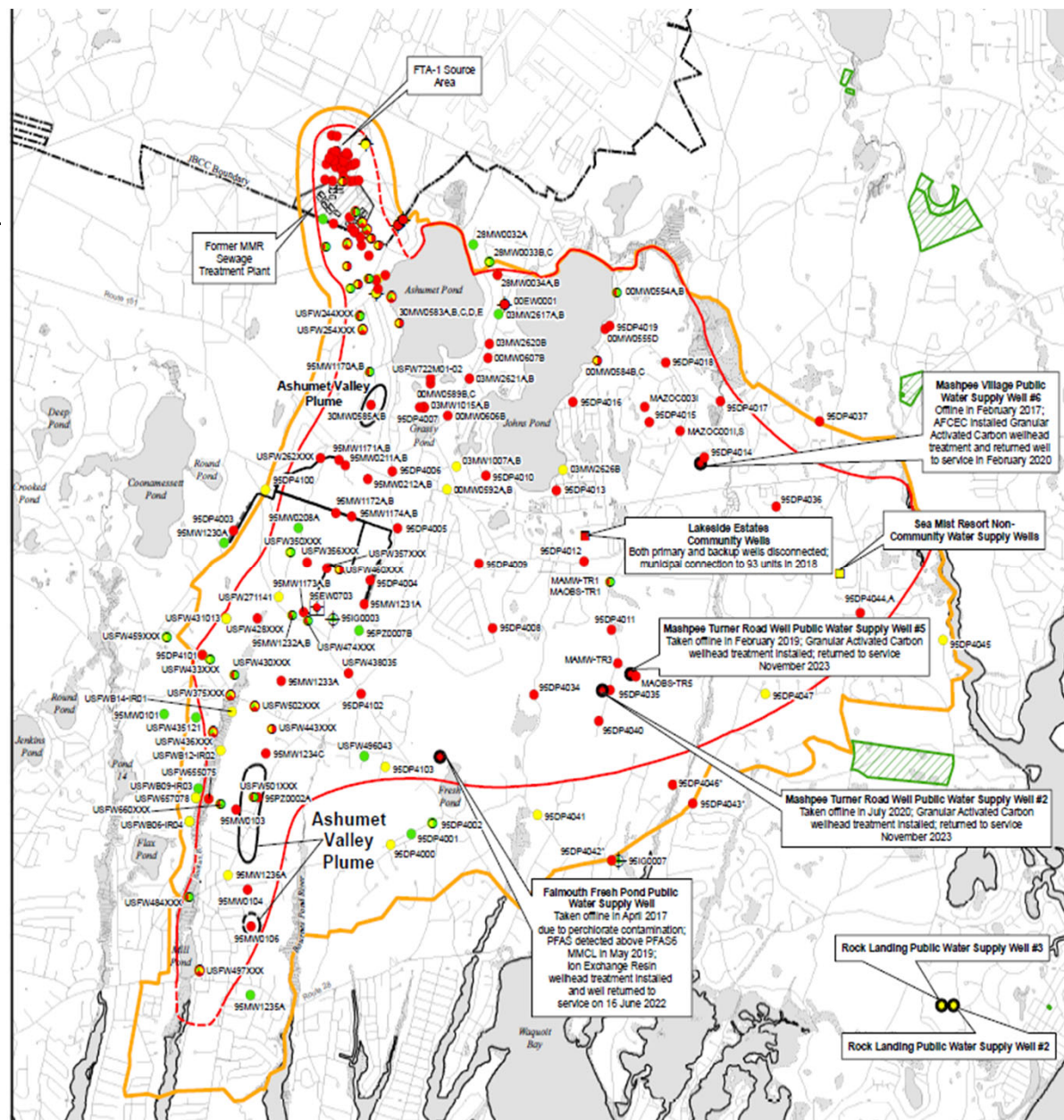


- Above PFAS MCL or MassDEP PFAS6 MMCL
- Below PFAS MCL and MassDEP PFAS6 MMCL
- No Detection

— FTA-1 PFAS Plume Boundary

———— FTA-1 Land Use Control Area

Exposure to PFAS-contaminated groundwater addressed with bottled water, in-house treatment systems, connections to public water supply, and treatment systems on municipal wells.





