

## EXECUTIVE SUMMARY

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### 1. Project Background

In October 2014, the Regional Water Management Group for the Greater Monterey County Integrated Regional Water Management (IRWM) Region received \$500,000 in grant funds from the State Water Resources Control Board (State Water Board) to develop an integrated plan to address drinking water and wastewater needs of disadvantaged communities in the Salinas Valley. The funds were appropriated by the California Legislature through Assembly Bill (AB) 1630 (Alejo), from fines and penalties from the Waste Discharge Permit Fund. In 2017, the Regional Water Management Group was provided an additional \$200,000 in grant funds from the State Water Board to enable the Project Team to expand community engagement and evaluation of long-term solutions. The following objectives, and associated tasks, were identified for the planning effort:

1. Identify disadvantaged communities within the planning region, with a focus on small disadvantaged communities in unincorporated areas.
2. Identify drinking water and wastewater problems.
3. Develop a comprehensive inventory and database and create maps.
4. Identify potential solutions for (at minimum) each “high priority” community.
5. Work with each community to determine preferred solution(s).
6. Develop conceptual project descriptions and cost estimates for the “high priority” communities.
7. Identify potential funding sources for the proposed projects and for broader regional solutions.

The core Project Team for this planning effort consisted of the Greater Monterey County IRWM Program Director and members of the Regional Water Management Group: Environmental Justice Coalition for Water (EJCW), Rural Community Assistance Corporation (RCAC), and San Jerardo Cooperative, Inc. – plus the consulting group Nilsen and Associates. The Project Team was assisted by a Technical Advisory Committee (TAC) consisting of representatives from the State and Regional Water Boards, local agencies, environmental justice organizations, engineers, water utilities, and individual community representatives. This plan was formally approved by vote of the Regional Water Management Group at a regularly scheduled Regional Water Management Group meeting, open to the public, on November 8, 2017.

### 2. Identifying Disadvantaged Communities

This plan focuses on small disadvantaged communities, and communities suspected to be disadvantaged, in unincorporated areas that are served by state small water systems (5-14 connections), local small water systems (2-4 connections), and private domestic wells.

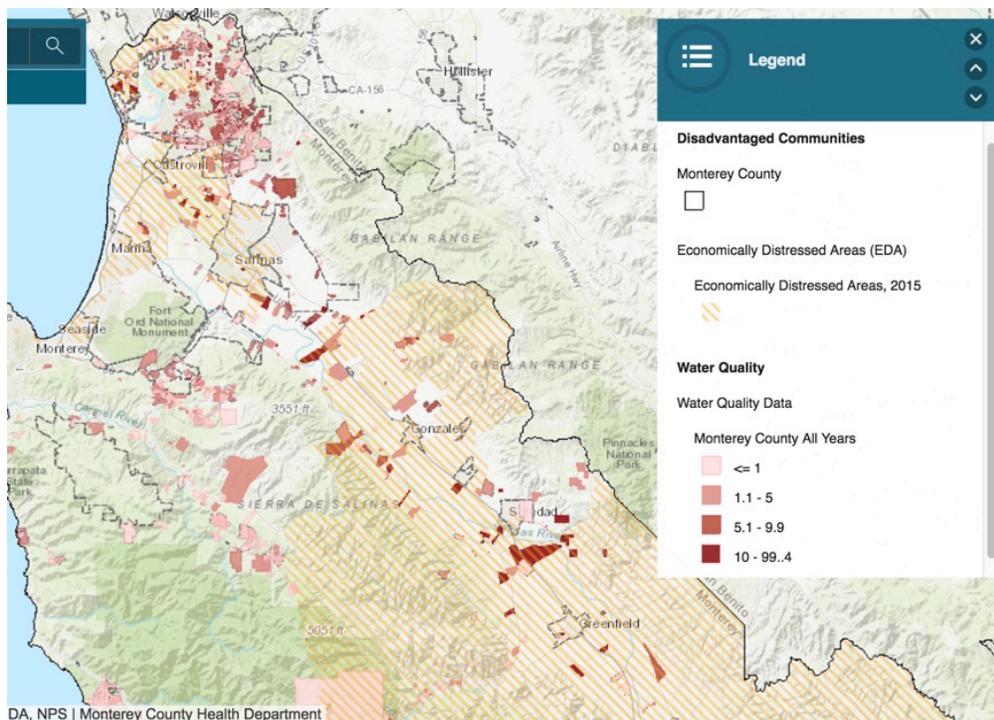
#### What is a “disadvantaged community”?

