



Mottolo Superfund Site

Proposed Plan

Kelsey O'Neil, EPA
Drew Hoffman, NHDES
Steve Mangion, EPA
Mike Jasinski, EPA



Meeting Agenda

- **Introductions and Purpose -- Kelsey O'Neil (EPA)**
- **Site Background/Update – Drew Hoffman (NHDES)**
- **Bedrock Investigation and Pumping Test Findings – Stephen Mangion (EPA)**
- **Focused Feasibility Study and Remedial Alternatives – Michael Jasinski (EPA)**
- **EPA's Proposed Plan – Michael Jasinski (EPA)**
- **Questions and Answers – Kelsey O'Neil (EPA)**



What's Ahead

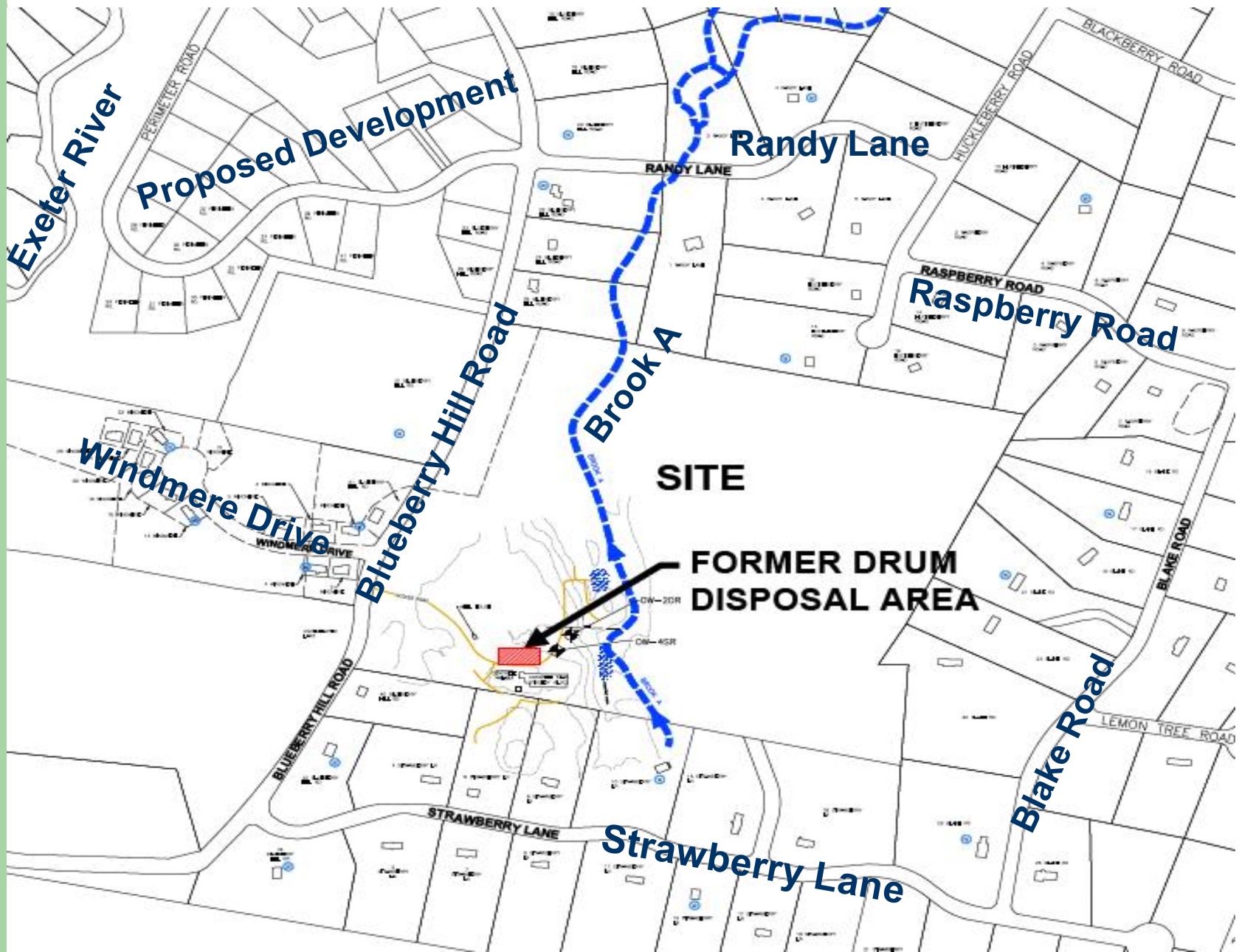
- Brief orientation (DES)
- Recent bedrock investigations (EPA)
- Proposed Plan (EPA)
- Questions & discussion



