Uncertainty Management Matrix*
(Human Exposure Environmental Indicator Example)

Uncertainty **(Identify a condition for which you have some uncertainty)**	**Amount of Uncertainty For Decision(s) Being Made (hi, med, low), and why**	**Impact (i.e., what is potential impact if uncertainty statement is false)**	**Management Options**		
			Data Collection Options	**Ongoing Monitoring**	**Intervention/ Contingency Options**
There are no unacceptable exposures to air or water contamination at the Smith home Note: This matrix is for only two examples of the pathways that should be considered for making an overall Human Exposure Controlled El determination.	Air: Med-high due to potential indoor air contamination from shallow gw plume that could be beneath home, and lack of existing samples Water: low, due to confirmed lack of contamination in drinking well	Air: Significant since levels of concern for DCE in air are very low (i.e., <<1ug/m^3 Water: Significant because well is currently used for drinking water and potential for contamination exists	Air: Take indoor air samples, soil gas samples, shallow groundwater samples near Smith home now Water: Install additional ground water wells (or collect more groundwater samples)	Establish ongoing monitoring program at Smith house	Air: Install vapor removal system (rather than relying on monitoring or a contingency in response to monitoring) Water: Alternative Water Supply or private water treatment system

* This tool is based on the premise that uncertainties will always exist to some extent for environmental characterization and remediation, but they should be identified and they can be managed.

Uncertainty Management Matrix*
(Contaminated Groundwater Migration Under Control Example)

Uncertainty (Identify a condition for which you have some uncertainty)	**Amount of Uncertainty For Decision(s) Being Made** (hi, med, low) **and why**	**Impact** (i.e., what is potential impact if uncertainty statement is false)	**Management Options**		
			Data Collection Options	**Ongoing Monitoring**	**Intervention/ Contingency Options**
The plume of contaminated groundwater is not migrating above levels of concern.	Med-low: Current limit of plume is vague due to the distance between contamination found at the facility and non-detects adjacent to Marina; however, extraction system should contain ongoing migration	Would not meet the Groundwater El, and the plume would be contaminating additional portions of the aquifer	Install additional wells or collect additional ground water samples	Routine sampling and analysis of existing monitoring wells, and evaluation of extraction system	Install and monitor additional wells, and/or supplement extraction system to improve confidence in containment

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