A disadvantaged community is a community with an annual median household income (MHI) that is less than 80 percent of the statewide annual MHI. Based on American Community Survey 2015 five-year average data, a community with an annual MHI of less than \$49,454 is considered a disadvantaged community.

**Suspected Disadvantaged Communities:** Many small low-income communities that face drinking water and wastewater issues are located in neighborhoods or communities that are not identified as being “disadvantaged” by large-scale income survey efforts such as the US Census. The Project Team worked with UC Davis Center for Regional Change to collect secondary sources of data that might indicate “suspected” disadvantaged communities. Combining this data with US Census data and water quality data from Monterey County Department of Health resulted in a list of small disadvantaged, and suspected disadvantaged, communities in the Greater Monterey County IRWM region that were considered likely to have drinking water or wastewater problems (see Table 2.3 in the Chapter 2 of the plan). The Project Team conducted median household income (MHI) surveys for several of the “suspected” disadvantaged communities over the course of the project period, enabling them to be formally classified as “disadvantaged” and therefore eligible for special grant funding.

**Database and Map Viewer:** A database and mapping tool was created for this project, and is being hosted on a three-year renewable basis at the University of California Chancellor’s Office and UC Davis Center for Regional Change. A new viewing platform, called the Greater Monterey County Community Water Tool, has been created to show the locations of disadvantaged and suspected disadvantaged communities, geographic areas with water quality contamination (including nitrate, arsenic, and hexavalent chromium contamination), and the boundaries of nearby water districts. The GMC Community Water Tool provides a powerful tool for the Greater Monterey County Regional Water Management Group, local agencies, and non-profit community assistance organizations (such as EJCW and RCAC) to identify “hot spots” of contamination and to evaluate options for potential consolidation of small disadvantaged communities with nearby water utilities. The GMC Community Water Tool can be viewed at:

<http://www.arcgis.com/apps/View/index.html?appid=1aea37e5150c425f987bd7129ad40a53>.



**Figure ES.1** Greater Monterey County Community Water Tool database and map viewer.

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### **Identifying Disadvantaged Communities: Key Findings**

- 1) *Importance of MHI surveys.* The MHI surveys conducted as part of this project and other efforts confirm what is already known: that there are many “hidden” disadvantaged communities, located within higher income census tracts and block groups. These communities will remain as “suspected” disadvantaged communities – and will be ineligible for many grants and loans targeted to low-income communities – unless their “disadvantaged” status can be proven. Resources are therefore needed to conduct MHI surveys for the remaining “suspected” disadvantaged communities within the region, and for those identified into the future.
- 2) *Importance of maintaining the Greater Monterey County Community Water Tool database and mapping tool:* The database and map viewer created as part of this project offers a powerful tool for the Greater Monterey County Regional Water Management Group, local agencies, and non-profit community assistance organizations; however, this tool will only continue to be effective if it updated and maintained. Resources will be needed to maintain the database and map viewer over time.

## 3. Identifying Problems

Common problems of small rural disadvantaged communities include, for example:

- Unreliable or inadequate infrastructure
- Inability to achieve economies of scale
- Inability to recover costs
- Lack of technical, managerial, and financial capacity
- No existing legal entity to manage water system
- Dependence on a single source of water
- Lack of redundancy of system
- Geographic isolation
- Low revenues and high delinquency rates
- Small or nonexistent reserve funds

EJCW staff conducted extensive outreach to small communities in unincorporated areas of the region, using a questionnaire survey. EJCW surveyed a total of 153 households in 25 communities, covering 19 census block groups. Six of these communities were identified as disadvantaged and 15 were identified as suspected disadvantaged communities (“disadvantaged community” status was later proven for many of the suspected disadvantaged communities by means of MHI surveys conducted over the course of the project.) Table 3.1 in Chapter 3 summarizes the survey results. Figure ES.2 on p. ES-5 illustrates the locations of disadvantaged and suspected disadvantaged communities.

