

Table 4-2
Data Quality Objectives for AOC 20 (Former Base Motor Pool, Buildings 283 and 285)

Problem Statement

AOC 20 consists of former Base Motor Pool Buildings 283 and 285 and is located on the north side of Tinker Road, approximately 2,200 feet west of Waimanalo Bay, and 30 feet west of Inoaole Stream. The Base Motor Pool is shown on a 1943 utilities map of Bellows to consist of Buildings 283, 285, and 299. Building 299 is labeled as a "Wash Rack" on the map, while no description is listed for Buildings 283 and 285. Previous investigations have determined that no underground storage tanks are, or were, present at the Base Motor Pool, and that the former "Wash Rack" (Building 299) is eligible for NFRAP determination. The buildings were reportedly demolished about 1948 (ESP, June 1997). Except for a concrete pad for former Building 299, nothing remains at the AOC.

Decisions to be Made

Soil: Does site surface soil or subsurface soil present an unacceptable risk to possible human and ecological receptors? Specifically, do constituents exist in surface soil and do they pose a threat to humans or terrestrial wildlife? Also, do constituents exist in subsurface soil and could they adversely impact groundwater beneath the AOC and Inoaole Stream? If so, the need for further site characterization and possible remedial action needs to be determined.

Groundwater: Have chemicals from former Base Motor Pool activities infiltrated to groundwater beneath the AOC and do they possibly present an unacceptable risk to surface water aquatic life in Inoaole Stream? A previous investigation in the vicinity of the former "Wash Rack" did not discover chemicals in groundwater at concentrations above action levels. However, if significant groundwater contamination is discovered beneath AOC 20, the need for further site characterization and possible remedial action needs to be determined.

Inputs to the Decision

Soil and Groundwater:

- Soil and groundwater analytical results
- Conceptual site exposure model
- Comparison of analytical results for soil and groundwater to screening criteria

Boundaries to the Study

- For groundwater contaminants (and soil contaminants that may potentially leach to groundwater), data will be evaluated to determine whether analytical results exceed screening criteria that are protective of surface water aquatic life (HDOH Tier 1 SALs and GALs and AWQC).
- For surface soil, human health risks will be evaluated for direct-contact exposure and will be compared to acceptable levels (HDOH Tier 1 SALs and EPA Region IX PRGs).
- NFRAP guidance criteria or technology screening will be used as necessary.

Decision Rules

- If data for soil and groundwater do not exceed screening criteria, proceed toward NFRAP designation.
- If soil and/or groundwater data do exceed screening criteria, determine whether additional data or refinement of evaluation assumptions would support a NFRAP designation or whether the site should be investigated further under the IRP.
 - If additional data or refinement of evaluation assumptions might support a NFRAP designation, identify and recommend additional data needs or specific refinements to the evaluation assumptions.
 - If the AOC requires further investigation under the IRP, identify and recommend additional data needs to support the further investigation.

Specify Limits of Uncertainty

- Analytical data must meet the project specifications for precision, accuracy, representativeness, completeness, and comparability as prescribed by the IWQAPP (CH2M HILL, August 1998b).
- AFCEE reporting limits will be compared to screening criteria to evaluate data usability.

Optimize the Design

Surface Soil:

- Collect eight surface soil samples (zero to 0.5 foot bgs) from around Former Buildings 283 and 285 to evaluate potential risks to human health and ecological receptors.
- Analyze eight surface soil samples for TPHs, PAHs, PCBs, and metals.

Subsurface Soil:

- Drill nine soil borings within AOC 20 to evaluate potential impacts to subsurface soil and groundwater. Collect one subsurface soil sample (generally at the capillary fringe of the local water table) from each boring.
- Analyze nine subsurface soil samples for TPHs, VOCs, PCBs, PAHs, and metals.

Groundwater:

- Complete three of the soil borings as temporary groundwater monitoring wells within AOC 20 to characterize groundwater.
- Analyze three groundwater samples for TPHs, VOCs, PAHs, PCBs, and dissolved metals.