

## Attachment A2 – Documentation for Water Quality Priority 9 –Basic Human Needs

The Sites Project would provide supplemental surface water supplies to Municipal and Industrial (M&I) water providers whose service areas include disadvantaged communities (DACs) that have drinking water supplies that exceed California maximum contaminant levels for various naturally occurring and human-caused contaminants including arsenic, nitrates, hexavalent chromium, bacteria, radionuclides, and disinfection by-products. The primary source for drinking water in the majority of the DACs is groundwater. Supplemental high quality surface water supplies generated from the project could be made available to DACs with unsafe drinking water supplies.

In addition, the Sites Reservoir Project water deliveries could augment groundwater storage and water level benefited that could also provide water quality improvements. In some DACs, chronic lowering of groundwater has resulted in wells reportedly going dry during periods of drought. Groundwater level benefits from increased conjunctive use by Sites participants could also improve access to drinking water supplies in DACs with wells going dry, particularly in the Sacramento River Colusa Subbasins.

### Methods

An evaluation of water supplies and public water systems within the hydrologic regions that will receive Sites Reservoir M&I water supplies and DACs was performed to identify potential disadvantaged communities where those basic human water needs, such as drinking, cooking, and bathing, are not currently being met. The State Water Resources Control Board (SWRCB) Human Right to Water Portal was used to identify water systems that currently do not meet drinking water standards. Water system details were obtained using the SWRCB's Safe Drinking Water Information System. DACs were identified using DWR's web-based Disadvantaged Communities Mapping Tool (DWR, 2015b). An overlay of the Sites Participant's service areas and DAC in areas with drinking water systems not currently meeting standards was performed.

