

# Barnstable County

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REGIONAL GOVERNMENT OF CAPE COD

FORMER MUNICIPAL FIRE TRAINING ACADEMY  
PFAS RELEASE SITE PROGRESS UPDATE  
APRIL 11, 2024



# Agenda

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- Site Overview
- Remediation Project Status
- Expanded Scope of Work
- Projected Costs and Schedule
- Discussion



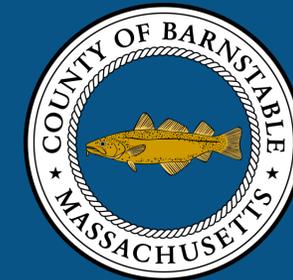
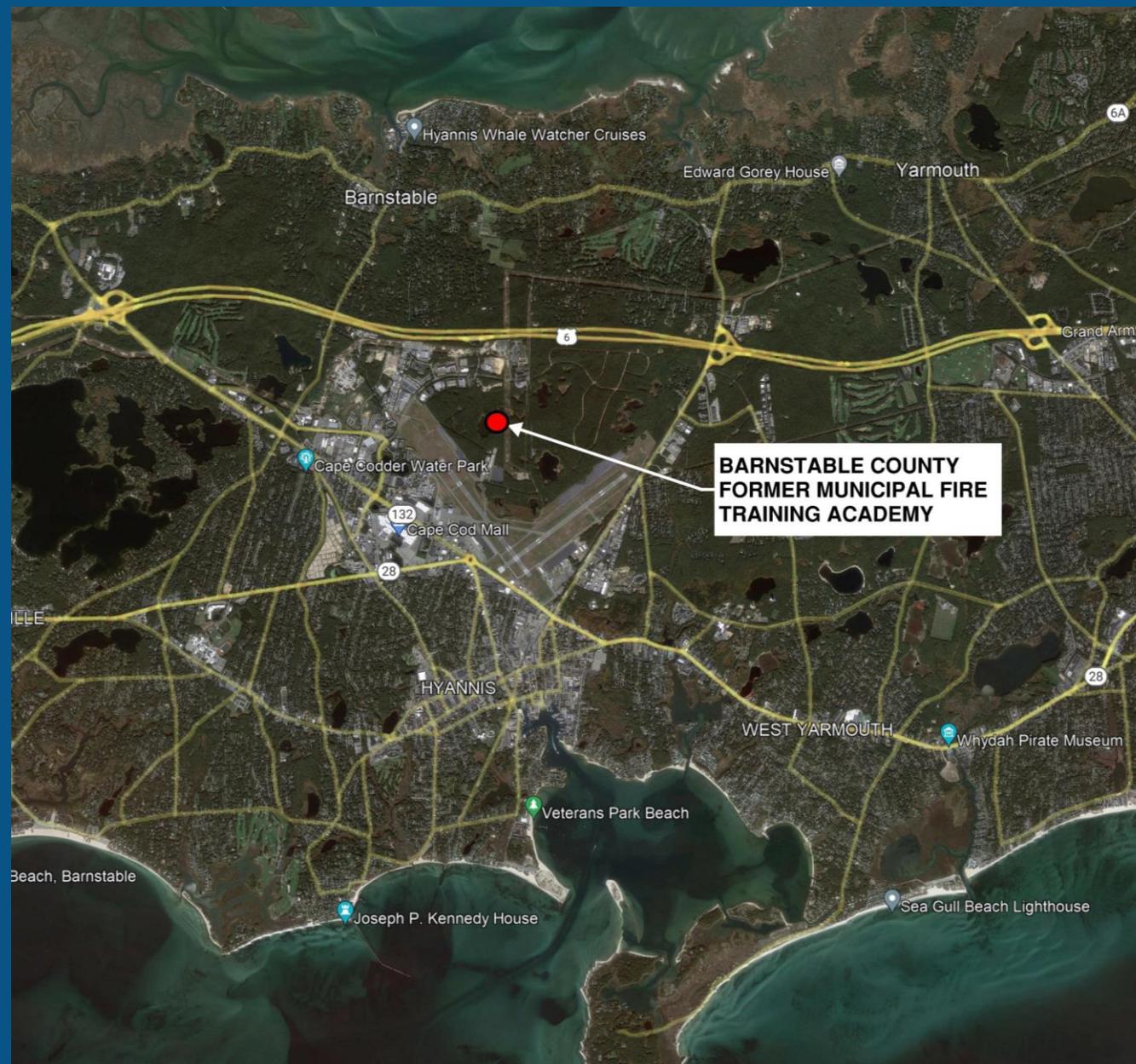
# Former Municipal Fire Training Academy

