## RESPONSE TO COMMENTS INCLUDED WITH REGULATORY AGENCIES' DISAPPROVAL OF INVESTIGATION AND REMEDIATION OF RELEASES REPORT

1) The IRR relies on several conclusions of the conceptual site model report (CSM, June 2019, Rev (01) that do not have the appropriate level of scientific certainty or conservative assumptions, as noted in regulator comments to the Navy (EPA/DOH, 2018; DOH 2019, 2020). One example includes analysis that suggested the vadose zone underneath the facility had the capacity to hold up to 150,000 gallons of fuel without impacting groundwater. This was disproven with the 2021 November release when the reported 5,000 gallons of fuel were transported through approximately 100 feet of vadose zone into the RHS and the Navy's drinking water system within days. This deficiency, coupled with the current absence of contaminant transport/risk evaluations, renders the IRR insufficient.

**NCTF- RH Response -** Comment is noted. In accordance with the 2015 Administrative Order on Consent requirements, the Navy's September 2024 submission of the Groundwater Flow and Contaminant Fate and Transport models, as well as the Vadose Zone model, will address the above deficiency.

The Navy acknowledges, as previously communicated, that the University of Hawaii's tracer and colloidal borescope evaluations will not be completed in time for incorporation in the September 2024 submission.

2) The Navy's CSM concludes that contaminant/fuel transport will be to the south-southwest due to the assumed dip of the subsurface volcanic strata. Data observations following the 2021 release conflict with this conclusion of contaminant transport and fate. The Regulatory Agencies have noted that the volcanic dip is highly variable, and that past data indicate there are also transport pathways to the northwest. For instance, based on the relative concentrations of the vapor probes at Tank 5 and adjacent tanks following the 2013/2014 release, vadose zone NAPL migration seemed to be to the north-northwest, rather than east-southeast. Before future remedies are evaluated, the CSM should be updated to reflect data observations gathered.

**NCTF- RH Response -** The Navy's CSM will be updated as a part of the characterization investigation. Upon completion of the first phase of field work as a part of the Site Assessment – to determine presence/absence information – the overall CSM will be updated to account for this information.

This information will then shape the future remedies being evaluated based on nature and extent investigations.

Information presently known will be included in the Navy's September 2024 submission of the GWFM and CFT models, in accordance with 2015 Administrative Order on Consent requirements.

- 3) Transport conditions for groundwater contaminants and fuel are not yet fully understood. However, the IRR heavily relies on the assumption that pumping at RHS creates a sufficient capture zone to address any release from the Tank Gallery. The premise that Facility-wide contamination can be captured and controlled by pumping at RHS (with MNA as the passive cleanup action) remains unsupported by field data collected to data.
  - **NCTF- RH Response -** Comment noted. The Navy will continue to collect field data based on the Consolidated Groundwater Sampling Program and on-going monitoring well drilling efforts to support conclusions gathered in the IRR. The Navy also intends to interpret any data received from the University of Hawaii's tracer and colloidal borescope evaluations, once available.

In parallel effort, data collected will be used to further inform Site Assessment work that is planned to occur Facility-wide.

- 4) The Navy's identified preferred remedial alternative for future releases of up to 120,000 gallons included MNA and the treatment of the water pumped from the RHS. As noted above, capture of Facility-wide contamination by pumping at RHS is presently unsupported by data. Evaluation of remedial alternatives at the Facility should prioritize active remediation with a focus on removing mass prior to entering RHS or any other drinking water source. Wellhead treatment is best suited as a protective measure prior to or in the absence of other active remediation strategies. It should be considered as a remedial alternative of last resort when no other viable technologies are available, or all available technologies have been implemented to the maximum extent practicable.
  - **NCTF- RH Response -** The selection of remedial alternatives will occur after the nature and extent characterization investigations as a follow-up to the Site Assessment. The Site Assessment's purpose is to determine absence/presence of contamination and provide an idea of where to target sampling under the characterization investigation phase. This nature and extent investigation is likely to begin development following the first phase of field work, with development occurring in 2027 and field work occurring in early/mid-2028. A summary report would be included as a part of this process in late 2028 or early 2029.

Once the characterization is complete (which includes risk assessment and updates to the CSM), the Navy will go into remedy selection – recommended remedial alternatives will be a part of that deliverable. The Navy will select the best remedial option and follow with more planning on that specific strategy. The remedy selection phase is planned to occur in late 2029 or early 2030.