CG070 Previous Work

- The U.S. Air Force began extracting and treating groundwater in 1991 as an interim remedial action (nine groundwater extraction wells and a treatment system, six extraction wells (EW-1, EW-2, EW-3, EW-4, EW-5 and EW-9) in the Upper Aquifer, and three extraction wells (EW-6, EW-7, and EW-8) in the Lower Aquifer).

- The 1994 Record of Decision (ROD) selected a groundwater extraction and treatment system (GETS). The selected remedy design consisted of an estimated 19 groundwater extraction wells installed in the Upper and Lower Aquifers, followed by treatment of the extracted groundwater using two air stripping towers in series, and recharge of treated groundwater at the former STP Percolation Ponds.

- Operation of the expanded system began in October 1996. In June 1999, five Lower Aquifer extraction wells (EW-6, EW-14, EW-15, EW-16, and EW-17) were shut down at the direction of the Remedial Project Managers based on an assessment of capture zones and contaminant concentration data. This modification was intended to maximize the mass of TCE removed per gallon of water extracted and to reduce the volume of discharge to the NPP.

- In 2001, four Upper Aquifer groundwater monitoring wells (NZ-40, NZ-55, NZ-82, and NZ-83) were converted to extraction wells to address areas with elevated TCE concentrations. NZ-55 was incorporated into the GETS . NZ-40, NZ-82, and NZ-83 were not used.

- The Geological Conceptual Site Model was prepared in 2002 to provide a basis for assessing the nature and character of the OU 1 Plume. As described in the report, *"... the remedial project managers (RPM) group for George Air Force Base (GAFB) has determined that a basewide optimization study is appropriate to maximize the efficiency of all remedial systems at GAFB.*

- Because monitoring data suggested that TCE was migrating from the Upper Aquifer to the Lower Aquifer at an increased rate, the GETS was shut down in March 2003 to reduce the potential for further migration from the Upper Aquifer to the Lower Aquifer while optimization studies were conducted. Optimization study documents included:
    - ***Final Hydrogeologic Conceptual Site Model*, AR 2048**
    - ***OU 1 Site CG070 Source Area Investigation and Preliminary Engineering Report*, AR 2077.**
    - ***Final Ground Water Modeling Report OU 1 Optimization, Volume 1*, AR 2195**
    - ***Ground Water Conceptual Site Model.***

- ***Final Focused Feasibility Study OU 1 TCE Ground Water Plume, Vol. 1, Appendix A: Final Ground Water Conceptual Site Model, Former George Air Force Base, California***.
- ***Final Focused Feasibility Study, OU 1 TCE Ground Water Plume, Vol. 3, Appendix C: OU 1 Supplemental Investigation Report (Lower Aquifer/Flood Plain Aquifer)***.
- ***Final Operable Unit 1, Focused Feasibility Study, Operable Unit 1 TCE Groundwater Plume, Revision 4, August***

- After the optimization study was performed, a revised Proposed Plan was prepared based on the FFS. The plan identified MNA, institutional controls (IC), and a water supply contingency plan as the Air Force's preferred alternative for remediation of the TCE groundwater plume.
- Proposed Plan was submitted on 12 December 2012
- Regulator Review of Draft PP competed 15 March 2013
- Submitted Data Gap Well Installation WP 8 August 2013
- Regulator Review of Draft Work Plan completed on 23 September 2013
- Issued Draft Final Data Gap Well Installation WP 10 October 2013
- Regulator review of Draft Final Data Gap Well Installation WP completed on 14 November 2013
- Issued Final Data Gap Well Installation WP 22 November 2013
- Draft-Final Proposed Plan completed 5 February 2014
- Issued Final Proposed Plan/ public comment finished 21 March 2014
- Responded to comments during PP process, completed 25 February 2014
- Prepared and submitted the Draft MNA Appendix to the RODA 7 May 2015

OT071 Previous Work

- The housing area was developed in the early 1960s and continued with various improvements through the 1970s. Historical use of pesticides at the Site OT071 included: application of termiticides (Aldrin and Dieldrin) beneath and along the building foundations at the former housing area before and after construction according to manufactures recommendations and standard application practices; preparation of pesticide solutions at the golf course pesticide mixing area; preparation and pesticide solutions in the engineering pesticide mixing area located west of Site OT071.

- **Basewide Ground Water Monitoring Program:** Ground water sampling has been performed in the Upper Aquifer and Lower Aquifer wells to monitor Dieldrin concentrations in ground water since 1993, when Dieldrin was first detected at Upper Aquifer wells NZ-63 and NZ-66 located east of the former housing area

- **Ground Water and Soil Pesticide Investigation (2002)*:*** Drilled and sampled exploratory borings, installed monitoring wells, and collected soil samples. Split soil samples with the EPA. The results of this investigation are documented in the Final Groundwater Pesticide Investigation Report (MWH, 2002a).

- **Data Gap Investigation (2008):** Two Upper Aquifer wells were installed in 2008 to delineate Dieldrin in ground water in the southern portion of Site OT071. Soil boring OT071-SB-01 was completed during this investigation to evaluate the presence of a Middle Lacustrine Unit (MLU).

- **Data Gap Investigation (2009):** Two Upper Aquifer wells were installed to further delineate Dieldrin in ground water. Four Lower Aquifer wells were also installed to delineate Dieldrin in ground water.

- **Data Gap Investigation (2010):** One Lower Aquifer well and one PLZ well were installed to further delineate Dieldrin in ground water.

- A ground water flow-and-transport model was developed for the former GAFB in support of the OU1 optimization study.

- NON-CERCLA SITE 0T071 CORRECTIVE ACTION PLAN FOR PESTICIDES IN GROUND WATER (PCAP) submitted in June 2011

- Received Water Board comments on 12 September 2012

- Submitted revised draft PCAP on 18 January 2013

- AF provided a response to the regulatory CERCLA exemption determination on 11 December 2013

- Received Water Board comments on revised draft PCAP on 23 March 2015

- Held on-board meeting with the RWQCB to resolve outstanding issues 22 September 2015

- Submitted Draft Well Installation Work Plan resulting from on-board meeting 14 December 2015

MWH, 2002a. Final Groundwater Pesticide Investigation Report, George Air Force Base. October.