INTEGRATED REGIONAL WATER MANAGEMENT
SAN DIEGO FUNDING AREA
WATER NEEDS ASSESSMENT
FINAL
MAY 2019

Prepared by the Tri-County Funding Area Coordinating Committee
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San Diego Funding Area
Water Needs Assessment
May 2019

Prepared by Woodard & Curran, Climate Science Alliance, and Rural Communities Assistance Corporation for the Tri-County Funding Area Coordinating Committee
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For further information, contact:
Mark Stadler, IRWM Program Manager
San Diego County Water Authority
4677 Overland Avenue
San Diego, CA 92123
858-522-6735
mstadler@sdcwa.org
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<table>
<thead>
<tr>
<th>Acronym</th>
<th>Abbreviation</th>
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<tbody>
<tr>
<td>ACS</td>
<td>American Community Survey</td>
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<tr>
<td>CPA</td>
<td>Community Planning Area</td>
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<td>CRA</td>
<td>Colorado River Aqueduct</td>
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<td>CSA</td>
<td>Climate Science Alliance</td>
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<tr>
<td>DAC</td>
<td>Disadvantaged Community</td>
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<td>DACI</td>
<td>Disadvantaged Community Involvement</td>
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<td>DWR</td>
<td>Department of Water Resources</td>
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<td>EDD</td>
<td>Employment Development Department</td>
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<td>EDA</td>
<td>Economically Distressed Area</td>
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<td>EJ</td>
<td>Environmental Justice Community</td>
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<td>GAMA</td>
<td>Groundwater Ambient Monitoring and Assessment Program</td>
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<td>IRWM</td>
<td>Integrated Regional Water Management</td>
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<td>MCL</td>
<td>Maximum Contaminant Level</td>
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<td>MHI</td>
<td>Median Household Income</td>
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<tr>
<td>MOU</td>
<td>Memorandum of Understanding</td>
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<td>MS4</td>
<td>Municipal Separate Storm Sewer System</td>
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<td>MWD</td>
<td>Metropolitan Water District of Southern California</td>
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<td>MWDOC</td>
<td>Municipal Water District of Orange County</td>
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<td>Native American Water Masters Association</td>
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<td>Non-Governmental Organization</td>
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<td>NPDES</td>
<td>National Pollutant Discharge Elimination System</td>
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<td>O&amp;M</td>
<td>Operation and Maintenance</td>
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<td>Prop</td>
<td>Proposition</td>
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<td>RCAC</td>
<td>Rural Community Assistance Corporation</td>
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<td>Regional Water Management Group</td>
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<td>Severely Disadvantaged Community</td>
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<td>San Diego County Water Authority</td>
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<td>State Water Project</td>
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<td>TDS</td>
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<td>TMF</td>
<td>Technical, Managerial, Financial</td>
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<td>Acronym</td>
<td>Full Form</td>
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<td>Tri-County Funding Area Coordinating Committee</td>
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<td>U.S. EPA</td>
<td>United States Environmental Protection Agency</td>
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<td>USMW</td>
<td>Upper Santa Margarita Watershed</td>
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<td>URC</td>
<td>Underrepresented Community</td>
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1 Introduction

1.1 Integrated Regional Water Management Program

Integrated Regional Water Management (IRWM) is a statewide initiative to encourage water management using a collaborative approach to identify and implement water management solutions on a regional scale. IRWM aims to develop long-term water supply reliability, improve water quality, protect natural resources and enhance resiliency to climate change for local water resources. Since the beginning of statewide IRWM efforts, funding has been made available by the California Department of Water Resources (DWR) for IRWM planning and projects through three voter-approved water bonds: Proposition 50, Proposition 84, and Proposition 1. Bond language in Propositions 84 and 1 divided the state into 12 Funding Areas, each of which may contain multiple IRWM Planning Regions that compete for grant funds.

The San Diego Funding Area (SDFA) includes three IRWM Regions: San Diego, Upper Santa Margarita Watershed, and South Orange County, each of which is managed by its respective Regional Water Management Group (RWMG).

- The San Diego IRWM effort is led by an RWMG comprising the City of San Diego, the County of San Diego, and the San Diego County Water Authority (SDCWA).
- The Upper Santa Margarita Watershed IRWM effort is led by an RWMG comprising the Rancho California Water District, County of Riverside, and Riverside County Flood Control and Conservation District.
- The South Orange County Watershed Management Area IRWM Group is led by an RWMG comprising the County of Orange, Municipal Water District of Orange County, and South Orange County Wastewater Authority.

The RWMGs of the SDFA decided early on to take a coordinated approach to the IRWM Program. They formed the Tri-County Funding Area Coordinating Committee (Tri-County FACC) through a Memorandum of Understanding (MOU) to collaborate on projects and communication within and across the three planning Regions. The Tri-County FACC’s regular meetings since 2008 have enabled the integrated management of watersheds and resources that cross jurisdictional lines. The RWMGs share data and information to inform interregional efforts and facilitate collaboration within the SDFA.

The Tri-County FACC MOU also establishes how IRWM grant funds will be allocated to each of the IRWM Regions in the SDFA, improving relations between RWMGs by eliminating funding-related conflicts. Successful funding agreements were achieved for each round of Proposition 84 funding and for the Disadvantaged Community (DAC) Involvement and planning rounds of Proposition 1. The Tri-County FACC MOU shows the willingness of these agencies to work collaboratively to solve important water resource conflicts, furthering the integration of water resource management.
Figure 1: SDFA IRWM Areas and Overlapping Watersheds

Legend:
- South Orange County Region
- Upper Santa Margarita Region
- San Juan Watershed
- Santa Margarita Watershed
- San Diego IRWM Region
- Funding Area and Tri-County FACC Boundary
- Waterbody
- Watershed
- County
- Mexico
- River
- Freeway

Source: San Diego Association of Governments (SANDAG) - GIS Data Warehouse

Source: 2019 San Diego Integrated Regional Water Management Plan
1.2 Disadvantaged Community Involvement Program

The Water Quality, Supply, and Infrastructure Improvement Act of 2014, known as Proposition 1 and administered by DWR, provides funding for projects that will improve water supply reliability and create a more sustainable water system. DWR established the DAC Involvement (DACI) Program to support DACs, communities in Economically Distressed Areas (EDAs), Underrepresented Communities (URCs), and communities facing Environmental Justice concerns (EJ communities). This document refers to these communities jointly as DACs, unless otherwise specified.

The primary objectives of the DACI Program are to:

- Determine DAC water management needs across the SDFA;
- Identify strategies that encourage and enable DACs to participate in planning efforts and secure project funding;
- Engage and involve DACs in defining their water management needs and determine how to support ongoing DAC involvement in IRWM programs over the long term; and,
- Clarify key priorities that are necessary to address deficiencies in DAC water, wastewater, stormwater, and flood control systems.

1.3 Water Needs Assessment

In 2018, approximately $5.5 million was awarded to the SDFA for identifying DACs and their needs, increasing DAC involvement in the three IRWM Regions, and supporting DACs in preparing for upcoming funding opportunities. In addition to funding nine DAC-led projects in the SDFA, this round of funding included the development of a joint Water Needs Assessment, led by the Tri-County FACC. The Tri-County FACC also agreed to share the materials with the County of Orange to allow a cohesive outreach strategy within all of Orange County (which includes watershed management areas outside the SDFA).

The Tri-County FACC extended the specific goals of the DACI Program to the Water Needs Assessment, with the intention of better understanding its DACs, and expanding outreach to these communities. The goals of the Water Needs Assessment are to:

1) Identify DACs, EDAs, URCs, and EJ communities;
2) Identify and characterize water-related issues and needs of identified communities; and
3) Increase DAC participation in the IRWM planning process.

The Water Needs Assessment is designed to help distill the water management needs of DACs in each IRWM Region to provide a better understanding of the needs of the communities and to develop funding priorities, which may help direct resources and funding where specifically needed. To achieve this goal, a short questionnaire was distributed, and the Tri-County FACC hosted informational community meetings to survey water resource needs across such categories as drinking water accessibility and affordability, wastewater system issues, stormwater and flood management, compliance issues, and water system financing. The community meetings were also used to initiate conversations about how the IRWM Program may better engage with the targeted communities.

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1 DACs and EDAs are considered DAC if they meet MHI and economic criteria described in Section 1.5 Definitions and are eligible for cost-share waivers in IRWM grant funding.
communities. Outreach methods are described further in Section 4: Community Outreach and Engagement below. In addition to outreach, a review of DAC information gathered through the 2019 IRWM planning effort is integrated into this report, which supplements information gathered via outreach.

Overall, 42% of organizations contacted through this effort chose to participate through the questionnaire or community meetings. The outcomes of this Water Needs Assessment reflect the responses of participants, and while considered representative of some needs faced by DACs, it is not considered to be an exhaustive characterization of all DAC needs in the region. The water challenges described by DACs in the SDFA are generally consistent with the known water needs identified in the three IRWM Plans in the SDFA, although stakeholders from each planning Region placed different emphases or priorities on identified needs, which may reflect the organizations who participated in the Water Needs Assessment. The scope of the Water Needs Assessment did not include a process to verify identified needs, recognizing that communities themselves have direct knowledge and experience that enables them to identify their needs best. As a result, data considered in this assessment necessarily reflects the perceptions and biases of its participants.

1.4 Partners

The partners engaged in this Water Needs Assessment included the Tri-County FACC partners, along with their consulting team (Woodard & Curran) and two community non-governmental organizations (NGOs) - the Climate Science Alliance (CSA) and the Rural Community Assistance Corporation (RCAC). These NGOs were selected to support the Water Needs Assessment based on their experience with engaging DACs and analyzing complex data.

1.4.1 Woodard & Curran

Woodard & Curran is an integrated engineering, science, and operations company that has supported IRWM Regions that represent 85% of California's population in their IRWM planning efforts. The firm has provided overall program leadership for the San Diego IRWM Region since 2007, in addition to programmatic support to the Region by preparing eight regional grant applications and managing the RWMG, Regional Advisory Committee, and Tri-County FACC. Additionally, Woodard & Curran has worked with the Upper Santa Margarita IRWM Region as program manager since 2012, providing support for the 2014 IRWM Plan update and four regional grant applications.

1.4.2 Climate Science Alliance

CSA is a boundary organization focused on bridging relationships between scientists, government, and the broader community to support climate resilience in communities and natural areas. With more than 250 network members, CSA maintains relationships across San Diego County that directly support disadvantaged communities and Title 1 schools and works closely with regional tribes through its Regional Tribal Working Group and Climate Kids programs.
1.4.3 Rural Community Assistance Corporation

RCAC provides training, technical and financial resources, and advocacy so rural communities may achieve their goals and vision. RCAC maintains relationships with regional tribal communities and has a history of facilitating workshops as well as supporting community-based water projects in rural communities in 13 western states.

1.5 Definitions

To define DACs, EDAs, URCs and EJ communities in the SDFA, the Tri-County FACC applied regional characteristics to DWR’s definitions. The process for determining these definitions is discussed below. Note that there is some overlap between these terms, as demonstrated in the results of the analysis in Figure 2. The following definitions were used:

**Disadvantaged Communities (DACs):** DACs are defined by DWR in Section 79505.5 of the Water Code as census geographies with an annual Median Household Income (MHI) of less than 80% of the statewide MHI (DWR and State Board, 2016). Severely Disadvantaged Communities (SDAC) are defined as census geographies having less than 60% of the statewide annual MHI. For the purpose of this Water Needs Assessment, the statewide MHI of $63,783 from the 2012-2016 American Community Survey (ACS) was used. Therefore, communities with an MHI below $51,026 were considered DAC (80% of statewide MHI), and an MHI below $38,270 were considered SDAC (60% of statewide MHI).

**Economically Distressed Area (EDA):** Also defined by DWR in Section 79702(k) of the Prop 1 bond language, an EDA is a municipality with a population of 20,000 persons or less, a rural county, or a reasonably isolated and divisible segment of a larger municipality with a population of 20,000 persons or less, with a MHI that is less than 85% of the statewide MHI, and with one or more of the following conditions:

1) **Financial hardship:** Less than 85% of the local MHI.
2) **Unemployment rate at least 2% higher than statewide average:** A statewide average unemployment rate from April 2018 (4.2%) was used in this analysis.
3) **Low population density:** Less than 100 persons per square mile, consistent with DWR’s EDA mapping tool’s methodology.

**Underrepresented Communities (URCs):** DWR does not define URCs, but the SDFA defines URCs as communities that have little or no representation in water policy decision-making and/or water resource management projects, or that historically have disproportionately less representation in public policy or decision-making forums. All Native American Tribes are considered URCs under the state’s IRWM Program, regardless of their economic status.

**Environmental Justice (EJs):** EJ communities are defined by the SDFA as communities that are mapped with an EJ Index of 80-100 percentile for any EJ index compared to the State on the Environmental Protection Agency’s (U.S. EPA) EJ Screen tool (https://ejscreen.epa.gov/mapper/). EJ indices consider a variety of air quality impacts to human health (particulate matter, air toxic cancer risk, and respiratory hazard), traffic proximity and noise, lead paint, superfund and hazardous waste locations, and wastewater discharges, among others. EJ communities may also be mapped using CalEnviroScreen, maintained by the California Office of Environmental Health Hazard Assessment. The SDFA considers a community to be an EJ community if it falls within the 80-100% percentiles in CalEnviroScreen.
URCs and EJ communities are both more difficult to map than EDAs and DACs, and in many ways cannot be truly mapped, as they are more likely to comprise individuals who share experiences or backgrounds rather than a physical, location-based community. However, URCs and EJ communities are both communities that do not have equal access to water resource-related decision-making, or historically have not been involved in such decision-making. For the purpose of this assessment, an EJ community is considered a subset of URCs.

According to the Prop 1 bond language in Section 79742(d), at least 10% of funding shall be allocated to projects that directly benefit DACs. EDAs, URCs, and EJs are still eligible for IRWM funding from the remaining 90% of grant funds, as are DACs that do not receive funding from the 10% DAC set-aside.

## 2 DAC Mapping in the SDFA

An initial task of the Water Needs Assessment consisted of gathering information on how the three IRWM Regions have identified DAC needs and engaged DACs. This task involved consolidation of the three regions’ DAC contact lists and updating the mappings of DACs. The following describes how the maps updated to reflect identification of DACs in the SDFA.

### 2.1 Identification and Mapping Methods

To identify DACs, the Tri-County FACC updated its maps to pinpoint smaller pockets of DACs for potential outreach. The mapping process is described below.

Demographic data from the U.S. Census Bureau 2016 American Community Survey 5-Year Estimates (ACS; 2012-2016) and the California Employment Development Department (EDD) were used to identify DAC, SDAC, and EDA areas within the SDFA. MHI and population data were collected through ACS estimates, and unemployment rate data was collected through EDD.

Three census geography types were used to evaluate DAC status: census tracts, block groups, and census-designated places. Areas were classified as disadvantaged if any one of the three geography types qualified under their given definitions. U.S. Census Bureau TIGER (Topologically Integrated Geographic Encoding and Referencing)/Line Shapefiles were used to extract geographic boundaries of the three geography types and allowed for the results of the DAC needs assessment to be mapped spatially in GIS (Geographic Information System). Table 1 summarizes core project data, data sources, and available geographies.
Table 1: DAC Map Data Sources

<table>
<thead>
<tr>
<th>Variable</th>
<th>Source</th>
<th>Census Geographies</th>
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<tbody>
<tr>
<td>MHI</td>
<td>Income data were collected through the American Community Survey 5-Year Estimates dataset (2012-2016), table B19013, “Median Household Income in the Past 12 Months (in 2016 Inflation-Adjusted Dollars)” (U.S. Census Bureau)</td>
<td>Census tracts Block groups Census-designated places</td>
</tr>
<tr>
<td>Total Population</td>
<td>Population data were collected through the American Community Survey 5-Year Estimates dataset (2012-2016), table B01003, &quot;Total Population&quot; (U.S. Census Bureau)</td>
<td>Census tracts Block groups Census-designated places</td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td>Unemployment rate data were collected through the California Employment Development Department Monthly Labor Force for Cities and Census Designated Places Data Report (April 2018)</td>
<td>Census-designated places 1</td>
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<tr>
<td>Census Geography Spatial Extent</td>
<td>TIGER/Line Shapefiles were used to map spatial extent of 2016 census tracts, block groups, and census-designated places (U.S. Census Bureau)</td>
<td>Census tracts Block groups Census-designated places</td>
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</table>

1 Census tracts and block groups not available

2016 Census data were utilized in this Assessment, consistent with the DAC Mapping Tool developed by DWR (https://gis.water.ca.gov/app/dacs/) for use in the IRWM program. The Prop 1 2016 IRWM Program Guidelines recommend the use of this tool and request users check the tool prior to submitting applications to verify that current information is being used. The tool is updated as newer ACS data sets become available and currently utilizes 2016 ACS data. This data does not account for current land uses or development, therefore exact locations of DACs may not be accurately represented, and DAC community boundary data should be used for information purposes only. It is not definitive and does not establish legal rights or define legal boundaries.

TIGER/Line Shapefiles were also used to identify EDAs qualifying under Criteria #3 ("Low Population Density") by providing parcel area (in square miles), which allowed for the calculation of persons per square mile, one of the defining criteria of the EDA.

EJ communities were mapped using U.S. EPA’s EJScreen tool (https://ejscreen.epa.gov/mapper/). Although tribal lands were included in the map, in general URC communities were not added to the map as they are communities that have little or no representation in water policy and/or water resource management projects and cannot be mapped using MHI or economic data.

Finally, to determine which cities and municipal agencies have DACs, EDAs, or EJ communities in their jurisdictions, these areas were overlaid with maps of jurisdictional boundaries. DACs identified from this mapping process are presented in the next section.

2.2 Results

The Water Needs Assessment encompasses DACs, SDACs, and the EJ and tribal subsets of URCs. There are approximately 4.2 million people living in the SDFA, 22% of which reside in DACs, SDACs, EDAs, and EJ communities. These populations are characterized further in Section 4.4: Outreach Results.
2.2.1 San Diego IRWM Region DACs

In the San Diego IRWM Region, six of the County’s 18 incorporated cities are considered DACs or contain DACs. Additionally, 15 of the County of San Diego’s 30 unincorporated Community Planning Areas (CPA) are considered or contain DACs. Of the communities in the Region that have been identified as DACs, the majority are urban DACs. Urban communities are those that lie within water and wastewater agency service areas, while rural DACs do not. There are some DACs that have rural characteristics (e.g., rural residential densities, lack of curbs and gutters), but still receive municipal services. For the purposes of this Assessment, these communities are considered urban. Rural DACs may be found along the eastern portion of the Region.

There are approximately 3,253,356 people living in the San Diego IRWM Region, 27% of which reside in DACs, SDACs, EDAs, and EJ communities. Figure 2 shows DACs to be geographically distributed throughout the Region with numerous census tract and block group neighborhoods in the Region’s planning areas having MHIs less than 80% of the statewide average. The larger, isolated DAC area south of the border between San Diego and Orange Counties is Marine Corps Base Camp Pendleton, which has limited permanent populations, with much of the census tract unoccupied by residents. Low population density EDAs were located mainly throughout the eastern portion of the SDFA. El Cajon is the only area in the San Diego IRWM Region that meets the unemployment EDA criteria of being at least 2% higher than the statewide average. EJ communities are concentrated in the central portion of the City of San Diego, as well as central El Cajon, and all identified EJ communities in the Region also overlie DACs, as seen in Figure 3.

The following cities and communities include DACs within the San Diego IRWM Region:

- City of El Cajon
- City of Imperial Beach
- City of Escondido
- City of Vista
- City of National City
- City of San Diego (19 CPAs)
- Pendleton-DeLuz CPA
- Palomar Mountain CPA
- Fallbrook CPA
- North Mountain County CPA
- North County Metro CPA
- Twin Oaks CPA
- Ramona CPA
- Bostonia County/Lakeside CPA
- Central Mountain CPA
- Julian CPA
- Alpine CPA
- Cuyamaca CPA
- Spring Valley CPA
- Mountain Empire CPA
- Pine Valley CPA

2.2.2 Upper Santa Margarita Watershed IRWM Region DACs

The Upper Santa Margarita Watershed IRWM Region includes both urban and rural DACs, defined in Section 3.1.1: San Diego IRWM Region DACs, below. There are approximately 374,964 people living in USMW IRWM Region, 1.9% of which reside in DACs, SDACs, EDAs, and EJ communities. Figure 2 shows the location of these DACs, SDACs, EDAs, tribal land, and EJ communities within the SDFA. There is a small portion of EJs located in the northwestern corner of the USMW IRWM Region, as identified using U.S. EPA’s EJScreen tool.
The DACs in the eastern portion of the Region, particularly in the Anza area, are considered rural and have unique water supply and water quality needs. The following cities and communities include DACs within the USMW IRWM Region, as do portions of the unincorporated areas:

- Temecula
- Aguanga
- Anza
- Lake Riverside

2.2.3 South Orange County IRWM Region DACs

All DACs within the South Orange County IRWM Region are considered urban as they are all located within the service area of a water district and wastewater agency. There are approximately 596,040 people living in the South Orange County IRWM Region, 6% of which reside in DACs, SDACs, EDAs, and EJ communities.

