

# **APPENDIX Q**

## **Needs Assessment for Disadvantaged Communities in the Greater Monterey County IRWM Region**

Prepared as part of the 2017-2018 IRWM Plan Update  
for Compliance with 2016 IRWM Program Guidelines

With Funding Support from Proposition 1 IRWM Planning Grant Funds,  
Department of Water Resources

Submitted by:  
Heather Lukacs, Environmental Justice Coalition for Water  
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Goal: Develop a plan/budget needed to provide comprehensive outreach to all of the disadvantaged communities (DACs) with contaminated water, and identify data gaps and needs.

## **I. Proposed Approach**

A. Focus on addressing key structural barriers identified in the *Integrated Plan to Address Drinking Water and Wastewater Needs of Disadvantaged Communities in the Salinas Valley and Greater Monterey County IRWM Region* (Salinas Valley Disadvantaged Community Plan).

- Clarify project costs for community members
- Identify funding for laterals
- Cultivate potential project sponsors, especially Monterey County. Specifically:
  - Board of Supervisors
  - Legislative Committee of the Board of Supervisors
  - Public Works Department staff

B. Be strategic in the timing and location of community engagement to address water quality. Community engagement in projects is extremely time consuming and challenging. Minimum, we recommend:

- Focus on known hot spots for regulated contaminants (e.g., nitrate) in places where 100% grant funding is available.
- Support Monterey County Environmental Health Bureau (EHB) in collecting comprehensive data for state/local small water systems for 1,2,3-TCP, a recently regulated contaminant. Analyze public water system data. Identify hot-spots.
- Postpone outreach in communities with known chromium-6 contamination until after the MCL is determined (~6-12 months).<sup>1</sup> Community members will be more interested in a project to address a regulated contaminant.

C. Partner with Monterey County EHB and the State Water Resources Control Board (SWRCB) to coordinate community outreach for project implementation with enforcement actions. This could include training for Monterey County Environmental Health Specialists in the specifics of long-term solution options available to state/local small water systems with water quality violations.

D. Address data gaps to better plan/budget for comprehensive outreach

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<sup>1</sup> California State Water Resources Control Board. Frequently Asked Questions about Hexavalent Chromium in Public Water Systems. Dated September 18, 2017. Accessed March 16, 2018. [https://pubapps.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/documents/chromium6/chrome\\_6\\_faqs.pdf](https://pubapps.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/chromium6/chrome_6_faqs.pdf)

## II. Data Gaps

- A. Private domestic wells have very limited data
- Well construction information
  - Water quality data
- B. State (5-14 connections) and local small water systems (2-4 connections) data is limited to bacteria, nitrate, arsenic, and chromium-6
- No data currently collected on 1,2,3-TCP or perchlorate
  - Arsenic and chromium-6 data is only collected near public water systems with known contamination. State/local small water systems may be more shallow or of different well construction and therefore differently vulnerable to contamination.
- C. Public water systems with 1,2,3-TCP
- This data will be collected in 2018 per new SWRCB requirements. Table 1 shows past data collected between 2002 and 2013, which shows 1,2,3-TCP in Monterey County. Because this data is so limited, it is listed here as a data gap.

**Table 1: Public Water Systems with 1,2,3-TCP (2002-2013), MCL=0.005 ug/L**

SYSTEM NAME	SOURCE NAME	SAMPLE DATE	1,2,3-TCP (ug/L)
ALCO WATER SERVICE	KILBRETH WELL - RAW	20-Mar-07	0.21
CWSC LAS LOMAS	WELL 305-01 - RAW	23-Aug-06	0.006
CWSC SALINAS	WELL 013-01 - RAW	22-May-13	0.008
CWSC SALINAS	WELL 013-01 - RAW	04-Apr-12	0.007
CWSC SALINAS	WELL 013-01 - RAW	05-Apr-12	0.006
CWSC SALINAS	WELL 013-01 - RAW	07-Aug-13	0.006
CWSC SALINAS	WELL 013-01 - RAW	18-Sep-13	0.005
CWSC SALINAS	WELL 013-01 - RAW	26-Jan-12	0.005
CWSC SALINAS	WELL 020-01 - CHLORINATOR	22-May-03	0.005
CWSC SALINAS	WELL 020-01 - RAW	22-Jan-04	0.005
CWSC SALINAS	WELL 108-01 - RAW	14-Aug-03	0.005
SAN JERARDO COOP WS	WELL 03	01-Apr-03	0.085
SAN JERARDO COOP WS	WELL 03	04-Apr-06	0.082
SAN JERARDO COOP WS	WELL 03	18-Jun-03	0.067
SAN JERARDO COOP WS	WELL 03	25-Mar-03	0.064
SAN JERARDO COOP WS	WELL 03	22-Jan-03	0.046
VIERRA ESTATES WS	WELL 03 - MATTERHORN PLACE	10-Dec-02	0.012

## III. DACs with contaminated water in Monterey County

In this section, we briefly overview the small water systems with chromium-6 and arsenic located in or near confirmed and suspected DACs. Nitrate will not be discussed in detail because it was the focus of the Salinas Valley Disadvantaged Community Plan. Appendix 2.1 of

that plan provides a list of 52 small water systems in Monterey County located in 2015 DACs with nitrate greater than the MCL. As part of the plan development, approximately 14 additional small water systems with nitrate greater than the MCL were identified as “suspected” DACs. Several of the 14 were confirmed by income surveys and a few of the 14 systems are now located in a 2016 DAC block group (60530102021) that was not a DAC in 2015.