The Project Team prioritized the communities according to need, based on the criteria outlined in Table ES.1 below. From the high priority community list (with 14 communities), the Project Team selected seven small communities with the goal of identifying specific solutions for each.

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**Table ES.1** Prioritization Matrix Tool

High	Medium	Low
DAC Status (based on census data [ACS], other available data, e.g., MHI survey, or EJCW drinking water survey data)	DAC Status (based on census data [ACS], other available data, e.g., MHI survey, or EJCW drinking water survey data)	DAC Status (based on census data [ACS], other available data, e.g., MHI survey, or EJCW drinking water survey data)
Communities/areas that have <b>known</b> drinking water or wastewater issues (e.g., “do not drink” orders or signs, interim drinking water, County records, owner confirmation)	Communities/areas that have <b>reported but not confirmed</b> drinking water or wastewater issues (e.g., discolored tap water, bad taste, reports by tenant of daily septic systems pumping)	<b>No known or reported problems</b>
Communities that face an <b>immediate</b> public health threat, for example: <ul style="list-style-type: none"> <li>• Nitrate or arsenic over the MCL</li> <li>• Overflowing septic tanks</li> <li>• No safe method of disposing human waste</li> </ul>	Communities that face a <b>potential</b> public health threat, for example: <ul style="list-style-type: none"> <li>• Need to upgrade septic system</li> <li>• Need to install additional leach fields</li> <li>• Reports of water quality issues</li> <li>• Flooding</li> </ul>	Communities that face <b>no immediate or potential</b> public health threat

Outreach to the following larger disadvantaged communities was also conducted to assess needs and potential capacity to provide services to nearby small communities: Boronda CDP, Castroville CDP, Greenfield, Gonzales, King City, Moss Landing CDP, San Ardo CDP, and San Lucas CDP. The following water districts/utilities were contacted to assess available resources for potential consolidation or extension of service: City of Soledad, Pajaro Sunny Mesa Community Services District, Castroville Community Services District, City of Gonzales, California American Water (CalAm), Alco Water Service, and California Water Service (Cal Water).

### Identifying Problems: Key Findings

1. *Many more disadvantaged communities exist in the region than could be fully evaluated through this project.* The Project Team identified a total of 21 disadvantaged and suspected disadvantaged communities within the region. Fourteen of these communities were classified as high priority, five were classified as medium priority, and two were classified as low priority. With the funds available, the Project Team selected seven of the high priority communities for further evaluation through this project. Additional funds will be needed to fully evaluate solutions for the remaining high and medium priority communities.