Most of the South Orange County IRWM Region has been urbanized, with DACs found in small pockets throughout the Region. The Region is generally more affluent than other areas in Orange County that tend to be more densely populated with less access to green space, parks and beaches. However, the following South Orange County cities include portions of DACs and EDAs within their service area, as do portions of the unincorporated county:

- Laguna Woods
- Laguna Hills
- Lake Forest
- Mission Viejo
- Rancho Santa Margarita
- Laguna Niguel
- Dana Point
- San Juan Capistrano
- San Clemente

2.3 Identification of Additional DAC Communities

Not all communities are easily or holistically mapped using the above mapping techniques. Acknowledging this fact, the Tri-County FACC undertook an additional effort to identify communities in the SDFA that had not previously been acknowledged or had no or limited previous participation in IRWM.

In March 2018, the Tri-County FACC presented a list of 140 individual stakeholders representing DACs to NGO partners. This list was based on previous engagement and outreach efforts, coupled with preliminary DAC mapping results. It was then updated based on historic knowledge within the Water Needs Assessment team, as well as through targeted outreach to some stakeholders already on the list who were asked to recommend additional contacts. 253 stakeholders, 14 of which were tribal stakeholders, were added to the list through this process. The final outreach list included 393 stakeholders representing 196 tribal stakeholders, municipalities, water districts, water companies, and community-based organizations.
Figure 2: DACs, SDACs, EDAs, and EJs within the San Diego Funding Area

Note: The location of DACs is based on 2016 Census data and may not reflect current land use.
Figure 3: Location of EJs in the San Diego IRWM Region
3 Existing Understanding of DAC Needs

While this Water Needs Assessment focuses on stakeholder feedback received, it is supported and framed within the context of knowledge provided by existing plans and previous outreach.

Targeted outreach to DACs has been undertaken by all members of the Tri-County FACC in recent years, beginning with the first grant program under Proposition 50, in order to understand the specific needs and water management challenges of DAC communities. Under the Proposition 1 DACI Program, all three RWMGs in the SDFA issued a call for projects in 2016. Across the SDFA, 23 applications were received, 22 within the San Diego IRWM Region and one within the Upper Santa Margarita Watershed IRWM Region. The primary themes illustrated in the 23 project proposals submitted from throughout the SDFA under the DACI Program were as follows:

- 8 projects addressed flooding,
- 9 addressed surface water quality,
- 10 addressed groundwater quality,
- 7 addressed safe and reliable drinking water,
- 5 addressed infrastructure upgrades or new infrastructure,
- 6 addressed trash in watersheds,
- 1 addressed a mosquito problem, and
- 1 is a groundwater study of the Cahuilla Valley Groundwater Basin.

Nine DACI Program projects were funded in the SDFA, five of which were from new applicants not previously involved in an IRWM grant program. When combined with DAC projects that have been funded by the three IRWM Regions in Proposition 50 and Proposition 84, at least $19 million has been awarded to DACs:

- San Diego IRWM has awarded approximately $14 million, constituting 15% of all available funding, to DAC projects since 2008.
- Upper Santa Margarita Watershed IRWM has awarded $1.1 million, constituting 12% of all available funding, to DAC projects since 2008.
- South Orange County IRWM has awarded $4.6 million, constituting 12% of all available funding, to DAC projects since 2008.

Under Prop 1, Round 1, a DAC project is a regular project that serves at least 75% of a DAC, EDA, or tribal community. These projects have the same requirements as other IRWM projects but may have accommodations for support. Notable projects located in DACs in the SDFA that have been recently funded are described in callout boxes below in addition to a background summary of regional needs and DAC needs.

3.1 Needs Identified by the IRWM Plans

In addition to needs identified through outreach for the Water Needs Assessment, this document also summarizes regional water challenges identified through each Region’s IRWM Plan: the 2019 San Diego IRWM Plan Update, the 2014 Upper Santa Margarita Watershed IRWM Plan, and the 2018 IRWM Plan for South Orange County. Each Region developed goals in their respective IRWM plans to address the water management challenges listed below. These regional issues encompass both DAC and non-DAC needs and issues.
3.1.1 San Diego IRWM Region

The San Diego IRWM Program broadly distinguishes DACs as either urban or rural. Urban communities are those that lie within water and wastewater agency service areas. Because of this, their water resource needs are generally centered on community development and surface water quality issues. While some communities may have rural characteristics, if they are served by a water or wastewater agency, their needs generally align more with urban DACs, and are therefore considered urban DACs under the San Diego IRWM Program. Rural DACs are located outside the jurisdictional boundaries of the Region’s water and wastewater agencies and may have difficulty meeting drinking water needs with a safe and reliable source due to infrastructure, source water quality, and other issues. Additional water-related priorities and challenges pertaining to DACs identified in the 2019 San Diego IRWM Plan are further outlined in Table 2.

The San Diego Regional Advisory Committee, the Region’s stakeholder advisory group, includes one representative of urban DACs and one of rural DACs.

Additionally, the San Diego Planning Region is home to 18 tribes. The San Diego RWMG has included a tribal seat on its Regional Advisory Committee since 2013. This number was expanded to three tribal seats, constituting a tribal caucus, in 2019. The caucus allows for additional tribal representation on various San Diego IRWM workgroups.

Project Highlight: Conservation Home Makeover Project in Chollas Creek Watershed

The Conservation Home Makeover engaged 50 low-income families within a disadvantaged community of San Diego to mitigate drought impacts by installing greywater systems, rain barrels, low-water-use plumbing fixtures and water-wise landscaping and fruit trees, thus providing a number of water conservation, water supply, food resource, and educational benefits to a community in need.

Photo credit: Loisa Burton, SDCWA
Table 2: Urban and Rural Water-Related Priorities and Challenges in San Diego IRWM Region DACs

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<thead>
<tr>
<th>Urban Priorities and Challenges</th>
<th>Rural Priorities and Challenges</th>
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<tbody>
<tr>
<td>• Community development</td>
<td>• Source water quality</td>
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<tr>
<td>• Surface water quality</td>
<td>• Safe and reliable drinking water</td>
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<td>• Flooding</td>
<td>• Drinking water regulation compliance</td>
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<td>• Illegal dumping and trash</td>
<td>• Wastewater intrusion</td>
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<tr>
<td>• Bay and lagoon contamination</td>
<td>• Inadequate or failing infrastructure</td>
</tr>
<tr>
<td>• Food security</td>
<td>• Flood and droughts</td>
</tr>
<tr>
<td>• Increased paved surfaces</td>
<td>• Effects of climate change</td>
</tr>
<tr>
<td>• Water costs</td>
<td>• Wildfires</td>
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<tr>
<td>• Public safety</td>
<td>• Poor economies</td>
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<tr>
<td>• Peer initiated outreach and education</td>
<td>• Small financial base</td>
</tr>
<tr>
<td>• Balancing projects &amp; economic growth</td>
<td>• Cost of supplemental treatment</td>
</tr>
<tr>
<td>• Rehabilitating urban streams</td>
<td>• Capacity to apply for and manage grants</td>
</tr>
<tr>
<td>• Capacity, including for O&amp;M</td>
<td>• Groundwater contamination</td>
</tr>
<tr>
<td>• Health of coastal resources</td>
<td>• Inadequate wastewater treatment</td>
</tr>
<tr>
<td>• Sea level rise</td>
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</table>

In addition to characterizing the urban and rural water challenges of DAC communities, the 2019 San Diego IRWM Plan Update included a list of major water issues and conflicts for the entire Region including:

- **Flood control** – Difficulty in permitting invasive species removal, limitations on geographic or seasonal access to channels, and zoning or land use restrictions increases the difficulty of flood control management. More reliable funding sources for flood control projects are needed.

- **Stormwater** – Diverting noncompliant stormwater to groundwater recharge or habitat improvement areas may conflict with surface water protection goals. The economic feasibility of stormwater capture and use is constrained by local conditions in the San Diego Region and may reduce flows available to downstream beneficial uses.

- **Water supply** – Local supplies are limited and more costly than imported water supplies.

- **Water quality standards** – The need to meet water quality concentration limits may result in reduced discharges or flows required to support downstream beneficial uses. The 303(d) listing/TMDL process may prevent the implementation of water quality improvement projects that do not directly result in attainment of water quality goals.

- **Institutional Issues** – Inter-border jurisdictional issues, political conflicts, and staffing needs may result in impacts to water resources.

- **Salinity/Brine Management** – Brine discharges to sewer may conflict with water reuse needs while brine discharges to the ocean may conflict with environmental protection needs. Water conservation measures may lead to increased wastewater salinity.

- **Recreation** – Recreational use of water bodies may impact the water quality standards implemented to support recreational use.
• **Climate change** – Water supply availability may be affected due to droughts, seawater intrusion, changes in precipitation volumes and timing, altered fire and weather regimes, and potential changes in the availability of imported water supplies.

• **Wastewater** – Cost drivers associated with wastewater systems including treatment plant upgrades, ongoing treatment and operations, and infrastructure maintenance.

• **DAC Water Systems** – A lack of municipal water and wastewater service in many rural DACs, managing water infrastructure costs including O&M, and lack of TMF (technical, managerial, financial) capacity of DAC water system operators.

The San Diego IRWM Region is large and contains 11 watersheds, 22 separate groundwater basins, and over 200 streams and creeks which converge into five primary rivers. Local water supplies (groundwater, local surface water, and recycled water) account for approximately 15% of the Region’s current water demands. Imported water is supplied by SDCWA to 24 member agencies within the Region. Imported water is integrated with desalinated water into treated water in addition to existing drinking water supplies for regional distribution (2019 San Diego IRWM Plan).

Rural residents that live outside the SDCWA service area are entirely dependent on groundwater resources and rely exclusively on individual groundwater wells or community water wells operated by small community water systems or private water companies. The availability of groundwater in these areas is limited by (1) available precipitation recharge, (2) recharge infiltration limitations, (3) low aquifer yields, and (4) limited groundwater storage capacity (2019 San Diego IRWM Plan).

Current IRWM Plan standards include AB 1249 compliance, which considers nitrate, arsenic, perchlorate, or hexavalent chromium priority contaminants. Of the four constituents called out in AB 1249, nitrate is identified as an issue in the Carlsbad Watershed for surface water and the San Juan, San Luis Rey River, and San Dieguito River Watersheds for groundwater. Perchlorate was identified as an issue in the Tijuana River Watershed (2019 San Diego IRWM Plan). More information on water quality in the San Diego Funding Area is provided in Section 3.2.
### 3.1.2 Upper Santa Margarita Watershed IRWM Region

The Upper Santa Margarita Watershed IRWM Region has several communities and areas that have been identified as DACs, including the communities of Anza and Aguanga and portions of the cities of Murrieta and Temecula. In the development of the 2007 IRWM Plan, representatives formed the Anza Valley Municipal Advisory Council, which has evolved into the Anza Groundwater Association and meets bi-monthly to expand and share knowledge relating to the quality and quantity of groundwater in the Anza area.

The 2014 IRWM Plan Update included additional outreach to tribal communities and DACs to encourage participation in the update process. Representatives are included on the Upper Santa Margarita Watershed IRWM Distribution List and receive all stakeholder communication, primarily through email. DAC and tribal representatives also participate in stakeholder advisory committee (SAC) meetings in the Upper Santa Margarita Watershed IRWM Program to have a voice in the planning process, which includes submitting goals, priorities, and projects.

The Upper Santa Margarita Watershed IRWM Plan Update in 2014 identified a number of IRWM goals to address the following regional issues:

- **Imported water dependence** – High dependence on imported water makes the Region vulnerable from imported water supply issues. These sources are susceptible to interruption during catastrophic conditions such as earthquakes and drought and may be further strained during climate change. The quality of imported water can vary depending on source and the cost of imported water is expected to increase in the future.

- **Groundwater supply** – In order to reduce reliance on imported supplies, groundwater resources must be maximized in the Temecula Valley and Cahuilla Valley Groundwater Basins.

- **Surface water quality** – Several stream reaches within the Region are on the Regional Control Board’s 2010 303(d) listing for water quality impairments including nutrients, bacteria, metals, pesticides, sulfates, TDS, and toxicity.

- **Flood management** – Flood hazards caused by historic development in floodplains has caused tens of millions of dollars in damage, especially in Old Town Temecula along Murrieta Creek.

- **Aquatic/riparian habitat** – Pressure from development can cause habitat degradation and lead to the establishment of invasive species which adversely impact the habitat diversity, hydrology, and ecological function of the river.

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**Project Highlight: Groundwater Study in Anza**

The study was completed in July 2014 by the Ramona Band of Cahuilla Indians with assistance from the U.S. Geological Survey and Santa Margarita River Watershed Watermaster. It aimed to better define the groundwater basin and collect new data on groundwater levels and quality and recommended continued monitoring of groundwater levels and quality.

This area depends on the Cahuilla Valley Groundwater Basin for its water supply; obtaining imported water is infeasible. It also lacks flood control and is subject to frequent rural flooding, and has issues with water quality, particularly high nitrate levels and naturally occurring constituents that exceed limits.

Photo credit: Nicolette Jonkhoff, Ramona Band of Cahuilla Indians
Climate change – Disadvantaged communities are more vulnerable to water supply and water quality issues due to limited resources, which will become more vulnerable as a result of climate change.

According to the IRWM Plan Update, over 50% of the water demands in the Upper Santa Margarita Watershed IRWM Region are met by treated and untreated surface water imported from the Metropolitan Water District of Southern California (MWD). Other major supply sources include surface, ground, and recycled water. Water received from MWD can be unreliable due to water allotment reduction during droughts as other states increase their diversions in accord with their authorized entitlements, leading to the goal to diversify the water supply portfolio in the Region (2014 Upper Santa Margarita IRWM Plan Update).

Surface water and groundwater supporting surface water in the Santa Margarita River Watershed have been under some form of court jurisdiction since 1928. A Watermaster has been assigned by the U.S. District Court for the Southern District of California to oversee all water uses within the Santa Margarita River Watershed. Local surface water sources include Seven Oaks Reservoir, Vail Lake, and Railroad Canyon Reservoir (Canyon Lake). Canyon lake contains significant levels of disinfection byproducts possibly related to imported water while Vail Lake and Seven Oaks Reservoir do not currently have water quality concerns (2014 Upper Santa Margarita IRWM Plan Update).

Groundwater supplies in the Region are pumped from two groundwater basins: the Temecula Valley Groundwater Basin (also known as the Murrieta-Temecula Groundwater Basin) and the Cahuilla Valley Groundwater Basin. The largest concern within these groundwater basins include the decline in water levels in the Cahuilla Valley Groundwater Basin.

The DACs in the eastern portion of the Region, particularly in the Anza area, are reliant on the Cahuilla Valley Groundwater Basin for its water supply and is subject to frequent rural flooding. Water quality issues, particularly high nitrate levels and naturally occurring constituents that exceed water quality limits, are of concern (2014 Upper Santa Margarita IRWM Plan Update).
3.1.3 South Orange County

Historically, DAC engagement in the South Orange County IRWM Region has consisted of implementing projects and programs aimed at protecting the population as a whole, including residents who represent the disadvantaged population of the area. The South Orange County IRWM Plan outreach included outreach to and/or collaboration with the Juaneño Band of Mission Indians and Hispanic community groups. Native American Tribes and other stakeholders are encouraged to participate in the IRWM Program although there is no tribal land located within the Region (IRWM Plan for South Orange County, 2018).

According to the IRWM Plan for South Orange County, all DACs in South Orange County are located within defined water agency service areas providing safe drinking water through service connections. As a result, water resources needs are generally centered on community development and surface water quality issues, rather than drinking water quality or drinking water supply issues. Surface water quality problems include water pollution for beaches within the area.

In 2018, the South Orange County Watershed Management Area (SOCWMA) stakeholders updated the IRWM Plan for South Orange County. The following water management challenges were identified:

- **Adequate, reliable water supply** – North and Central Orange County obtains one-third of its water from imported sources while South Orange County obtains 97% of its water from imported sources despite some local groundwater resources. Environmental constraints such as drought and Delta pumping restrictions are affecting the reliability of imported water supply. Therefore, one objective of the SOCWMA stakeholders is to increase local water supply, sustainably manage groundwater resources, and maximize water use efficiency.

- **Growth, economic sustainability, recreation** – Population growth in the County leads to greater demand for potable water, a greater amount of generated wastewater, and a greater demand on recreational resources.

- **Water quality standards** – Water quality standards are becoming increasingly stringent and local agencies are challenged to meet regulatory water quality standards in a cost-effective manner.
• **Ecosystem impacts** – Urbanization increases imperviousness, thus modifying natural hydrology to produce flashier wet weather flows and increased dry weather runoff, which can carry pollutants and lead to erosion and habitat degradation. The 2018 IRWM Plan identifies natural resource protection and restoration as a primary goal and efforts are underway by several stakeholders to address habitat degradation.

• **Climate change** – Climate change will influence water resources, water supply availability, and habitat.

• **Flood Risk Management**: it is anticipated that climate change will result in less frequent, warmer, and flashier precipitation events. The 2018 IRWM Plan identifies the need to remove floodplain in South Orange County from FEMA designated flood risk areas to prepare for larger storm flows. Additionally, the Water Quality Improvement Plan cited in the IRWM Plan places an emphasis on addressing impacts from hydromodification during wet weather flows.

South Orange County relies on imported water from the Metropolitan Water District of Southern California (MET) and the Municipal Water District of Orange County (MWDOC), the regional wholesaler in the County, for 97 percent of its total potable water demand. Users in some unincorporated areas utilize private groundwater wells. The major groundwater basin in the County, the Orange County Groundwater Basin, is located in the North/Central IRWM Region. The San Juan and San Mateo Groundwater Basins are located in South Orange County. The San Juan Groundwater basin cannot utilize its full capacity and contains TDS that is too high for domestic water use without treatment (IRWM Plan for South Orange County, 2018). Water from the basin is treated by the San Juan Basin Desalter and faces the threats of sea water intrusion and increasingly poor water quality.

The IRWM Plan for South Orange County notes compliance with AB 1249 as no groundwater bodies in the WMA were found to include arsenic, perchlorate, or hexavalent chromium. For nitrates (as nitrogen) specifically, the San Juan Basin Groundwater Management and Facilities Plan indicated exceedances occurred in only one percent of reported sample results (2013) and are well below the Basin Plan Objective according to the Salt and Nutrient Management Plan. Additionally, water quality for all drinking water provided to customers within the San Juan Basin meets required MCLs (IRWM Plan for South Orange County, 2018).

Despite the reliance of South Orange County on imported water, the IRWM Plan and DAC communities emphasized the importance of local water sources; indeed, the South OC IRWM Plan identified an adequate, reliable water supply as a top concern, making water supply efficiency and reliability one of the four main IRWM Goals.

### 3.2 DAC Understanding from Literature Review

In addition to the IRWM Plans, individual agencies and municipalities include some DAC information in a variety of planning documents, such as General Plans, Urban Water Management Plans (UWMPs), and community plans, among others. A summary of additional literature review is presented here for broader context of the SDFA’s DACs. A detailed summary of the literature review and characterization of DAC needs is provided in Appendix A.

Groundwater quality data was analyzed across the Funding Area to support feedback received from DACs regarding Maximum Contaminant Level (MCL) exceedances in Section 6. AB 1249 was signed by the Governor on September 28, 2014 and modified the IRWM Planning Act by adding, among other sections, California Water Code Sections 10544.5 and 10545. Current IRWM Plan standards include AB 1249 compliance as a requirement, which considers nitrate, arsenic, perchlorate, or hexavalent
chromium priority contaminants. Compliance is discussed in each Region’s IRWM Plan, noted in Sections 3.1.1 through 3.1.3. While the USMW IRWM Plan does not specifically call out AB 1249 constituents, it notes constituents of concern at groundwater wells in the Region, which may include AB 1249 constituents.

