

# Former National Fireworks Site Hanover, Massachusetts

Massachusetts Contingency Plan (MCP)

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Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

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Department of Environmental Protection

# Former National Fireworks Site

## Site Background

- Site comprises approximately 240 acres of property generally located between King and Winter Streets in Hanover
- Historical activities at the Site included research, development, manufacture and testing of munitions and pyrotechnics for the United States Government, some commercial manufacture of civilian fireworks and other non-munitions related manufacturing from 1907-1970
- Mercury, lead, organic solvents, and propellants & explosives, were used in manufacturing operations at the Site



# Former National Fireworks Site

## Site Background Continued

- Several companies, including National Fireworks, Inc., operated at the Site until approximately 1970
- An industrial park currently operates in the northern and eastern portions of the Site
- The Town of Hanover purchased approximately 130 acres of the Site in the 1970s



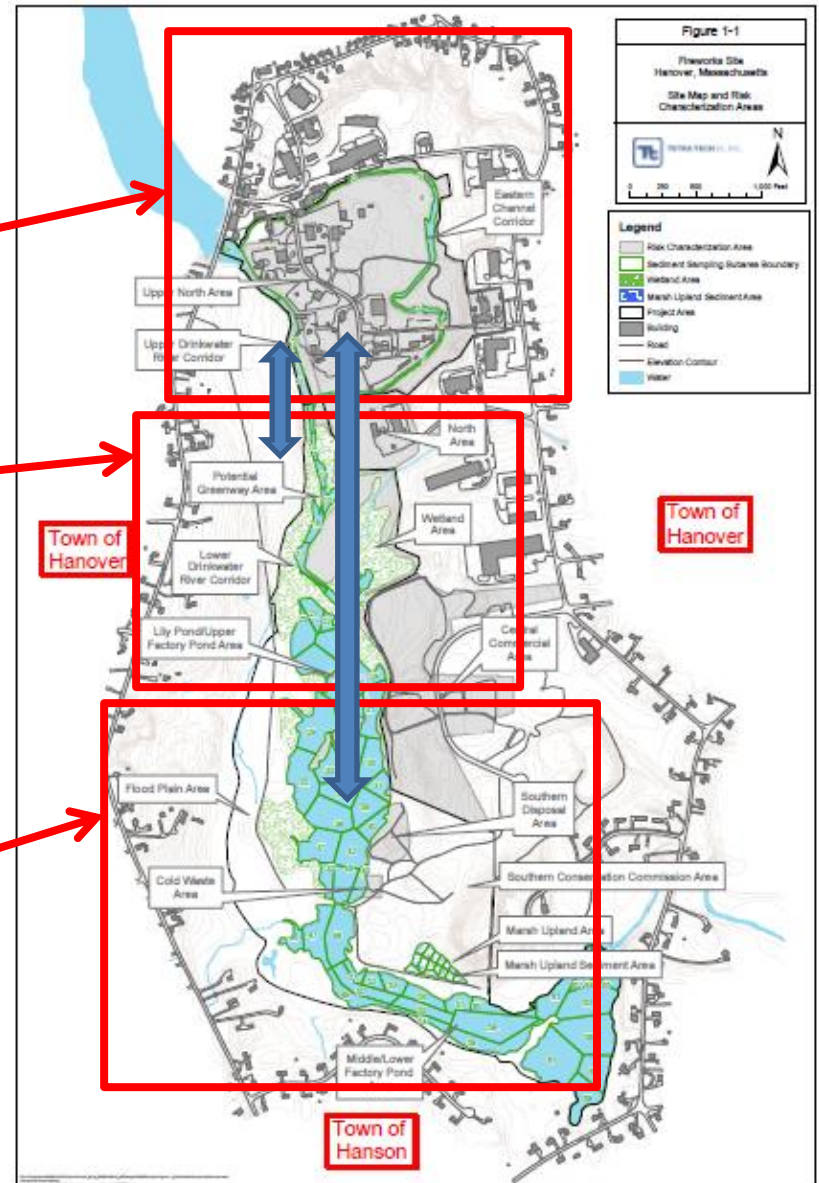
# Former National Fireworks Site

Approximate  
Site Layout

Manufacturing

Storage

Testing/Disposal



# Who is Responsible for Cleanup?

## Potentially Responsible Parties (PRPs)

- Fireworks Site Joint Defense Group (FSJDG)
  - National Coating Corporation
  - Massachusetts Institute of Technology
  - Kerr-McGee Chemical Corporation (Tronox-Bankrupt)
    - Tronox filed for bankruptcy in January 2009
    - Expendable Trust (\$68 M) established for reimbursement or payment of response action costs on February 25, 2011
    - Trustee (MassDEP Commissioner) determines reimbursement
- U.S. Department of Defense (Army, Air Force and Navy)
- All property owners where Site contaminants have come to be located