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Overview and History

# Site Overview

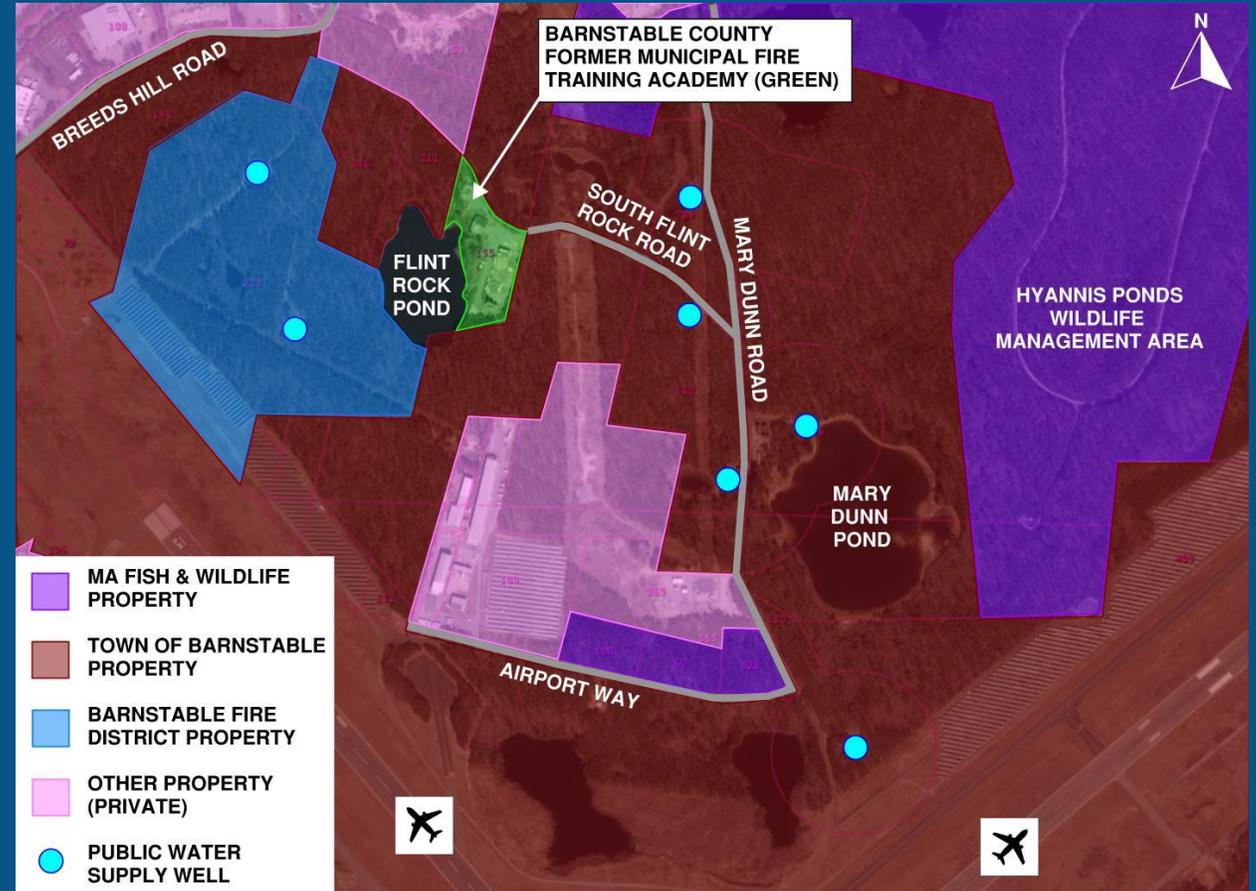
- Overall Locus
- 155 South Flint Rock Road,  
Hyannis, MA





