

CLOSURE ACHIEVED FOR TWO GROUNDWATER PLUMES AT JOINT BASE CAPE COD (JBCC)

The Air Force Civil Engineer Center (AFCEC) manages the Installation Restoration Program (IRP) at JBCC. The IRP is tasked with conducting investigations and cleanup of soil and groundwater contamination caused by past military practices, mostly in the southern portion of JBCC. Two recent success stories include former Chemical Spill-20 (CS-20) and CS-23 groundwater plumes, located off base in the Town of Falmouth. A plume is an area of groundwater containing one or more contaminants above regulatory drinking water standards.

The CS-20 and CS-23 plumes were detached from unknown sources located on JBCC. CS-20 once contained the contaminant tetrachloroethene (PCE) and CS-23 once contained trichloroethene (TCE) and carbon tetrachloride (CCl₄) above federal drinking water cleanup standards. The concentrations of these contaminants are now below those standards as a result of active remediation and natural attenuation.

Past decisions for CS-20 and CS-23 required that groundwater extraction wells be installed to remediate these plumes. Contaminated groundwater was captured by extraction wells, treated with carbon, and returned to the aquifer. In addition to active treatment, monitored natural attenuation (MNA) was added to the decision which accepted natural processes (dilution, dispersion and degradation) for addressing the plume outside of the capture zone of the extraction wells. Land use controls (LUCs) were also added, such as private well use verification and response actions.

AFCEC will be notifying the Falmouth Board of Health and area residents in the former LUC areas for CS-20 and CS-23 that water from private wells in this area can once again be used safely as TCE, PCE and CCl₄ are not no longer above federal drinking water standards.

Site closures for CS-20 and CS-23 were achieved in October 2021 with the issuance of the CS-20 and CS-23 Remedial Action Completion Reports (RACR), which received concurrence from the U.S. Environmental Protection Agency and the Massachusetts Department of Environmental Protection. A similar RACR was issued in 2020 for the Fuel Spill 29 plume. These RACRs can be found in AFCEC's administrative record. For more information on the IRP please visit/contact:

- Webpage: <https://www.massnationalguard.org/JBCC/afcec.html>
- Online administrative record (search under Joint Base Cape Cod): <https://ar.afcec-cloud.af.mil/>
- Call/text/email Doug Karson, AFCEC Community Involvement Lead, (508) 524-9206; douglas.karson@us.af.mil