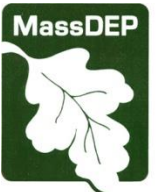


# **Investigation of Waste Material in the Bliss Corner Neighborhood Dartmouth, Massachusetts**

Gerard Martin

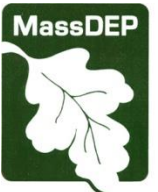
Massachusetts Department of Environmental Protection

October 1, 2019



# Tonight's Agenda

- March 2019 public meeting recap
- Right-of-way sampling results
- Homeowner soil-sampling results
- Responses to Requests For Information
- Involvement of other agencies
- Next steps
- Questions



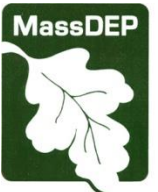
# Recap of March 21, 2019 Public Meeting

- July 2018 - inspection of odor complaint at 85 McCabe Street identified waste material and buried drums containing unknown material
- August 2018 - LSP for 85 McCabe Street provided historic newspaper articles that indicated dumping activities occurred in the Bliss Corner neighborhood dating back to the 1930s
- Soil sampling conducted by owner of 85 McCabe Street identified metals, volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs)
- No Imminent Hazards identified at 85 McCabe Street



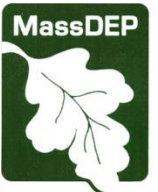
# Recap of March 21, 2019 Public Meeting

- October 2018 - Inspection of 20 and 21 Kraseman Street, and 31 McCabe Street identified similar waste material
- Property owner collected soil samples
- December 2018 - PCBs were detected at 20 Kraseman at levels that could pose an Imminent Hazard
- January 2019 - MassDEP sampled private wells in neighborhood and found no exceedances of the Drinking Water Standards
- January 2019 - MassDEP issued RFIs to New Bedford and Dartmouth