# Site Overview

- “Lay of the Land”
- Plume travel via groundwater under multiple properties
- Property Distribution
- Public Water Supplies
- Landowner Coordination and Access





# Former Municipal Fire Training Academy Overview

- 1959 to 1983 owned by others and operated by Hyannis Fire Department
- 1987 to 2019 operated by the County
- Utilized by all Cape Cod Fire Departments
- Critical and necessary life-saving training facility
- Offered programs, education and essential training that Towns could otherwise not afford
- Trained with legacy and AFFF (aqueous film forming foams) from 1959-2013
- Fire Departments supplied AFFF, County did not purchase foam, therefore has no records of use



# Former Municipal Fire Training Academy Underlying Problem



AFFF containing PFAS became the foams of choice in the 1970s.

Throughout the FTA history of operation, the County, Municipalities and Fire Departments were unaware of the dangers of PFAS compounds in the AFFF.





# Former Municipal Fire Training Academy PFAS Timeline

## **NOVEMBER 2013** – PFAS Detected

- MassDEP notified
- Release Tracking Number (RTN) 4-26179 assigned
- Site groundwater monitoring begins

## **JULY 2015** – County initiates voluntary treatment system to treat groundwater impacted by PFAS at FTA site

## **AUGUST 2016** – MassDEP issues Notice of Responsibility

- Licensed Site Professional secured by the County
- Phase 1 Site Assessment commences

## **JANUARY 2017** – 200 tons of soil removed from “hot spot”



**Cape Cod Open House 1973**



# Former Municipal Fire Training Academy PFAS Timeline (continued)



**Historic routine use by all Cape Cod Fire Departments**

- JUNE 2017** – County settles with Town of Barnstable for Mary Dunn Wells
- \$3.67 Million over 20 years for Public Water Supply PFAS filtration system
  - Settlement covers Hyannis Water operations, maintenance and carbon filtration costs.
  - Water treated for PFAS to meet drinking water standards

