

DERP Forum

Strengthening Relationships with our Regulatory Partners

St. Louis, Missouri

May 8-9, 2019

CSM Review and Considerations

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DERP FORUM

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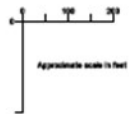
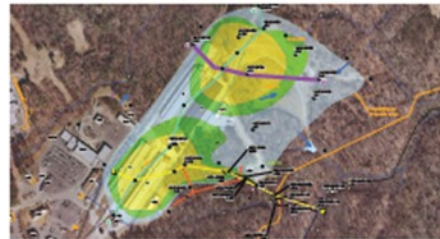
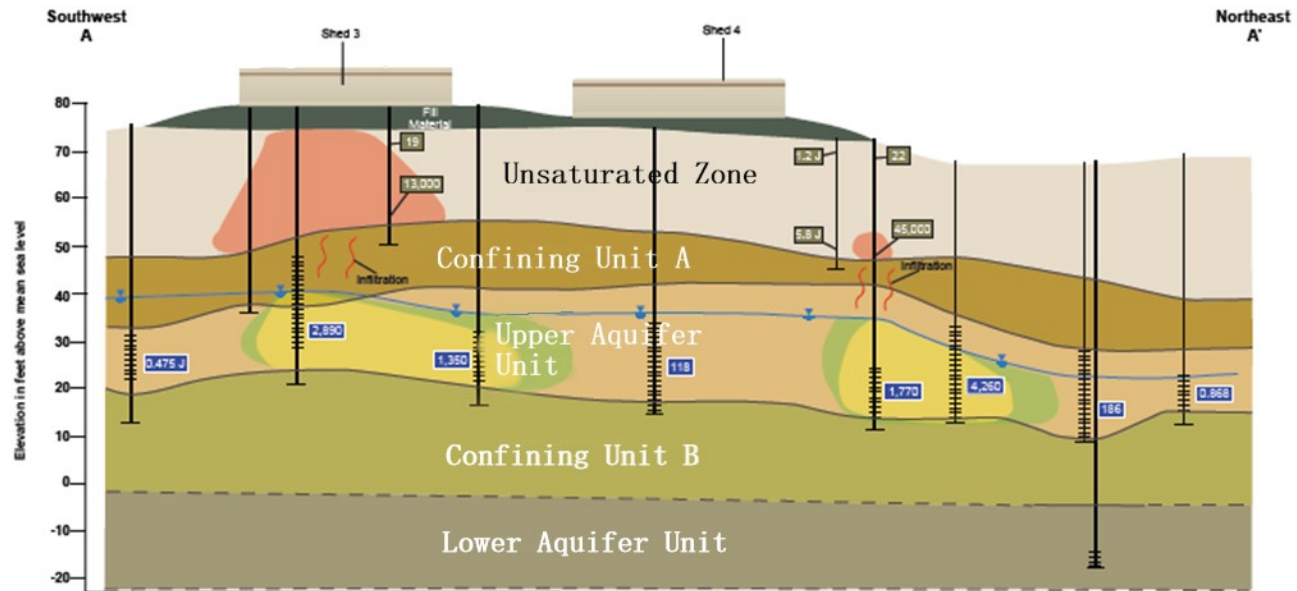
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CSM – What is it?

-- CSM: Site Conceptual Model

- A simplified model of a location, site conditions, and transport mechanisms affecting transport of contaminants
- Vital initial-step for any remediation project
- Dynamic process – continues thru each stage of CERCLA process leading to Response Complete(RC)

Usually the first step at any site after COC identification



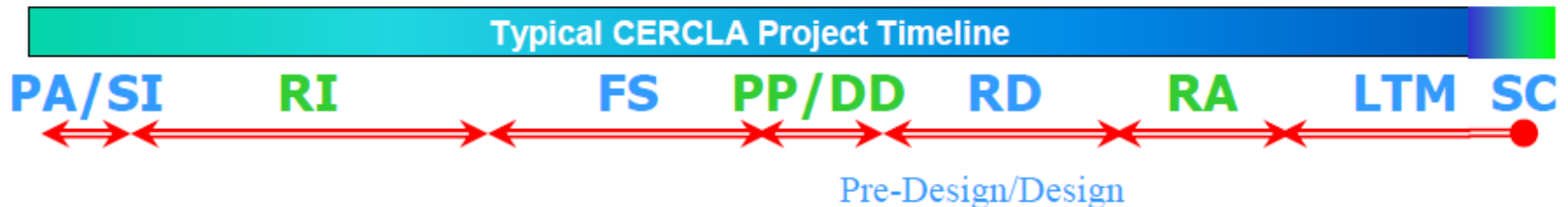
“Set it and Forget it” – A Recipe for Disaster