Ashumet Valley/FTA-1 PFAS



- PFAS is impacting Ashumet Pond and Johns Pond
- Do not eat any fish
- Safe for swimming
 - Avoid swallowing water and contact with foam

PUBLIC HEALTH ADVISORY

Ashumet Pond
Falmouth, Mashpee



Fish Contaminated with Mercury & Per and Polyfluoroalkyl Substances (PFAS)

CHILDREN UNDER 12; AND PEOPLE WHO ARE NURSING, PREGNANT, OR MAY BECOME PREGNANT:	• Do not eat any fish
ALL OTHER PEOPLE:	• Do not eat any fish

Issued by the Massachusetts Department of Public Health. For additional information, please scan the QR code or call 617-624-5757.



PUBLIC HEALTH NOTIFICATION

ASHUMET POND
Falmouth / Mashpee



PFAS* DETECTED AT PUBLIC BEACH
SWIMMING NOT A HEALTH RISK

AVOID SWALLOWING WATER
AVOID CONTACT WITH FOAM (if present)

*Per- and Polyfluoroalkyl Substances (PFAS)

SCAN THE QR CODE FOR MORE INFORMATION
ON PFAS AND SWIMMING OR CONTACT



Environmental Toxicology Program
Massachusetts Department of Public Health
617-624-5757