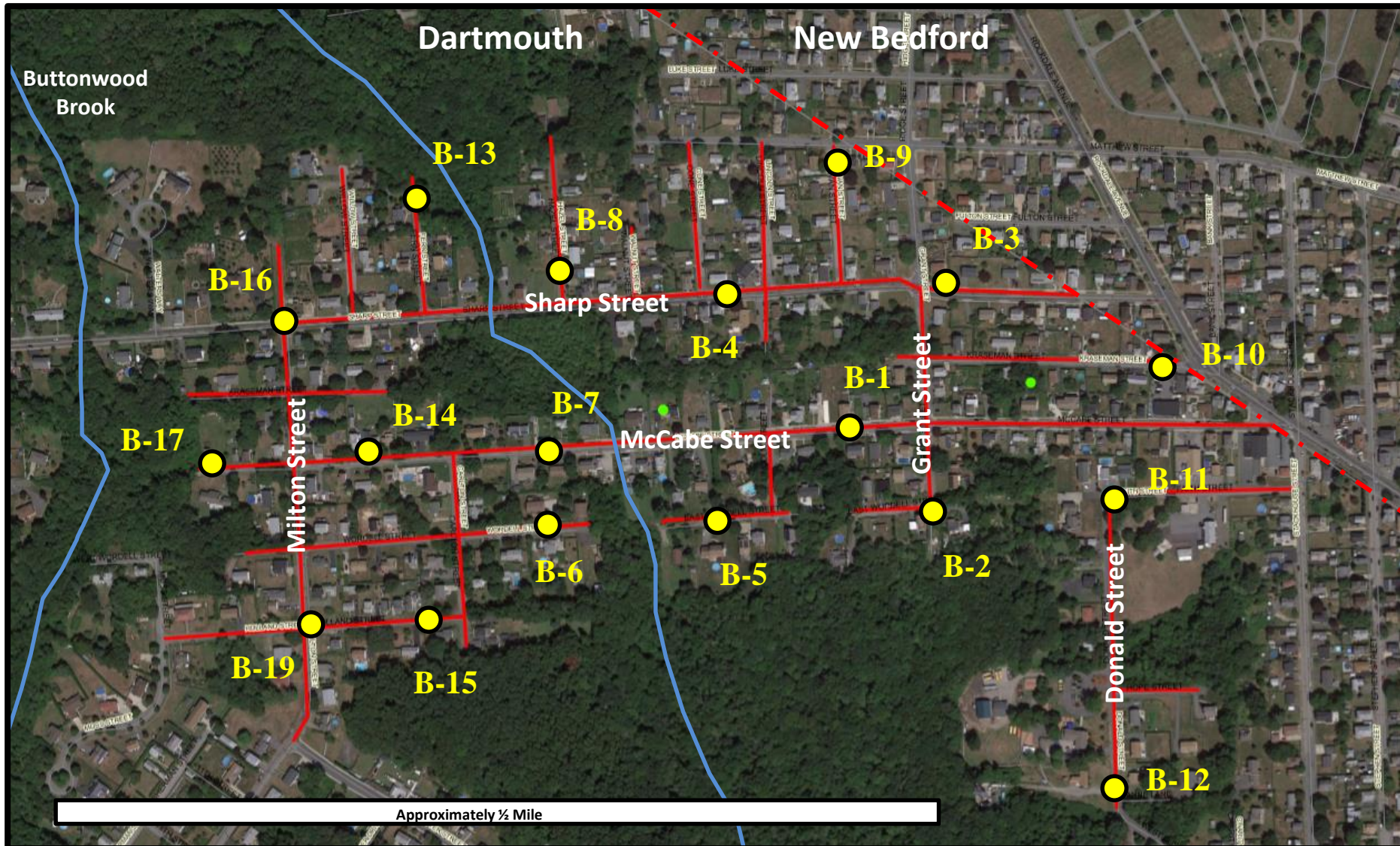
# Right-of-Way Soil Sampling

- Town of Dartmouth granted access to street rights-of-way
- May 6-8, 2019 - 18 soil borings were advanced throughout the neighborhood
- Each boring was advanced to a depth of 10 feet below the ground surface, and completed as a monitoring well
- Soil was screened at each location using a photoionization detector (PID) for volatile organic compounds (VOCs)
- One soil sample was collected from each location and submitted for laboratory analysis of PCBs, metals, VOCs, SVOCs and extractable petroleum hydrocarbons (EPH)



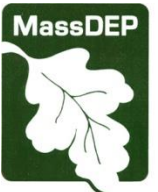


# Soil Boring/Monitoring Well Locations



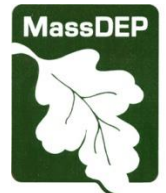
# Right-of-Way Soil Sampling Results

- A fill layer was observed at 9 of the 18 locations, ranging in depth from 3 to 24 inches below the ground surface
- Coal ash, clinkers, glass, and brick were identified in fill layer
- PID screening results indicated that volatile organic compounds (VOCs) were not present in any sample
- Contaminants were detected at concentrations above MCP Standards for soil in a residential setting (S-1 Standards) at 4 locations:
  - PAHs at B-1 and B-7
  - Lead at B-5, B-7, and B-12
  - PCBs at B-12



# Right-of-Way Groundwater Sampling

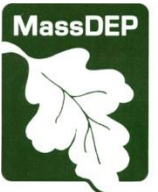
- May 30 - June 4, 2019, MassDEP collected groundwater samples from 15 of the 18 monitoring wells
- Depth to groundwater ranged from approximately 1 to 8 feet below ground surface
- One groundwater sample was collected from each well using low-flow sampling techniques
- Samples were submitted for laboratory analysis of PCBs, metals, VOCs, SVOCs, and EPH
- Sampling results were compared to MassDEP's Groundwater Standards for groundwater categories GW-1, GW-2, and GW-3





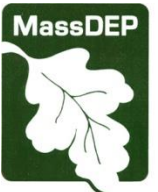
# Groundwater Categories

- **Category GW-1-** Groundwater that is used as drinking water
  - The only groundwater categorized as GW-1 within the current investigation area is groundwater that is located within 500 feet of the 4 private water supply wells
- **Category GW-2-** Groundwater that is located less than 15 feet below the ground surface where there is a building on the land above the groundwater
  - Intended to address potential migration of volatile contaminants from the groundwater into indoor air
  - All groundwater in the investigation area is categorized as GW-2
- **Category GW-3-** All groundwater in Massachusetts
  - GW-3 Standards are intended to address potential migration of contaminants to surface waters and risk to aquatic organisms



# Right-of-Way Groundwater Sampling Results

- No contaminants were detected above GW-1 Standards within the drinking water source areas
  - Benzene and pentachlorophenol were detected in groundwater samples from MW-4 and MW-11, respectively; however both locations are greater than 150 feet outside the GW-1 area
- No contaminants were detected above GW-2 Standards
- Lead was detected at MW-5 above the GW-3 Standard