We estimate that approximately 23 small water systems with chromium-6 above 10 ug/L and 2 small water systems with arsenic greater than the MCL are located in DAC block groups (See Table 2). The vast majority the chromium-6 contaminated water systems are located in north Monterey County where only 4 of the ~17 block groups met income limits defined as DAC in 2016 (See Figure 1 and Table 3). In Figures 2 and 3, we highlight recommended areas for future work in blue circles labeled A-D<sup>2</sup>:

- A) Block Group 60530101012 with 2 out-of-compliance small water systems  
- This includes Struve Rd. WS #2, the mobile home park that will be part of the Springfield Rd. project.
- B) Block Group 60530102021 with 15 out-of-compliance small water systems  
- This includes the Johnson Rd. and upper Live Oak Rd. communities.
- C) Block Group 60530147004 with 3 out-of-compliance small water systems  
- This is a small block group north of Castroville.
- D) Block Group 60530146012 with 3 out-of-compliance small water systems  
- This is the Hudson Landing Rd. community, a suspected DAC.

Almost all out-of-compliance small water systems with arsenic are located outside of DAC block groups near Prunedale and the Corral De Tierra areas (See Figure 4).

**Table 2: Number of Local and State Small Systems that Exceed MCLs (or the former MCL for chromium-6)**

	<b>Arsenic</b>	<b>Nitrate</b>	<b>Chrom 6</b>
Local Smalls	52	123	106
State Smalls	29	39	59
<b>TOTAL</b>	<b>81</b>	<b>162</b>	<b>165</b>
<b># in DACs (estimated)</b>	<b>~2</b>	<b>~66</b>	<b>~23</b>

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<sup>2</sup> The Greater Monterey County Community Water Tool developed as part of the DAC plan provides a good overview of the location of both DAC block groups and also of contaminated small water systems. Figures 2, 3, and 4 are snapshots of this online tool.

Figure 1: Census Block Group Numbers in North Monterey County (2010).

Source: <https://www.policymap.com/maps>



Table 3: Median Household Income of Census Block Groups in North Monterey County

	2016	2015	2014	2013
DAC	49454.4	49191.2	48875.2	51026.4
SDAC	37090.8	35149.2	36656.4	38269.8
Block Group				
60530101012	39628	38558	43369	44306
60530101011	40500	38913	37941	42083
60530102021	41842	49673	49375	54286
60530147004	46172	50000	50743	65431
60530146013	58239	69120	57986	62917
60530103051	60396	58859	62917	63750
60530102023	64750	63699	70556	68194
60530146012	66886	65018	64737	58889
60530147001	67308	60441	82679	66346
60530146011	68333	64718	71094	67917
60530103052	81477	74948	73636	80938
60530147003	82543	76625	79352	68750
60530102022	94844	92917	86875	88125
60530103053	102750	65781	65787	61154
60530101022	107554	96364	87292	80625
60530147002	110132	91852	86563	81429
60530101021	118333	85526	83194	72434

Figure 2: DAC 2015 boundaries for 2015 in green, and EDA boundaries for 2015 in yellow. Chrom-6 data is in ug/L or ppb w/ public health goal of 0.02 ug/L.