Orientation

- Site Orientation
- EPA's Third Five-Year Review
- Expanded residential well monitoring & findings
- Unanswered questions

Site Location & Orientation





Orientation

- Site Orientation
- EPA's Third Five-Year Review
- Expanded residential well monitoring & findings
- Unanswered questions



EPA's 3rd Five-Year Review

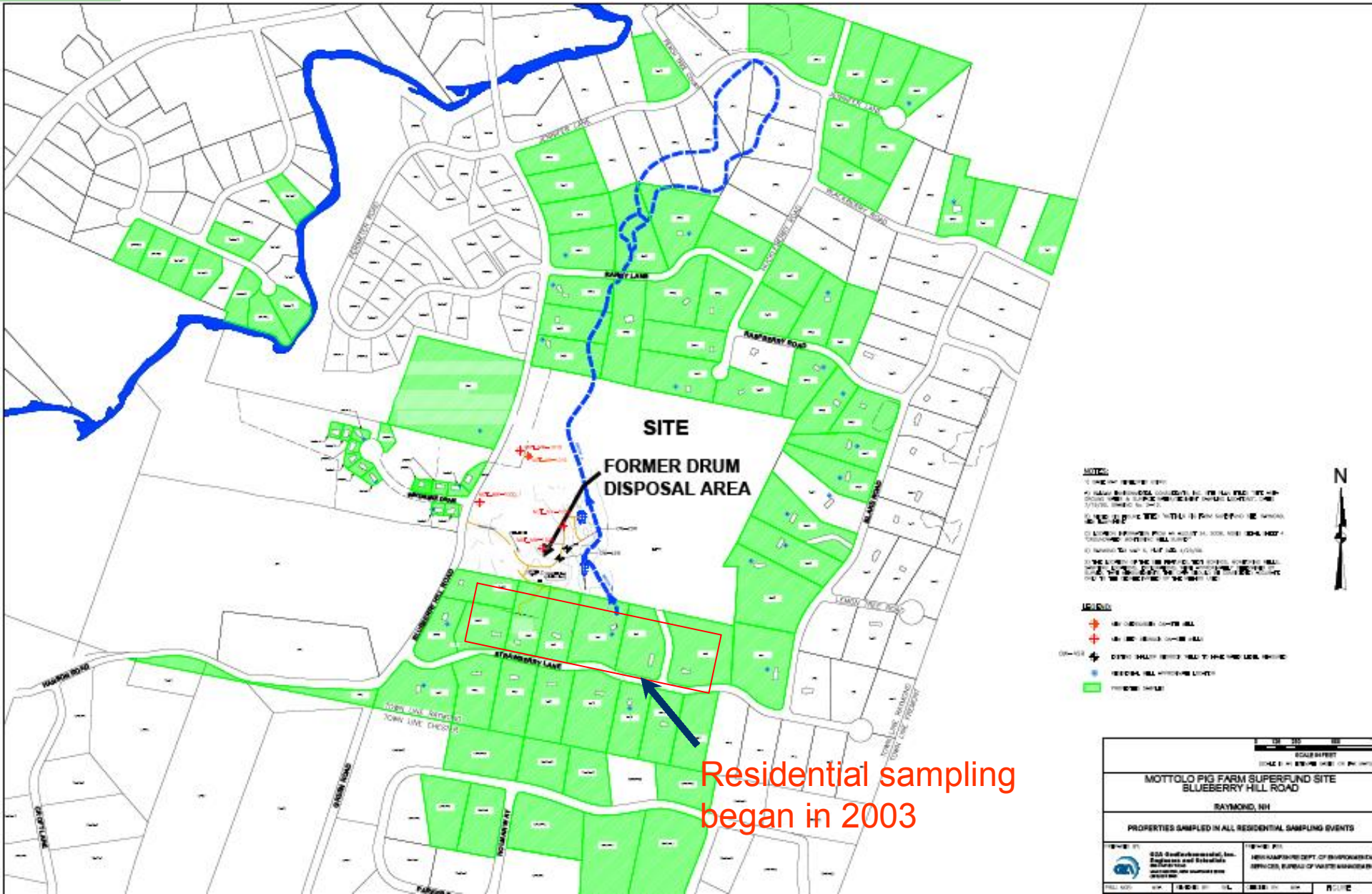
- Completed August 2008
- Questioned the protectiveness of remedy
 - Increasing concentrations of TCE & arsenic in several on-site monitoring wells
 - Increased residential development