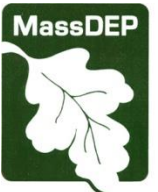
# Key Information Gained From Right-of-Way Sampling

- Waste material/fill layer is shallow and fairly narrow across the study area, ranging in depth from a few inches to approximately 2 feet below the ground surface
- Analytical results assisted MassDEP in developing a list of contaminants of concern
- No VOCs were detected in soil or groundwater samples
  - the volatilization of contaminants into indoor air, including through use of a basement sump pump, is not a concern



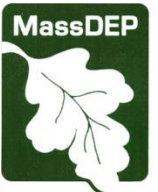
# Residential Soil Sampling

- July 2019 - 5 properties sampled
  - Properties were prioritized based on proximity to the 85 McCabe Street and the 20 Kraseman Street lots
  - Five soil samples were collected from each lot for analysis of PCBs, metals, and PAHs
  - Evidence of a waste/fill layer was identified at all properties
  - No PCBs were detected above 1 ppm (residential standard)
  - Lead was detected at concentrations exceeding the residential standard



# Residential Soil Sampling

- September 2019 - 10 properties sampled
  - Properties within the investigation area whose owners contacted MassDEP to request soil sampling
  - Three soil samples were collected from each lot for PCBs, metals, and PAHs analysis
  - Awaiting analytical results from the laboratory



# Response Actions at 20 Kraseman Street

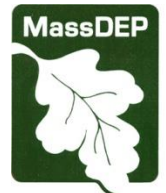
- May 2019 - MassDEP installed chain link fence around the 20 Kraseman Street lot to limit access to PCB-contaminated soils that posed an Imminent Hazard to human health
- July 2019 - MassDEP collected 11 soil samples from the adjoining lots (21 Kraseman Street and 31 McCabe Street)
- Sampling identified PCBs at 169 ppm at one sampling location on 21 Kraseman Street, posing a potential Imminent Hazard
- This sampling location has been temporarily covered with polyethylene sheeting to limit contact
- Lead was detected in soil on both lots above residential standards





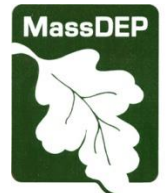
# How to Minimize Exposure

- Avoid direct contact with waste material
  - Refrain from digging until MassDEP completes its investigation
  - If digging is necessary, wear protective clothing, footwear and gloves
  - If you plan to dig, MassDEP recommends you notify the Town of Dartmouth Board of Health by calling (508) 910-1804
- Avoid growing fruits and vegetables in waste material
  - MassDEP recommends following “*Best Management Practices (BMPs) for Non-Commercial Gardening at Disposal Sites*” (WSC#14-910), which can be found at:  
<https://www.mass.gov/files/documents/2016/08/om/14-910.pdf>



# Requests For Information (RFIs)

- January 2019 - MassDEP issued RFIs to the City of New Bedford and Town of Dartmouth requesting information related to sources and transportation of waste material
  - New Bedford found no responsive documents
  - Dartmouth Board of Health Minutes from the 1950s indicate:
    - permission was granted to certain property owners to have the City of New Bedford fill their lots with “tin cans and ashes”
    - unpermitted dumping by various parties was also prevalent in the neighborhood
- August 2019 - MassDEP issued a second RFI to the Dartmouth Board of Selectmen requesting information relative to former junkyards in the Bliss Corner neighborhood
  - Submission deadline is November 1, 2019



# Involvement of Other Agencies

- Massachusetts Department of Public Health (DPH)
  - Continues to work with MassDEP to listen to residents' concerns
- US Environmental Protection Agency (EPA)
  - MassDEP continues to provide updates on the status of the investigation to EPA
  - MassDEP has requested EPA's assistance with the investigation



# Next Steps

- MassDEP remains responsive to private property owners who would like their soil sampled
- MassDEP will continue to monitor the groundwater in the vicinity of the private water supply wells
- MassDEP is conducting a risk assessment to determine human health risks associated with the contamination, particularly elevated levels of lead in soil
- MassDEP is currently evaluating available options for remediation of contaminated soils
- MassDEP continues to collect information relative to identifying potentially responsible parties



# Questions?



# Contact Information

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- Lori Williamson, MassDEP BWSC SERO  
[lori.williamson@mass.gov](mailto:lori.williamson@mass.gov)  
(508) 946-2803
- MassDEP's Bliss Corner webpage:  
<https://www.mass.gov/service-details/bliss-corner-neighborhood-dartmouth-ma>