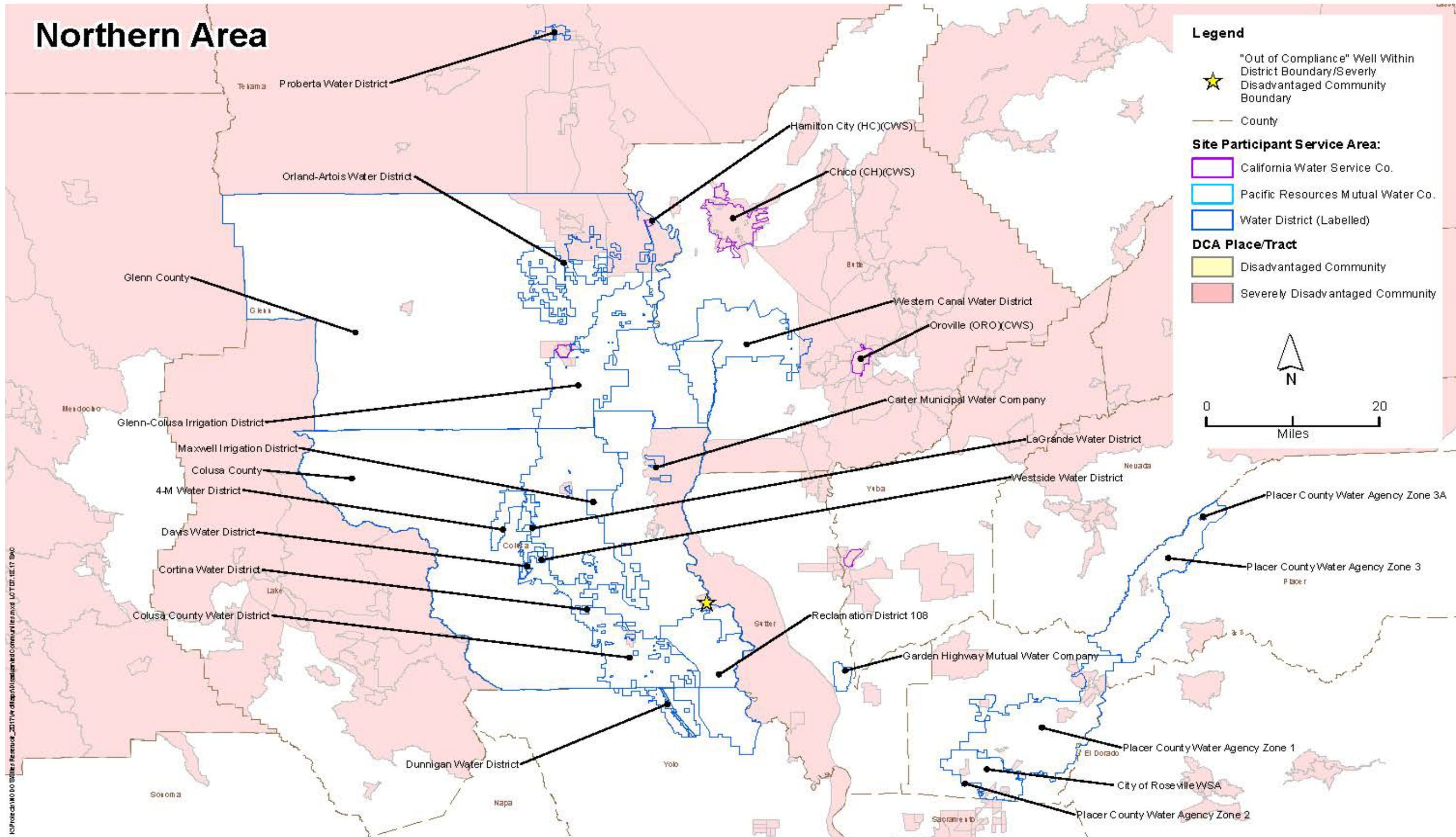
### Results

Table 1 presents the drinking water systems that are currently not meeting drinking water Standards in Participant Service Areas. These areas are also shown on Figures Water Quality P – 9a through Figures Water Quality P – 9c. The allocation of deliveries within each service area will be defined by each M&I participant and could vary from year-to-year depending on the needs of water users in that service area and specific timing and amount of deliveries from the Sites project.

**Table 1: Disadvantaged Community Drinking Water Systems Not Meeting Drinking Water Standards in Participant Service Areas**