**DECEMBER 2018** – Temporary cap installed (4,000 square feet)

**JUNE 2019** – Fire Training Academy ceases operation in entirety

**JANUARY 2020** – COVID Pandemic declared

**AUGUST 2021** – Fire Training Buildings Demolished

**NOVEMBER 2021** – Pavement cap installed (55,000 square feet)

**MARCH 2022 – APRIL 2025** – Phase II Site Assessment begins and ongoing



# Former Municipal Fire Training Academy

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Project Status

# Massachusetts Contingency Plan (MCP) Process



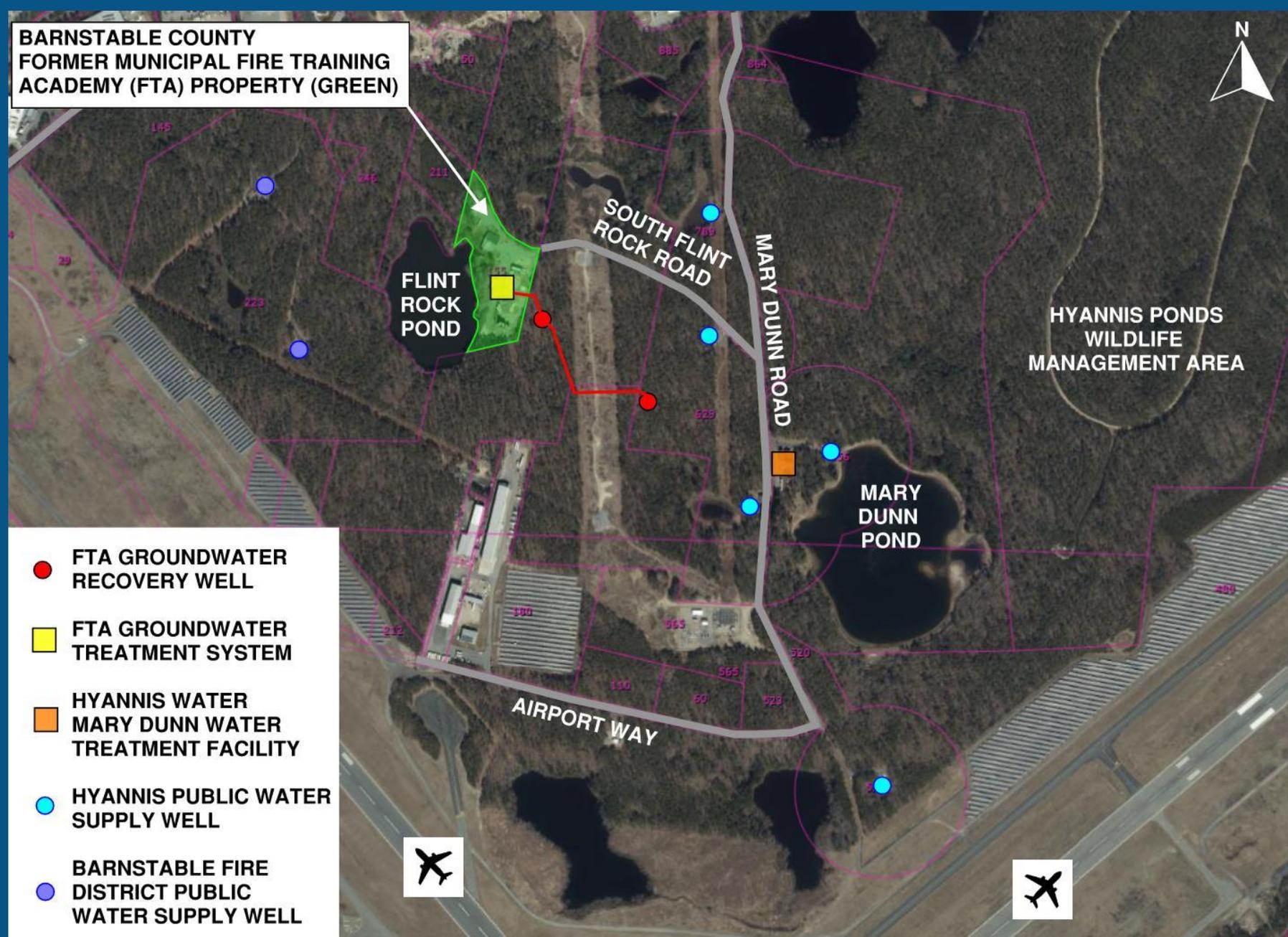
- Site Release Occurs or is identified → Complete
  - Contact MassDEP and secure services of Licensed Site Professional (LSP) → Complete
  - Phase I Investigation → Complete
  - Immediate Response Actions (IRAs)
    - Hot Spot Soil Removal, Capping and Initial Response Groundwater Pump and Treat System → Complete
    - Expanded Treatment System and Plume Containment → Evaluation, Design, Construction Bid complete by 12/31/24  
Construction 2025
  - Phase II – Site Assessment → Finalizing Expanded Scope, Complete by April 2025
    - Comprehensive Investigative stage
    - Assess plume concentration, location and travel path
    - Screening tests, long-term well installation, surface water, groundwater and soil sampling
    - Access agreements, property owner coordination
  - Phase III – Remediation Alternatives Evaluation and Selection (Groundwater, Soil & Pond)
  - Phase IV – Remediation Design and Construction – All Impacted Environments
  - Public Involvement – Ongoing Communication → Performed until project completion
- To be determined based off IRA work

Current Phase



# Site Overview

- Hot spot soil removed (200 tons of soil)
- Site capped
- Treatment system in operation
- Public water supplies impacted by plume meet drinking water standards



# Status Update – Remediation Program Groundwater Treatment System



- Licensed Site Professional Services (LSP) Project Management and Oversight
- Groundwater Treatment System (GWTS) Operations and Maintenance (O&M)
- MassDEP Status Reports
- Routine Well Gauging and Sampling
- Treatment System Compliance Sampling
- Bag Filter and Carbon Replacement
- Well Cleaning and Pump Replacement
- Distribution System Line Cleaning
- Solid and Liquid Waste Disposal
- MassDEP Operations Permit and Reporting