- **Environmental sites can be complex**
 - Complex hydrogeology or transport mechanisms
 - Multiple constituents of potential concern (COPC)
 - Multiple receptors and related pathways
- **Inaccurate CSMs can limit creativity in RAO determination and remediation strategies**
- **Common shortcomings of existing site CSMs:**
 - Uncertain nature and extent of sources of contamination
 - Uncertain plume stability (or lack thereof)
 - Inadequate delineation of stratigraphic layers and preferential pathways
 - Inadequate understanding of ongoing remedy performance

An Out-of-Date CSM can lead to the selection/continuation of expensive or ineffective remediation activities

Updated CSM = Optimization Benefits

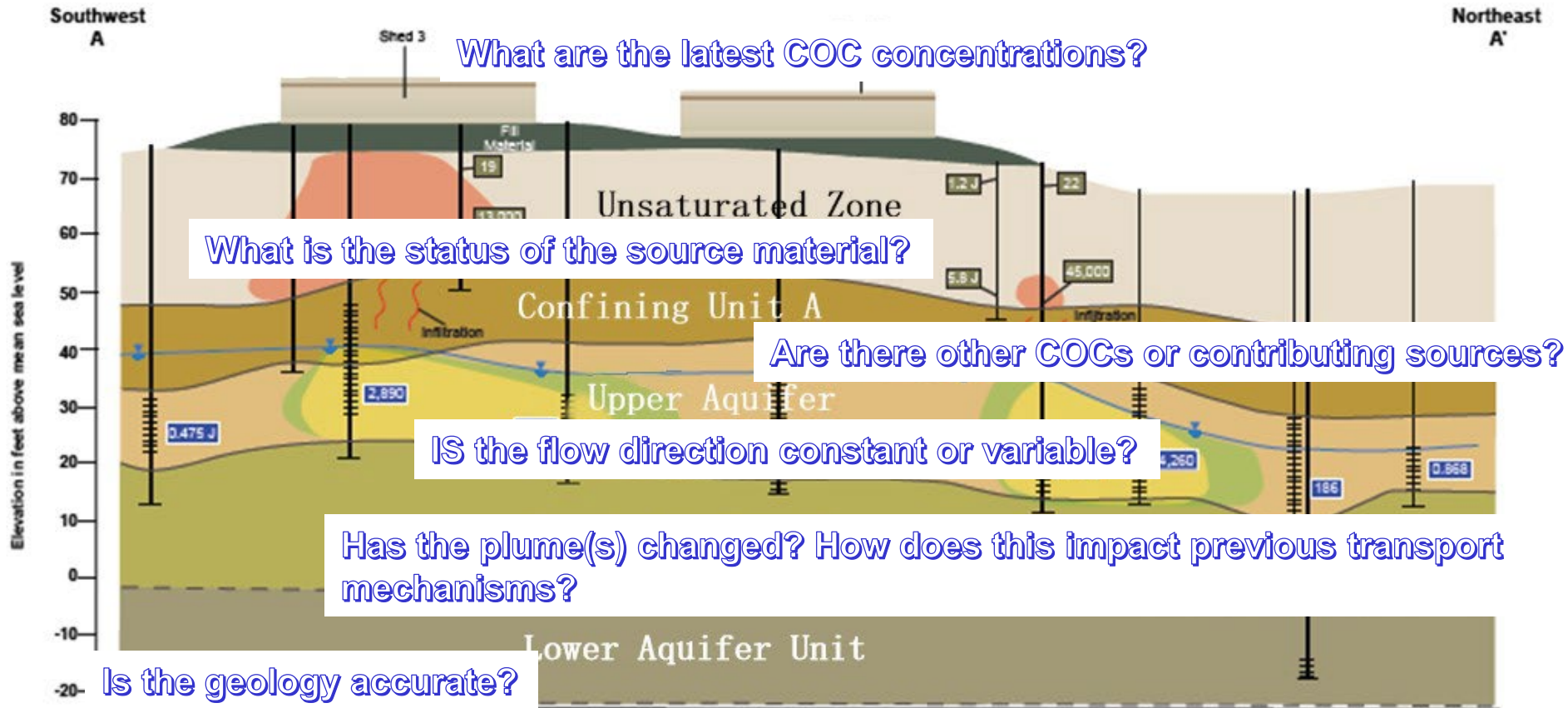
- **CSMs are a vital tool for assessing and addressing new remediation strategies**
 - Assist in refining RAOs
 - Provide a better understanding of the “problem”
 - Identify target treatment zones
 - Clarify potential modifications for cost savings and efficiency improvements
- **CSMs fulfill regulatory continuity & focus strategy**



PA/SI: Preliminary Assessment/Site Inspection	RI: Remedial Investigation	SC: Site Closeout
FS: Feasibility Study	PP: Proposed Plan	DD: Decision Document
RD: Remedial Design	RA: Remedial Action	LTM: Long Term Management

Source: Newfields, RITS, 2009

CSM Review Guidelines



Reassessing CSMs has allowed Navy personnel to better adapt current and planned Remediation activities to accommodate new information and interpretations to better understand complex sites