Drinking Water System ID	Population Served	System Violations	Site Participant Service Area	Groundwater Basin ID	Groundwater Basin Name	Hydro Region	Disadvantaged Community	Disadvantaged Community Population (2014)
CA3900579	50	Arsenic	CA Water Service Co.	5-22.01	San Joaquin Valley	San Francisco Bay	Garden Acres CDP	6,559
CA3901213	30	Arsenic, Coliform	CA Water Service Co.	5-22.01	San Joaquin Valley	San Francisco Bay	Stockton City CDP	5,677
CA4310013	29,635	Disinfection by-products	Santa Clara Valley Water District	2-9.02	Santa Clara Valley	San Francisco Bay	Census Tract 5130	7,450
CA1500493	200	Arsenic	CA Water Service Co.	5-22.14	San Joaquin Valley	Tulare Lake	Census Tract 31.22	8,612
CA1500585	100	Arsenic	CA Water Service Co.	5-22.14	San Joaquin Valley	Tulare Lake	Census Tract 31.22	8,612
CA1502699	35	Nitrate-Nitrite, Coliform	CA Water Service Co.	5-22.14	San Joaquin Valley	Tulare Lake	Census Tract 31.22	8,612
CA1510024	8,500	Arsenic, E. Coli	CA Water Service Co.	5-22.14	San Joaquin Valley	Tulare Lake	Census Tract 31.22	8,612
CA1500575	165	Nitrate, Nitrate-Nitrite	CA Water Service Co.	5-22.14	San Joaquin Valley	Tulare Lake	Census Tract 23.02	3,444
CA1500494	66	Nitrate, Nitrate-Nitrite	CA Water Service Co.	5-22.14	San Joaquin Valley	Tulare Lake	Census Tract 9.05	2,553
CA1500455	56	Arsenic	Antelope Valley - East Kern Water Agency	6-46	Fremont Valley	Tulare Lake	Census Tract 59	3,678
CA1510002	2,253	Arsenic, Disinfection by-products	Antelope Valley - East Kern Water Agency	6-44	Antelope Valley	Tulare Lake	Census Tract 56	2,241
CA1500424	190	Arsenic	Antelope Valley - East Kern Water Agency	6-44	Antelope Valley	Tulare Lake	Census Tract 58.02	7,877
CA1500485	60	Hexavalent Chromium, Arsenic	Antelope Valley - East Kern Water Agency	6-44	Antelope Valley	Tulare Lake	Census Tract 58.02	7,877
CA1500571	73	Arsenic, Nitrate	Antelope Valley - East Kern Water Agency	6-44	Antelope Valley	Tulare Lake	Census Tract 58.02	7,877
CA1502231	940	Arsenic	Antelope Valley - East Kern Water Agency	6-44	Antelope Valley	Tulare Lake	Census Tract 58.02	7,877
CA1502569	35	Hexavalent Chromium, Arsenic	Antelope Valley - East Kern Water Agency	6-44	Antelope Valley	Tulare Lake	Census Tract 58.02	7,877
CA1502744	44	Hexavalent Chromium, Arsenic	Antelope Valley - East Kern Water Agency	6-44	Antelope Valley	Tulare Lake	Census Tract 58.02	7,877
CA1900038	61	Arsenic	Antelope Valley - East Kern Water Agency	6-44	Antelope Valley	Tulare Lake	Census Tract 9005.06	5,020
CA1900785	24	Arsenic	Antelope Valley - East Kern Water Agency	6-44	Antelope Valley	Tulare Lake	Census Tract 9008.06	3,883
CA1900100	135	Arsenic	Antelope Valley - East Kern Water Agency	6-44	Antelope Valley	Tulare Lake	Census Tract 9010.10	6,271
CA1900520	50	Arsenic, Coliform	Antelope Valley - East Kern Water Agency	6-44	Antelope Valley	Tulare Lake	Census Tract 9010.10	6,271
CA1900961	56	Arsenic, Coliform	Antelope Valley - East Kern Water Agency	6-44	Antelope Valley	Tulare Lake	Census Tract 9010.10	6,271
CA1910246	1,500	Arsenic, Coliform, Radionuclides	Antelope Valley - East Kern Water Agency	6-44	Antelope Valley	Tulare Lake	Census Tract 9010.10	6,271
CA3710707	489	Disinfection by-products	Metropolitan Water District	9-14	Mission Valley	South Coast	Census Tract 62	26
CA3301380	300	Arsenic, Nitrate	Coachella Valley Water District	7-31	Orocopia Valley	Colorado	Census Tract 456.04	13,677
CA3303100	314	Hexavalent Chromium, Arsenic	Coachella Valley Water District	7-21.01	Coachella Valley	Colorado	Census Tract 456.09	5,671
CA0600008	500	Arsenic	Colusa County	5-21.52	Sacramento Valley	Sacramento	Grimes CDP	5-21.52
CA3610064	87,000	Disinfection by-products, Gross Alpha Particle Activity	San Bernardino Valley Municipal Water District	8-02.06	Upper Santa Ana Valley	South Coast	San Bernardino CDP	8-02.06

Sources: Prepared by AECOM 2017; <https://waterboards.maps.arcgis.com/apps/webappviewer/index.html?id=573c97635cc747b8bb73cf1c8706fc22&mobileBreakPoint=480>; <https://gis.water.ca.gov/app/dacs/>; <https://sdwis.waterboards.ca.gov/PDWW/>  
 CDP = Census designated place