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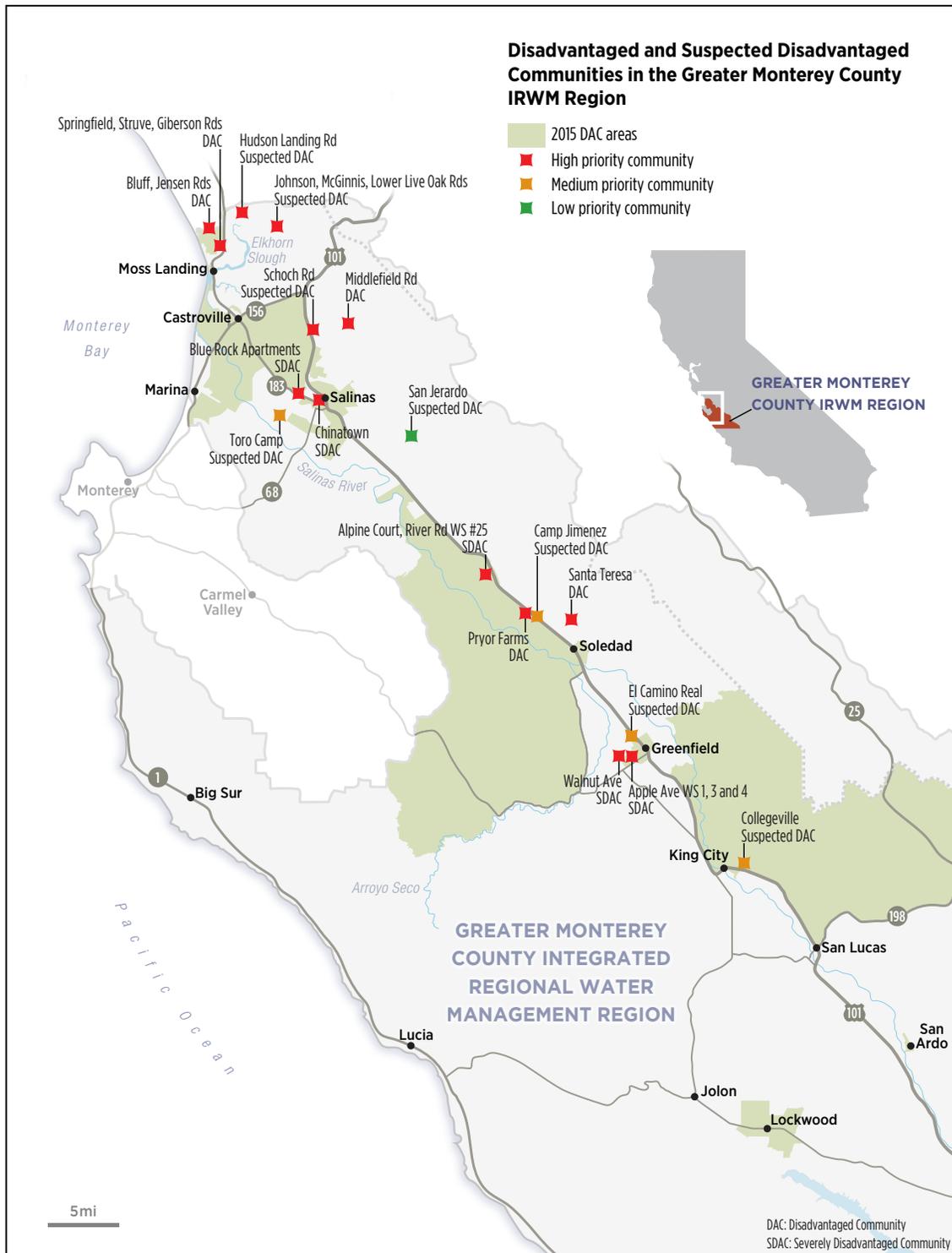


Figure ES.2 Location of high, medium, and low disadvantaged and suspected disadvantaged communities.

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## 4. Identifying Solutions

The Project Team worked in partnership with the Community Engineering Corps (CECorps), an alliance of the American Society of Civil Engineers, the American Water Works Association, and Engineers Without Borders-USA, to identify and evaluate solutions for each of the seven selected high priority disadvantaged communities. These communities were:

1. Johnson Road, located in North Monterey County approximately 1.5 miles southeast of Las Lomas
2. Walnut Avenue, located about a half mile west of the City of Greenfield
3. Apple Avenue Water System #3, located within the City of Greenfield limits
4. Santa Teresa Village, located approximately 0.8 miles north of the City of Soledad
5. Hudson Landing Road, located approximately one mile west of Las Lomas
6. Middlefield Road, located approximately seven miles northeast of downtown Salinas
7. Schoch Road, located just north of Salinas

The chapter describes the water problems and alternative long-term options for each community, recommended solution(s), potential barriers, community preference (if any), and next steps. Table ES.2 summarizes the recommended solutions and next steps for the seven selected communities, as well as the other communities on the high priority list. Consolidation or extension of service from a nearby water utility was the recommended solution for six out of the seven communities. While CECorps recommended consolidation as a long-term option for Santa Teresa Village, the community is currently participating in a wellhead treatment pilot project being conducted by University of California Los Angeles (UCLA). The systems will use reverse osmosis to remove nitrate, and will be remotely monitored/operated. The pilot project is designed to determine, in part, the affordability of O&M costs of the wellhead water treatment option to disadvantaged communities. At the conclusion of the pilot project, the Santa Teresa Village system owner will compare the costs of consolidation with the remotely operated wellhead treatment system and select the preferred option.