Proposed FTA-1 PFAS Groundwater (GW) Interim Remedial Action



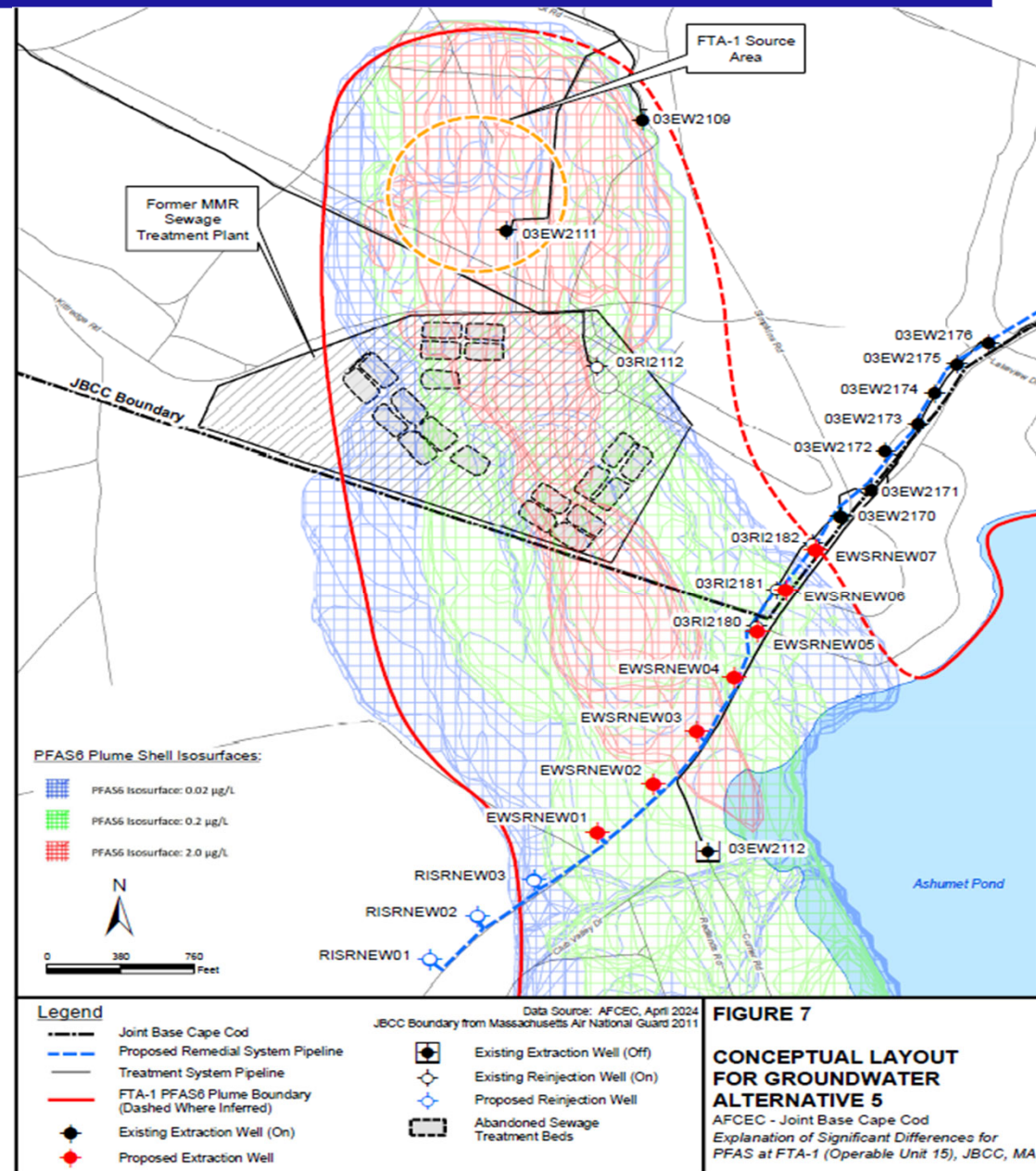
- Issue an Explanation of Significant Differences (ESD) to modify current Ashumet Valley (FTA-1) GW remedy
- Use the first Draft Supplemental Feasibility Study's remedial alternative evaluation for PFAS as basis of interim remedial action
- ESD will:
 - Add four PFAS as GW Contaminants of Concern: PFOS, PFOA, PFHxS, and PFNA
 - Add Remedial Action Objectives to prevent residential exposure to PFAS in GW/Fish and to manage migration of PFAS plume
 - Implement active treatment in two plume areas as an interim remedy
 - Establish a formal Land Use Control (LUC) Program for FTA-1 PFAS in GW and Fish
- Estimated total cost for FTA-1 PFAS Interim Remedy: \$81.4M



FTA-1 PFAS Sandwich Rd Extraction Fence



- **Alternative 5 from first Draft Supplemental Feasibility Study**
- **Install 7 new extraction wells and 3 new reinjection wells**
- **Total flow rate estimated at 1,350 gallons per minute (gpm)**
- **Water to be treated at Sandwich Road Treatment Facility (Granular Activated Carbon [GAC])**