Orientation

- Site Orientation
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- Expanded residential well monitoring & findings
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2009-2010 Residential Well Sampling

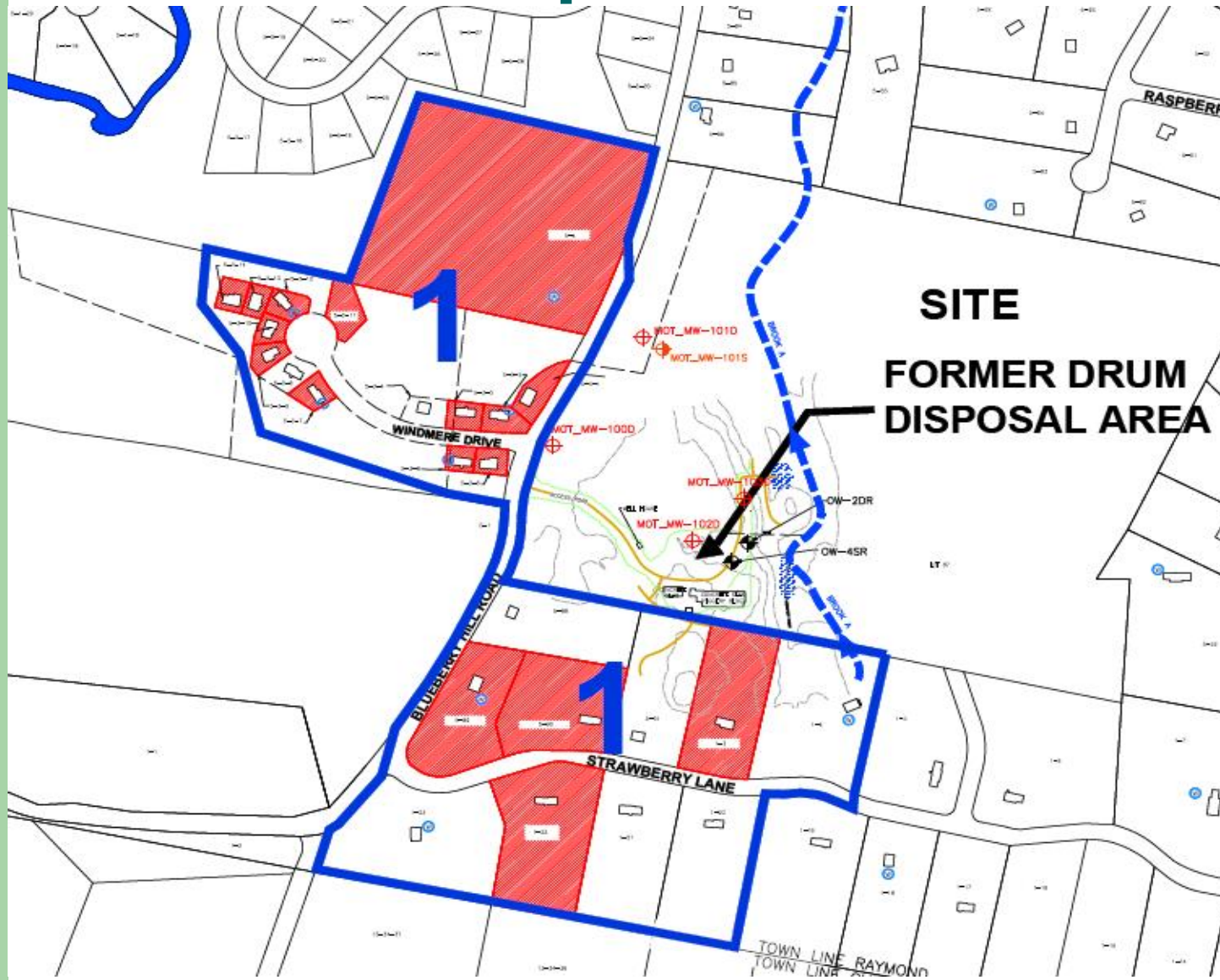




2009 Investigation Findings

- **Windmere Drive area -- TCE present and elevated arsenic levels likely associated with site groundwater chemistry;**
- **Strawberry Lane area -- Similar to naturally occurring distributions of arsenic that are typical of southeastern New Hampshire, TCE historically present.**