# Status Update Phase II Site Assessment & IRA

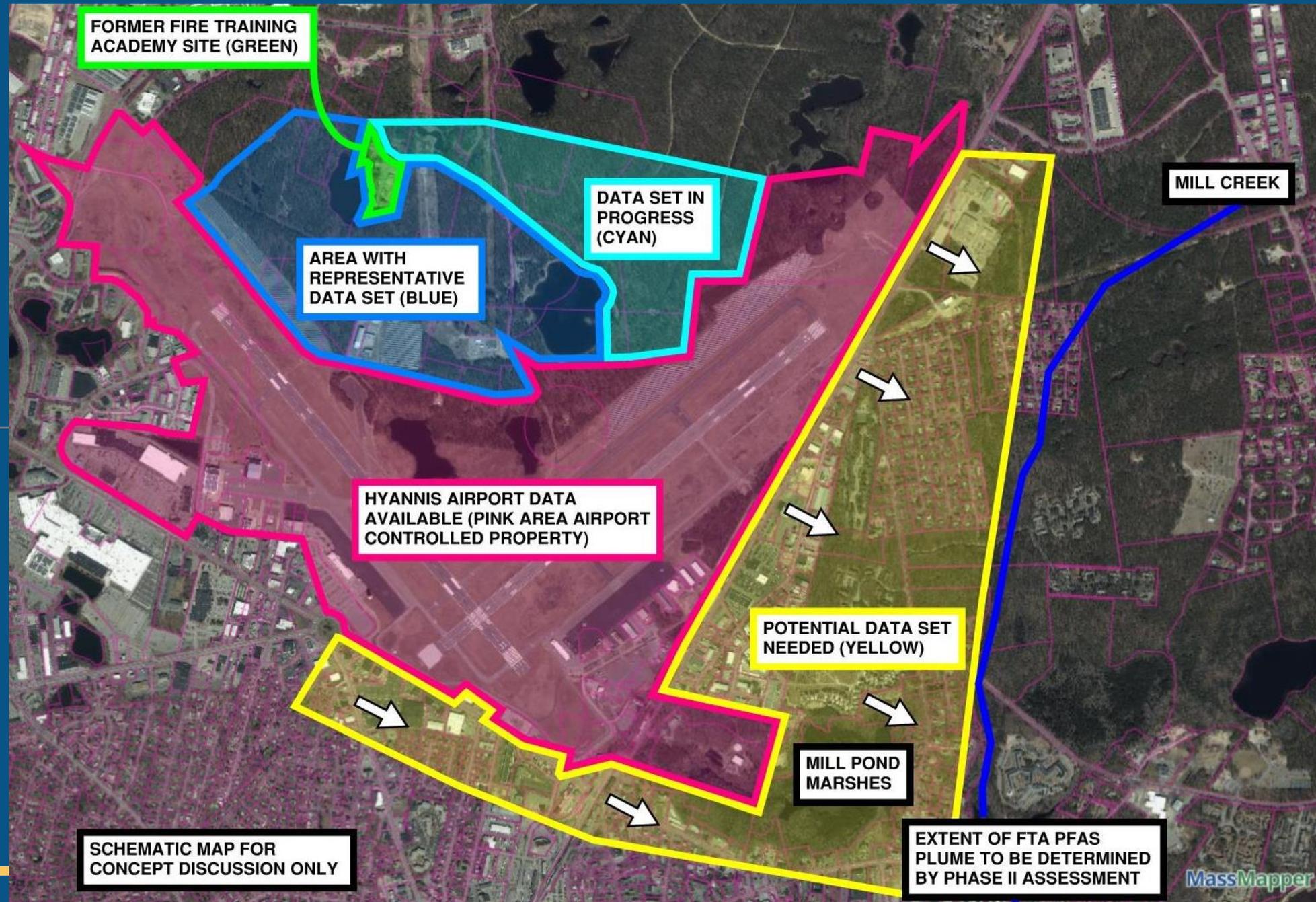
## Phase II – Comprehensive Site Assessment Continues