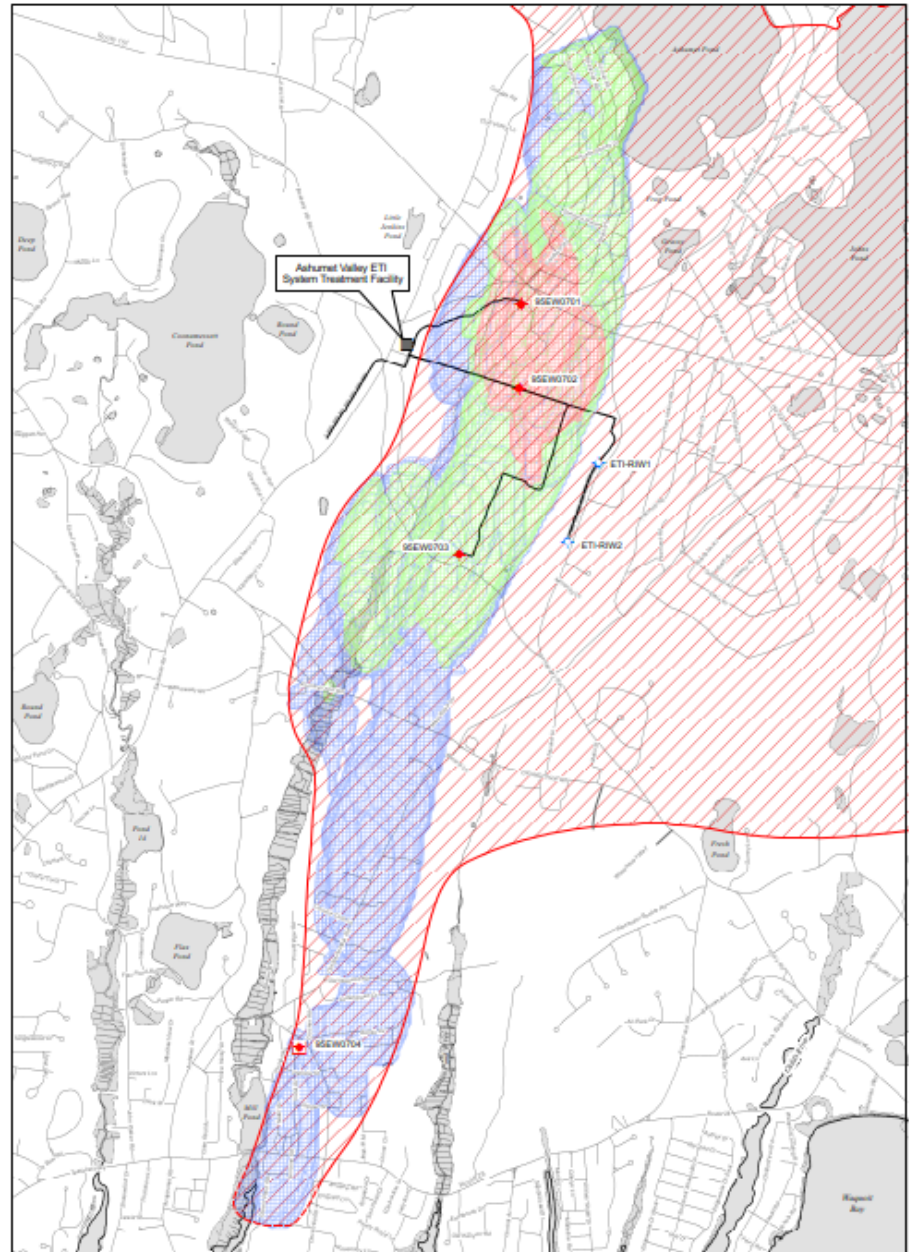




FTA-1 PFAS Restart Ashumet Valley Treatment System



- **Alternative 4 from first Draft Supplemental Feasibility Study**
- **Restart existing 3 extraction wells**
- **Install 2 new reinjection wells**
- **Total flow rate estimated at 1,400 gpm**
- **Treatment at existing Ashumet Valley system (GAC)**





Proposed FTA-1 PFAS GW Interim Remedial Action Status



ESD Status

- 5 Apr 2024: Draft FTA-1 ESD submitted for regulatory review
 - 10 Apr 2024: EPA issued federal MCLs
 - 3 Sep 2024: DoD issued guidance for federal MCLs
- Apr 2025: Estimated Completion of Draft Final FTA-1 ESD
 - To be followed by 30-day public comment period
 - Issue Final ESD with response to public comments

Design/Construction Status

- Sep 2024: Issued contract for design w/options for construction and operation of FTA-1 PFAS Interim Remedy
 - May 2025: Draft Design/Remedial Action Workplan due to AFCEC
 - Construction schedule TBD
- AFCEC will continue to update the JBCCCT regarding the design/construction of interim remedial action