Residence Impacted





Orientation

- Site Orientation
- EPA's Third Five-Year Review
- Expanded residential well monitoring & findings
- **Unanswered questions**



Unanswered Questions

- Is Area 1 (Windmere and Strawberry) the extent of potential impacts?
- Additional investigations performed in spring 2010



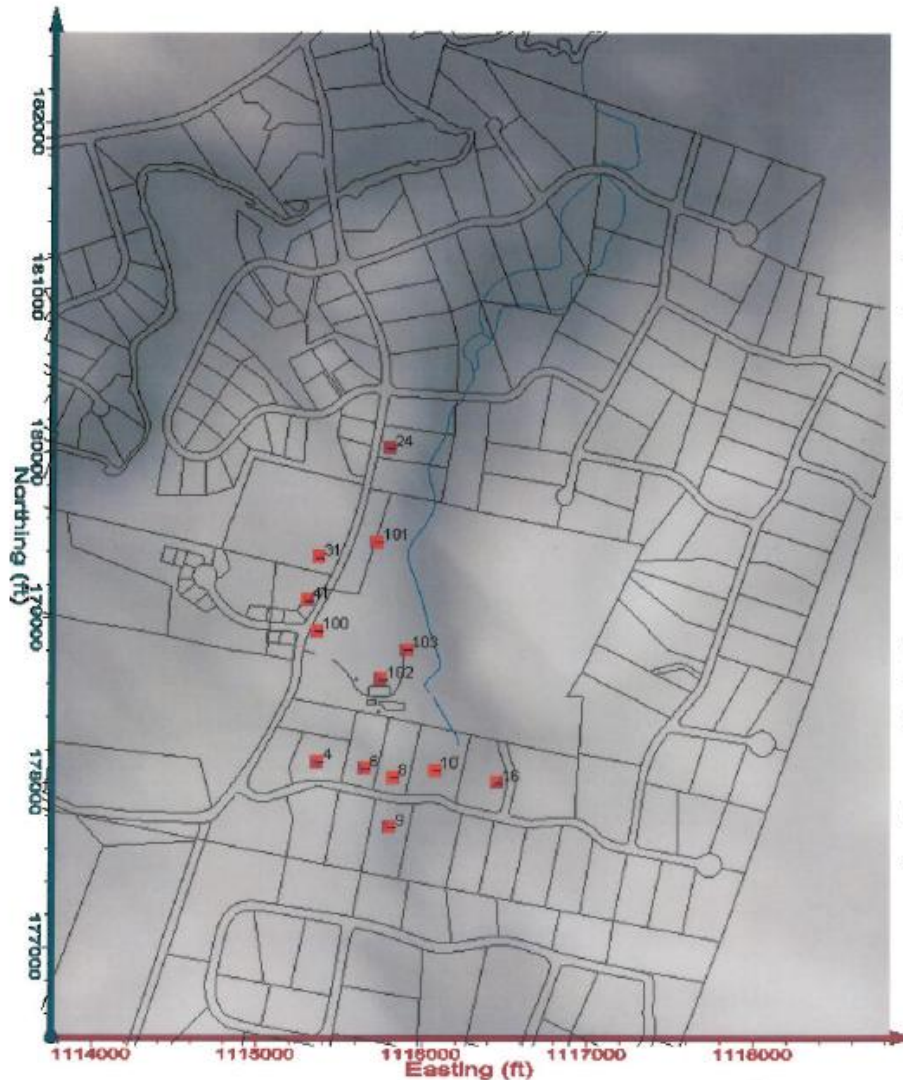
What's Ahead

- Brief orientation (DES)
- **Recent bedrock investigations (EPA)**
- Proposed Plan & Next Steps (EPA)
- Questions & discussion

