

Conceptual Site Model

- CSM Building Blocks Review
- Report Considerations



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MACHIAS LAUNDRY & CLEANERS

Machias Laundry & Cleaners

- Dry cleaners from 1977 to early-2000's
- 180 feet from Machias River
- Groundwater 4-6 feet deep
- Municipal water and sewer
- Nearby day care and residences



3

3

Machias Laundry & Cleaners

Key Features

- Outside vents
- Storage shed
- Floor drain
- Coin-operated laundry
- Upstairs apartment



4

4

Machias Laundry & Cleaners

CSM Discussion

- Contaminants of Concern
- Release Mechanisms
- Migration Pathways
- Receptors
- Exposure routes



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5

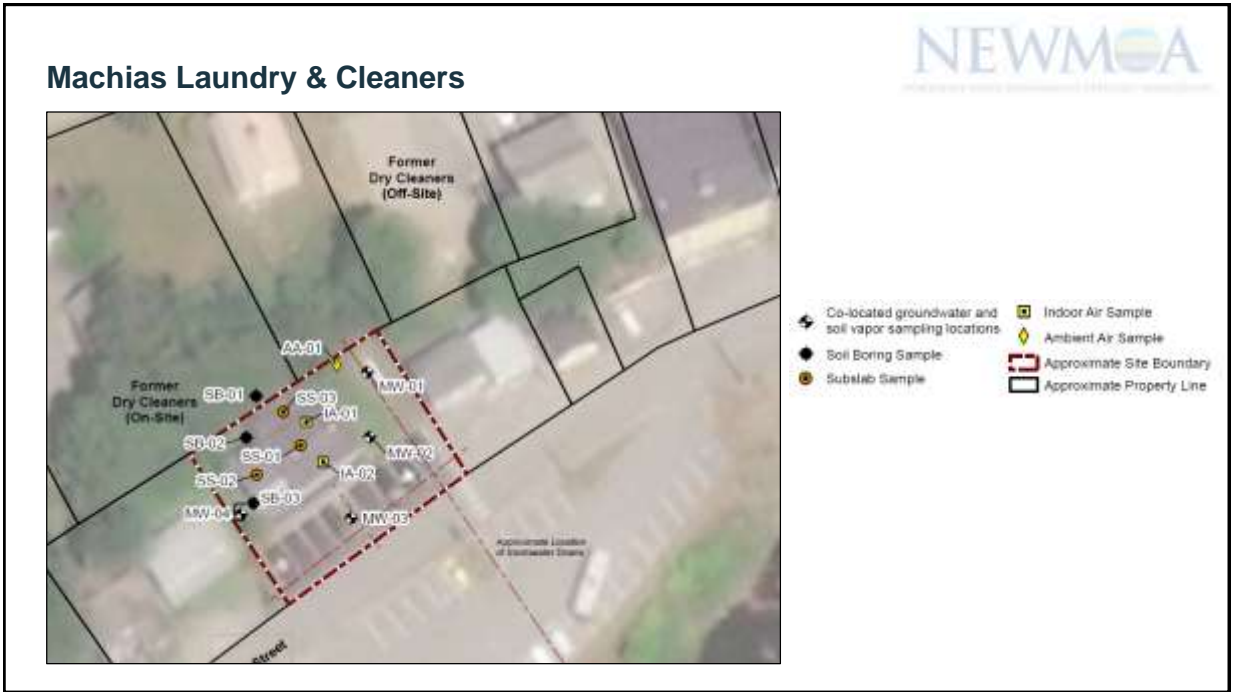
Machias Laundry & Cleaners

Investigation Scope?