Groundwater quality data were downloaded from the State Board’s Groundwater Ambient Monitoring and Assessment Program (GAMA) Groundwater Information System (https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/) for the following constituents: Nitrate, TDS, Uranium, Sulfate, and Iron, as these were constituents identified through stakeholder feedback. In Figure 4 below, MCL exceedances since 2010 were transposed onto the Funding Area’s DAC map to demonstrate hot spots of exceedances. Some points below overlap due to the overlap of well location and scale of the figure. For a more detailed view of MCL exceedances for each constituent in a specific community, please visit the GAMA website. The San Juan Valley Groundwater Basin in South Orange County and the San Dieguito Valley Groundwater Basin in San Diego County reported the largest number of exceedances since 2010. Exceedances in the San Juan Valley Groundwater Basin are from a few shallow monitoring wells associated with previously identified leaking underground storage tank sites. These wells are not used for drinking water and do not impact access to clean and safe drinking water to any communities. There have been no reported exceedances of the nitrate MCL at the municipal or monitoring wells tracked by the San Juan Basin Authority since 2010 (SOC IRWM Plan, 2018). Refer to Section 3.1.3 for more information. The San Dieguito Valley Groundwater Basin in the San Diego IRWM Region is noted as having high TDS levels in the San Diego IRWM Plan.

According to FEMA floodplain maps, coastal zones in the SDFA in particular are susceptible to flooding. Due to scale, maps were not included in this report. Federal Emergency Management Agency (FEMA) flood zones represent the areas susceptible to the 1% annual chance flood (often referred to as the “100-year flood”), and the 0.2% annual chance flood (“500-year flood”). The 1% annual chance flood, also known as the “base flood,” has at least a 1% chance of occurring in any given year. FEMA designates this area as the Special Flood Hazard Area and requires flood insurance for properties in this area as a condition of a mortgage backed by federal funds. Designated high-risk areas are those within the 100-year floodplain, while areas within the 500-year floodplain are considered low-risk. Areas within the Region at highest risk for flooding are typically downstream areas along rivers, and concentrated around the coast at bays, coastal inlets, and estuaries (San Diego IRWM Plan, 2019).

Communities located in floodways in the San Diego IRWM Region include but are not limited to: Imperial Beach, Escondido, and Oceanside. Along the mainstem of local rivers lies the 100-year floodplain. A majority of the USMW IRWM Region is “undetermined flood hazard” according to FEMA, although the urban areas of Temecula and Murrieta contain floodways. South Orange County contains undetermined flood hazard in the eastern portion of the Region and 100-year floodplain in San Juan Creek, downstream from San Juan Capistrano at Doheny Beach. FEMA floodplain designations are identified in each Region’s IRWM Plan, noting local flood and drainage plans for reference. The SOC IRWM Plan notes that in addition to meeting the FEMA 100-year flood protection designation in SOC channels, the County has placed a top priority on predicting flood events and reacting in a timely manner to areas of flooding and severe soil erosion.
Figure 4: MCL Exceedances for Nitrate, TDS, Uranium, Sulfate, and Iron in the San Diego Funding Area
3.2.1 San Diego IRWM Region

San Diego County is characterized by urban DACs that generally receive water service from their respective municipal water supplies, the largest of which (and serving the largest urban DAC population) is the City of San Diego, as well as rural DACs that rely on groundwater as their sole supply of potable water. In general, the urban DAC issues and needs in the City of San Diego are considered representative of typical urban DAC issues and needs in the San Diego IRWM Region and represent 97% of DAC communities. Not all urban DAC concerns in the City of San Diego apply to all urban DACs in other municipalities, and some urban DACs in other municipalities may have additional needs not described here.

The City of San Diego is one of 24-member agencies that receive its water from SDCWA, which includes a mix of imported water, surface water, and desalinated seawater. Additionally, the City of San Diego has recycled water, surface water, and groundwater, and is in the process of pursuing potable reuse for future supply. According to the City’s 2015 UWMP, water quality issues associated with imported water include high salinity levels, uranium, and perchlorate in Colorado River Aqueduct (CRA) supplies and high levels of bromide and total organic carbon in State Water Project (SWP) supplies. Water agencies treat all water to meet state and federal drinking water standards before delivering it to customers, however, poor quality source water increases the expense and difficulty of meeting standards. Several water treatment plants have been upgraded to use ozone as a primary disinfectant to treat SWP water. Groundwater basins within the City of San Diego’s service area are predominantly brackish and contain levels of TDS, chloride, and sodium (City of San Diego UWMP, 2015). The UWMP’s projected climate change impacts on water demands predict a shift in timing of precipitation events, with a greater proportion of annual precipitation occurring in winter, and a smaller proportion of annual precipitation occurring in the spring and the fall as compared to historical precipitation patterns. These climate change impacts have been incorporated into water supply planning in the Region.

According to municipal websites and community plan updates, DAC communities within the City of San Diego use a combination of septic and sewer systems which are impacted by aging infrastructure and infrastructure failure. The Greater North Park Community Plan cited an urgent need to replace 100-year-old cast iron water mains. Issues of aging water infrastructure, insufficient capacity, and outmoded design are cited in many of the City’s 19 DAC Community Plans. The Barrio Logan Community Plan discussed major flooding in streets caused by water main breaks. This sentiment is echoed by other DAC communities within the Chollas Creek sub-watershed as the creek feeds directly into the San Diego Bay and infrastructure is needed to capture, minimize, and prevent pollutants in urban areas. Many planning areas are implementing Low Impact Development (LID) strategies to meet municipal separate storm sewer system (MS4) permit requirements. Other DAC communities within city limits cited issues with canyon flooding causing erosion or localized flooding along roads resulting in temporary street closures.

Subregional Plans or Community Plans for CPAs for unincorporated communities in the County of San Diego also identify rural community water and wastewater infrastructure and related concerns. Some of these CPAs are partially served by a municipal water agency, but typically, these rural communities rely solely on local groundwater supplies for potable water. The Central Mountain CPA is unlikely to ever find imported water to be a feasible supply, and their community is 100% reliant on groundwater resources (Central Mountain Subregional Plan, 2016). While heavily reliant on groundwater, the groundwater may be high in nitrate or at risk of contamination from aging septic systems. Due to the distance from water and wastewater agencies, the availability of services is a major concern to many rural communities and may impact land use decisions. The North Mountain
CPA Subregional Plan in 2016 stated that the cost to extend sewer services to backcountry does not outweigh low population and lack of demand, resulting in reliance on septic systems and leach fields. In the Ramona CPA, land restrictions only allow sewer service to 40% of the population (Ramona Community Plan, 2011). Future growth in some communities is restricted due to the limited hookups of groundwater to conserve supply (Pine Valley CPA Community Plan, 2016). Some unincorporated rural areas also contain unique biological resources and may be home to various types of conserved land, such as the Cuyamaca CPA, 75% of which is public property (Central Mountain Subregional Plan, 2016). Many plans cite concern over the protection of these biological resources in the face of climate change and the threat of wildfire. Climate change is also a concern for these communities due to the threat to limited water supply during drought.

More detailed information on the water challenges of each DAC community identified through literature review can be found in Appendix A.

### 3.2.2 Upper Santa Margarita Watershed IRWM Region

The rural community of Anza in the Upper Santa Margarita Watershed conducted a Groundwater Management Planning report in 2011 to understand their groundwater and plan for sustainable groundwater management. This report concluded that significant gaps in areal and temporal water information exist and little is known about many of the well’s condition or status. Additional efforts are needed to understand contaminant sources and control options which includes a better understanding of septic tanks as a potential source of groundwater contamination and further coordinated planning and data collection should be a priority to assess current trends in water levels and quality.

Needs for the other groundwater basin in the USMW IRWM Region are summarized in the Temecula Valley Salt and Nutrient Management Plan written in 2014. This basin serves the cities of Temecula, Murrieta, and Wildomar as well as agricultural and rural residential users on the periphery of these urban areas including the Pechanga Band of Luiseno Mission Indians. The groundwater largely complies with Basin Plan groundwater quality objectives for TDS while shallow wells occasionally do not meet objectives. There has been a gradual historic trend in increasing TDS in the Basin which is expected to continue without implementation of salt management strategies. Septic tank discharges and turf grass fertilization represents the dominant sources (over 60 percent) of nitrate loads to the groundwater basin.

Rancho California Water District’s 2015 Urban Water Management Plan states that 25-40% of its water comes from the Temecula Valley Groundwater Basin, 6% from recycled water, and the rest from imported water. There are no known water quality concerns that will significantly impact water supply reliability although constituents of concern include TDS, nitrate, VOCs, perchlorate, arsenic, fluoride, and manganese. Two wells were removed from production due to violating the MCL for arsenic and three other wells are on state-approved blending plans for exceeding the primary MCL for arsenic. The UWMP creates a contingency plan in the face of climate change which predicts increased frequency of severe weather patterns which may result in reductions of imported water supplies. Supplies were reduced by 15% in July 2015 due to an unprecedented 4-year drought.

The additional small, rural DACs in Riverside County include Aguanga and Lake Riverside Estates. These communities have limited services and utilities and declining groundwater levels. Cannibas farms are prevalent which have an unknown effect on water quality in the area. There is a potential for flash flooding during storm events and floods cause the release of excess sediment into Cahuilla Creek.
More detailed information on the water challenges of each DAC community identified through literature review can be found in Appendix A.

### 3.2.3 South Orange County

The regional water wholesaler in Orange County is the Municipal Water District of Orange County (MWDOC), which manages the imported water supply to more than 2.3 million residents and 28 water retail agencies. Almost all of South Orange County’s potable water supply consists of imported water (97%) from the CRA and SWP, which is treated and distributed by MWDOC. According to MWDOC’s 2015 UWMP, CRA sources contain higher TDS and SWP contains higher levels of organic matter, leading to the formation of disinfection byproducts and requiring ozone treatment processes. One large issue of concern is the invasive Quagga mussels found in CRA water, which has eliminated deliveries of CRA water into Diamond Valley Lake to keep the reservoir free from Quagga mussels. Climate change is also anticipated to affect future supply and demand on CRA water, exacerbating imbalances between increasing demands from rapid growth and decreasing supplies.

In addition to MWDOC supplies, water agencies supplement their water supply with recycled water or water from the Capistrano Beach groundwater recovery facility. According to the South Coast Water District UWMP, the San Juan Valley Groundwater Basin contains high TDS and all 4 tested wells exceeded secondary MCL for TDS. All DACs in South Orange County are served by the South Orange County Wastewater Authority, which is a joint powers authority that manages the collection, transmission, treatment and disposal of wastewater. SOCWA produces recycled water for irrigation and commercial uses and also helps its member agencies meet the requirements of applicable National Pollutant Discharge Elimination System (NPDES) permits.

The 2018 Orange County Water Reliability Study from MWDOC analyzes current and future water supply conditions in Orange County and provides objective comparisons of local projects that can meet demands. The study was divided into three project areas for Orange County: Brea/La Habra, OC Basin, and SOC. Recommendations for SOC note that SOC is currently short of emergency supplies by 20-27.5 MGD, which is the major driver of the need for new local projects. The study recommends reliability strategies that focus on the new local projects such as the San Juan Watershed Project and Doheny Project to improve water reliability in the IRWM Region (MWDOC, 2018). These projects could provide cost-effective annual supplies and emergency supplies and be augmented by other projects. These projects were identified by WNA participants as being beneficial in the region. More detailed information on the water challenges of each DAC community identified through literature review can be found in Appendix A.
4 Community Outreach and Engagement

Input was solicited for the Water Needs Assessment through a variety of methods described in the following sections. A total of 110 individuals representing 83 organizations engaged with this Water Needs Assessment in some form, representing approximately 42% of organizations on the contact list. Figure 5 illustrates the composition of DAC respondents who participated in this Water Needs Assessment. 11 organizations are considered ‘newly engaged’ because they were both added to the contact list and actively engaged with the process through the course of the Water Needs Assessment.

Figure 6 (on the following page) shows the level of engagement across the SDFA, the locations of community workshops, and general locations of engaged individuals. These locations are summarized to keep the exact identity of participants anonymous. Engagement opportunities are described in more detail below.

Figure 5: IRWM Outreach Results
Figure 6: Distribution of Stakeholders Engaged in the 2019 Water Needs Assessment
4.1 Community Water Needs Questionnaire

The outreach strategy included developing a water needs questionnaire to help collect the data requested by DWR as part of the Water Needs Assessment. Project partners adapted the DWR data table (provided in DWR’s DACI Program Request for Proposal) to a questionnaire format and added questions based on additional interest about potential regional water management concerns or needs. For instance, a question about whether respondents consider climate change of significant concern to their water resources was added to the questionnaire.

Questionnaire responses have been summarized for each IRWM Region for the purpose of anonymity and can be found in Appendix B. This table is provided in DWR’s DACI Program template. A copy of the distributed questionnaire can be found in Appendix C.

Once the questionnaire was refined by the Tri-County FACC and its consultant and NGO team, it was converted into an online survey that was emailed to the DAC contact list described above. Hard copies of the questionnaire were also made available to stakeholders.

The questionnaire was also used to guide community meeting discussions, where 30 minutes of a 90-minute session were allotted for participants to answer the questionnaire and ask questions of IRWM representatives. In most cases, this allotted time evolved into a dialogue, where participants were more interested in a live discussion of their community concerns. Participants commonly requested the option to solicit feedback from colleagues to provide formal answers to the questionnaire. Some participants chose to answer the questionnaire after the meeting by using the online survey provided in a follow-up email.

In total, 44 questionnaires were completed and submitted, with online responses representing the majority of responses. Questionnaires were received from stakeholders in each of the three IRWM Regions in the SDFA:

- 24 respondents from San Diego
- 10 respondents from the Upper Santa Margarita Watershed
- 10 respondents from South Orange County

Six of these respondents directly represented tribes, which were split evenly between the Upper Santa Margarita Watershed and San Diego IRWM Regions; other community groups also represented tribal interests. Additional tribal input was collected during a community meeting held in the Upper Santa Margarita Watershed IRWM Region for tribes from throughout the SDFA, although an official questionnaire was not completed.

Participants in the SDFA Water Needs Assessment were asked the following questions about water needs in their community:
Community Outreach and Engagement
May 2019

• Currently and historically, what are this community’s most significant water challenges?
• What do you see as the most pressing water challenge this community will face in the next 5 years? 10 years?
• Is drinking water accessible for the community?
• Is drinking water considered affordable for the community?
• What conditions (i.e., drought, flooding) have impacted drinking water quality and supply reliability? Are certain conditions of concern in the future?
• What conditions (i.e., drought, flooding, infrastructure failure) have impacted wastewater system operations or reliability? Are certain conditions of concern in the future?
• Who or what is most impacted by urban runoff in this community?
• Who or what is most impacted by stormwater flooding in this community?
• What conditions (i.e. drought, rain events, infrastructure failure) have resulted in stormwater or flood problems in your community? Are certain conditions of concern in the future?
• Has your community experienced any specific public health or safety issues caused by stormwater?
• What challenge or concern mentioned in this questionnaire do you feel is most in need of funding?
• Describe system financing needs (i.e. operation and maintenance costs)

A general “additional needs and challenges” question was also included for further responses.

4.2 Community Meetings

Project partners further engaged community members from the San Diego, Upper Santa Margarita Watershed, and South Orange County IRWM Regions through a series of community meetings held in a central location within each community. At each of the meetings, an IRWM Program representative typically provided a presentation on the regional history and goals pertaining to DAC involvement, as well as details pertaining to the Water Needs Assessment and upcoming Proposition 1 funding opportunities. Several handouts were distributed to support and supplement the information provided at the community meetings, including the DAC definitions and SDFA DAC Map, a Proposition 1 Funding How-To Guide, and a copy of the questionnaire. A copy of the presentation and distributed handouts may be found in Appendix D. Conversations regarding the participants’ specific water needs and issues were encouraged, followed by time allotted to answer the questionnaire and ask questions. Seven in-person community meetings were held throughout the course of the project period. Four meeting were held in 2018 and three meetings were held after the release of the public draft to provide an opportunity to discuss identified needs. The meetings engaged a total of 75 unique participants representing 60 organizations involved with DAC communities.

The number of community meeting attendees from each IRWM Region included:

• 38 attendees from San Diego
• 25 attendees from the Upper Santa Margarita
• 12 attendees from South Orange County
• 20 of the above attendees represented tribes
At the community meetings, one of the NGO partners led an open discussion to help understand how the IRWM program may better engage with DACs and support the community’s water management needs. Notes were taken on a flip chart to facilitate the discussion when appropriate. The following questions prompted each discussion topic:

- How can IRWM support your water management needs?
- How can IRWM better engage with your community?
- Are there challenges to your participation in IRWM?
- What are your water-related issues and concerns?
- What can we advocate for from your perspective?

The discussion section provided a platform for participants to voice their opinions, questions, and concerns to an IRWM program representative and engage in discussion with other DAC communities.

**Meeting #1: Anza Community Meeting - August 15, 2018**

The first community meeting was held at the Ramona Band Tribal Library in the Anza Community of the Upper Santa Margarita Watershed. Project partners provided information and facilitated an interactive discussion to solicit input on water-related issues and needs. Seventeen participants representing various community groups, water companies, and government representatives were present. The meeting was well attended, and the presentation was live-streamed to a local radio station by one of the participants. The Anza High Country Journal was also in attendance and enthusiastic about the meeting; they shared the upcoming webinar opportunity with their Facebook followers.

The USMW IRWM Region includes large portions of rural unincorporated Riverside County, where residents rely on groundwater to meet water demands. The conversation at the community workshop largely centered on interest in assistance with capital infrastructure and consolidation, especially to construct a potable water pipeline which is needed to share water resources, ensure supply reliability, and allow for construction of a nitrate treatment facility to address nitrate exceedance compliance issues as the community continues to grow.
Meeting #2: Urban San Diego Community Meeting - September 9, 2018
A second workshop took place at SDCWA, within the City of San Diego. Six participants attended, representing two community-based organizations and two cities, all of which are in urban areas. Participants focused mostly on urban water needs and priorities, with the discussion centered on problems pertaining to aging infrastructure, declining watershed health due to stormwater runoff, and landscape rehabilitation. One community group highlighted the Tijuana River watershed as severely impacted by cross-border debris and trash flows originating in Tijuana, Mexico, as well as flooding during large storms. Participants also mentioned the need for education and outreach in local communities to educate stakeholders on water quality and runoff.

Meeting #3: Orange County North/Central & South OC IRWM Meeting - September 10, 2018
A third workshop was held for Orange County at the Laguna Hills Community Center. Ten representatives from local cities, water districts, and other community groups within the South Orange County IRWM Region were present. This conversation focused on a presentation of IRWM’s mapping analysis of DACs, and feedback was received on how to improve the mapping assessments which resulted in the update of the EDAs portrayed by the map. During the workshop, attendees reviewed the contact list and provided the best points of contact for DAC representatives in their areas. Beneficial projects were also discussed, where participants expressed an interest in recycled water projects in particular.

Meeting #4: Native American Water Master Association Meeting - October 24, 2018
A fourth workshop was held at the Native American Water Master Association Meeting (NAWMA) at the Pechanga Government Center in Temecula. Eighteen tribal members attended from ten tribes and organizations in both the San Diego and USMW IRWM Regions. This presentation provided a platform for tribes to express their water-related concerns and needs as well as collaborate for potential future projects. The conversation focused broadly on sustainable development, land use planning, drought, and wastewater management. Concerns were raised about a lack of water supply and poor water quality, especially groundwater quality. Strong sentiments were expressed concerning climate change and the potential impacts of drought, declining well water,
fires, and water quality, as well as about water policy and its impact on tribal water rights. Some tribal representatives mentioned that community growth management would be important as population continues to grow, and backcountry traffic increases.

**Meeting #5: San Diego IRWM Region Results Workshop – April 3, 2019**

The first Results Workshop was held after the release of the Draft Water Needs Assessment for public comment at the SDCWA. A total of 19 people attended from 18 organizations/tribes, 10 people of which had not previously participated in the Assessment. Participants provided valuable discussion around identified needs described in Section 6 of the Draft Water Needs Assessment. Some of this discussion focused on rural issues including the “silver tide” of retiring operators and what diversifying water supplies in rural areas might look like. Issues discussed during the workshop were incorporated into Section 6 of this Assessment.

**Meeting #6: South OC IRWM Results Workshop - April 9, 2019**

The second Results Workshop at the Laguna Hills Community Center for SOC stakeholders. A total of nine people/organizations attended, two of which had not previously participated in the Assessment. Participants discussed the method for identifying DAC neighborhoods, and the focus on income to identify DACs leads to a discrepancy that results in a lack of DACs support or infrastructure where they work or visit. Additional conversation focused on water supply planning and providing suggestions for additional opportunities to overcome barriers such as providing incentives to DAC organizations and creating a YouTube video on water resource management in the region.