Local Bedrock Outcrop



Bedrock Study Wells



Mottolo Superfund Site Raymond, NH

Wells logged by
Hager-Richter (2010):

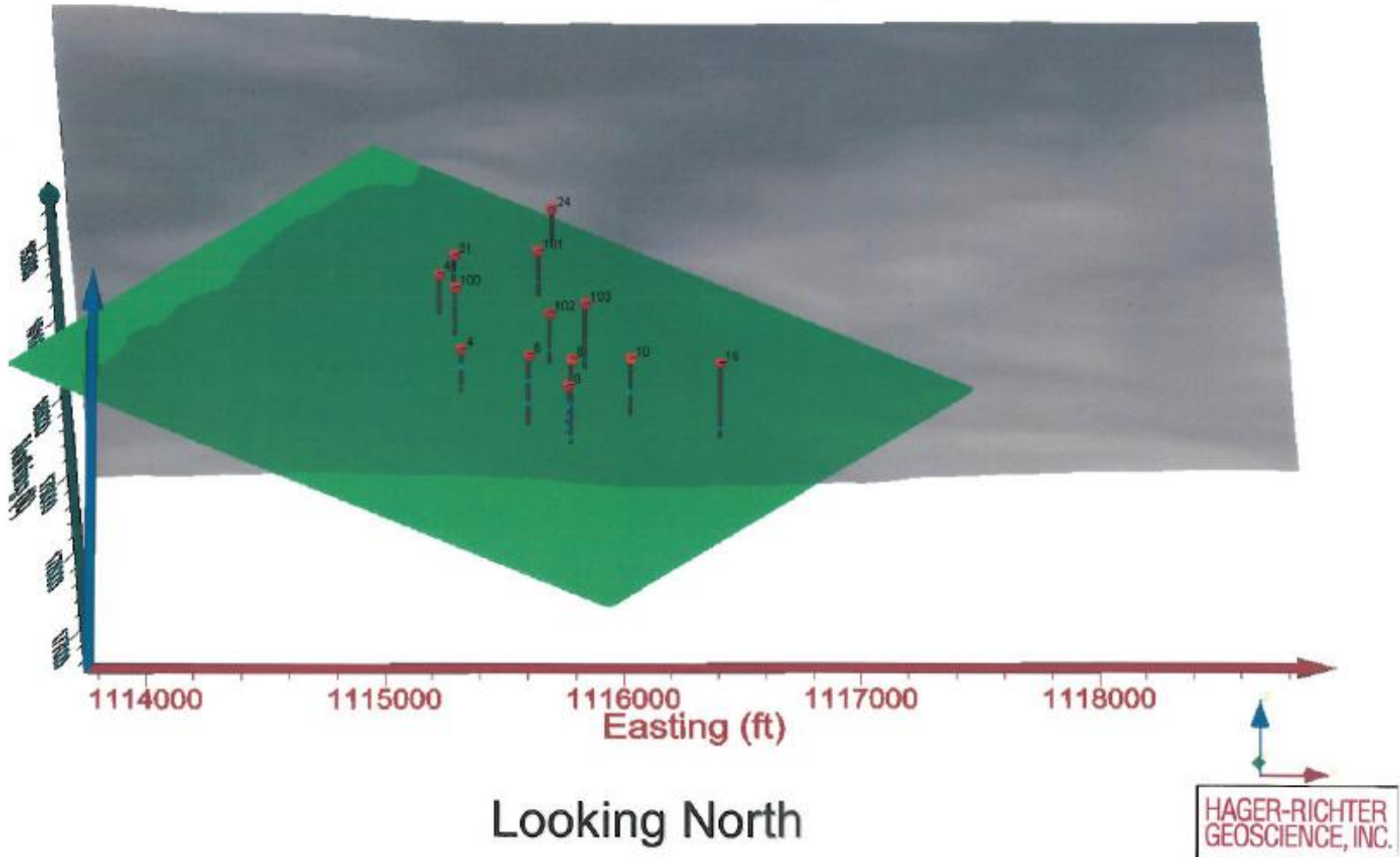
24, 31 & 41
Blueberry Hill Road
MW_100, 101, 102 & 103
on Mottolo property