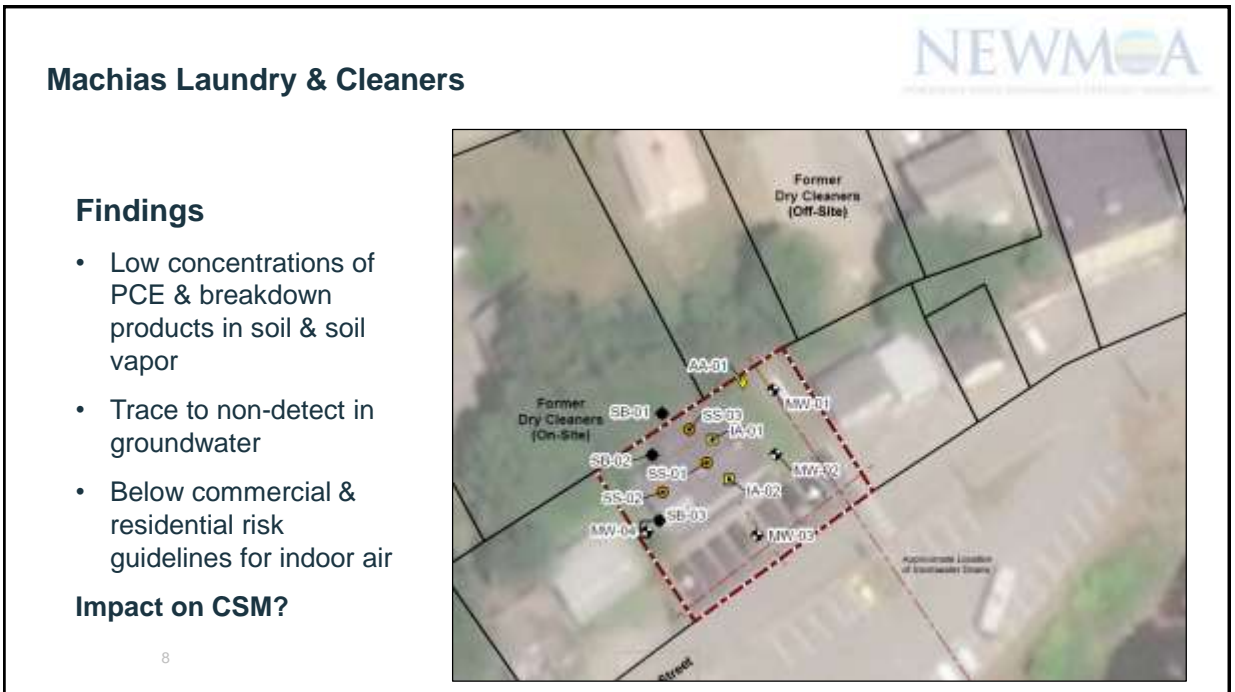


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FORMER GAS STATION/SERVICE STATION

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CSV-TEM-100020

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Former Gas Station/Service Station

- Gas station/service station/general store from the 1960's until 2008
- Less than 500 feet from a major river
- Groundwater 5-8 feet deep
- Serviced by municipal water, although a few private wells are located nearby
- Private septic systems
- Adjacent residences



10

10

Former Gas Station/Service Station

Key Features

- Former LUSTs
- ASTs
- Sealed hydraulic lift
- Parts washer
- Residences in close proximity to documented petroleum spills



11

11

Former Gas Station/Service Station

CSM Discussion

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12

12

Former Gas Station/Service Station



Findings

- Surficial soils have petroleum constituents exceeding Residential guidance, but not Commercial guidance
- Trace to non-detect petroleum in groundwater
- Below Commercial guidelines for indoor air onsite; below Commercial and Residential guidance offsite



Impact on CSM?

15

15



Preparing a Good Report: Getting it Right



16



- **Does the report describe the site setting?**
 - Current and future site use
 - Public water or private well
 - Applicable guidelines or standards
- **Does the report describe all parts of the CSM?**
 - Contaminants of Concern
 - Release Mechanisms
 - Migration Pathways
 - Receptors
 - Exposure routes

17



- **Does the report detail how each part of the CSM was investigated?**
 - Describe investigations by areas of concern
 - Detail testing to address each migration pathway and exposure route (i.e., media targeted for sampling)
 - Identify testing parameters