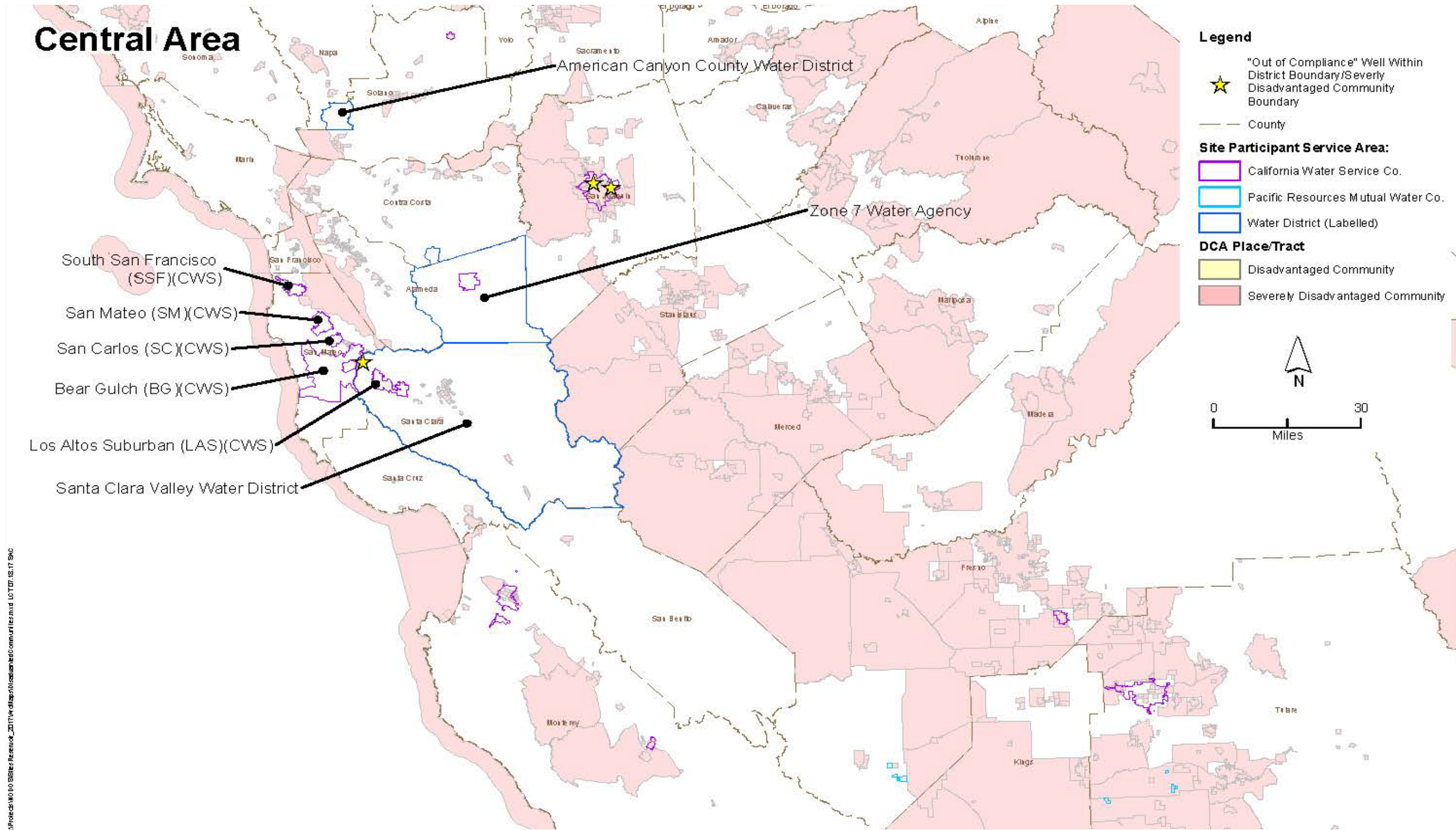


Source: Prepared by AECOM 2017

**Figure Water Quality P – 9a. Disadvantaged Community Block Groups within Site Participant’s Service Area (Northern California)**