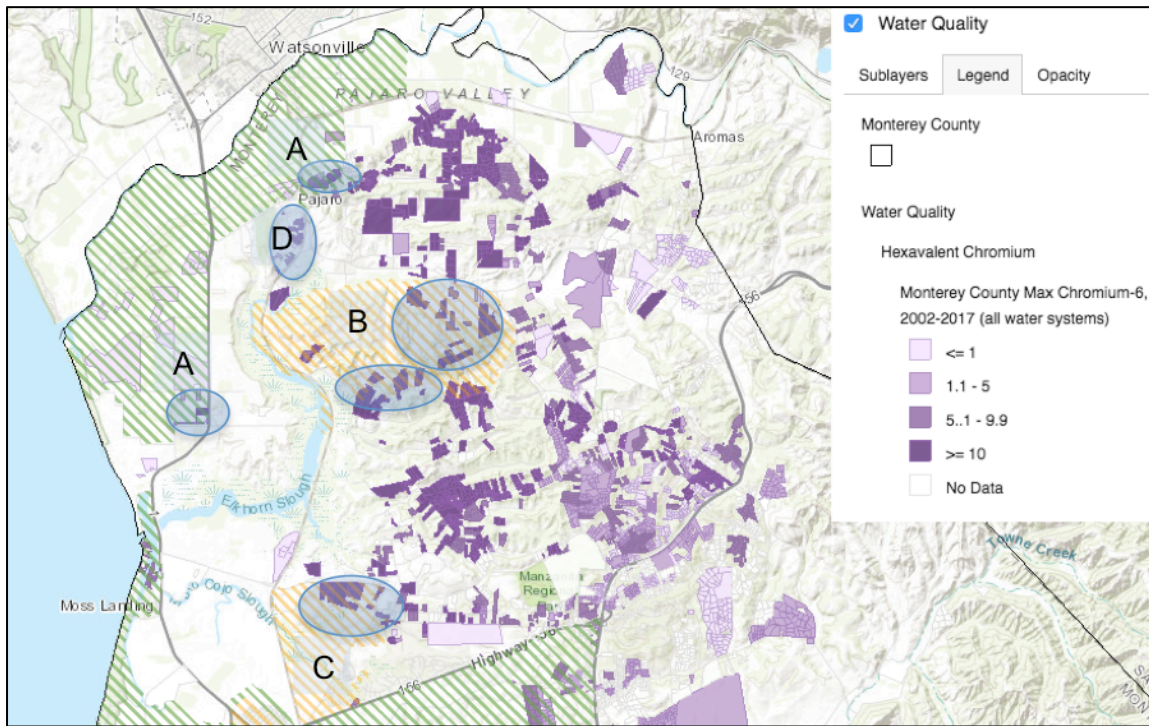


Figure 3: DAC block group with the most out-of compliance small water systems with chromium-6 (Block Group 60530102021)

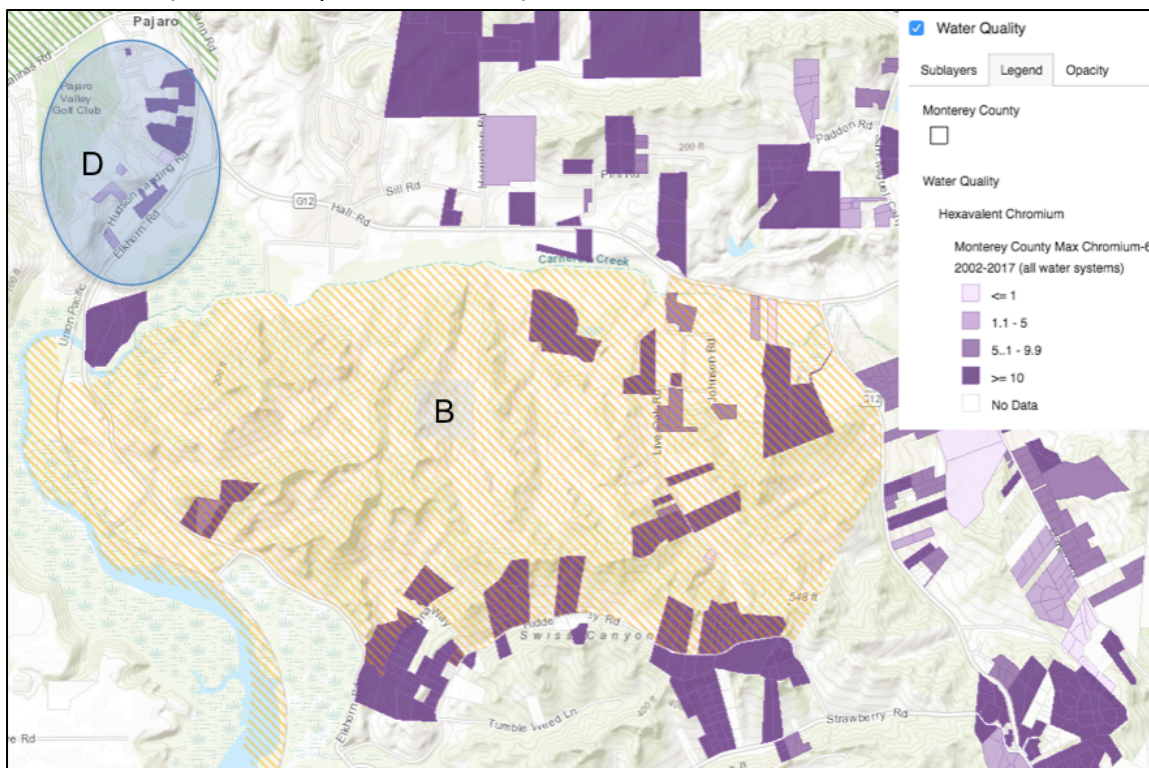




Figure 4: Almost all out-of-compliance small water systems with arsenic are located outside of DAC block groups near Prunedale and the Corral De Tierra areas