18



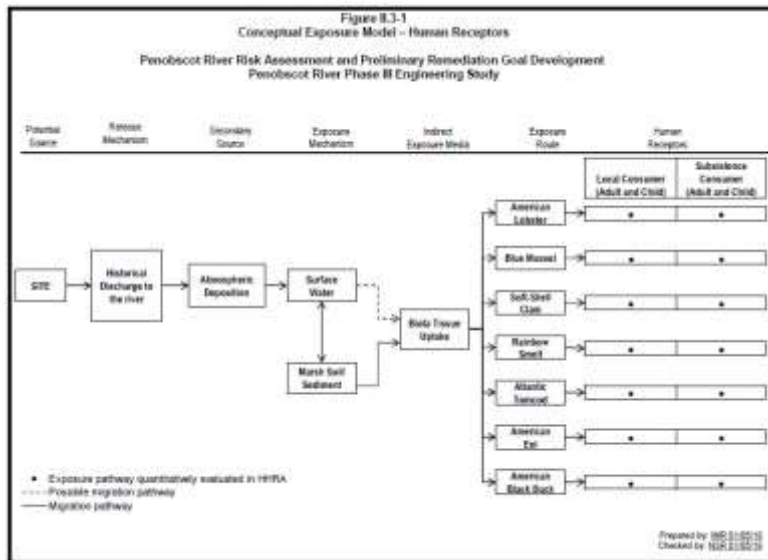
- **Discuss seasonality**
- **Compare results to guidelines**
- **Consider changes in future site use**
- **Identify data gaps**
- **Update CSM**