**Meeting #7: USMW IRWM Results Workshop - April 10, 2019**

The final Results Workshop was held at the Rancho California Water District and included a call-in option, as this need was identified at the workshop in Anza in August. A total of six people/organizations attended, two of which had not previously participated in the Assessment. Participants discussed DAC barriers to participation and how DAC projects tend to be small-scale, local projects, and therefore are less competitive for funding through the IRWM Program. There is a
lack of technical support in rural communities to apply for funding needed for identified projects in the community. A participant from Anza discussed the need for a fire suppression pipeline in the community and noted the contention surrounding the fear that a water consolidation pipeline may spur economic growth in the area and change the current rural characteristics.

4.3 Webinars

The Water Needs Assessment community outreach strategy also included testing a webinar format to reach communities that were more remote or had more limited availability for an in-person meeting. The webinar presentation was identical to the community meeting presentation and encouraged participation through open discussion or commenting in the chat box. Twelve participants attended via webinar, one of which was offered jointly with the third community meeting (in South Orange County).

Project partners concluded that the webinar format made it difficult to engage with participants and solicit feedback, although four webinar participants followed up with more in-depth questionnaire responses.

Webinar #1: Urban San Diego Community Meeting - August 22, 2018

The first webinar was held to discuss the Water Needs Assessment effort and to solicit input about participants’ water needs. The webinar was advertised two weeks in advance to stakeholder contacts throughout the SDFA. Nine individuals representing eight organizations attended remotely. Participants in the webinar focused on a continued need for understanding and addressing DAC community water needs, as well as an interest in cross-community collaboration for water quality management.

Webinar #2: Orange County Workshop - September 10, 2018

The South Orange County Community Workshop on September 10 was also live-streamed as a webinar and recorded to provide Orange County residents an opportunity to learn about the Water Needs Assessment remotely. One participant logged into the webinar version to participate remotely, while twenty-one other participants attended the meeting in person.

4.4 Outreach Results

Eight separate presentations were held, either in person or via webinar. The consulting team and partners reached out to participants via email and answered questions via phone to encourage participation in the Water Needs Assessment. A complete breakdown of outreach activities is seen to the right.

Table 3 below illustrates the composition of respondents who were engaged in a qualitative way throughout the process, either through a community meeting or webinar or via the questionnaire. Some organizations participated in a community workshop and questionnaire, resulting in the repetition of a few
organizations in the table below. Community meetings represented the greatest number of stakeholders, although the questionnaire involved relatively close to the same amount, as well as the ability to produce a quantitative assessment of responses (due to all questionnaires including the same set of questions).

Table 3: Composition of Individuals Engaged by the Water Needs Assessment Process

<table>
<thead>
<tr>
<th>Respondent</th>
<th>Community Workshop</th>
<th>Questionnaire</th>
<th>Webinar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water district, system, utility, or company</td>
<td>17</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>City or County</td>
<td>10</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>Community-based organization</td>
<td>7</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>Community Member</td>
<td>6</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Tribal Community Representative</td>
<td>20</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Individuals (110)</strong></td>
<td><strong>60</strong></td>
<td><strong>44</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

Tribal communities were strongly represented at a community meeting held in Temecula, within driving distance for tribes in the USMW and SD IRWM Regions. The South Orange County meeting and webinar comprised mainly water district and utilities. Cities, especially within the San Diego IRWM Region, generally engaged through the questionnaire as opposed to in-person workshop attendance.

In order to characterize the responses, stakeholders were stratified into groups, as seen on the right. The San Diego IRWM Region is composed of both urban and rural stakeholders. All DACs in South Orange County are located within defined water agency service areas and are therefore characterized as urban. The DAC population in the USMW IRWM Region is rural because they are located outside the jurisdictional boundaries of the Region’s water and wastewater agencies. Table 4 lists how these populations are represented in each IRWM Region.

There are approximately 4.2 million people living in the SDFA, 22% of which reside in a DAC. Of these identified DAC communities, 96% of DACs are considered urban because they are located within the service area of a water or wastewater agency. It is important to note that all households may not be served by these agencies but are still considered urban for the purpose of this Assessment. While 96% of SDFA DACs by population are considered urban, rural DAC communities occupy more than three times as much land as urban DAC communities within the Funding Area (1,300 square miles vs. 460 square miles, respectively.)
As seen in Table 4, 47% of questionnaire respondents represented rural DAC communities, although they only make up 4% of the population in the SDFA.

Table 4: Survey Respondents by IRWM Region

<table>
<thead>
<tr>
<th>IRWM Region</th>
<th>Total Population</th>
<th>Total DAC Population</th>
<th>% of DAC Population</th>
<th>Total Questionnaire Respondents</th>
<th>% Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Urban</td>
<td>Rural</td>
<td>Urban</td>
<td>Rural</td>
</tr>
<tr>
<td>San Diego</td>
<td>3,253,356</td>
<td>876,660</td>
<td>849,962</td>
<td>26,698</td>
<td>97%</td>
</tr>
<tr>
<td>Upper Santa Margarita</td>
<td>374,964</td>
<td>7,186</td>
<td>0</td>
<td>7,186</td>
<td>0%</td>
</tr>
<tr>
<td>South Orange County</td>
<td>596,040</td>
<td>37,679</td>
<td>37,679</td>
<td>0</td>
<td>100%</td>
</tr>
<tr>
<td>SDFA Total</td>
<td>4,224,360</td>
<td>921,525</td>
<td>887,641</td>
<td>33,884</td>
<td>96%</td>
</tr>
</tbody>
</table>

As discussed in Section 2.2.1, a community is considered urban if it receives municipal water or wastewater services. There are some communities that have rural characteristics (e.g., rural residential densities, lack of curbs and gutters) and may identify as rural, but for the purposes of this Assessment are considered urban. With both urban and rural DAC stakeholders present in the San Diego IRWM Region, Figure 7 below visually demonstrates the feedback received from respondents in this IRWM Region. The partnership with RCAC increased rural participation in this Assessment and engaged a number of stakeholders who have never been involved in the IRWM Program. Rural questionnaire responses often represent individuals or small water systems. In comparison, urban questionnaire respondents often represent much larger populations, including the City of San Diego (1.42 million people in 2018 according to the U.S. Census Bureau), the City of Escondido, the City of Oceanside, and the City of El Cajon. The partnership with RCAC helped leverage their established relationships to better understand rural issues and bring more voices to the table, while urban stakeholders have participated in San Diego IRWM Region efforts for many years.

Figure 7: San Diego IRWM Region Questionnaire Participation
5 Evaluation of Process and Engagement

The Water Needs Assessment consisted of a strategic effort aimed at identifying and reaching out to DACs that have either not been engaged with IRWM in the past or were previously unidentified. Many of these communities face capacity barriers and in some cases lacked access to the internet, making follow-up to initial outreach efforts difficult.

Several outreach strategies that had been successful in past DAC outreach efforts were utilized such as email, phone calls, and in-person meetings. Partnering with NGOs proved an effective way to engage with communities that already have established relationships with those organizations, such as RCAC (this method was used in the Coachella Valley Disadvantaged Communities Program, 2014). Additional strategies of webinars and questionnaires were experimented with to evaluate the success of each strategy in terms of effectively engaging DAC stakeholders and representatives. However, despite numerous attempts through emails and phone calls, some participants simply did not respond to our outreach. Some organizations responded to our outreach by asking for more information, but did not then participate in a community meeting or complete a questionnaire. For example, some tribes did not receive permission to participate in the Water Needs Questionnaire. These respondents were not included in the number of organizations engaged in this assessment.

Following completion of this Assessment, the South Orange County IRWM Program conducted additional outreach to DAC stakeholders as part of the Orange County Water Needs Assessment. For updated information for South Orange County, please refer to that document (available under the ‘Stakeholder Involvement’ tab on the SOC IRWM Website: http://arcg.is/1WWTm8). SOC stakeholders and staff participated in both this and the Orange County Water Needs Assessment to provide a cohesive analysis for the whole of Orange County. The methodology for both assessments was consistent.

The questionnaire was valuable as a tool for prompting discussion at the community meetings, as well as an effective tool for collecting input across a broader geographic area for this assessment. The online version of the questionnaire reached more stakeholders than any of the other strategies and received an approximately 22% response rate to the questionnaire from organizations, a response rate that is higher than the average external survey response rate.

Community meetings were effective in soliciting strong qualitative feedback from specific individuals, as discussions tended towards specific topics of interest to the participants such as the need for stormwater runoff education or an interest in water recycling projects. Many factors such as capacity and drive time were likely barriers to attendance, making community workshops more valuable for focusing on a specific community’s water needs.

Although the webinars were broadly advertised throughout the SDFA, with at least two weeks advanced notice to participants, participation remained low and it was concluded that the webinar format was not a successful way of engaging with participants.

To overcome some of these limitations and collect background context for certain issues and priorities, this Water Needs Assessment references applications to the Proposition 1 DACI Program received in early 2016. As part of the project submittal process, applicants were asked to provide a description of broad community needs to characterize the value of their proposed projects. 23 applications from throughout the SDFA were reviewed and provided a broad view of DAC community needs and water challenges throughout the various project areas, but was most illuminating in the San Diego IRWM Region, which included 22 of the 23 submitted projects. This information is recorded in Section 6: Summary of Water Management Needs and Issues from Survey Respondents.
As identified in Section 1.3: Water Needs Assessment, the outcomes of this Water Needs Assessment were dependent on the responses of participants. To fully determine effective ways to address the identified issues and needs, additional funding from DWR would be necessary to better understand why these issues were reported.

6 Summary of Water Management Needs and Issues from Survey Respondents

Water management needs and issues identified through this Water Needs Assessment are presented in the following sections. Where responses from participants and source information allow, needs and issues are presented by planning Region. Where identified needs and issues were generally consistent across the SDFA or where lack of response data did not allow for separation into planning Region, identified needs and issues are presented more generally. As noted in Section 1.3: Water Needs Assessment, these responses reflect the perspectives of the participants in the community meetings, questionnaire, and DAC Involvement grant. The scope of the Water Needs Assessment did not include a process to verify identified needs and Section 6 is a summary of the stakeholder feedback collected through the assessment. DAC stakeholders in the SDFA are encouraged to identify additional needs and issues as appropriate during planning activities and grant cycles.

6.1 Water Challenges for the San Diego Funding Area

6.1.1 Themes of DAC Water-Related Needs and Issues

Overall, the water challenges described by DACs in the SDFA are generally consistent with the known water needs across the SDFA and maintain characteristics identifiable as either urban or rural. A summary of key challenges voiced by surveyed DACs in the SDFA is provided in Table 5 and more detailed information regarding these challenges is provided in Section 6.1.2 Key Water Challenges by IRWM Region. Information gathered through literature is not included in Table 5. Survey responses are displayed by community in Appendix A while information gathered through literature review is indicated by italics.

In general, participants noted a reliance on groundwater, and expressed concern about potential impacts of climate change. Despite the fact that groundwater is a small percentage of overall water supply in the SDFA (<3% of supplies in South Orange County IRWM Region, 26% of supplies in USMW IRWM Region, and supply for only 2.4% of residents in the San Diego IRWM Region), 52% of questionnaire participants identified groundwater as their community’s major or only source of drinking water. The geographical representation of survey respondents does not necessarily reflect population distribution in the IRWM Region, as noted in Table 4 above. Rural DACs make up 47% of the questionnaire respondents which represents 4% of the DAC population. Notably, 82% (18 out of 22) of these participants also expressed concern about climate change due to its potential ability to lower the groundwater table, affect groundwater quality (via natural processes like erosion or saltwater intrusion), and precipitate drought, which can render some wells terminally defunct. In Figure 8, respondents who noted that groundwater constituted a significant portion of water supplies are identified by a blue raindrop. A red raindrop indicates that this community identified a risk associated with groundwater, which in most cases was related to a concern about the impact climate change would have related to drought, combined with a concern about rising demand. Additionally,
stakeholders across the SDFA touched on broad themes of capacity, funding, and aging infrastructure, which in some cases is up to 100 years old. Specifically, DACs were described by community-based organizations as being very strapped for funding, with little capacity to apply for grants for needed infrastructure or lacking operation and maintenance (O&M) funding to maintain that infrastructure once it is implemented.

Community-based organizations representing DACs also emphasized a need for outreach to and education in these communities to better understand and support water management best practices. In particular, these organizations encouraged expanding youth education, especially within tribal communities.

Tribal stakeholders in the SDFA were specifically concerned about water rights, and what is perceived as a “race to the bottom,” or lowering of the groundwater table, due to recent groundwater management policies from the Sustainable Groundwater Management Act. Their most pressing water challenges included groundwater quality and quantity, in addition to a general low water supply. Tribal stakeholders also were strongly concerned about climate change and its potential impacts which would compound water-related challenges. Tribal stakeholders cited an interest in learning more about sustainable development options which will positively impact flooding, water quality, and water supply. Another pressing water challenge for tribal communities is wastewater management. One potential project discussed at the NAWMA meeting was the construction of a shared wastewater treatment plant system for local tribes to promote integrated waste management and water recycling.

Overarching rural issues identified in the Results Workshops in April 2019 include the “silver tide” of retiring operators for drinking water and wastewater systems. When operators retire, they often take their knowledge of water systems with them. Many rural communities don’t know exactly where their pipelines are and do not have access to As-Builts or GIS for their systems. This is also an issue experienced in older urban communities. Another issue experienced in rural communities and older urban communities includes deteriorating water and wastewater infrastructure. Some stakeholders also noted the rising cost of water and the need to keep water affordable in DACs, as well as the need for small noncompliant water systems to receive TMF assistance. With the need for all local water supplies to meet MCLs, the cost of water is projected to rise, no matter the source.
Figure 8: Reliance on Groundwater and Perceived Risk of Groundwater Supply
### Table 5: Summary of Key Water Challenges in Urban and Rural Communities Identified by Survey Participants

<table>
<thead>
<tr>
<th>Identified Water Challenge</th>
<th>San Diego IRWM Region</th>
<th>Upper Santa Margarita Watershed IRWM Region (Rural)</th>
<th>South Orange County IRWM Region (Urban)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Quality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Small percent of cross-border water quality contamination causes public health and ecosystem problems</td>
<td>Aging infrastructure affects quality of water supply</td>
<td>Lack of confidence in quality of water supply</td>
<td>Beach water quality from stormwater runoff.</td>
</tr>
<tr>
<td>• Sea level rise and storm surge beginning to flood coastal wastewater and stormwater infrastructure</td>
<td>Issues with nitrate and uranium in some communities’ groundwater supply</td>
<td>Issues with nitrates and sulfur in specific areas in groundwater</td>
<td>Need for more holistic management of water; including the capture and use of stormwater</td>
</tr>
<tr>
<td>• Infrastructure failure or distrust in infrastructure leads to a reliance on bottled water for emergency drinking supply</td>
<td></td>
<td>Groundwater quality protection and remediation</td>
<td>Groundwater quality protection and remediation</td>
</tr>
<tr>
<td>• Lack of confidence in quality of water supply</td>
<td>• Concern for tribal groundwater rights due to recent change in water management policies</td>
<td>Assistance needed to address municipal MS4 permit activities and compliance with water quality regulations</td>
<td>Assistance needed to address municipal MS4 permit activities and compliance with water quality regulations</td>
</tr>
<tr>
<td>Water Supply</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Cost is unaffordable in some cases</td>
<td>Expectation that drought and other climate change factors will affect localized supply</td>
<td>Concern for tribal groundwater rights due to recent change in water management policies</td>
<td>Not enough locally sourced water</td>
</tr>
<tr>
<td>• Some lack of confidence about the quality of imported supply</td>
<td>Concern that larger urban areas will tap into supply</td>
<td>Water litigation and quantification issues stymie commercial development</td>
<td>Old infrastructure unable to support expansion of local water supply</td>
</tr>
<tr>
<td>• Old reservoir tanks for drinking water causing contamination issues</td>
<td>Runoff pollutants affect supply in some cases</td>
<td>Insufficient water storage</td>
<td>Address the rising cost of water supply and imported water</td>
</tr>
<tr>
<td>• Concern for tribal groundwater rights due to recent change in water management policies</td>
<td></td>
<td>Drought lowers groundwater levels relied upon for supply</td>
<td>Climate change conditions of drought and earthquake may impact water supply</td>
</tr>
<tr>
<td>• Insufficient water supplies for fire suppression</td>
<td></td>
<td>Need O&amp;M funding and capacity to maintain wells</td>
<td></td>
</tr>
</tbody>
</table>

San Diego Funding Area Water Needs Assessment
| Identified Water Challenge | San Diego IRWM Region | | | Upper Santa Margarita Watershed IRWM Region (Rural) | South Orange County IRWM Region (Urban) |
|---------------------------|-----------------------|------------------|---------------------------------|----------------------------------|
| Flooding                  | Urban                 | Rural            |                                 |                                  |
|                           | • Some issues with flooding, especially in canyons | • Lack of infrastructure leads to flash flooding | • Erosion impacts evacuation routes during storms | • Beach water quality from stormwater runoff |
|                           | • Major flooding in streets caused by water main breaks | | • Major concentrated flood events | • Urban development and impermeable surfaces exacerbate runoff issues |
| Wastewater                | Urban                 | Rural            |                                 |                                  |
|                           | • Less flows resulting in higher concentration, need for O&M | • Population growth and economic development means less land for septic systems | • Failing septic systems | • Although uncommon, flooding may be caused by sewer system surcharge |
|                           | • Infrastructure failure due to drought, and flooding; lack of funding for improvements | • Tribal need for wastewater management infrastructure | • Tribal need for wastewater management infrastructure | |
|                           | | | | • Increased wastewater infrastructure issues due to climate change causing sea level rise and increased storm strength |
6.1.2 Key Water Challenges by IRWM Region

6.1.2.1 San Diego IRWM Region Key Challenges

Stakeholders in the San Diego IRWM Region generally expressed concerns about water quality and water supply, including issues related to wastewater system failures and the need for infrastructure to ensure water supply in the face of extreme events, such as earthquakes or drought. Stakeholders also affirmed the need identified in the 2019 San Diego IRWM Plan for additional funding for capital infrastructure and O&M. A review of the 22 DACI Program grant proposals from the San Diego Region also pointed toward the area’s overall issues with water quality and water supply.

In the San Diego IRWM Region’s urban communities, concern was expressed about the public health and ecosystem implications of stormwater runoff in specific locations – notably, issues related to transboundary flows in the Tijuana River Watershed and coastal waters near the U.S.-Mexico border, and downstream of homeless encampments. A few stakeholders expressed an interest in green infrastructure and community outreach that emphasizes holistic stormwater solutions to provide multiple capture and filtration benefits for communities. Although flooding was mentioned several times as a major concern, it was generally not elaborated upon, with the exception of a few comments about its impact on public safety and infrastructure in urban areas, mostly near the international border.

In some specific urban areas, there was concern about the affordability of water, as well as concern that water conservation measures were contributing to higher waste concentrations in wastewater treatment infrastructure, which is causing a need for greater funding to address associated water quality and pollution issues.

The largest concern in the San Diego IRWM region’s rural communities was continued access to safe drinking water, which most respondents cited as coming from local sources of groundwater. Some communities indicated the quality of the water is being impacted by specific contaminants such as uranium, nitrates and sulfur; there is apprehension about the availability of supply given threats from climate change, population growth, and potential demand from urban areas. Some rural communities stated that actual infrastructure failure or distrust in infrastructure leads to a reliance on bottled water as an emergency drinking supply. In some communities, differing cultural backgrounds also lead to a reliance on bottled water. Infrastructure-related needs included the need for consolidated water systems to support growing communities, the need to maintain and repair wells, and the need to maintain and repair septic systems.

6.1.2.2 Upper Santa Margarita Watershed IRWM Region Key Challenges

Upper Santa Margarita Watershed IRWM stakeholders are all considered rural residents for the purposes of this Water Needs Assessment. Stakeholders in the USMW Region were most concerned with water supply and the potential future impacts of climate change on the supply. Related water policies that impact reliance on localized sources of groundwater were also of concern. Some communities in this area are experiencing rapid rates of development and expressed concern about ensuring supply for a growing population when water supplies are already at risk from drought. Stakeholders also expressed interest in water supply infrastructure that better connects communities with areas that have potential for economic development.

Due to a lack of funding for capital projects and O&M, many of these communities are struggling to meet drinking water standards because of unsafe levels of contaminants in the primary water supply. A lack of infrastructure in these areas also contributes to flash floods that in some cases affect roads.
and emergency evacuation routes. Fire has been a problem in this Region in the past, and there was a noted distress about lack of water supply for fire suppression. Cited wastewater concerns in this Region were the need for land for septic tanks and contamination of groundwater supplies from septic tanks. Similar to rural communities in the San Diego IRWM Region, other infrastructure-related needs included the need for a consolidated water system to promote economic development and provide for a growing and urbanizing community, the need to maintain and repair wells, and the need to maintain and repair septic systems.

