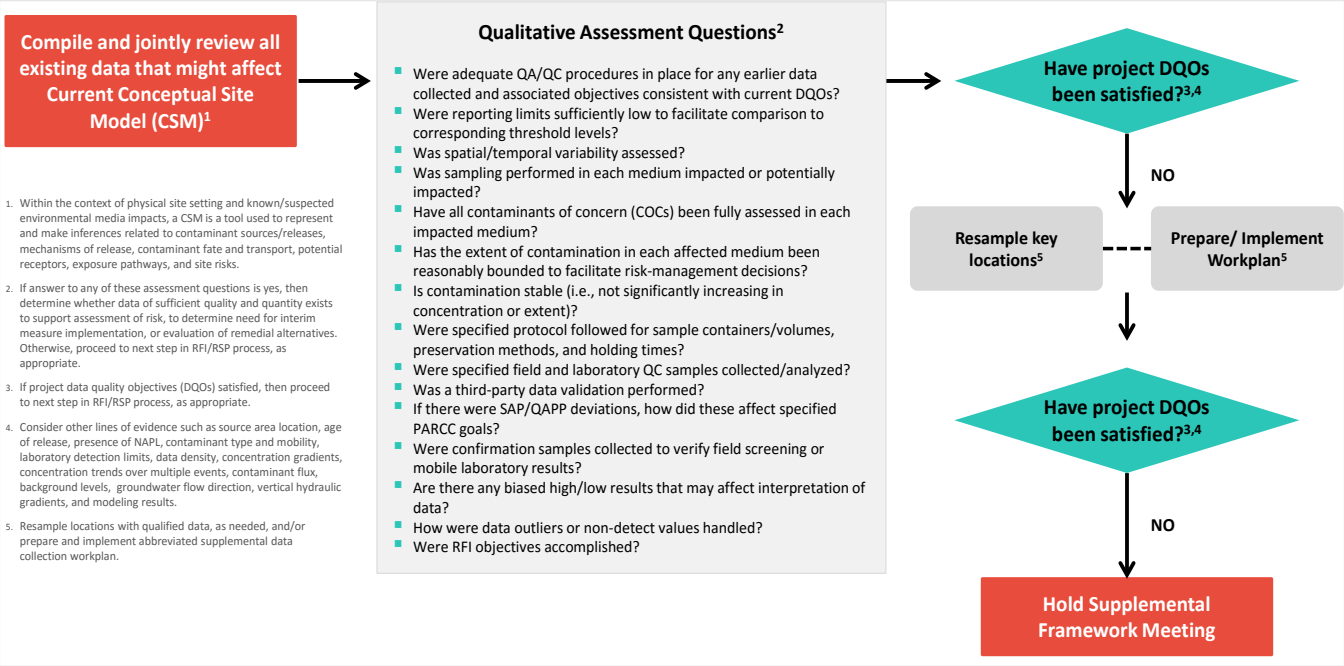
RCRA FIRST TOOL 4: RCRA Facility Investigation Data Sufficiency Evaluation

Figure A.4 RCRA Facility Investigation Data Sufficiency Evaluation Flow Chart



1. **Compile and jointly review all existing data that might affect Current Conceptual Site Model (CSM)[8]**
2. **Consider Qualitative Assessment Questions.** If answer to any of these assessment questions is yes, then determine whether data of sufficient quality and quantity exists to support assessment of risk, to determine need for interim measure implementation, or evaluation of remedial alternatives. Otherwise, proceed to next step in RFI/RSP process, as appropriate.
    a. Were adequate QA/QC procedures in place for any earlier data collected and associated objectives consistent with current DQOs?
    b. Were reporting limits sufficiently low to facilitate comparison to corresponding threshold levels?
    c. Was spatial/temporal variability assessed?
    d. Was sampling performed in each medium impacted or potentially impacted?
    e. Have all contaminants of concern (COCs) been fully assessed in each impacted medium?
    f. Has the extent of contamination in each affected medium been reasonably bounded to facilitate risk-management decisions?

[8]Within the context of physical site setting and known/suspected environmental media impacts, a CSM is a tool used to represent and make inferences related to contaminant sources/releases, mechanisms of release, contaminant fate and transport, potential receptors, exposure pathways, and site risks.

g. Is contamination stable (i.e., not significantly increasing in concentration or extent)?
h. Were specified protocol followed for sample containers/volumes, preservation methods, and holding times?
i. Were specified field and laboratory QC samples collected/analyzed?
j. Was a third-party data validation performed?
k. If there were SAP/QAPP deviations, how did these affect specified PARCC goals?
l. Were confirmation samples collected to verify field screening or mobile laboratory results?
m. Are there any biased high/low results that may affect interpretation of data?
n. How were data outliers or non-detect values handled?
o. Were RFI objectives accomplished?

3. **Have project DQOs been satisfied?**
    a. Consider other lines of evidence such as source area location, age of release, presence of NAPL, contaminant type and mobility, laboratory detection limits, data density, concentration gradients, concentration trends over multiple events, contaminant flux, background levels, groundwater flow direction, vertical hydraulic gradients, and modeling results.
    b. **If no,** resample locations with qualified data, as needed, and/or prepare and implement abbreviated supplemental data collection workplan.
    c. **If the DQOs cannot be satisfied**, hold a supplemental corrective action framework meeting