Wells logged by USGS
(2003):

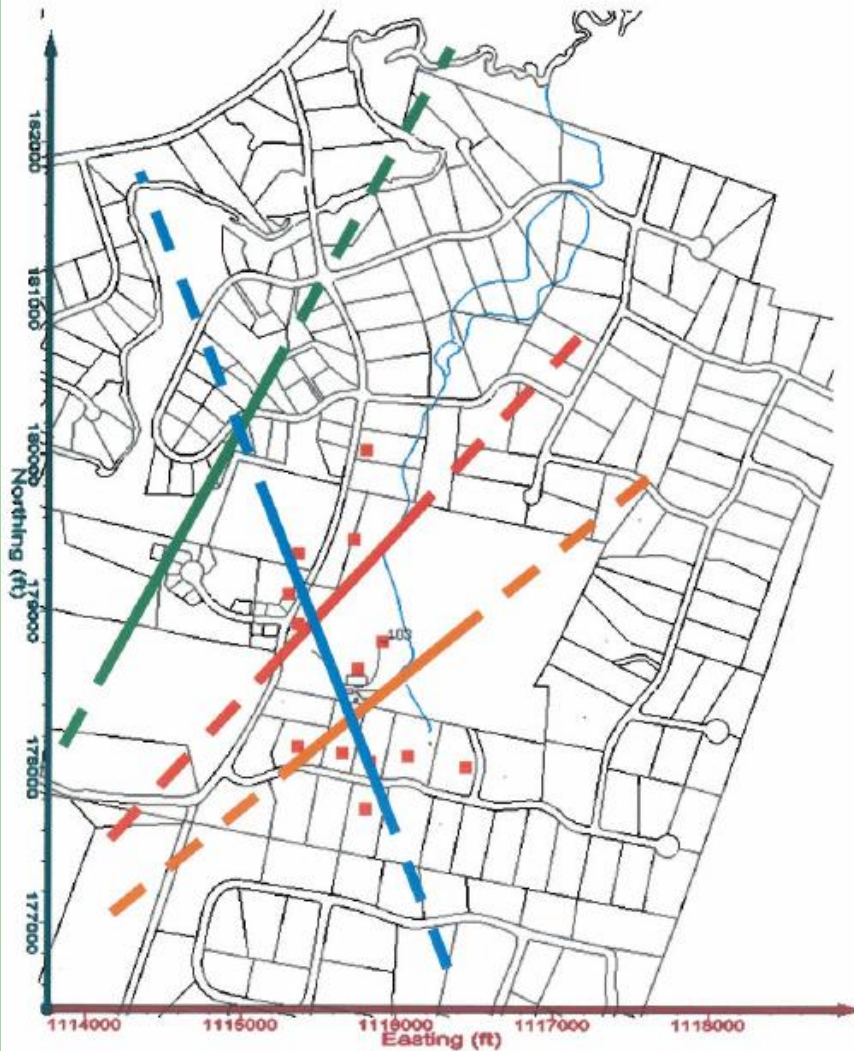
4, 6, 8, 9, 10 & 16
Strawberry Lane

Fracture Example

Strike 030° / Dip 11.5° SE



Surface Traces of Bedrock Fractures



- Strike 340° / Dip 37° NE
- Strike 044° / Dip 35° NW
- Strike 050° / Dip 43° NW
- Strike 030° / Dip 11.5° SE





What's Ahead

- Brief orientation (DES)
- Hydrogeological investigations (EPA)
- **Proposed Plan (EPA)**
- Questions & discussion



Mottolo Pig Farm

Raymond, NH

U.S. EPA | HAZARDOUS WASTE PROGRAM AT EPA NEW ENGLAND



THE SUPERFUND PROGRAM protects human health and the environment by locating, investigating, and cleaning up abandoned hazardous waste sites and engaging communities throughout the process. Many of these sites are complex and need long-term cleanup actions. Those responsible for contamination are held liable for cleanup costs. EPA strives to return previously contaminated land and groundwater to productive use.