PRESENTATION TOOLS

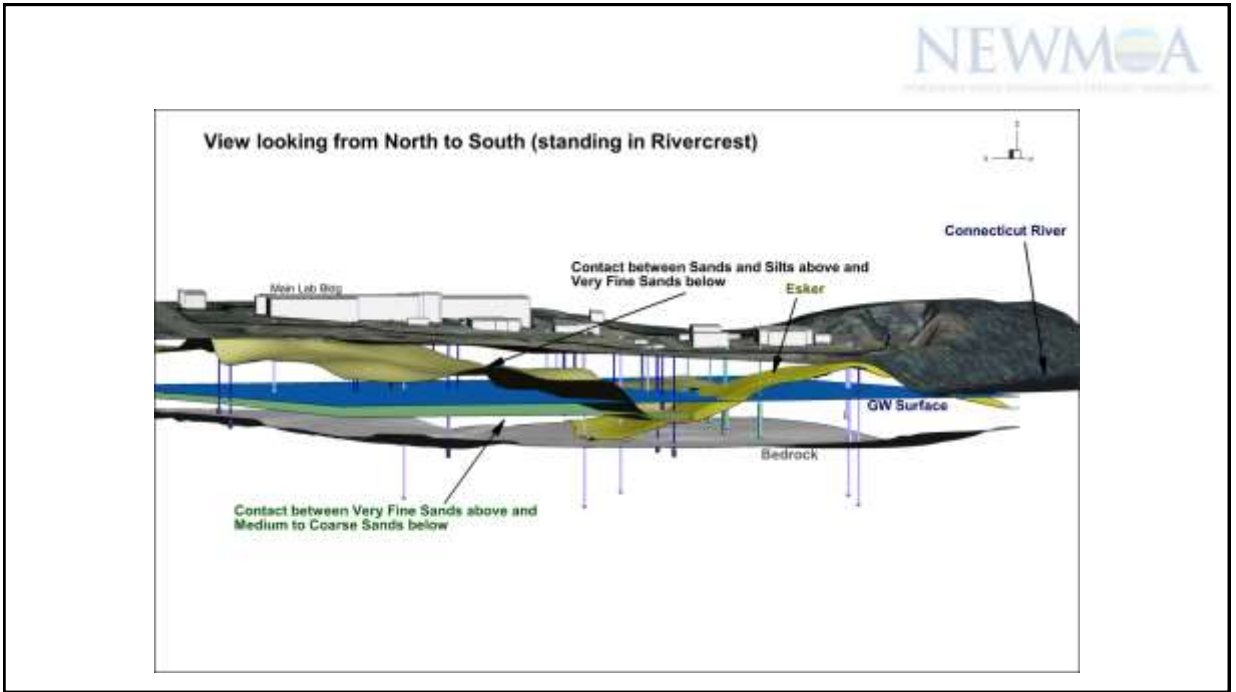


Area of Concern	Potential Source	Potential Contaminants of Concern	Potential Release Mechanism	Potential Primary Impacted Media	Potential Primary Migration Pathway	Potential Exposure Routes	Potential Receptors
Former Dry Cleaners	Dry cleaning machine operations, solvent product and waste management	PCE and associated breakdown products	Venting to building exterior, incidental leaks or spills, accidental discharge to floor drain	Surficial and Subsurface soil, indoor air and soil vapor	Migration as vapor in air and soil, free product or dissolved phase transport in groundwater	<p><u>Vapor</u>: Solvent vapor in indoor air, migration in soil gas.</p> <p><u>Soil</u>: Dermal contact, incidental uptake of impacted soils/dust during ground disturbance.</p> <p><u>Groundwater</u>: Dermal contact and incidental ingestion with impacted groundwater during ground disturbance.</p>	<p><u>Site</u>: Customers & staff, upstairs apartment occupant, construction workers</p> <p><u>Off-Site</u>: day care, residences, river habitat</p>

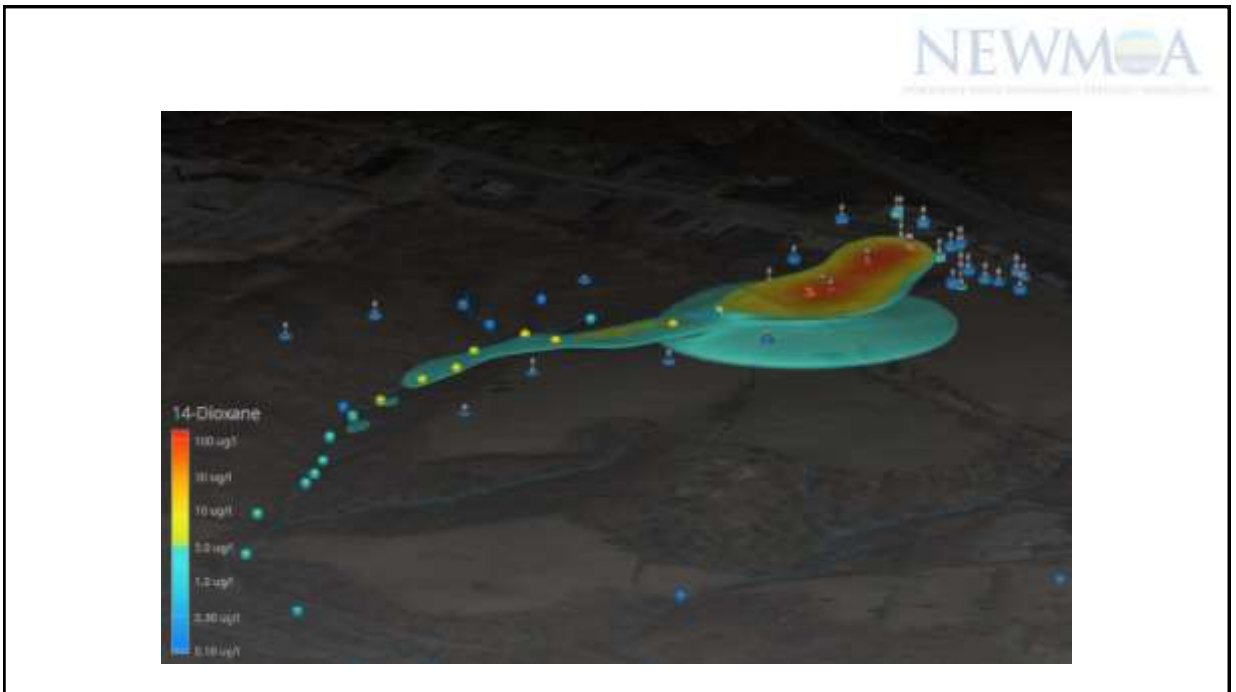
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