### **Identifying Solutions: Key Findings**

- 1) *High variability of nitrate levels and other contaminants within communities.* Hexavalent chromium, 1,2,3-TCP, and bacteria were also found in some high priority communities.
- 2) *Increasing trend in nitrate levels.* While variability within communities exists, the overall trend indicates increasing nitrate levels. Some wells drilled just 5-10 years ago now show high nitrate levels.
- 3) *Need for increased community engagement.* Community outreach and engagement to bring communities into agreement on long-term solutions, and to engage neighboring systems, requires substantially more time and resources than existing funds allow. This is especially challenging when there are no legal entities in a neighborhood and when neighbors do not know each other.
- 4) *Need for project sponsorship.* A primary barrier to implementing long-term solutions is finding a project sponsor. Nearby water utilities are often reluctant to be project sponsors due to difficulty in getting reimbursed from funding agencies for administrative costs.
- 5) *Household monthly cost is one of the most significant determinants of a community's interest in participating in a long-term solution.* It is challenging to find funding sources that will cover costs not covered by the State, including lateral costs (from meter to home).

**Table ES.2** High Priority Disadvantaged and Suspected Disadvantaged Communities: Recommended Solutions and Next Steps

Community	Area / Nearest Water Provider	DAC/EDA Status [MHI]	Drinking Water and Wastewater Problems	Recommended Solutions	Recommended Next Steps	Potential/ Existing Funding Sources
Middlefield Rd.	Bolsa Knolls area Cal Water-Salinas, Gabilan Water Company	DAC [\$38,200]  (MHI Survey by EJCW, 2016/17)	Nitrate above the MCL. No known wastewater problems.	Consolidation with Cal Water-Salinas.  <i>See Project Proposal for more detail.</i>	Outreach, MHI survey, and facilitate consensus of neighboring small water system to determine whether they will join project (EJCW). Support Middlefield Rd. community in all aspects of connecting to larger water provider. (EJCW, DACI or Prop 1 TA).	SRF/Prop 1 (Construction)
Johnson Rd, McGinnis Rd, lower Live Oak Rd.	Las Lomas area Cal Water-Las Lomas	EDA [\$49,673]  ACS Data	Nitrate above the MCL. No known wastewater problems.	Waterline extension from Cal Water-Las Lomas with Monterey County or Cal Water as grant applicant.  <i>See Project Proposal for more detail.</i>	<u>Phase 1:</u> MHI survey and continued outreach to finalize determination of community boundary for Johnson Rd., McGinnis Rd. and lower Live Oak Rd. (EJCW and Prop 1 TA). Conduct wastewater analysis to determine options (EJCW/CECorps). <u>Phase 2:</u> Conduct outreach meetings and door-to-door outreach to upper Live Oak Rd. to determine interest (EJCW, DACI and/or Prop 1 TA).	Prop 1 TA or IRWM DACI (Planning)
Walnut Ave. (Carrillo Farms)	City of Greenfield	SDAC [\$30,100] (MHI Survey by EJCW, 2016)	Nitrate above the MCL. Failing septic systems.	Waterline extension from City of Greenfield.  <i>See Project Proposal for more detail.</i>	Consultations with County planning department, City of Greenfield, LAFCO, neighboring residents, State Water Board regarding potential project (EJCW, DACI or Prop 1 TA).	Prop 1 TA or IRWM DACI (Pre-Planning and Planning)
Apple Ave. #1 and #4 Mittelsteadt	City of Greenfield	SDAC (MHI Survey by RCAC, 2016)	Nitrate above the MCL. Possible wastewater problems.	Waterline extension from City of Greenfield.	Environmental review, LAFCO out of service area agreement, grant application. Engineering complete. (EJCW, Prop 1 TA)	Prop 1/SRF (Construction) <i>Same application as Camp Rocha.</i>
Apple Ave. #3 Camp Rocha	City of Greenfield	SDAC (MHI Survey by RCAC, 2016)	Nitrate above the MCL. Reported septic system upgrade needed.	Waterline extension from City of Greenfield.	Environmental review, grant application. Engineering complete. (EJCW)	Prop 1/SRF (Construction) <i>Same application as Mittelsteadts.</i>
Hudson Landing Rd.	Watsonville /Las Lomas area Pajaro Sunny Mesa CSD	Suspected DAC – <a href="#">[need for MHI survey]</a>	Nitrate above the MCL. Potential wastewater problems.	Extension from Pajaro Sunny Mesa CSD.  <i>See Project Proposal for more detail.</i>	Outreach to neighbors to gauge interest and determine community boundary (EJCW, IRWM DACI). Conduct MHI survey (RCAC, IRWM DACI).	IRWM DACI (Pre-Planning)  Prop 1/SRF (Planning and Construction)
Schoch Rd.	Bolsa Knolls area. Cal Water - Salinas, CalAm-Ralph Lane	Suspected DAC <a href="#">[need for MHI survey]</a>	Nitrate above the MCL. No known wastewater problems.	Waterline extension from Cal Water-Salinas.  <i>See Project Proposal for more detail.</i>	Outreach to neighbors to gauge interest and determine project boundary (EJCW, IRWM DACI). Conduct MHI survey (RCAC, IRWM DACI).	IRWM DACI (Pre-Planning)  Prop 1/SRF (Planning and Construction)