YOUR OPINION COUNTS: OPPORTUNITIES TO COMMENT ON THE PLAN

EPA will be holding a Public Informational Meeting to present its proposed cleanup plan. EPA will also answer any questions residents may have regarding this cleanup proposal.

EPA will also be holding a formal Public Hearing where residents can provide oral comments on EPA's proposed plan that will be entered directly into the public record. To learn more about the details of providing formal comments, please see the section below titled "What is a Formal Comment."

In addition, EPA will be accepting written comments on this cleanup proposal from August 5 - September 4, 2010. You do not have to be a technical expert to

comment. If you have a concern or preference or support EPA's proposed cleanup plan, EPA wants to hear from you before making a final decision on how to protect your community.

*Public Informational Meeting
Wednesday - Aug 4, 2010
at 6 p.m.*

*Formal Public Hearing
Wednesday - Sept 1, 2010
at 6 p.m.*

*Both will take place at:
Raymond High School Cafeteria
45 Harriman Hill Rd.
Raymond, NH 03077*

SUMMARY OF THE PROPOSED PLAN

Based on new information collected at the Mottolo Pig Farm Superfund Site (the Site) in 2009-2010 (Figure 1), EPA is proposing to amend the 1991 Record of Decision (ROD) to change the cleanup approach for addressing contaminated groundwater due to the fact that contaminated groundwater has subsequently migrated from the Mottolo property into nearby residential wells. The 1991 ROD selected natural attenuation of groundwater as a component of the overall remedy at the Site following the successful implementation of source control remedial actions. EPA is proposing a fundamental change to supplement natural attenuation of groundwater with the following:

Extend the existing Town of Raymond public water supply main approximately two miles to provide alternate water to approximately 25 residents generally in Area 1, as depicted on Figure 1. In addition, long-term monitoring and institutional controls will be required. The estimated total

continued >

KEY CONTACTS:

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superfund/sites/
mottolo

Focused Feasibility Study & Proposed Plan

- Evaluation of Supplied Water Options
 - Focused Feasibility Study (April - July 2010)
- **Proposed Plan (July 2010)**
- Public Comment Period (Aug 5 – Sept 4, 2010)
- EPA Decision (September 2010)
- Funding & implementation to be discussed (EPA, DES & Town)