A review of the single DACI Program grant proposal from the USMW IRWM Region reflected the concerns associated with reliance on groundwater.

6.1.2.3 South Orange County IRWM Region Key Challenges

South Orange County IRWM stakeholders largely represented water systems and water districts in urban areas as well as one urban community-based organization. The primary concern for these stakeholders was the reliance on imported water supplies, especially in light of climate change concerns, as well as some of the negative impacts of importing so much water. For instance, the long distance that water has to travel is purported to have a negative impact on local agriculture due to excess saline concentrations. Respondents noted the pressure on existing water supplies is exacerbated by an increase in development and population growth. Imported water prices continue to rise and many municipalities are looking to create a domestic water supply to keep the cost of water steady. Over 50% of respondents noted extreme events, such as drought and earthquake, can continue to create pressure on existing water supplies.

Flooding and urban runoff impacts on beach water quality was a large concern raised by half of South Orange County questionnaire respondents. Beach water quality declines during high stormwater flow. Thermal expansion is the linear increase in volume of a fluid because of rise in temperature. One stakeholder noted it is a localized issue of sea level rise in SOC. They stated wastewater discharge temperatures are a contributing factor in Laguna Beach in particular, causing thermal expansion due to slowed mixing from the gulf of Santa Catalina and the Pacific Ocean.

Stakeholders representing water systems and districts noted that aging infrastructure is a major problem that affects drinking water quality and supply. Wastewater system failure is also a problem that has caused contamination to local beaches and at least one estuary. Impacts of extreme events on infrastructure, such as earthquakes or drought, were also of concern. Aging infrastructure and funding to address CIP projects was the most mentioned concern of stakeholders in this Region. Funding for capital infrastructure and O&M activities were identified by stakeholders as a need, consistent with the 2018 IRWM Plan for South Orange County.

No DACI Program grant proposals were received from the South Orange County Region, because the priorities of providing safe, reliable drinking water for DACs does not apply for South Orange County, as DACs in the Region are served by local agencies. Local agencies implement water resource projects that benefit their larger service areas rather than only their pockets of DACs.

Note: Additional outreach in SOC was conducted for the Orange County Water Needs Assessment. See that document for additional information (available under the 'Stakeholder Involvement’ tab on the SOC IRWM Website: http://arcg.is/1WWTmb).
6.1.3 Water Quality

Water quality is a major issue for many DACs, both now and in the past. It was a theme of many conversations in the community meetings, and just over half of questionnaire respondents cited water quality in characterizing their community’s greatest water challenges. Rural community stakeholders generally expressed concerns about the quality of their drinking water, while urban community stakeholders generally cited compliance, public health, and ecosystem concerns related to stormwater runoff. Community-based organizations expressed a concern about a lack of education about stormwater runoff and water quality more generally.

6.1.3.1 Drinking Water Quality

Responses regarding drinking water quality issues were almost entirely applicable to rural communities. 52% percent of questionnaire respondents rely on drinking water from a well and 82% of this group expressed concern about the quality of that water. Multiple communities cite nitrates as a major groundwater quality issue, noting that runoff from nearby agriculture, septic fields, and brine waste can seep into groundwater supplies. In multiple rural communities, bottled water is relied upon in some scenarios due to a lack of confidence in drinking water quality and for emergency drinking water supply. Some urban residents rely on bottled water due to cultural backgrounds and distrust in the drinking water supply.

In urban communities, there is some concern about the quality of regional imported water supplies and groundwater contamination. The City of San Diego's 2015 UWMP and MWDOC's 2015 UWMP cited water quality issues associated with imported water, described above in Section 3.2. While water agencies treat all water to meet state and federal drinking water standards before delivering it to customers, deteriorating source water quality increases the expense and difficulty of meeting standards, causing concern for source quality, and increasing concerns over treatment costs.

**Drinking Water Quality Issues Identified by Water Needs Assessment Participants**

- Nitrates is a predominant groundwater contaminant in multiple communities.
- Uranium is a major pollutant in groundwater causing citations nearly monthly in one rural community.
- Nitrates, sulfur, and iron are identified as affecting groundwater and wells in rural communities.
- Bottled water for emergency supply.
- Groundwater issues including total dissolved solids (TDS) and nitrate.

6.1.3.2 Stormwater Runoff

Other water quality issues were attributed largely to stormwater runoff or wastewater infrastructure failure (see Section 6.1.6: Wastewater). A few respondents mentioned safety and water quality concerns related to homeless encampments. Bacteria is considered generally of concern throughout the SDFA’s urban areas due to its implications for wildlife and public health. Rural residents cited stormwater as an issue due to the potential for flash flooding. Municipalities in urban areas of South...
Orange County cited concern about increasingly stringent water quality compliance requirements; limited resources for code enforcement compounds the funding need for MS4 compliance activities, as well as declined beach water quality during storm events.

Urban areas expressed interest in better upstream control of stormwater runoff and proactive land use planning with green infrastructure, or LID for stormwater runoff control, recognizing the co-benefit of green infrastructure to biodiversity and wildlife. While LID strategies are more common in urban areas, they can also be beneficial in rural areas to reduce and slow volumes of water while also providing co-benefits to the area.

**Stormwater Issues Identified by Water Needs Assessment Participants**

- **San Diego**
  - Urban areas expressed interest in better upstream control of stormwater runoff.
  - Green infrastructure preferred for stormwater runoff control.
  - Co-benefit of green infrastructure is improvement to biodiversity and wildlife.

- **Upper Santa Margarita Watershed**
  - Lack of stormwater infrastructure leads to flash flooding.

- **South Orange County**
  - Declining beach water quality during storm events
  - Stringent water quality compliance requirements and funding needed to address municipality MS4 permit compliance activities and programs.
6.1.4 Water Storage/Supply

As with many areas of California, communities in the SDFA have experienced water supply issues during times of drought. As mentioned above, 52% of questionnaire respondents stated a community reliance on groundwater from a well (Figure 8). Rural residents outside the SDCWA service area in the Cahuilla Valley Groundwater Basin region in Upper Santa Margarita are entirely dependent on groundwater resources for potable water supply.

Significant concern about future water supply challenges associated with drought and groundwater is also discussed in the ‘Climate Concerns’ callout box to the right. Rural communities expressed concern regarding water supply availability issues, though water quality was identified as being a more urgent need. Participants identified a number of scenarios where water supply would be affected, including power outages from natural disaster (power is lost to individuals without generators), wells drying up, and contamination caused by nitrate, uranium, or other water quality issues. Seismic resilience is recognized as a key issue for water supply.

A lack of community water systems or consistent supply was stated as prohibitive to potential economic development in certain areas. In one rural community, there was strong interest in establishing a potable water system to replace old wells. Among the larger water providers, there was a stated interest in diversifying water supplies (especially with expansion of nonpotable reuse systems) and an expressed concern about growing demands associated with population growth. At the Results Workshops in April 2019, stakeholders discussed what diversifying water supplies in rural areas might look like, which is more difficult than in urban areas and demonstrates the importance of groundwater management. Diversifying water supplies in rural areas may include rain barrels, greywater, and small-scale recycled water. However, barriers need to be removed to encourage larger scale use of recycled water in rural areas. Stakeholders suggested a partnership with the County to learn rules and regulations for recycled water production and use. Rural areas also identified the need for expertise to study and develop their water rates structure.

A number of respondents throughout urban and rural communities expressed a general concern about storage. Some respondents from rural communities described insufficient water storage capacity as a pressing issue, while municipal water providers expressed a less urgent interest in expanding storage opportunities. Storage of water and stormwater was a substantial need identified in SOC.

The need for more recycled water systems was especially noted in SOC. One stakeholder commented, “regional wildfires effect ocean water quality, air quality, homeowner’s insurance rates and quality...”
of life that can be mitigated by increasing recycled water systems and replanting degraded, barren habitats.”

**Water Supply and Storage Issues Identified by Water Needs Assessment Participants**

- **San Diego**
  - Concerns about affordability of water and increasing demand, with limited native supplies and threats to undeveloped resources.

- **Upper Santa Margarita Watershed**
  - Issues with water supply due to power outages and fire, concern related to population growth and climate change.
  - One respondent: “Some [community members] buy bottled water. They rely on water vending machines, which are not sufficient during peak times.”

- **South Orange County**
  - Concerns about quantity of water supply. One respondent: “There is not nearly enough locally sourced water for the current population, let alone for projected population increases.”
  - Increase recycled water systems

### 6.1.5 Flooding

Flooding across the SDFA was noted as a challenge by multiple participants. This is likely due to a short but intense rainy season from November through February and some extreme storms which are known to cause localized flooding that impacts roads, businesses, coastal zones, and watersheds. One stakeholder noted that flooding may be caused by a lack of storm drains in DAC communities. Similar to Section 6.1.3.2 Stormwater Runoff, the implementation of green infrastructure and LID strategies can improve issues with flooding in both urban and rural communities.

Cities and drinking water providers expressed a need for additional or appropriately sized detention facilities in urban watersheds and the need for better upstream control. Community plans in urban areas in San Diego County cited the issue of major flooding in streets caused by water main breaks and urgent needs to replace 100-year old cast iron water mains. Flooding in urban canyons were cited as an issue by participating stakeholders. The NPDES permit in SOC requires hydromodification controls, and the SOC Water Quality Improvement Plan includes geomorphic concerns as one of the three highest water quality conditions of concern. Hydromodification controls will help address downstream impacts and implement infrastructure or groundwater storage to reduce flows, but are expensive to implement on a regional scale.

Some rural communities noted that they lack major flood control infrastructure and face flash flooding during storm events. Floods can wash out roads and strand communities. The Valentine’s Day storm in February 2019 washed out roadways for the Ramona Band of Cahuilla in the Upper Santa Margarita Watershed Region, trapping the community for multiple days with only one ingress.

Tribal partners expressed that poor urban planning has resulted in scattered homes and flooding of infrastructure. Additionally, the landscape of reservations often has poor drainage, compounding flooding issues. A few tribes noted the poor management of highway runoff that affects reservations in eastern San Diego County.
6.1.6 Wastewater

Wastewater issues are typically identified when wastewater infrastructure has an impact on either drinking water or other water uses. Aging infrastructure is not only a concern for drinking water systems, but also for wastewater, with aging sewer pipes and the threat of infrastructure failure. Infrastructure failure can represent an urgent public health threat (e.g., the failure of a major wastewater plant near a recreational coastal area), or a longer-term risk (e.g., a lack of information about leaks that may be impacting downstream surface water quality). In both the San Diego and South Orange County IRWM Regions, stakeholders suggested that wastewater treatment plant failure has led to the contamination of estuaries and beaches, especially after flooding. In Capistrano Beach, the local sewer plant was built next to San Juan Creek and heavy storm events have the potential to breach the levee and flood the plant or break some of the pipes that bring effluent under the creekbed. This is not an issue that has occurred in recent years. In the southernmost part of the San Diego IRWM Region, trash and wastewater from a treatment plant near the border are seen as a pressing public health and safety issue, especially when wet weather drives runoff and sewage throughout the nearby canyons and to communities near the coast.

As is true in many other areas, drought conservation in this Region has led to higher concentrations of waste in wastewater systems, which will require greater O&M funding due to corrosion issues and blockages. Representatives of rural areas, which are more reliant on septic systems, stated a need for more land to accommodate new systems. The lack of septic infrastructure has limited future growth in some communities.

Rural areas without access to wastewater services rely on septic systems. Tribal representatives expressed frustration that their wastewater system is not recognized by the state, limiting their ability to get quality operators. Tribal participants indicated that viable land for septic systems is running low and the physical topography makes installation difficult. Population growth will require the construction of wastewater treatment plants, which will be both expensive and difficult. San Diego tribes suggested constructing a shared treatment plant as a potential IRWM Project to increase their economy of scale as wastewater treatment is both a tribal and rural community issue. This may present a public-private partnership opportunity for wastewater facilities. One stakeholder recommended exploring nonpotable reuse with small scale wastewater treatment plants as a potential for future septic to sewer conversion programs.

SOC stakeholders noted the downstream impacts of the Aliso Creek watershed. Laguna Beach has 6-8 million visitors annually, but a population of approximately 20,000. With the influx of visitors,
beaches are over their carrying capacity to handle sewage of visitors visiting the beach. Some of these visitors are DACs. It is necessary to better understand impacts of localized and ephemeral demand on wastewater infrastructure and potential impacts on coastal resources.

### Wastewater Issues Identified by Water Needs Assessment Participants

- • Concern about wastewater infrastructure failure and a lack of funding for improvements in urban areas.
- • Urban: water conservation measures cause declining flows in the wastewater system leading to higher concentration of waste in the wastewater system and subsequent O&M issues.
- • Rural: challenges to increasing economic development and land use and a lack of adequate septic infrastructure.

### San Diego IRWM Region

- Funding to replace and upgrade aging water supply and wastewater infrastructure.
- Funding to diversify water supply sources and keep the cost of drinking water affordable.
- Further develop local water supplies to decrease reliance on imported water.
- Funding to improve and maintain wastewater treatment plants to deal with higher concentrations of wastewater and pollutants, especially dry weather flow diversion.
- New source wells in rural areas.
- Infrastructure and programs that supports residential conservation or economic development.

### Upper Santa Margarita Watershed

- • Concern about failing septic systems.
- • Concern about a lack of land for adequate septic infrastructure limiting future growth and economic development.

### South Orange County

- • Concern about wastewater infrastructure failure and a lack of funding for improvements in urban areas.
- • Potential for wastewater levee breach or infrastructure failure during large storms leading to contamination of nearby beaches and estuaries.

### 6.2 Input on Most Pressing Needs and Concerns

In addition to answering questions about overall water needs and challenges, Water Needs Assessment participants were also asked to identify their most pressing water needs (i.e. what immediate needs IRWM may help with). Although these needs may already be identified, they have been classified as a high priority by DAC stakeholders. Common themes and key funding needs are highlighted below by IRWM Region:

**San Diego IRWM Region**

- Funding to replace and upgrade aging water supply and wastewater infrastructure.
- Funding to diversify water supply sources and keep the cost of drinking water affordable.
- Further develop local water supplies to decrease reliance on imported water.
- Funding to improve and maintain wastewater treatment plants to deal with higher concentrations of wastewater and pollutants, especially dry weather flow diversion.
- New source wells in rural areas.
- Infrastructure and programs that supports residential conservation or economic development.
• Funding and policies to support holistic green infrastructure and recycling projects that address flooding, water supply, and water quality issues.
• Need to address tribal groundwater rights and the perceived “race to the bottom.”
• Promote sustainable development options which will positively impact flooding, water quality, and water supply issues.
• Need for a shared tribal/rural wastewater treatment plant system.
• Infrastructure improvements along the coast where stormwater pipes are vulnerable to back-ups during coastal storms.
• Improved data and technology for monitoring infrastructure leaks and failures.
• Uranium treatment plant to treat brine waste impacting the groundwater drinking water supply

Upper Santa Margarita Watershed IRWM Region
• Funding to support water supply and wastewater infrastructure for increasing development in rural and agricultural areas.
• Funding to support new source wells and to address contamination issues in existing wells.
• Need to address tribal groundwater rights and the perceived “race to the bottom.”.
• Promote sustainable development options which will positively impact flooding, water quality, and water supply issues.
• Need for a shared tribal/rural wastewater treatment plant system.
• Funding and policies to preserve local groundwater sources for sustainable use, especially as communities that rely on these sources face future drought.
• Education and other opportunities to improve asset management and support consolidation in rural areas.

South Orange County IRWM Region
• Funding to replace and upgrade aging water supply and wastewater infrastructure along with funding for O&M.
• Funding to further develop localized water supplies to decrease reliance on imported water
• Infrastructure improvements and policies that support water recycling (such as purple pipe systems), increase residential efficiency (such as proactive greywater systems), and support a diversification of supplies.
• Funding for compliance with regulatory requirements and water quality improvements.

Metropolitan Water District of Southern California’s DAC Conservation Pilot Program
Pilot program designed to promote water conservation in DACs. Metropolitan is creating a program to overcome the identified barriers of waiting for rebate checks, limit to outdoor-focused programs if participants live in an apartment with no yard, and renters who rely on building owners to make physical improvements to water efficiency. In order to increase conservation savings in DACs, Metropolitan plans to create a (1) Regional Pilot program for installing Premium High Efficiency Toilets; (2) increased access to Member Agency Administered Program funding; and (3) focused activity on identifying and competing for grants in partnership with the member agencies. See Metropolitan’s website and news release for more information: http://www.mwdh2o.com/PDF_NewsRoom/Increasing%20Conservation%20in%20Disadvantaged%20Communities%20Release%20FINAL.pdf
6.3 Beneficial Projects

During meeting discussions and in the questionnaire, participants were asked to identify particularly beneficial projects in their communities. The primary intention or benefit of the identified projects varied but almost all were capital infrastructure projects. Figure 9 shows the composition of identified projects, where each project was assigned a single primary benefit. Projects aimed at water supply were most commonly cited, along with water recycling and water storage projects, indicating that water supply reliability is a top concern for participating DACs. Other identified projects not included in this graph concerned watershed planning studies, stormwater education efforts, and, in one instance, an example of a best management practice, which was explained as “balancing agriculture with suburbanization.”

Figure 9: Beneficial Projects Identified by Engaged Stakeholders by IRWM Region
7 Barriers to DAC Involvement in IRWM

One of the goals of the DACI Program is to help IRWM Regions better engage with DACs. At the community meetings, participants were asked “How can IRWM better engage with your community?” and “Are there challenges to your participation in IRWM?” Input provided in these discussions helped to identify opportunities for the statewide IRWM Program and the IRWM Programs of the SDFA to expand existing DAC engagement efforts and better understand how to best communicate IRWM activities and opportunities to DAC stakeholders. Barriers to participation included from lack of representation, the cost and capacity of participation, limited capacity to pursue project funding, restrictions on funding available for planning and design, cash flow and reimbursement process challenges, and barriers to participation inherent in the bonds themselves. Barriers below are organized below as barriers that may exist for a DAC participant and barriers that may exist to the IRWM program to increase engagement.

7.1 Participant Barriers

7.1.1 Lack of Representation

Feedback from throughout this assessment, especially from the community meetings, indicated that DACs often do not have proportionate representation in broader regional forums, especially where funding is concerned. Direct representation from individual DAC stakeholders may be needed to provide input on community needs. However, this can be challenging to implement because these stakeholders often have limited capacity to attend meetings and forums. Additional incentives for participation, such as a stipend, may help address this barrier. Supporting this theme, community organizations that represent DACs also expressed the continued need for direct outreach to their communities to better understand their water needs and challenges, and to promote water management best practices. Additional feedback received included the dislike for using the term DAC to refer to disadvantaged communities.

7.1.2 Limited Capacity to Pursue Project Funding

Pursuing project funding can be challenging for some DAC stakeholders due to limited capacity to stay informed about opportunities, prepare competitive applications, and administer the grant if awarded. Some stakeholders that represent DACs have not traditionally been engaged in the IRWM Program due to capacity constraints. Many of these DAC representatives have limited time to participate in IRWM activities on a voluntary basis, as their time must be focused on their organization’s mission. For these stakeholders, lack of participation in the IRWM Program may make it more difficult to stay informed about upcoming funding opportunities and learn more about funding programs that could help them to craft a more competitive application.

Additional DAC participation challenges include the level of effort required for grant participation (from the grant application through the implementation phases). DACs often lack sufficient resources for preparation of materials for grant applications, especially as quantification of project benefits has risen in priority for funding agencies. The quantification of project benefits especially has been identified as a barrier for DACs, as many DAC projects may tend to be smaller scale, not integrated and regional. For example, one stakeholder asked how to finance the extension of transmission mains in rural areas when it only supports a few residents? This may be their only water supply source but
doesn’t provide a large water benefit in comparison with regional projects. Priorities need to be
developed to describe how IRWM can meet the needs of small projects.

Non-profits serving DACs may also struggle with grant agreement compliance during
implementation (e.g., quarterly reports, quarterly invoices, accountability reports, CEQA
documentation, and post-performance monitoring) due to lack of staff resources able to manage the
substantial and complex grant requirements. CEQA is a barrier for tribes due to federal jurisdiction.

7.1.3 Difficulty with Funding Cash Flow and Processes

DAC representatives often have difficulty managing cash flow under the grant reimbursement
process, with a lengthy wait for receipt of grant funds following invoice payment and submittal to the
region’s grant administrator. A non-profit with limited cash flow may be forced to wait for an invoice
payment before continuing implementation, halting any work or public support momentum and
jeopardizing their ability to complete their contracted work plan and delivering stated benefits to the
community. The addition of the 50% Advanced Payment option does not fully address the problem
faced by small DACs and non-profits, since many of the cash-flow challenges still occur during the
second half of the project, and additional reporting and compliance measures may be required. Many
stakeholders noted that even if IRWM funding covered the initial capital cost, there is a severe lack
of funding for O&M, which deters community leadership implementing the project.