- Groundwater, soil and surface water exploration ongoing
  - Remaining field work performed June to October 2024
- Consultant generating summary reports
- Ongoing coordination with MassDEP, Town of Barnstable, Barnstable Fire District, Hyannis Airport and MassWildlife
- Technical summit held October 2023 with MassDEP and Hyannis Airport
- Final Assessment due April 2025



# Phase II

## Current and Expanded Scope of Work Summary





# Former Municipal Fire Training Academy

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Expanded Scope of Work



# Expanded Phase II Site Assessment

- Address areas East and South of Hyannis Airport
- Groundwater model expansion
- Risk Characterization expansion
- PFAS signature identification
- RFP issued by the County in February 2024 for expanded scope of work
- Contract award in April 2024



**“Pit Fire” Demonstration 1959**



# Former Municipal Fire Training Academy

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Projected Costs and Schedule



# Funding Opportunities

- Barnstable County Capital Plan includes \$15 Million for PFAS Groundwater Treatment System
  - Secured \$4 Million through ARPA
  - \$11 Million included in FY 2025 Capital Plan
  - County Commissioners recommend \$7.8 Million Special Revenue Fund for PFAS Cleanup
    - \$5 Million earmarked for treatment system
    - Remaining balance funded with clean water treat
- Massachusetts State Revolving Fund (SRF) Clean Water Trust (CWT)
  - Planning, Design and Construction projects associated with PFAS Mitigation quality for 0% interest loans
  - 3.3% minimum loan principal forgiveness, with potential for 20% forgiveness
  - Application process is timeline driven with selection process
- EPA Quality Assurance Plan
- Manufacturer Property Damage Settlement
- County continues to explore additional opportunities through MassDEP, EPA, Legislation, etc.



# Cleanup Price Tag

## One Time Costs

IRA, Phase II, III & IV – Site Assessment, Remedial System Selection, Design and Construction

- Includes Pond, Soil and Groundwater Components
- **Total Anticipated Cost = \$20 to \$59 Million (present to 3/31/28)**

## Recurring Costs

Town of Barnstable Mary Dunn Wells Treatment System Settlement 2017

- County pays Town for \$2.95 Million in damages over 20-year duration
- **Total Cost = \$3.67 Million over 20-year duration (2017 to 2037), average annual cost \$183,750**
- Reimburse Town for O&M Costs (Required through duration of treatment operation as required by regulations)
- **Total Cost = \$228,000 estimated annual cost**

IRA State Revolving Fund Site Capping Loan

- **Total Cost = \$1.4 Million over 20-year duration (FY 25 to FY 45), estimated \$70,000 annual cost**

Annual Operations - Fund 8099 (Required from 2015 start of treatment system until site closure)

- Treatment System O&M and Professional Services
- Cost will likely increase with expanded groundwater treatment system
- **Total Cost = \$640,000 for FY 24**



# MassDEP Project Schedule

- Immediate Response Actions.....Ongoing until Phase IV Completion
- Phase II – Interim 6 Month Status Reports.....12/23, 6/24, 12/24
- Phase II – Comprehensive Site Assessment.....4/30/25
- Phase III – Remediation Evaluation and Selection.....Within 365 days of Phase II
- Phase IV – Remediation Design.....Within 365 days of Phase III
- Phase IV – Permanent or Temporary Solution.....3/31/28
  - Groundwater Operable Unit
  - Soil Operable Unit
  - Flint Rock Pond Operable Unit
- Phase IV – Treatment System Operations, LSP Reporting.....Ongoing until project closeout