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Springfield, Struve, and Giberson Rds	Moss Landing area  Springfield Water Company / Pajaro Sunny Mesa CSD	DAC  ACS Data	Nitrate above the MCL. No known wastewater problems.	Consolidation of Springfield Rd, Struve Rd, Giberson Rd, and the Moss Landing Manor mobile home park into Springfield Water Company, which is owned and operated by Pajaro Sunny Mesa CSD.	Monitor progress and provide assistance if Pajaro Sunny Mesa CSD encounters any roadblocks. Pajaro Sunny Mesa CSD has received a SRF planning grant and received the permit from Monterey County to proceed with a test well in late August 2017.	SRF (Planning and Construction)
Bluff, Jensen Rds	Moss Landing area  Pajaro Sunny Mesa CSD	DAC  ACS Data	Nitrate above the MCL. No known wastewater problems.	Waterline extension from a water system owned and operated by Pajaro Sunny Mesa CSD.	Outreach to property owners and residents to gauge interest and determine community boundary (EJCW, IRWM DACI). If residents are interested, prepare Planning Grant application (Nilsen and Assoc SRF or IRWM DACI)	DACI (Pre-Planning)  SRF/Prop 1 (Planning)
Alpine Court, River Rd. WS #25	City of Gonzales	SDAC [\$24,000] (MHI Survey by CRLA, 2013)	Nitrate above the MCL. Failing septic systems.	Water and wastewater consolidation with the City of Gonzales.	Monitor progress and provide assistance if the City of Gonzales encounters any roadblocks.	Prop 1 (Planning and Construction)
Chinatown	City of Salinas (within city limits)	SDAC	Previously, no public restroom access after 7pm	No additional recommendations at this time.	24-hour public toilet and shower facility complete in Oct. 2016	n/a
Blue Rock Apartments	Boronda area  Cal Water -Salinas	SDAC  ACS Data	Nitrate above the MCL. No known wastewater problems.	UCLA drinking water pilot project site, pending	Regional Board has issued Monitoring and Reporting Program (CWC §132767). Submission for drinking water permit amendments to the Monterey County Environmental Health Dept is in progress.	State Water Board grant, Agreement No. 14-251-550 [C/A 367]
Pryor Farms	City of Soledad	DAC  ACS Data	Nitrate above the MCL. No known wastewater problems.	UCLA drinking water pilot project site, pending	Same as above.	State Water Board grant, Agreement No. 14-251-550 [C/A 367]
Santa Teresa	City of Soledad	DAC [\$40,000] (MHI Survey by CRLA 2014)	Nitrate above MCL. Older septic system – to be evaluated at conclusion of UCLA project.	UCLA drinking water pilot project site, pending <i>See Project Proposal for more detail</i>	Same as above.	State Water Board grant, Agreement No. 14-251-550 [C/A 367]

**ACRONYMS AND ABBREVIATIONS:**

CRLA: California Rural Legal Assistance

DAC: Disadvantaged Community

DACI: Proposition 1 Integrated Regional Water Management (IRWM) Disadvantaged Community Involvement Grant Program