7.2 Institutional Barriers

7.2.1 Cost and Capacity to Reach Rural Areas

Because of the geographic scale of the three planning Regions in the SDFA, the cost of and capacity
for reaching out to communities across each Region is also a barrier for IRWM staff and
representatives that may want to use a “go to them” outreach approach. Additionally, many DACs
do not use, or have limited access to, modern technology, so webinars and online information about
IRWM funding and grants does not reach these audiences. Community workshops in targeted areas
appear to be the best strategy for developing a water needs dialogue; however, these types of
outreach activities need substantial funding and staffing investments. This additional effort by the
State is encouraged.

7.2.2 Inability to Fund Planning and Design

Limited funding for project development activities, such as feasibility studies and preliminary design
is another substantial barrier to participation by DACs. Although planning and engineering activities
are often eligible costs under implementation rounds, DACs generally have limited cash flow to
develop preliminary design materials that will justify a project’s construction. Without funding for
planning and design, changes to the work plan are often needed after funding for a DAC project is
granted. However, these changes frequently require lengthy approval processes causing delays to the
project and overruns to the budget. It is not uncommon for an amendment to take so long to be
processed that another amendment is required just as the first one is approved. DAC representatives
have indicated that greater flexibility is needed from DWR (or other contracting entities) for work
plans for IRWM projects in order to support timely completion of projects.
7.2.3 Programmatic and Regulatory Barriers

Some of the barriers to participation in funding opportunities are inherent in the bond language or in DWR’s interpretation of regulations and guidelines. Historically, DWR has generally followed a conservative approach in interpreting bond and regulatory language, such as with the Advanced Payment option. While the Advanced Payment option was intended to help address known challenges to DAC participation related to cash flow, there is no option for advanced payment of the second 50% of the funding, meaning many of the cash flow challenges still occur, only later in the project. Tribes have expressed concerns about standard contracting language and may need to find a partner willing to be the primary project sponsor or that can assist with compliance with state requirements such as California Environmental Quality Act (CEQA).

Under Proposition 1 – Round 1 Implementation Grant’s Draft Proposal Solicitation Package (released October 2018), CEQA and permitting required to begin construction must be completed within six months of final award, with exceptions for DACs and tribes. Although the exception does support areas that are 100% DAC or tribal projects, it continues to be a significant barrier for projects that contain DACs but are not considered 100% DAC.\(^2\)

Although URCs have been included and considered as DACs within this Water Needs Assessment, they are not eligible for DAC funding, local cost share waivers, CEQA 12-month eligibility requirement exemption, and advanced payment under the Proposition 1 guidelines. There is some concern that URCs have been recognized as requiring special consideration only to not provide the accommodations such consideration warrants. The ability to access funding is a strong motivator for initial interest and participation in the IRWM programs, and URCs may not feel encouraged to step into a new program that puts them at the same level as larger organizations that may have more experience or capacity to compete for funding. This is a lost opportunity for DWR to support smaller-scale projects benefitting URCs.

Additionally, feedback received during the Water Needs Assessment noted that income may not be the correct variable to determine DAC status. Stakeholders were concerned that DACs are only eligible for services where they are living, and not the places they aggregate or work during the day. The existing mechanisms for identifying DACs are not well suited for areas that serve DACs but are not the primary residence for DAC community members.

Other barriers to participation related to implementation of the statewide IRWM Program include the lengthy time required for grant application review and contracting that affects when project sponsors receive the funds they have been awarded, which can lead to the need for additional project amendments that then take months to be approved.

\(^2\) Upon release of the Final Proposal Solicitation Package, language was updated to require CEQA and permitting to be completed within 12 months of final award, and areas that are 75% DAC, EDA, or tribal are exempt from this timeline. This update reduces the barrier identified in this Assessment for Prop 1 funding.
8 Opportunities to Address Barriers to Participation and DAC Needs

Based on the results and experience of conducting the Water Needs Assessment, the Tri-County FACC has identified a number of opportunities to learn more about DACs, expand their engagement with IRWM, and overcome some of the barriers described in Section 7 above. Opportunities described here may apply to either or both the statewide IRWM Program and local efforts. Some of these opportunities may require additional funding from the State to implement:

1. **Leverage the updated list of DAC stakeholders** and identify ways for the three planning Regions in the Tri-County FACC to continue and expand ongoing DAC involvement and engagement. For example, the three RWMGs may send email invitations to IRWM meetings and activities and conduct targeted follow-up as appropriate.

2. **Use targeted outreach** to notify communities with self-identified needs when funding is available to help them.

3. **Follow up with stakeholders on challenges and pressing needs** in specific communities and communicate these pressing needs to DWR as priorities. Additional funding from the State may be required to address identified needs.

4. Continue to **implement technical support training** for the IRWM grant process.

5. Continue to **support changes at the State level** that will encourage more DAC participation in funding opportunities, including adjustments to how advanced payment is administered, increasing flexibility in work plans, extending CEQA compliance timelines, and contracting changes to address tribal and DAC needs. This may include composing comment letters to DWR or advocating for change in the Roundtable of Regions’ Grant Administration Workgroup.

6. Continue to look for **opportunities to partner with organizations**, such as the Regional Water Quality Control Board to leverage existing relationships and conduct outreach through new avenues such as advertising the IRWM Program at community fairs, festivals, and farmers markets or reaching out to Facebook community groups and DAC census municipality staff.

7. **Explore alternative outreach methods** to reach and support communities that have limited access to web-based resources through assistance from the State, which may include advertising the success of the IRWM Program through human interest stories in local newspapers.

8. Encourage the State to create **additional outreach** materials such as videos on “What is IRWM?” that can be easily shared on YouTube or displayed at neighborhood meetings to give more information about the program.

9. **Encourage future IRWM project applications** that follow up on project ideas from community meetings.

10. Continue to **actively seek DAC representation** on the leading committees of each IRWM program’s stakeholder group.
11. Continue to outreach to and encourage engagement by tribal communities in IRWM stakeholder groups.

12. Continue to serve as a forum for communication within the SDFA. Advertise technical trainings and support provided by NGO partners.

13. Encourage the State to create a “one-stop shop” for technical assistance and funding opportunities. This would include not only opportunities for DACs through DWR, but opportunities from other State and Federal agencies for DACs, EDAs, URCs, and EJs identified in this assessment. This may include Metropolitan Water District of Southern California’s new regional DAC pilot program to promote water conservation in DACs.

Table 6 illustrates which of the barriers to participation described in Section 7 may be addressed through implementation of these opportunities. More information on how these opportunities directly and indirectly address these barriers are described in the sections below.

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<td>2. Use targeted outreach</td>
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<td>4. Technical support training</td>
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<td>5. Support changes at the State level</td>
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<td>6. Partner with new organizations</td>
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<td>7. Explore alternative outreach methods</td>
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<td>8. Create outreach materials such as YouTube videos</td>
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<td>13. “One-stop shop” for technical assistance</td>
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• Opportunity directly addresses the identified barrier | ○ Opportunity indirectly addresses the identified barrier
8.1 Opportunities to Overcome Participant Barriers

8.1.1 Lack of Representation

One need identified through this Assessment was the need for direct outreach to DACs to better understand their water needs and challenges. Eight of the 13 identified opportunities directly address the lack of representation of DACs in broader regional forums and water management planning. Direct outreach to DACs would occur through the following opportunities: 1) leveraging the updated list of stakeholders, 2) using targeted outreach methods, 6) partnering with new organizations, and 7) exploring alternative outreach methods. These opportunities use different methods of engagement to increase the number of DAC representatives and organizations that have knowledge of, and participate in, the state and regional IRWM Programs. The Funding Area’s IRWM Programs would continue to actively seek engagement from DAC and tribal community representation in IRWM stakeholder groups and will continue to serve as a forum for communication within the Funding Area (Opportunity 12). In the San Diego IRWM Region, DAC and tribal stakeholders serve as representatives on the Regional Advisory Committee (RAC) and participate in Project Selection Workgroups to award IRWM funding. USMW IRWM Region’s RWMG assigned Regional representatives to personally contact potential DAC representatives at both the city and community level to encourage participation in the IRWM program, including additional outreach to tribal communities. The SOC IRWM Group has conducted outreach to DAC and Native American Tribal representatives as part of IRWM Planning. Increasing the number stakeholders involved in IRWM increases opportunities for collaboration and partnership.

The Funding Area’s IRWM Programs can indirectly support increasing DAC representation through encouraging future IRWM grant applications (Opportunity 9), which could increase DAC engagement, and support DAC representation.

8.1.2 Limited Capacity to Pursue Project Funding

Since 2002, at least $19 million has been awarded to DACs. Approximately 12-15% of all available funding has been awarded to DAC projects in the SDFA since 2008. However, accessing project funding can be challenging for some DAC stakeholders due to limited capacity to stay informed about opportunities, prepare competitive applications, and administer the grant if awarded. In order to address this barrier, RCAC has used their grant award in previous rounds of funding in the San Diego IRWM Region to act as the project sponsor and competitively distribute funding to small, rural DAC projects. RCAC grants are an example of a method to assist DAC sponsorship, grow capacity, and increase DAC participation in the IRWM program through collaboration. Some stakeholders that represent DACs have not traditionally been engaged in the Funding Area’s IRWM Programs due to capacity constraints. The outreach opportunities discussed above would help increase awareness of available funding opportunities. The IRWM Program would leverage the updated list of DAC stakeholders to inform the community of upcoming funding opportunities throughout the State (Opportunity 1). IRWM Regions also experience capacity constraints for targeted outreach to DACs. In order to meet DACs where they live, IRWM Regions may require more staff resources to achieve a higher level of engagement.

Through the Needs Assessment, the Funding Area’s IRWM Programs became aware of some specific pressing needs in certain communities and plans to follow up with communities on resources (Opportunity 3) and encourage future IRWM grant applications that may help address these needs (Opportunity 9). A “one-stop shop” for technical assistance and funding opportunities created by the
State would allow DACs to find multiple funding opportunities outside of IRWM that may address their needs in one place, rather than needing to search multiple websites for available funding. It would also provide resources to help DACs prepare competitive grant applications (Opportunity 13). The Funding Area’s IRWM Programs would continue to implement technical support training (Opportunity 4) to improve the competitiveness of grant applications and provide assistance during the grant application process to address this identified challenge.

The use of targeted outreach (Opportunity 2) would help to inform DACs of funding opportunities and notify them of available resources for improving their applications, indirectly addressing challenges to pursuing funding. If the Funding Area’s IRWM Programs partner with new organizations (Opportunity 6), some challenges for DACs pursuing funding may indirectly be addressed by connecting DACs with additional resources available through partner organizations. New partner organizations may also be able to provide insight or guidance on how other DAC stakeholders have been able to overcome some of these funding challenges.

### 8.1.3 Difficulty with Funding Cash Flow and Processes

The Funding Area’s IRWM Programs would continue to advocate for changes at the State level that improve the grant application process for DACs (Opportunity 5) and provide support for navigating the grant application and administration processes (Opportunity 4). The San Diego Funding Area has advocated for 100% advanced payment for DACs for a number of years, and repeatedly provided feedback to DWR regarding opportunities to ease the burden of applying and administering IRWM grants for DACs. Increased engagement of DACs and tribal communities in IRWM would also bring more voices to the table to advocate for State level changes that would reduce barriers to participation (Opportunities 8 and 9). New methods of outreach (Opportunities 7 and 9) and a “one-stop shop” for technical assistance (Opportunity 13) could improve DAC stakeholder understanding of IRWM funding, which could help DACs navigate the application and administration processes.

### 8.2 Opportunities to Overcome Institutional Barriers

#### 8.2.1 Cost and Capacity to Reach Rural Areas

The Funding Area’s IRWM Programs would explore additional outreach methods that are not web-based to engage DACs in rural areas and increase general engagement in IRWM (Opportunity 7). This may include outreach through articles in local newspapers, community access TV, or booths at community fairs. Additional web-based outreach materials, such as YouTube videos, can be easily distributed throughout the Funding Area and may improve general knowledge of IRWM (Opportunity 8). Leveraging the updated list of stakeholders, increased DAC representation and tribal engagement, engaging additional organizations, and encouraging these organizations to spread the word would help IRWM gain credibility in communities that are unfamiliar with IRWM (Opportunities 1, 2, 6, 10, and 11). This may be especially beneficial in rural communities.

#### 8.2.2 Inability to Fund Planning and Design

Through the Water Needs Assessment, a number of potential projects were identified that require funding for planning and feasibility studies. The remaining rounds of Prop 1 funding are dedicated to implementation and do not provide DACs with necessary pre-construction funding support without also requiring construction. Without planning dollars, DAC projects often require multiple amendments to a work plan after funding is granted. The Funding Area’s IRWM Programs would
advocate to simplify the amendment process for DACs at the State level (Opportunity 5) and encourage the State to provide a “one-stop shop” for funding opportunities from other organizations that may be able to provide planning support for a future IRWM grant application (Opportunity 13). The Funding Area’s IRWM Programs could continue to serve as a forum for DACs to discuss their planning needs and communicate these needs to the State (Opportunity 12).

8.2.3 Programmatic and Regulatory Barriers

A number of programmatic and regulatory barriers were identified in Section 7. The IRWM Program has advocated for change at the State in the past (Opportunity 5), recognizing language included in grant guidelines were oftentimes significant barriers to participation. Recently the language surrounding the required timeline for CEQA/permitting and tribal sovereignty were removed from DWR’s Proposition 1 – Round 1 Implementation Grant Final Proposal Solicitation Package, which helped to reduce potential barriers to DAC and tribal participation in this round of funding. This was partially achieved through feedback provided by tribes and DAC representatives at statewide IRWM workshops and through concerns raised within regional IRWM programs. Both Statewide IRWM Program and the Funding Area’s IRWM Programs can serve as a forum to identify and communicate critical programmatic and regulatory barriers to DWR that if removed, could increase DAC participation in IRWM (Opportunity 12). If more DACs and tribal communities are represented in IRWM stakeholder committees, there may be more support for necessary changes at the State level in order to reduce barriers to participation (Opportunities 10 and 11). Barriers to participation that may be inherent in the bond language would not be able to be removed. Therefore, the IRWM Program encourages the State to create a “one-stop shop” for other funding opportunities that may be available to DACs to address their needs that do not have the same bond-related requirements (Opportunity 13).

9 Conclusion

As a result of outreach conducted for this Assessment, the Funding Area’s IRWM Programs are starting to see positive changes in DAC relationships and engagement that build upon previous efforts in this area. In response to feedback from one of the Community Workshops held in 2018, a staff member from Riverside County is now a participating member of the Anza Groundwater Association (AGWA). This relationship provides technical assistance to the Anza community and connects the community with additional resources. Rural communities communicated that it was difficult to participate in the IRWM program due to significant drive time and availability needed for in-person meetings. As a result of this input, the USMW IRWM Program (whose DACs are nearly entirely rural) offered a call-in option for its Results Workshop in April 2019. A recurring compliance issues with Uranium MCLs was discovered through stakeholder feedback in the San Diego IRWM Region and the San Diego IRWM Program is working towards connecting this community with resources to address the need.

DAC engagement through Community Workshops in 2018 identified some new potential projects for future IRWM grant applications. These projects include a fire suppression water pipeline in the Anza community in the USMW IRWM Region and a shared tribal wastewater treatment plant in the San Diego IRWM Region. With this knowledge, the IRWM Program can help support organizations during the process, including through targeted outreach regarding funding opportunities and technical assistance opportunities.
The Results Workshops held in April 2019, after the release of the *Draft Water Needs Assessment*, provided an opportunity for stakeholders to provide feedback on the identified DAC needs. It also provided DACs an additional opportunity to participate and provide feedback if an organization had not already done so. Several additional organizations were engaged during this document’s public comment period, demonstrating the increased engagement begun during the 2018 outreach process.

The San Diego Funding Area will continue to advocate for changes at the State level that support DACs and reduce barriers to participation. The San Diego IRWM Program participates in the Roundtable of Regions’ Grant Administration Workgroup, which is an informal workgroup whose members include IRWM grant administrators and DWR representatives. This workgroup worked with DWR to change project completion reporting requirements from 10 years to three, helping to reduce the administrative costs and obligations for IRWM project sponsors. This change demonstrates that continued advocacy can result in improvements to IRWM processes and reduce barriers to participation.

The Water Needs Assessment identified a number of DAC needs and barriers, as well as opportunities moving forward. Ultimately, the Water Needs Assessment will be used by DWR to develop funding priorities that align with the needs of DACs. This Assessment will inform DWR in future rounds of IRWM funding, as well as the Funding Area’s IRWM Programs.
APPENDIX A: SUMMARY OF DAC NEEDS IDENTIFIED THROUGH LITERATURE REVIEW
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<table>
<thead>
<tr>
<th>City or Community</th>
<th>Community Characteristics</th>
<th>Drinking Water</th>
<th>Wastewater</th>
<th>Stormwater</th>
<th>Other</th>
<th>System Financing</th>
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</table>

Sources:
5. Pinelands Community Plan: https://www.sandiego.gov/content/docs/pubdocs/PINELANDS_2015_UWMP.pdf
12. Lakeside Service Area Sewer Master Plan: https://www.sandiego.gov/content/docs/pubdocs/PINELANDS_2015_UWMP.pdf
15. Pine Valley Community Plan: https://www.sandiego.gov/content/docs/pubdocs/PINELANDS_2015_UWMP.pdf
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Source:
- San Diego County
- Imperial Beach
- National City

City of Imperial Beach
- Drought can result in a reduction of imported water supply
- Shares a border with Mexico, most southwestely city in the U.S.

City of National City
- Drought can result in a reduction of imported water supply
- Shares a border with Mexico, most southwestely city in the U.S.

City of Imperial Beach
- Drought can result in a reduction of imported water supply
- Shares a border with Mexico, most southwestely city in the U.S.

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- San Diego County
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- National City

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- Drought can result in a reduction of imported water supply
- Shares a border with Mexico, most southwestely city in the U.S.