# Regulatory Phased Process

## Overview

- MassDEP tasked with ensuring the cleanup of oil and hazardous material through M.G.L. Chapter 21E and the Massachusetts Contingency Plan (310 CMR 40.0000 et seq. – the MCP)
- A Licensed Site Professional (LSP, Larry Kahrs, Tetra Tech, Inc.) is hired by the potentially responsible party/parties to conduct the investigations, recommend necessary actions, oversee response actions, document findings in reports and certify that the work was done in accordance with the MCP
- Typically, MassDEP provides regulatory oversight through audits of site work and documents; however, due to complexity of the Site, MassDEP is providing direct oversight of response actions, including work plan review, throughout the phased process
- MassDEP reviews and authorizes reimbursement or payment from the Expendable Trust for response action costs at the Site



# Regulatory Phased Process

## Overview Continued

- The MCP prescribes a phased approach to investigate and cleanup oil and hazardous material for the protection of human health, safety, public welfare, and the environment
  - **Phase I: Initial Site Investigation**
    - General site information, history, hydrogeological characteristics, migration pathways, IRA evaluation
  - **Phase II: Comprehensive Site Assessment**
    - Extent of contamination and Risk Characterization
    - Supplemental Phase II submitted to MassDEP on 7/2/2018
  - **Phase III RAP: Remedial Action Plan**
    - Evaluation and selection of cleanup alternatives to achieve closure/No Significant Risk (NSR)
    - Final RAP submitted on 12/4/2020, conditionally approved on 6/24/21



# Regulatory Phased Process

## Overview Continued

- **Phase IV RIP: Remedy Implementation Plan**
  - Engineering design, construction plans and specifications for the response
  - Operation, maintenance and/or monitoring, & implementation of selected cleanup alternative
  - Phase IV RIP due July 2022
- **Phase V: Operation, Maintenance, and/or Monitoring**
  - Operation & Maintenance of selected cleanup alternative
  - Monitoring to determine effectiveness of cleanup alternative
- **Permanent/Temporary Solutions with or without Conditions and Activity and Use Limitations (AULs)**





# Regulatory Phased Process

## Findings

- Phase II findings review:
  - Mercury detected in sediment, soil, groundwater and fish tissue
  - Lead and other metals detected in soil, groundwater and sediment
  - Volatile Organic Compounds have been detected in soil, groundwater and sediment at the Site



# Regulatory Phased Process

## Findings Continued

### ➤ Risk Characterization

- Identifies and evaluates Site conditions to characterize risk of harm to (human) health, safety, public welfare and the environment

### ➤ Phase II Risk Characterization findings:

- No public or private water supply wells have been impacted by the contaminants released at the Site
- Potential risk from direct contact with contaminant-impacted soil
  - Southern site access is restricted & patrolled by Hanover PD
  - Impacted soil will be excavated and disposed of off-Site
- Risks to people, fish-eating birds and wildlife from ingestion of contaminants found in fish
  - Fish advisory in place
  - Remedial action planned to remove impacted sediment
- Unexploded munitions recently identified in Factory Pond
- Access is restricted until removal can be completed



# Regulatory Phased Process

## Findings Continued

- The MCP also mandates the implementation of Immediate Response Actions (IRAs) to eliminate Imminent Hazards (i.e., immediate threats to human health, safety, public welfare or the environment)
  - Munitions response work currently ongoing at the Site
  - Process for unexploded munitions removal will likely include an Activity and Use Limitation (AUL), to include signage & a public education program to Recognize, Retreat and Report
- The MCP provides for public involvement opportunities at various points throughout the phased process



# Former National Fireworks Site List of Contacts

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