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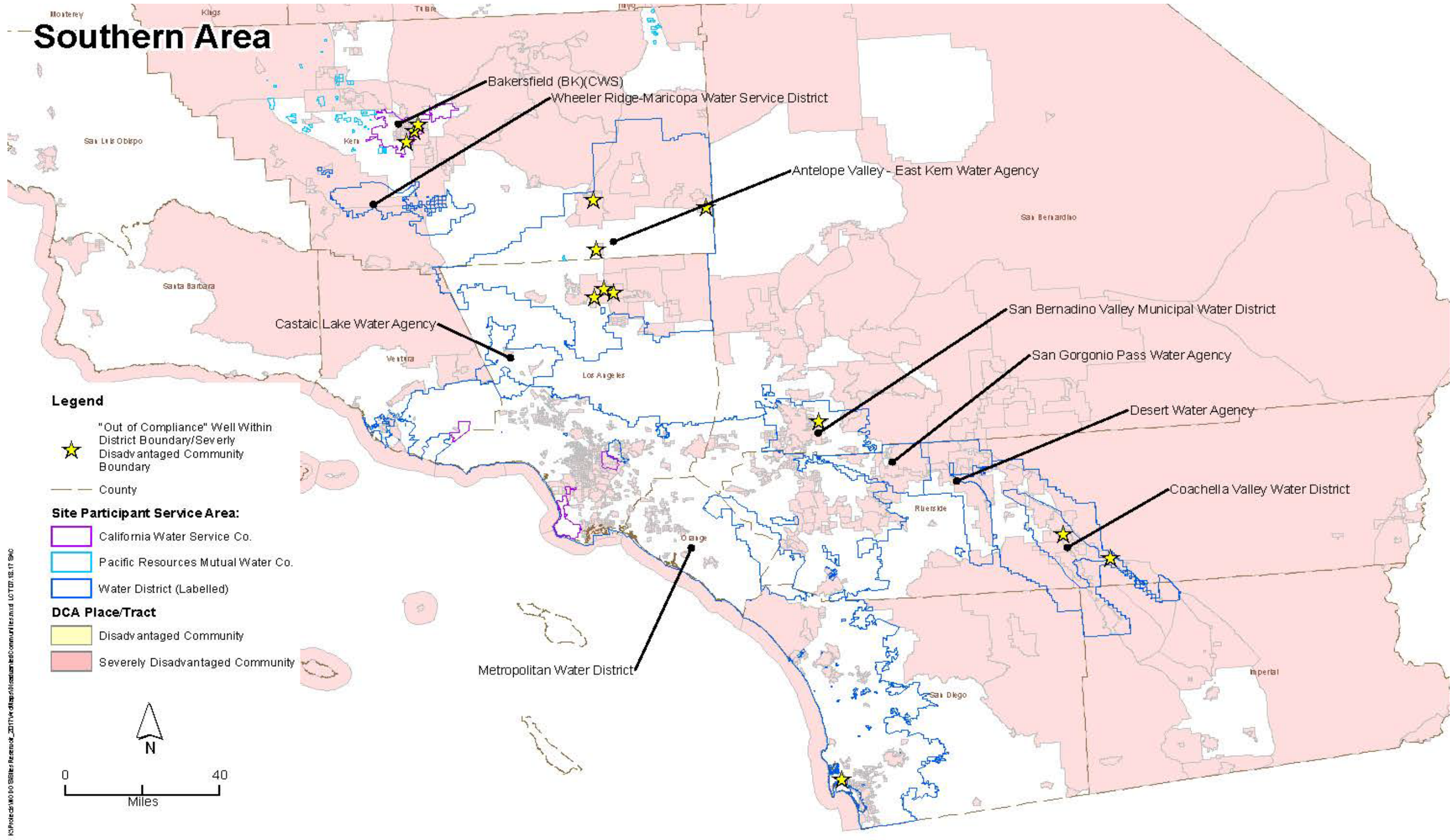




Source: Prepared by AECOM 2017

**Figure Water Quality P – 9b. Disadvantaged Community Block Groups within Site Participant's Service Area (Central California)**





Source: Prepared by AECOM 2017

**Figure Water Quality P – 9c. Disadvantaged Community Block Groups within Site Participant’s Service Area (Southern California)**