EDA: Economically Distressed Area

Prop 1 TA: Proposition 1 Technical Assistance grant funds

SDAC: Severely Disadvantaged Community

SRF: California State Revolving Fund

### Next Steps for Other High Priority Communities: Focus Areas for Future Work

In 2017, the Project Team worked with staff from the Central Coast Regional Water Board and Monterey County Environmental Health to identify 52 small water systems with high nitrate levels (2015-2017) located in disadvantaged community block groups, tracts, and places in Monterey County. Based on this data, the Project Team identified four geographic focus areas for future work: Northwest Monterey County, North of Salinas, West of Soledad and Gonzales, and Greenfield area (illustrated in Figure 4.15 in the chapter). Key recommendations for future work:

- Conduct outreach to the remaining 35 small water systems and to nearby water providers to determine feasible interim and long-term water solution options.
- Update the list of high priority communities every year when new ACS data is released and when water quality data is updated.

## 5. Recommendations

The Project Team offers the following recommendations based on their work over the three-year project period:

### Recommendation 1. Funding Needs

Most of the Project Team's recommendations begin with a need for increased funding support. While numerous federal and state funding opportunities exist for disadvantaged communities, the Project Team noted certain funding "gaps" and recommended that federal, state, and regional government entities consider increasing funding in the following areas:

- a) Guaranteed set-aside funds for small disadvantaged community water systems, particularly to see the "high priority" communities through to an implementable solution.
- b) Increased support for community engagement, particularly to support outreach to communities in the four geographic focus areas identified for future work, and for pre-project development and project development activities for all high priority projects described in Table ES.2.
- c) Ongoing assessment of needs: Since MHI data changes every year, resources are needed to enable re-assessment of disadvantaged community status and of their drinking water and wastewater needs on an annual basis; importantly, funds are needed to support ongoing updates and maintenance for the Greater Monterey County Community Water Tool database and map viewer, as well as continued hosting costs.
- d) Focused MHI surveys to prove "disadvantaged" status of "suspected disadvantaged" communities in order for those communities to qualify for special grants and loans.
- e) Guaranteed funding for bottled water programs and other interim solutions to ensure that immediate drinking water and wastewater needs are addressed for however long it takes a community to implement a permanent solution.
- f) More intensive outreach to private domestic well owners, along with systematic water quality testing.

- g) Wastewater education, including distributing written materials, hosting informative community workshops, and providing door-to-door outreach.

### **Recommendation 2. Grant Funding Process**

The following recommendations are targeted primarily toward state funding agencies (in particular, the State Water Board) and Monterey County to help make the grant funding process more effective and efficient:

- a) *Project sponsorship*: The difficulty in finding qualified sponsors for drinking water projects for small disadvantaged communities is, statewide, a frequent and significant barrier to implementing solutions. The Project Team recommends that State funding agencies make grant requirements for disadvantaged community drinking water projects easier and more affordable for qualified entities to sponsor projects. Other ideas are for State or local governments to take a leadership role in sponsoring projects, or for the development of a legal entity, such as a regional Joint Powers Agency (JPA), to act as project sponsor for rural communities, private domestic wells, and small systems where consolidation is not feasible.
- b) *Lateral costs*: While most funding sources cover infrastructure costs, lateral costs are typically not covered; as a result, a solution that may appear low cost may wind up being an unaffordable option. The Project Team recommends that State funding agencies allow for grant coverage of lateral costs for disadvantaged communities.
- c) *More efficient reimbursement from State grants*: Short vs. long reimbursement periods can make the difference between small communities being able or not being able to implement long-term solutions. Beginning with Proposition 1 IRWM funds, the Department of Water Resources has instituted a policy to pay disadvantaged communities and nonprofit organizations 50 percent of their grant award upfront. The Project Team urges other State agencies to consider similar reimbursement policies for disadvantaged communities.
- d) *Need for increased certainty in identifying costs*: Community members repeatedly state that their interest to participate in a long-term water or wastewater project depends on cost. The Project Team recommends that the State Water Board and other funding agencies implement a “pre-approval” process to clarify the costs to property owners of future water or wastewater projects. A pre-approval process, and clear schedule of deadlines for application requirements, would provide community members the information they need to decide whether to join a water project.

### **Recommendation 3. Monterey County Health Department Coordination**

Given the depth of experience and knowledge that County staff have regarding small communities in unincorporated areas of the region, the Project Team encourages increased input from County staff on project evaluations for disadvantaged communities as this work continues into the future.