**TABLE 4-2 COMPONENTS OF GROUNDWATER/DRINKING WATER REMEDIAL
ALTERNATIVES**

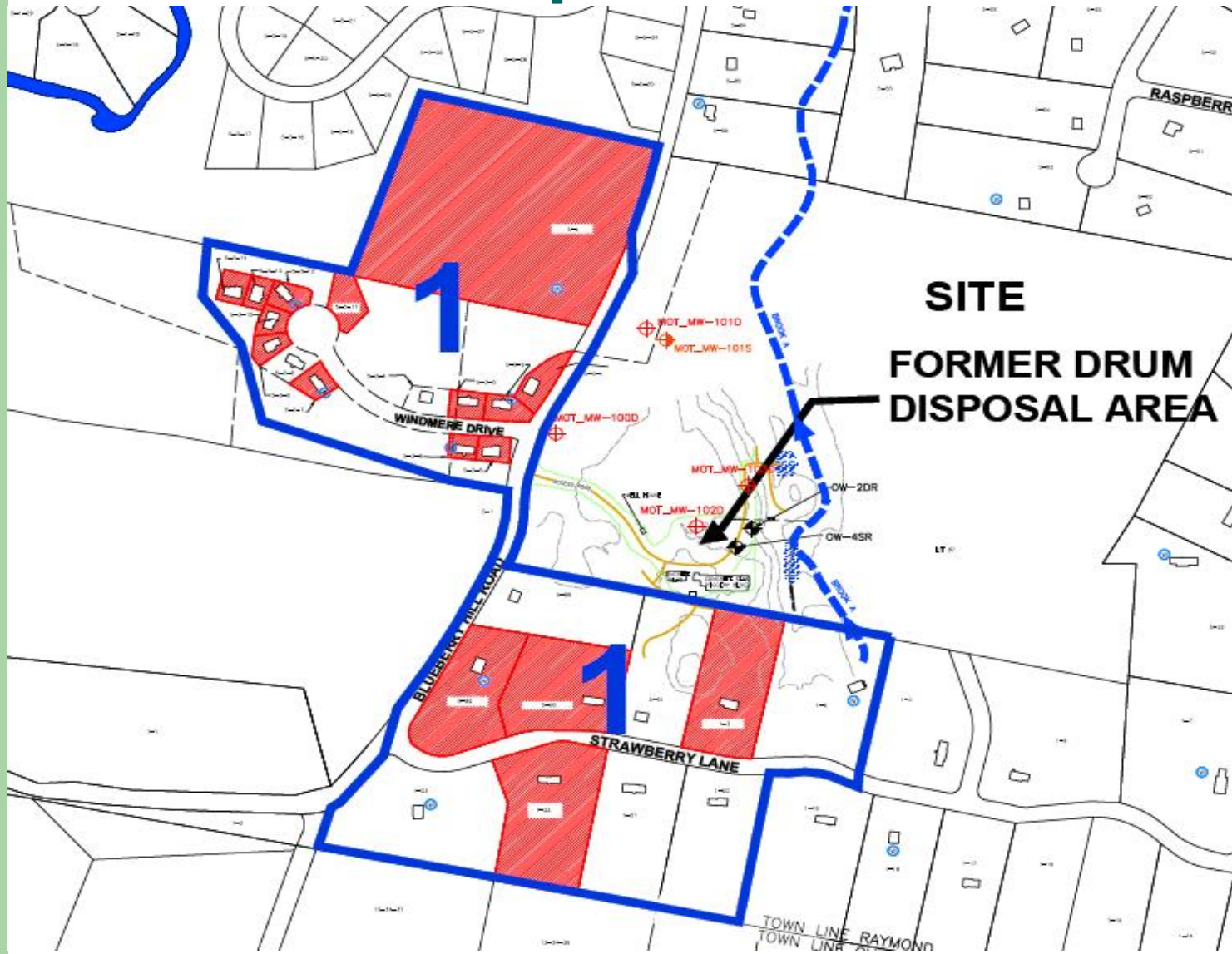
Mottolo Pig Farm Superfund Site
Raymond, New Hampshire

ALTERNATIVE	KEY COMPONENTS
GW-1: No Action	<ul style="list-style-type: none"> • Monitoring (Water Level Monitoring and Residential Well Sampling) • Five-year site reviews
GW-2: Extension of Public Water Supply	<ul style="list-style-type: none"> • Extend Existing Municipal Water Supply Line • Institutional Controls • Monitoring (Water Level Monitoring and Residential Well Sampling) • Five-year site reviews
GW-3: Whole House Treatment Systems	<ul style="list-style-type: none"> • Install Whole House Treatment Systems • Institutional Controls • Monitoring (Water Level Monitoring, Residential Well Sampling, and Whole House Treatment System Monitoring) • Five-year site reviews

EPA Criteria for Alternatives Analysis

1. Overall protection of human health & environment
2. Compliance with regulations
3. Long-term effectiveness
4. Reduction of toxicity, mobility or volume via treatment
5. Short-term effectiveness
6. Implementability
7. Cost
8. State acceptance
9. Community acceptance

Residence Impacted



EPA's Proposed Plan – Extension of Public Water Supply (Alternative GW-2)

- Installation of a new 12-inch ductile iron (D.I.) water main from the existing 12-in water main tie in point on Rt. 102 along Blueberry Hill Road to the intersection with Windmere Drive.
- Installation of 8-in D.I. pipe with copper service connections to each residence, built to town and NHDES Standards, to allow for ownership by the town.
- Installation of interior plumbing modifications to allow for connection from residential well plumbing to municipal water piping.
- Installation of water meters for individual metering of water usage to each residence.
- Monitoring of groundwater in residential areas.

Estimated capital cost \$2.77M with present worth cost for monitoring and annual O&M \$1.85M

Questions and Discussion



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