\*\*\*All dates subject to change per coordination with MassDEP\*\*\*



# Discussion & Questions



# Thank You!

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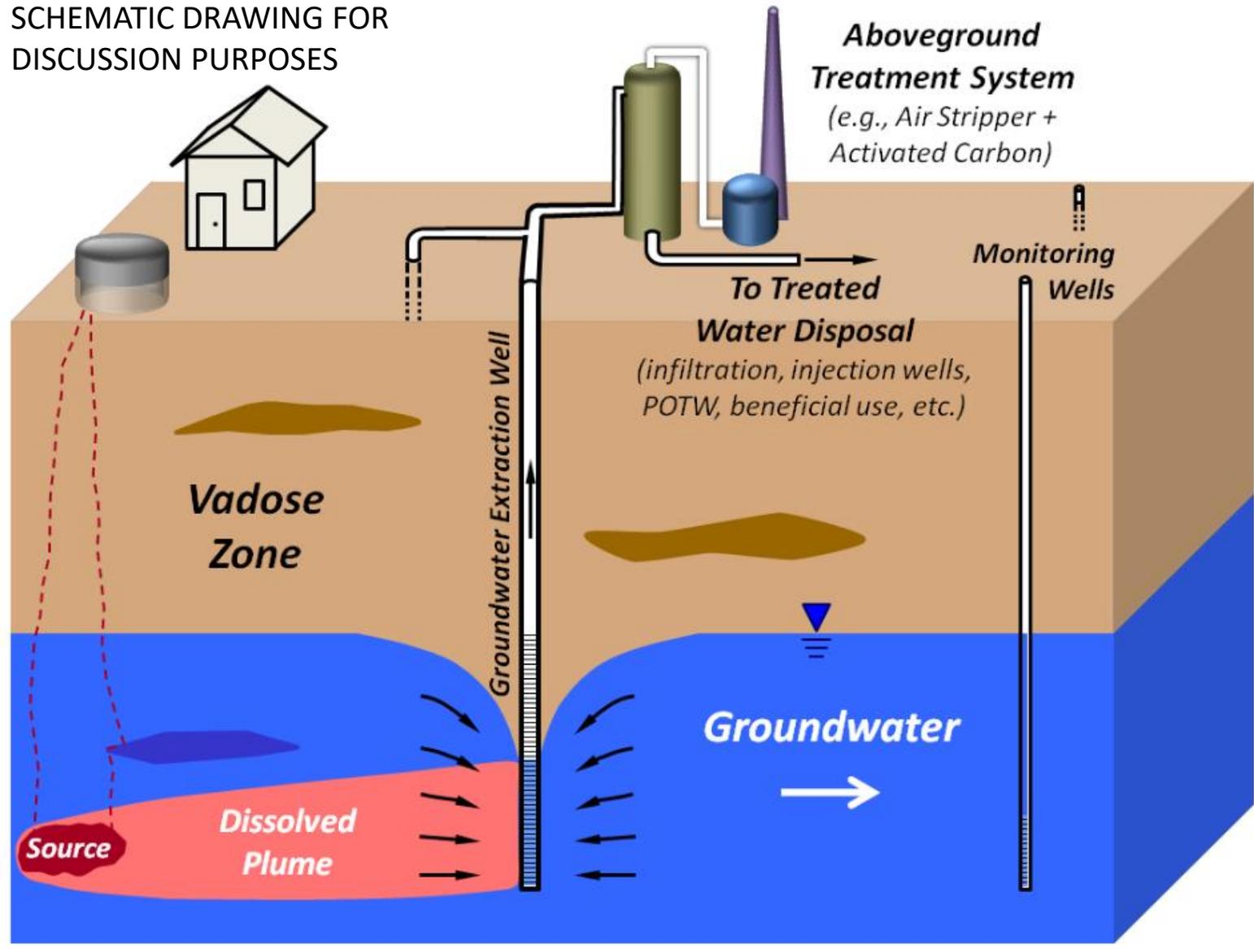
# Reference Slides

