Conceptual Site Model (CSM)

A conceptual site model (CSM) encompasses the current understanding of a contaminated or potentially contaminated property. A CSM can be a written or graphical representation. A CSM is a valuable decision-making tool used for project planning, data interpretation, and effective communication for project stakeholders and the public.

Risk Assessment (RISK-3)
Section 3.2 (Conceptual Site Model), pages 24-32
The CSM describes the potential chemical sources, release mechanisms, fate and transport pathways, affected environmental media, receptors, and exposure pathways for current and reasonably anticipated activities and land uses.

1,4 Dioxane (14DX-1)
Section 3.2 (Considerations for Developing or Refining a CSM for 1,4-Dioxane)
Describes how a CSM helps develop a holistic understanding of the fate and transport of environmental contaminants as well as the potential risk posed by these compounds.

Green and Sustainable Remediation (GSR-2)
Section 2.1 (Evaluate/Update Conceptual Site Model), page 20
Describes how the CSM synthesizes and summarizes what is already known about a site that is pertinent to decision-making requirements.

Incremental Sampling Methodology (ISM-2)
Section 3.1.2 (DQO step 1: problem formulation (what is the problem, and what decisions need to be made?)
Describes the process for establishing a project planning team and developing a CSM.

Integrated DNAPL Site Strategy (IDSS-1)
Section 2.1 (The Conceptual Site Model)
Describes the CSM process and how it supports characterization

or remediation planning and implementation.

MTBE and Other Fuel Oxygenates (MTBE-1)
Section 3.1 (Conceptual Site Model), pages 16-29
Describes that the development of a conceptual site model (CSM) is a critical component in the site evaluation and cleanup process.

Soil Background and Risk (SBR-1)
Section 8.1 (Conceptual Site Model)
A CSM is the integrated representation of the physical and environmental context, the potential fate and transport of COPC, and the complete and potentially complete exposure pathways associated with each receptor at a cleanup site that is being evaluated.

Unexploded Ordnance (QCMR-1)
Section 3.2 (Conceptual Site Model)
The CSM represents relevant known and hypothetical site characteristics, conditions, and features developed from evidence collected or acquired throughout the project life cycle.

Petroleum Vapor Intrusion (PVI-1)
Step 1 – Develop Preliminary CSM
The preliminary CSM is developed by collecting soil and groundwater data as part of routine initial site investigations.

Vapor Intrusion (VI-1)
Sections 1.2 (Conceptual Model for Vapor Intrusion), Section 1.3 (Defining the Pathway), and Section 2.1 (Developing a Conceptual Site Model)
Describes CSM development for vapor intrusion sites for all building scenarios.

LNAPL Update (LNAPL-3)
Section 4 (LNAPL Conceptual Site Model (LCSM))
Describes the collection of information that incorporates key

attributes of the LNAPL body with site setting and hydrogeology to support site assessment and corrective action decision-making.