City of National City
- Drought can result in a reduction of imported water supply
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Sources:
- San Diego County
- Imperial Beach
- National City
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**Community Characteristics**

- **Sanitation:**
  - Municipal
  - Unknown
  - Served by City of San Diego

- **System Financing:**
  - MHI: $71,535
  - Unknown

**Drinking Water**

- **Source(s) of water:**
  - SDCWA Service Area
  - served by City of San Diego

- **Water Service Agency:**
  - Unknown

- **Water Service Area:**
  - Unknown

- **Estimate number of private wells:**
  - Unknown

- **Estimate number of public wells:**
  - Unknown

- **Water supply treatment:**
  - Chemical, Filtration, and disinfection

- **Available for community (y/n):**
  - Yes

**Wastewater**

- **System Financing:**
  - MHI: $71,535

**Stormwater**

- **System Financing:**
  - MHI: $46,000

**Other**

- **System Financing:**
  - Unknown

**System Financing**

- **System Financing:**
  - MHI: $71,535

**Sources**

- 1. College Area Community Plan
<table>
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<td>San Diego County</td>
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**City of San Diego**

- **City of San Diego: Greater North Park CPA**
  - Community: Yes
  - Population: 1,307,402
  - MHI: $71,535
  - Sea level rise: Yes
  - Coastal vulnerability: Yes
  - Climate change: Yes
  - Irrigation: Yes
  - System financing: None, or Involvement

- **City of San Diego: Kensington - Talmadge CPA**
  - Community: Yes
  - Population: 1,307,402
  - MHI: $71,535
  - Sea level rise: Yes
  - Coastal vulnerability: Yes
  - Climate change: Yes
  - Irrigation: Yes
  - System financing: None, or Involvement

- **City of San Diego: Midway CPA**
  - Community: Yes
  - Population: 1,307,402
  - MHI: $71,535
  - Sea level rise: Yes
  - Coastal vulnerability: Yes
  - Climate change: Yes
  - Irrigation: Yes
  - System financing: None, or Involvement

- **City of San Diego: Normal Heights CPA**
  - Community: Yes
  - Population: 1,307,402
  - MHI: $71,535
  - Sea level rise: Yes
  - Coastal vulnerability: Yes
  - Climate change: Yes
  - Irrigation: Yes
  - System financing: None, or Involvement

- **City of San Diego: Ocean Beach CPA**
  - Community: Yes
  - Population: 1,307,402
  - MHI: $71,535
  - Sea level rise: Yes
  - Coastal vulnerability: Yes
  - Climate change: Yes
  - Irrigation: Yes
  - System financing: None, or Involvement

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**Sources**

- Mid-City Community Plan: https://www.sandiego.gov/sites/default/files/ncp/midcity_Community_plan.pdf
- Ocean Beach Community Plan and Local Coastal Program: https://www.sandiego.gov/sites/default/files/ncp/ocean_beach_community_plan_final_document_reduced.pdf
<table>
<thead>
<tr>
<th>City or Community</th>
<th>Source(s) of water</th>
<th>Estimate number of private wells</th>
<th>Estimate number of public wells</th>
<th>Water supply treatment (i.e. treatment, RO, etc.)</th>
<th>Accessible for community (y/n)</th>
<th>Affordability of any drinking water system issues</th>
<th>Type of system</th>
<th>Sanitation District</th>
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<th>Identify any stormwater system issues</th>
<th>Identify other conditions/ issues (drought, etc.)</th>
<th>Identify drinking water, wastewater, or stormwater regulatory/ compliance issues</th>
<th>Identify the rate structure (i.e. block, tiered)</th>
<th>Describe system financing needs (i.e. operation and maintenance costs?)</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of San Diego: Old San Diego CPA</td>
<td>City of San Diego: SDCWA water, capture of local runoff from rain; recycled water for non-potable use, and limited local groundwater</td>
<td>7</td>
<td>6</td>
<td>Artesia Treatment Plant</td>
<td>Yes</td>
<td>NA</td>
<td>Served by City of San Diego.</td>
<td>Sewer</td>
<td>City of San Diego PUD</td>
<td>Located at the base of the community. Significant storm water flows along Juan Street and flooding at the base of the hill.</td>
<td>None identified</td>
<td>None identified</td>
<td>None identified</td>
<td>City of San Diego Rate Structure: Block or Tiered Rate</td>
<td>City of San Diego Infrastructure Plan <a href="https://www.sandiego.gov/sites/default/files/legacy/planning/community/profiles/sandiego_rate_structure_block_or_tiered.pdf">https://www.sandiego.gov/sites/default/files/legacy/planning/community/profiles/sandiego_rate_structure_block_or_tiered.pdf</a></td>
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<td>6</td>
<td>Artesia Treatment Plant</td>
<td>Yes</td>
<td>NA</td>
<td>Served by City of San Diego.</td>
<td>Sewer</td>
<td>City of San Diego PUD</td>
<td>64% of the City's mobile homes</td>
<td>Reap dry pools and mesas</td>
<td>None identified</td>
<td>None identified</td>
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<td>City of San Diego Rate Structure: Block or Tiered Rate</td>
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<td>City of San Diego: City of San Diego CPA</td>
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<td>6</td>
<td>Artesia Treatment Plant</td>
<td>Yes</td>
<td>NA</td>
<td>Served by City of San Diego.</td>
<td>Sewer</td>
<td>City of San Diego PUD</td>
<td>Concrete sewer mains are being replaced</td>
<td>Located in Pastrana Valley (trickling filter ponds)</td>
<td>None identified</td>
<td>None identified</td>
<td>None identified</td>
<td>City of San Diego Rate Structure: Block or Tiered Rate</td>
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<td>City of San Diego: Skyline Paradise Hills CPA</td>
<td>City of San Diego: SDCWA water, capture of local runoff from rain; recycled water for non-potable use, and limited local groundwater</td>
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<td>Artesia Treatment Plant</td>
<td>Yes</td>
<td>NA</td>
<td>Served by City of San Diego.</td>
<td>Sewer</td>
<td>City of San Diego PUD</td>
<td>Processed at Point Loma Treatment Plant</td>
<td>None identified</td>
<td>None identified</td>
<td>None identified</td>
<td>City of San Diego Rate Structure: Block or Tiered Rate</td>
<td>City of San Diego Infrastructure Plan <a href="https://www.sandiego.gov/sites/default/files/legacy/planning/community/profiles/sandiego_rate_structure_block_or_tiered.pdf">https://www.sandiego.gov/sites/default/files/legacy/planning/community/profiles/sandiego_rate_structure_block_or_tiered.pdf</a></td>
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<td>City of San Diego: Southeastern San Diego CPA</td>
<td>City of San Diego: SDCWA water, capture of local runoff from rain; recycled water for non-potable use, and limited local groundwater</td>
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<td>Existing replacement and maintenance of wastewater pipes</td>
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<td>County</td>
<td>Population</td>
<td>MHI</td>
<td>Involvement</td>
<td>Previous Involvement</td>
<td>Source(s) of water</td>
<td>Water Service Agency</td>
<td>Estimate number of private wells</td>
<td>Estimate number of public wells</td>
<td>Water supply (i.e. catchment, RO, etc.)</td>
<td>Accessible for community (y/n)</td>
<td>Affordability for community (y/n)</td>
<td>Type of system</td>
<td>Sanitation District</td>
<td>Describe any insufficient wastewater system issues</td>
</tr>
<tr>
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<td>Yes</td>
<td>$71,535</td>
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<td>Unknown</td>
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<td>Municipal Treatment Plant</td>
<td>Yes</td>
<td>NA</td>
<td>San Diego</td>
<td>City of San Diego PUD</td>
<td>None identified</td>
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<td>City of San Diego: University CPA</td>
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<td>Municipal Treatment Plant</td>
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<td>City of San Diego PUD</td>
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<td>Fallbrook CPA</td>
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<td>Yes</td>
<td>$56,468</td>
<td>Unknown</td>
<td>Previous involvement</td>
<td>SDCWA Water only</td>
<td>Fallbrook PUD and Rainbow Water District (unincorporated Fallbrook)</td>
<td>Unknown</td>
<td>Unknown</td>
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<td>Yes</td>
<td>NA</td>
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<td>City of San Diego PUD</td>
<td>Concrete sewer mains are being replaced</td>
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<td>Julian CPA</td>
<td>San Diego County</td>
<td>No</td>
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<td>Unknown</td>
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<td>Groundwater, dependent on wells</td>
<td>Small water districts: Julian Community Services District, North Peak Mutual Water Company - electrically off grid and uses diesel generators</td>
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<tr>
<td>Mountain Empire CPA</td>
<td>Groundwater Small community water districts including Lake Morena Views: Mutual Water Company</td>
<td>Unknown 40</td>
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<td>None</td>
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<td>NA</td>
<td>Septic</td>
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<tr>
<td>North County Metropolitan CPA</td>
<td>Surface water: SDCWA Water District: Rincon del Diablo MWD, Vallecitos Water District</td>
<td>NA</td>
<td>NA</td>
<td>Groundwater: nutrient and septic tank failure</td>
<td>Seiser, Septic Seiser Sanitation District</td>
<td>NA</td>
<td>NA</td>
<td>Block or natural</td>
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<td>Pala/Puma CPA</td>
<td>Groundwater: SDCWA Water District: Rincon del Diablo MWD, Vallecitos Water District</td>
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<td>Groundwater: nutrient and septic tank failure</td>
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<td>NA</td>
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<td>NA</td>
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<td>NA</td>
<td>NA</td>
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<tr>
<td>Population-South CPA</td>
<td>Groundwater: MDE CDP</td>
<td>NA</td>
<td>35</td>
<td>MDE CDP: 20% of the area is composed of the Marine Corps Base Camp Pendleton and Cleveland National Forest</td>
<td>Septic</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
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<td>NA</td>
<td>NA</td>
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</table>

**Community Characteristics**

- **Sanitation**: NA
- **Chlorine**: NA
- **Other**: NA
- **NA**
- **Need to extend System Financing**: NA

**Includes**

- **Finite**: 3
- **NA**
- **Escondido**: Small

**Groundwater Cost to extend Runoff may Decline**: Yes

90% of the plan Municipal High rates of Drought and water from Palomar and Cuyamaca water districts due to drought and climate

**Sources**

2. North County Metropolitan Subregional Plan [https://www.sandiegocounty.gov/content/dam/sdc/pds/docs/CP/NC_Metro_CP.pdf](https://www.sandiegocounty.gov/content/dam/sdc/pds/docs/CP/NC_Metro_CP.pdf)
3. North Mountain Subregional Plan [https://www.sandiegocounty.gov/content/dam/sdc/pds/docs/CP/N_MTN_PALOMAR_CP.pdf](https://www.sandiegocounty.gov/content/dam/sdc/pds/docs/CP/N_MTN_PALOMAR_CP.pdf)
4. Twin Oaks Valley Water Treatment Plant [https://www.sandiegocounty.gov/content/dam/sdc/pds/docs/CP/MTN_Empire_CP.pdf](https://www.sandiegocounty.gov/content/dam/sdc/pds/docs/CP/MTN_Empire_CP.pdf)
5. Twin Oaks Valley Weather Advisory [https://www.sandiegocounty.gov/content/dam/sdc/pds/docs/CP/NC_Metro_CP.pdf](https://www.sandiegocounty.gov/content/dam/sdc/pds/docs/CP/NC_Metro_CP.pdf)
7. 2017 MDE CDP Uniform Rate Structure [https://www.sandiegocounty.gov/content/dam/sdc/pds/docs/CP/MTN_Empire_CP.pdf](https://www.sandiegocounty.gov/content/dam/sdc/pds/docs/CP/MTN_Empire_CP.pdf)

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<td>NA</td>
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<td>NA</td>
<td>NA</td>
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</table>

**Community Characteristics**

- **Sanitation**: NA
- **Chlorine**: NA
- **Other**: NA
- **NA**
- **Need to extend System Financing**: NA

**Includes**

- **Finite**: 3
- **NA**
- **Escondido**: Small

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<td>Affordability for community (%)</td>
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<td>Stormwater</td>
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<td>Located within SDCWA Service Boundary, served by Ramona Municipal Water District (RWMD). Ranch San Diegan Mutual Water Company</td>
<td>6</td>
<td>3</td>
<td>None</td>
<td>Treatment plant.</td>
<td>Yes</td>
<td>Yes</td>
<td>RMWD's three_incorporated three water systems are unusable due to high nitrate levels. SDCWA source water high salinity and imported water as well as arsenic and permissive contamination. water is treated before delivering to customers.</td>
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<tr>
<td>Spring Valley CPA</td>
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<td>SDCWA Service Area served by Helix Water District and Otay Water District</td>
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<td>1</td>
<td>T.W. Chapman Water Recycling Facility</td>
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<td>May Valley District uses large capacity water banks on hillsides and gravity feeds SDCWA source water high salinity and imported water as well as arsenic and permissive contamination - water is treated before delivering to customers.</td>
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<tr>
<td>Upper Santa Margarita Watershed IRWM Region</td>
<td>Aquanga</td>
<td>Riverside County</td>
<td>Pop: 1,128</td>
<td>Groundwater</td>
<td>NA</td>
<td>Unknown</td>
<td>NA</td>
<td>NA</td>
<td>Limited services and utilities</td>
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<td>Azusa</td>
<td>Riverside County</td>
<td>Pop: 3,014</td>
<td>Groundwater</td>
<td>Groundwater and treated water systems</td>
<td>Large number of wells in the area and there is little known about their condition or status</td>
<td>Unknown</td>
<td>NA</td>
<td>High levels of nitrate and TDS</td>
<td>Septic</td>
<td>NA</td>
<td>Limited services and utilities</td>
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<td>City or Community</td>
<td>County</td>
<td>Source(s) of water</td>
<td>Water Service Agency</td>
<td>Estimate number of private wells</td>
<td>Estimate number of public wells</td>
<td>Water supply treatment (i.e. chlorination, RO, etc.)</td>
<td>Accessibility for community (y/n)</td>
<td>Affordability for community (y/n)</td>
<td>Type of system</td>
<td>Sanitation District</td>
<td>Describe any insufficient wastewater system issues</td>
<td>Identity stormwater urban water pollution management issues</td>
<td>Identify drinking water, wastewater, or stormwater compliance issues</td>
<td>Identity other conditions/ issues (drought, etc.)</td>
<td>Identify the risk structure (i.e. block, tiered)</td>
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<tr>
<td>Laguna Niguel</td>
<td>South Orange County</td>
<td>MWDOC water and recycled water</td>
<td>Mission Viejo Water District</td>
<td>All residents have access to municipal drinking water</td>
<td>Groundwater not part of the water supply source</td>
<td>MWDOC treatment facility in Tustin</td>
<td>Yes</td>
<td>NA</td>
<td>Increasing salinity in imported water. No MCL violations recorded from MWDOC.</td>
<td>Sewer</td>
<td>SOCWA</td>
<td>Recycled water through SOCWA</td>
<td>No</td>
<td>Chagga Status worksheet</td>
<td>Block of height rate</td>
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<td>Lake Forest</td>
<td>South Orange County</td>
<td>MWDOC water and recycled water</td>
<td>El Toro Water District and Irvine Ranch Water District</td>
<td>All residents have access to municipal drinking water</td>
<td>Unknown</td>
<td>MWDOC treatment facility in Tustin</td>
<td>Yes</td>
<td>NA</td>
<td>TDS and disinfection byproducts in MWDOC water requiring ozone treatment.</td>
<td>Sewer</td>
<td>SOCWA</td>
<td>Recycled water through SOCWA</td>
<td>Yes</td>
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<td>Mission Viejo</td>
<td>South Orange County</td>
<td>MWDOC water and recycled water</td>
<td>El Toro Water District, Mission Viejo Water District, Santa Margarita Water District</td>
<td>All residents have access to municipal drinking water</td>
<td>Unknown</td>
<td>MWDOC treatment facility in Tustin and Baker Water Treatment Plant in Lake Forest</td>
<td>Yes</td>
<td>NA</td>
<td>Increasing salinity in imported water. No MCL violations recorded from IRWD. TDS and disinfection byproducts in MWDOC water requiring ozone treatment.</td>
<td>Sewer</td>
<td>SOCWA</td>
<td>Recycled water through SOCWA</td>
<td>No</td>
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<tr>
<td>Rancho Santa Margarita</td>
<td>South Orange County</td>
<td>MWDOC water and recycled water</td>
<td>Santa Margarita Water District</td>
<td>All residents have access to municipal drinking water</td>
<td>Unknown</td>
<td>MWDOC treatment facility in Tustin and Baker Water Treatment Plant in Lake Forest</td>
<td>Yes</td>
<td>NA</td>
<td>Constraints of concern within the San Juan Basin include TDS, nitrate nitrogen, manganese, and increased salinity in imported water.</td>
<td>Sewer</td>
<td>SOCWA</td>
<td>Recycled water through SOCWA</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**City or Community**

- Laguna Niguel
- Laguna Woods
- Lake Forest
- Mission Viejo
- Rancho Santa Margarita

**Community Characteristics**
- Climate change considered a threat to the community's water supply?
- Describe community characteristics (i.e., MHI, population, and other DAC indicators)?

**Drinking Water**
- Source(s) of water
- Water Service Agency
- Estimate number of private wells
- Estimate number of public wells
- Water supply treatment (i.e. chlorination, RO, etc.)
- Accessibility for community (y/n)
- Affordability for community (y/n)

**Wastewater**
- Sanitation District
- Describe any insufficient wastewater system issues
- Identity stormwater urban water pollution management issues
- Identity drinking water, wastewater, or stormwater compliance issues
- Identity other conditions/ issues (drought, etc.)
- Identity the risk structure (i.e. block, tiered)

**Other**
- Describe system financing needs (i.e. operation and maintenance costs)

**Sources**
## Community Characteristics

<table>
<thead>
<tr>
<th>City or Community</th>
<th>County</th>
<th>Is climate change considered a threat to the community’s water supply?</th>
<th>Source(s) of water</th>
<th>Water Service Agency</th>
<th>Estimate number of private wells</th>
<th>Estimate number of public wells</th>
<th>Water treatment (i.e., chlorine, RO, etc.)</th>
<th>Accessible for community (y/n)</th>
<th>Identify any drinking water system issues</th>
<th>Source(s) of Drinking Water</th>
<th>Is climate change threatening the community's water supply?</th>
<th>Source(s) of Drinking Water</th>
<th>System Financing</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Clemente</td>
<td>Orange County</td>
<td>Yes, the South Coast Water District states water supply reliability is threatened by future droughts, possible climate change, limited storage, uncertain imported water, lack of robust groundwater aquifer in SOC, risk of natural disasters and impacts.</td>
<td>MWDOC water/groundwater extracted by the City of San Clemente, and recycled water.</td>
<td>City of San Clemente. Small northern portion of the City is served by South Coast Water District and the inland community of Temescal is served by Santa Margarita Water District.</td>
<td>All residents have access to municipal drinking water.</td>
<td>MWDOC treatment facility in Yorba Linda.</td>
<td>Yes</td>
<td>Exceeding salinity in imported water and salinity issues in groundwater due to seawater intrusion.</td>
<td>Water from MWDOC, partially served by South Coast Water District, and the City of San Clemente.</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>City of San Clemente rate structure.</td>
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<tr>
<td>San Juan Capistrano</td>
<td>Orange County</td>
<td>Yes, the South Coast Water District states water supply reliability is threatened by future droughts, possible climate change, limited storage, uncertain imported water, lack of robust groundwater aquifer in SOC, risk of natural disasters and impacts.</td>
<td>MWDOC water/groundwater extracted by the City of San Clemente, and recycled water.</td>
<td>Moulton Niguel Water District, partially served by South Coast Water District, and operates the Capistrano Beach Desalter. Water is pumped through the groundwater from San Juan Basin.</td>
<td>All residents have access to municipal drinking water.</td>
<td>MWDOC treatment facility in Yorba Linda.</td>
<td>Yes</td>
<td>Exceeding salinity in imported water and salinity issues in groundwater due to seawater intrusion.</td>
<td>Water from Moulton Niguel Water District, partially served by South Coast Water District, and operates the Capistrano Beach Desalter. Water is pumped through the groundwater from San Juan Basin.</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>City of San Clemente rate structure.</td>
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</tbody>
</table>

### Drinking Water

- **Source(s) of water**: MWDOC water/groundwater extracted by the City of San Clemente, and recycled water.
- **Water Service Agency**: City of San Clemente. Small northern portion of the City is served by South Coast Water District and the inland community of Temescal is served by Santa Margarita Water District.
- **Estimate number of private wells**: All residents have access to municipal drinking water.
- **Estimate number of public wells**: MWDOC treatment facility in Yorba Linda.
- **Water treatment**: Yes, exceeding salinity in imported water and salinity issues in groundwater due to seawater intrusion.
- **System Financing**: Yes, the South Coast Water District states water supply reliability is threatened by future droughts, possible climate change, limited storage, uncertain imported water, lack of robust groundwater aquifer in SOC, risk of natural disasters and impacts.

### Wastewater

- **Source(s) of wastewater**: Recycled water through SOCWA.
- **Type of system**: SOCWA.
- **Sanitation District**: SOCWA.
- **Describe any wastewater system issues**: YES. 
- **Identify system/other infrastructure issues**: YES. 
- **Describe the rate structure (i.e., block, tiered)**: YES. 
- **System Financing**: YES. 

### Stormwater

- **Source(s) of stormwater**: Stormwater. 
- **Type of system**: SOCWA. 
- **Sanitation District**: SOCWA. 
- **Describe any stormwater system issues**: YES. 
- **Identify system/other infrastructure issues**: YES. 
- **Describe the rate structure (i.e., block, tiered)**: YES. 
- **System Financing**: YES. 

### Other

- **Source(s) of other**: Drinking water.
- **Type of system**: SOCWA. 
- **Sanitation District**: SOCWA. 
- **Describe any other system issues**: YES. 
- **Identify system/other infrastructure issues**: YES. 
- **Describe the rate structure (i.e., block, tiered)**: YES. 
- **System Financing**: YES. 