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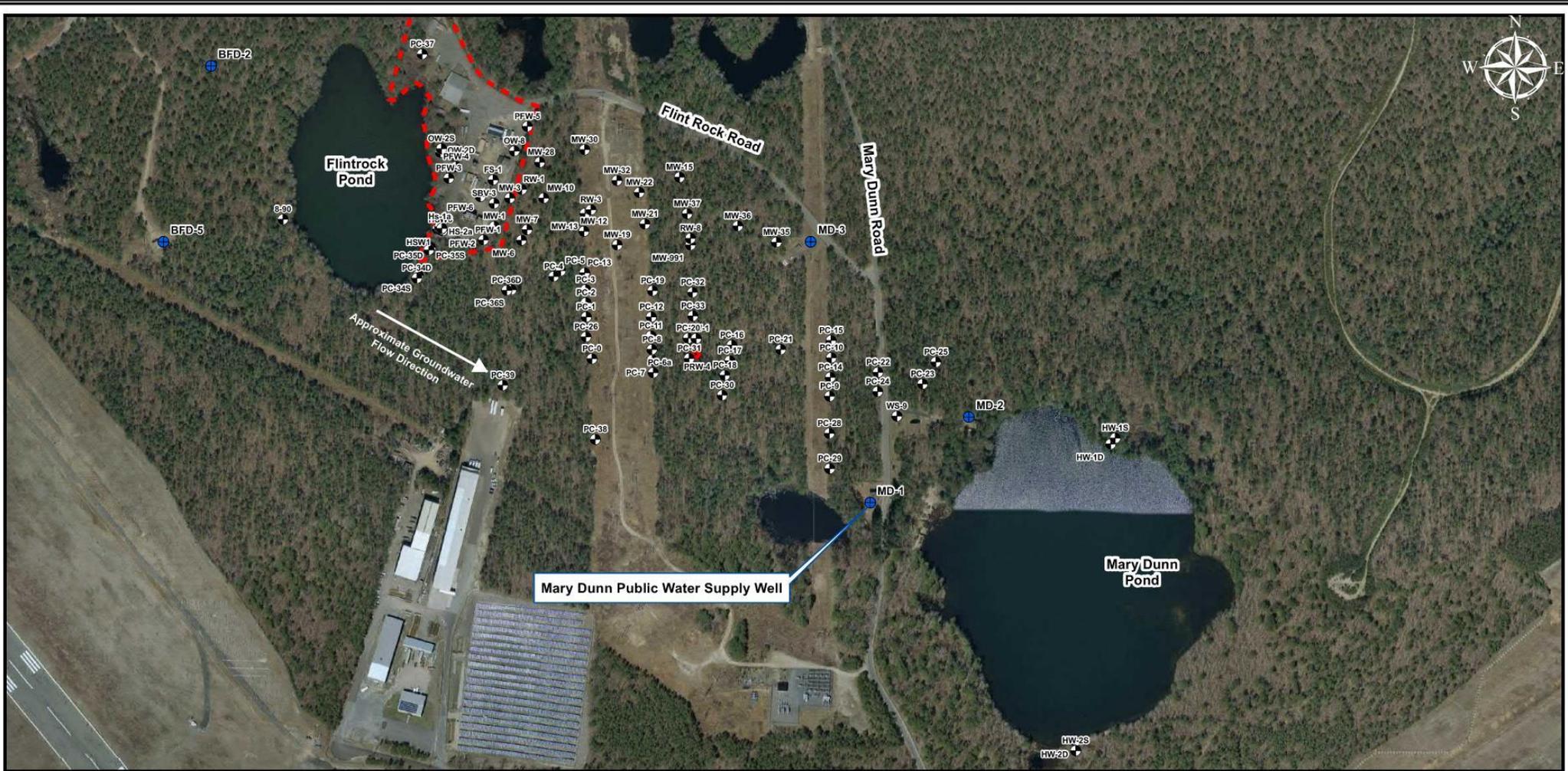
# Groundwater Treatment System Expansion



SCHEMATIC DRAWING FOR DISCUSSION PURPOSES



- Expanded system will include additional groundwater extraction wells and treatment system components
- Anticipated schedule
  - Design phase 2024
  - Construction phase 2025



**FIGURE 2A - SITE PLAN**

**Barnstable County Fire & Rescue Training Academy**

**155 South Flint Rock Road,  
Barnstable, MA**

**Legend**

-  Monitoring Wells
-  Groundwater Pump & Treatment System Recovery Well (PRW-4)
-  Public Water Supply Wells
-  Barnstable County Fire & Rescue Training Academy Facility



Source: Google Ortho Imagery 2013 & MassGIS Standardized Level 3 Assessors Parcel 2013

Created By: GRC 04/26/18 Revised By: MDM 08/20/19



# Status – Current Treatment System