### System Financing

- **Source(s) of system financing needs (i.e., operation and maintenance costs)**: YES.
APPENDIX B: SUMMARY OF QUESTIONNAIRE RESPONSES
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## San Diego IRWM Region

### Urban

<table>
<thead>
<tr>
<th>Community Characteristic</th>
<th>Drinking Water</th>
<th>Wastewater</th>
<th>Stormwater</th>
<th>Other</th>
<th>System Financing</th>
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<tbody>
<tr>
<td><strong>Community</strong></td>
<td><strong>Questionnaire Respondents</strong></td>
<td><strong>Drinking Water</strong></td>
<td><strong>Wastewater</strong></td>
<td><strong>Stormwater</strong></td>
<td><strong>Other</strong></td>
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<tr>
<td>San Diego</td>
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<td>Low public confidence in system</td>
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<td>Flooding, and infrastructure failure</td>
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<td>Turbidity in drinking water means infrastructure failure is a problem</td>
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<td>Stormwater/sewer</td>
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<td>Stormwater/sewer infrastructure affected by high tides as a result of rising sea levels</td>
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<td>Stormwater/sewer toileting issues with trash</td>
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## Upper Santa Margarita Watershed IRWM Region

### Community

<table>
<thead>
<tr>
<th>Community Characteristics</th>
<th>Drinking Water</th>
<th>Wastewater</th>
<th>Stormwater</th>
<th>Other</th>
<th>System Financing</th>
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</thead>
<tbody>
<tr>
<td><strong>Questionnaire Respondents</strong></td>
<td><strong>Community</strong></td>
<td><strong>Number of public wells</strong></td>
<td><strong>Water supply in the County</strong></td>
<td><strong>Identify any drinking water system issues</strong></td>
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<td>Upper Santa Margarita Watershed IRWM Region</td>
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### Drinking Water

- **Respondents** (28%)
- **Municipal** (30%)
- **Urban** (20%)
- **Rural** (May 2019)

### Wastewater

- **Imported water to South Orange County to improve infrastructure**
- **High TDS in local groundwater**
- **Metropolitan treatment plant for County treated water**

### Stormwater

- **Utah Water Quality**
- **High TDS in local groundwater**
- **Metropolitan treatment plant for County treated water**

### Other

- **High TDS in local groundwater**
- **Metropolitan treatment plant for County treated water**

## Lower Orange County IRWM Region

### Drinking Water

- **San Diego Funding Area**
- **San Diego Funding Area**

### Wastewater

- **High TDS in local groundwater**
- **Metropolitan treatment plant for County treated water**

### Stormwater

- **Utah Water Quality**
- **High TDS in local groundwater**
- **Metropolitan treatment plant for County treated water**

### Other

- **San Diego Funding Area**
- **San Diego Funding Area**

## Summary of Water Challenges Identified by Survey Participants

- **Increased impervious surface**
- **Stormwater/ urban water pollution**
- **Lowering water table**
- **Improving energy efficiency**

---

**Note:** The text provided is a summary of the questionnaire responses and does not include detailed questions or specific data points. The summary highlights key challenges and needs identified by respondents in the Upper Santa Margarita Watershed IRWM Region and Lower Orange County IRWM Region.
APPENDIX C: QUESTIONNAIRE
Thank you for your participation in the Water Needs Assessment. Our goal is to understand the water-related issues and needs of your community and your feedback will help shape the region’s water priorities. Please provide as much information as possible. If you do not know the answer to a question, feel free to leave it blank. Any information you can provide related to your water needs and systems is helpful.

If you need any assistance while completing the form, or would prefer to speak to a program representative over the phone, please contact your region representative below.

- San Diego: Mark Stadler (mstadler@sdcwa.org)
- South Orange County: Jenna Voss (jenna.voss@ocpw.ocgov.com)
- Upper Santa Margarita: Justin Haessly (haesslyj@ranchowater.com)

What is the name of your community or, if you are a water/wastewater organization, the name of your system?
_______________________________________________________________________

County: ________________________________________________________________

Median Household Income of Community Population (if known): _______________

Is your community's population generally stable (year-round) or does it fluctuate (seasonal)?

- Stable
- Seasonal

Approximate percentage of community members who are renters (versus home owners):

______%

Approximate percentage of community members who live in multi-family dwellings: _____%

Have you ever been engaged in an Integrated Watershed Management program or public project?

- Yes
- No
What IRWM Region are you located in? (Please pick one)

- San Diego
- South Orange County
- Upper Santa Margarita

(Optional) What is your community's cultural/ethnic composition? _______________________
________________________________________________________________________________
________________________________________________________________________________

Are there any other defining characteristics of your community that you'd like to share?
________________________________________________________________________________
________________________________________________________________________________
________________________________________________________________________________
General Water Questions
Currently and historically, what are this community’s most significant water challenges?
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________

What do you see as the most pressing water challenge this community will face in the next 5 years? 10 years?
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________

Do you consider climate change to be a threat to your community’s water supply?
☐ Yes
☐ No
☐ Maybe

If you answered yes to the question above, please describe how you think climate change may affect your community’s water supply:
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________

Name 1 or 2 particularly beneficial holistic/big-picture water projects/programs in your community:
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________

Drinking Water Questions
Where does your community’s drinking water come from? Check all that apply.
☐ Groundwater from a well
☐ Groundwater from a spring
☐ Surface water
☐ Purchased water requiring treatment
☐ Purchased water already treated
☐ Other: _____________________

If water is sourced from a groundwater well, please specify the number of private AND public wells. If not applicable, please write NA.____________________
Is drinking water accessible for the community?
- Yes
- No
- Other: ____________________________

Is drinking water considered affordable for the community?
- Yes
- No
- Other: ____________________________

What conditions (ie drought, flooding) have impacted drinking water quality and supply reliability? Are certain conditions of concern in the future?
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

List any other drinking water quantity issues:
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

List any other drinking water quality challenges:
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

Wastewater Questions
What type(s) of wastewater system(s) is/are used in your community? Check all that apply.
- Septic
- Sewer
- Other: ____________________________

What conditions (ie drought, flooding, infrastructure failure) have impacted wastewater system operations or reliability? Are certain conditions of concern in the future?
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

List any other challenges regarding wastewater:
_______________________________________________________________________
_______________________________________________________________________
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Stormwater Questions

Stormwater is water that originates during precipitation events that can either soak into the soil, be held on the surface and evaporate, or runoff and end up in nearby water bodies.

Who or what is most impacted by urban runoff in this community? (Urban runoff may be stormwater flows or runoff from irrigation, washing cars, and other outdoor uses.)

Who or what is most impacted by stormwater flooding in this community?

What conditions (ie drought, rain events, infrastructure failure) have resulted in stormwater or flood problems in your community? Are certain conditions of concern in the future?

Has your community experienced any specific public health or safety issues caused by stormwater?

Identify any other stormwater/urban water runoff/flood management issues:

Financing

What type of rate structure for water does your community use?

- Flat Rate or Flat Fee: each customer pays the same price regardless of water use
- Uniform Volumetric Rate: each customer pays for the volume of water that they use according to a fixed amount per unit of water consumed
- Block or Tiered Rate: The unit price of water changes according to the level of consumption. Customers that use above average volumes of water are charged a higher rate per unit of water.
Water Needs Assessment Questionnaire 2018
San Diego Funding Area

What challenge or concern mentioned in this questionnaire do you feel is most in need of funding?
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

Describe system financing needs (i.e. operation and maintenance costs):
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

Other
Do you know of any other local water systems that are likely disadvantaged communities and should be targeted for a Needs Assessment?
☐ Yes
☐ No
☐ Maybe

If answered yes above, please provide name, location, water source, or other helpful information:
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

Would this community benefit from strengthened communication with other water communities and stakeholders in the County?
☐ Yes
☐ No
☐ Maybe
☐ Other:_______________________

Are you aware of any compliance or regulatory issues regarding drinking water, stormwater, or wastewater in your community? If so, can you describe them?
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
Please provide any other information you would like to share about the overall health of your watershed.

_______________________________________________________________________
_______________________________________________________________________
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Are there any additional needs or challenges within the community that have not been addressed in previous sections?

_______________________________________________________________________
_______________________________________________________________________
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If you would like to be added to our email list, please add your email here:

_______________________________________________________________________

If you require additional space to answer the questions above, please use the space provided below.

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APPENDIX D: MEETING MATERIALS
San Diego Funding Area
Water Needs Assessment
Presentation to the Community of Anza
Wednesday, August 15th, 2018
6:00 – 7:30 p.m.

Meeting Objective
Solicit input from local organizations and residents on:
- their water-related issues and concerns
- the condition of current water and wastewater infrastructure systems
- how Integrated Regional Water Management (IRWM) Programs can best engage with their community

Agenda
A. Welcome and Introductions
B. What is IRWM?
   1. Benefits of IRWM
C. Water Needs Assessment
   1. Purpose and Goals
   2. Future Use of Water Needs Assessment
D. Community Engagement
   1. Funding Opportunities
   2. Discussion of Engagement and Barriers
E. Identifying Water Needs
   1. Discussion of Water Needs
F. Complete Questionnaire
**IRWM Glossary**

- DWR – California Department of Water Resources
- IRWM – Integrated Regional Water Management
- SDFA – San Diego Funding Area
- SDIRWM – San Diego IRWM
- USMW – Upper Santa Margarita Watershed
- SOC – South Orange County
- DAC – Disadvantaged Community
- EDA – Economically Distressed Area
- URC – Underrepresented Community
- EJ – Environmental Justice
San Diego Funding Area Water Needs Assessment

2018

Master Presentation to be adapted to each IRWM Region

Agenda

- Welcome and Introductions
- What is IRWM
- Water Needs Assessment
- Community Engagement
- Identifying Water Needs
- Next Steps

Why Are We Here?

- To better understand the water needs in your community
- Voluntary program – allows you to be eligible for State funding for water projects
- We have ~$43 million available for grants
- Disadvantaged community projects
  - $5.3 million awarded to date through Prop 1
  - Another ~$5.2 million remains to be awarded over next three years

What is Integrated Regional Water Management (IRWM) Planning?

- Water Supply
- Water Quality
- Natural Resources
- Stormwater Management
- Flood Protection
- Land Use Planning
IRWM Program Purpose

“Collaborative effort to identify and implement water management solutions that increase regional self-reliance, reduce conflict, and manage water to concurrently achieve social, environmental, and economic objectives”

-DWR

Statewide IRWM Program

• Funded through voter-approved bonds
• Managed by CA Department of Water Resources (DWR)
  • Mission: to manage and protect California’s water resources
  • Manages imported water system (State Water Project)
  • Distributes grants for water projects to local IRWM Programs
  • IRWM must meet DWR requirements to receive funding

State requirements will be discussed throughout this presentation

Two Major Components of IRWM

Benefits of Each Component

- Grant Funding
  • Fund projects
  • Meet water and watershed needs
  • Reduce community costs
  • Position for other grants

- Water Planning
  • Facilitate partnerships
  • Identify and prioritize needs
  • Strategic regional planning
  • Build additional support

What Can IRWM Do?

What IRWM Program Can Address

• Lack of infrastructure
• Water quality
• Water supply
• Capacity building

How Have We Addressed These?

• Legislation & advocacy
• Community partnerships
• Funding for priority projects

San Diego Funding Area

• 3 Regions:
  • San Diego
  • South Orange County
  • Upper Santa Margarita
• Coordinate on joint projects
• Historically allocated over $90M in funds

Who is Leading the Programs?

San Diego
• City of San Diego
• County of San Diego
• San Diego County Water Authority

SOC
• County of Orange
• Municipal Water District of Orange County
• South Orange County Wastewater Authority

USMW
• Rancho California Water District
• Riverside County Flood Control and Water Conservation District
• County of Riverside

Producers
City of San Diego
County of San Diego
San Diego County Water Authority
Socorro
Orange County
Rancho California Water District
County of Orange
Riverside County Flood Control and Water Conservation District
County of Riverside

San Diego
County of Orange
Rancho California Water District
Riverside County Flood Control and Water Conservation District
County of Riverside

Producers
City of San Diego
County of San Diego
San Diego County Water Authority
Socorro
Orange County
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County of Orange
Riverside County Flood Control and Water Conservation District
County of Riverside

San Diego
County of Orange
Rancho California Water District
Riverside County Flood Control and Water Conservation District
County of Riverside

Producers
City of San Diego
County of San Diego
San Diego County Water Authority
Socorro
Orange County
Rancho California Water District
County of Orange
Riverside County Flood Control and Water Conservation District
County of Riverside

San Diego
County of Orange
Rancho California Water District
Riverside County Flood Control and Water Conservation District
County of Riverside
Why Does This Matter?

- IRWM defines and prioritizes Region’s needs
- Assessment is required to remain eligible for funding
- $52 million for our area
  - 20% reserved for disadvantaged communities
  - $43 million remaining
  - $5.2 million (minimum) remaining for disadvantaged community projects

DWR Requirements

- DWR requires identification of disadvantaged and under-represented communities, their needs, and their participation in IRWM
- DWR defines disadvantaged and under-represented communities

Definitions

- DAC: Disadvantaged Community
- EDA: Economically Distressed Area
- URC: Underrepresented Community
- EJ: Environmental Justice Community

Outcomes: Disadvantaged and Tribal Funding in San Diego

Over the last 10 years:
- 17 disadvantaged community projects
- $13.7 M to disadvantaged communities
- 15% of all available funding!

Example Project: Conservation Home Makeover in Chollas Creek

- Groundwork San Diego
- Installed greywater systems, rain barrels, and low flow fixtures in homes
- Water-wise landscape, fruit trees
- 8.5 acre-feet/year of supply/reuse
- Total Cost: $542,000
  - 100% grant-funded
- Project Benefits: Water conservation, food security, and resident’s cost savings

Example Project: San Pasqual Water Reclamation Project

- San Pasqual Band of Mission Indians
  - Assisted by Rural Community Assistance Corporation
  - Installed recycled water pipelines to serve tribal needs
  - Total Cost: $350,300
  - 100% grant-funded
  - Project Benefits: Water supply and tribal community
Outcomes: Disadvantaged and Tribal Funding in the Upper Santa Margarita watershed

Over the last 10 years:

- 2 disadvantaged community projects
- $1.1M to disadvantaged communities
- 12% of all available funding

Example Project: Agricultural Irrigation Efficiency Program

- Rancho California Water District
- Conducted agricultural irrigation system evaluations, provided rebates for irrigation system retrofits
- 2,115 acre-feet/year of supply
- Total Cost: $1,289,760
- 41% grant-funded
- Project Benefits: Water conservation, water quality improvements, power savings

Example Project: Groundwater Planning for Anza Valley and Ramona Tribe

- Ramona Band of Cahuilla Indians
  - Assisted by U.S. Geological Survey and Santa Margarita River Watershed Watermaster
- Total Cost: $560,000
- 100% grant-funded
- Project Benefits: Water supply management and tribal community

Example Project: Recycled Water Expansion Project in Laguna Woods

- El Toro Water District Recycled Water Expansion Project
  - Included installation of a recycled water distribution system and tertiary treatment plant
- Project Benefits: Water supply reliability in Laguna woods

Outcomes: Disadvantaged Community Funding in South Orange County

Over the last 10 years:

- Increased supply reliability and recycled water distribution to disadvantaged community members
- $4.6M benefitted disadvantaged communities
- 12% of all available funding!

Agenda

- Welcome and Introductions
- What is IRWM
- Water Needs Assessment
- Community Engagement
- Identifying Water Needs
- Next Steps
Water Needs Assessment

- Improved Understanding of Community Needs
- Engagement Opportunities
- Water Management Needs
- Community Priorities

What is the Water Needs Assessment?
- Short questionnaire
- Will be used to summarize community water management needs
- You are the key to the process!

Why Participate in the Needs Assessment?
- Have your water needs heard
- Future opportunities and projects
- Help us help YOU get funding

Funding Opportunities
- $43 million to be distributed in 2 Implementation Rounds
  - 5.2 million (minimum) for disadvantaged community projects
- Round 1: Fall 2018
- Round 2: 2020
- Join our email list for updated deadlines
  - See handout!

Agenda
- Welcome and Introductions
- What is IRWM
- Water Needs Assessment
- Community Engagement
- Identifying Water Needs
- Next Steps

Supporting Water Management Needs
- Facilitate Project Funding
- Provide a Forum to Connect with Partners for Solutions

How can IRWM support your water management needs?
Engaging with Communities

- Email and Website
- Stakeholder Meetings
- Community Partners and Outreach

How can IRWM better engage with your community?

Potential Challenges & Solutions

- What is IRWM? (Outreach for opportunities)
- Burdensome Process (Advocated for advanced payment)
- Lack of Resources for Participation (Technical support)

Are there challenges to your participation in IRWM?

Agenda

- Welcome and Introductions
- What is IRWM
- Water Needs Assessment
- Community Engagement
- Identifying Water Needs
- Next Steps

Urban and Rural Disadvantaged Communities

Urban
- Receive municipal water and wastewater services

Rural
- No municipal water and wastewater services

*Note: There is no difference in funding availability between urban and rural water projects

Urban Needs

- Community development
- Surface water quality
- Flooding
- Illegally dumping and trash
- Bay and lagoon contamination
- Food security
- Increased paved surfaces
- Water costs
- Public safety
- Peer-initiated outreach and education
- Balancing projects & economic growth
- Rehabilitating urban streams
- Capacity, including for O&M
- Health of coastal resources
- Sea level rise

Rural Needs

- Source water quality
- Safe, reliable drinking water
- Drinking water regulation compliance
- Wastewater intrusion
- Inadequate or failing infrastructure
- Floods and droughts
- Effects of climate change
- Wildfires
- Poor economies
- Small financial base
- Cost of supplemental treatment
- Capacity to apply for and manage grants
- Groundwater contamination
- Inadequate wastewater treatment
Discussion

What are your water-related issues and concerns?
What can we advocate for from your perspective?

Water Needs Assessment

Please complete the questionnaire!
https://goo.gl/NuhxH7

Agenda

• Welcome and Introductions
• What is IRWM
• Water Needs Assessment
• Community Engagement
• Identifying Water Needs
• Next Steps

Next Steps for IRWM Team

You’re Invited!
November 2018
Look for email notice!

Compile Water Issues & Needs Data
Map Water Issues & Needs
Workshops to Present Our Findings
Draft Report on Website and Sent Out via Email

Thank You

San Diego South Orange County Upper Santa Margarita
Contact: Mark Stadler Contact: Jenna Voss Contact: Justin Haessler
mstadler@sdcwa.org jenna.voss@ocpw.ocgv.com haessler@parchonwater.com

http://arcg.is/1WWTmb

Contact: Jenna Voss
jenna.voss@ocpw.ocg

Contact: Justin Haessler
haessler@parchonwater.com
Disadvantaged Community (DAC), Economically Distressed Areas (EDAs), Underrepresented Communities (URCs), and Environmental Justice (EJ) Definitions for San Diego Funding Area

July 15, 2018

Purpose: Disadvantaged Community, Economically Distressed Area, Underrepresented Community, and Environmental Justice definitions for the San Diego Funding Area Water Needs Assessment.

**Disadvantaged Community (DAC):** As defined by DWR, DACs are Census geographies with an annual median household income (MHI) that is less than 80% of the Statewide annual MHI. Severely Disadvantaged Communities (SDAC) are Census geographies having less than 60% of the Statewide annual MHI.

- 2018 Statewide MHI: $63,783¹
- 2018 DAC (80% of Statewide): $51,026
- 2018 SDAC (60% of Statewide): $38,272

Areas mapped on DWR’s DAC Mapping Tool (https://gis.water.ca.gov/app/dacs/) are considered DAC by the San Diego IRWM Program.

**Economically Distressed Area (EDA):** As defined by DWR, an EDA is a municipality with a population of 20,000 persons or less, a rural county, or a reasonably isolated and divisible segment of a larger municipality with a population of 20,000 persons or less, with a median household income (MHI) that is less than 85% of the Statewide MHI, and with one or more of the following conditions:

1) Financial hardship
2) Unemployment rate at least 2% of higher than statewide average
3) Low population density

The San Diego IRWM Program defines the above terms and conditions as follows.

Reasonably isolated and divisible segment:

- A community, Census block, tract, or other area within a larger municipality that is separated by major transportation corridors, waterbodies, or other physical barriers.
  -- or --

- A segment with separate (disconnected from municipal services) water or wastewater services or other jurisdictional boundaries, such as senior living, fixed income, or other communities, where more than a quarter of the population does not have access to an automobile, or where more than a quarter of the population are non-English speakers.

Financial hardship: If the MHI for the community is less than 80% of the statewide annual MHI, or if the MHI for the community is less than 85% of the regional or local MHI. Income data may be calculated using U.S. Census data, American Community Survey (ACS) data, income surveys, or other justifiable local knowledge (e.g., neighborhood has been designated low-income by its municipality, or community is a state- or federally-designated colonia).

Unemployment rate at least 2% higher than statewide average: The statewide average unemployment rate is 4.2% as of May 2018, and thus communities having 6.2% and higher unemployment rates would meet this criterion. Local unemployment rates may use U.S. Census data, ACS data, or local economic agencies, so long as the data use a reasonable scale.

Low population density: Defined as less than 100 persons per square mile, consistent with DWR’s EDA mapping tool’s methodology. Population density may be determined using ACS data, or local data.

Areas mapped on DWR’s EDA Mapping Tool (https://gis.water.ca.gov/app/edas/) are considered EDAs by the San Diego IRWM Program.

Underrepresented Community (URC): DWR does not define URCs, but recognizes Native American Tribes as traditionally underrepresented. The San Diego IRWM Program defines URCs as communities that currently have little or no representation in water policy and/or water resource management projects, or who historically have disproportionately less representation in public policy or decision-making forums. All Native American Tribes are considered URCs.

Environmental Justice (EJ) Communities: EJ seeks to ensure that land use plans, policies, and actions do not disproportionately affect low income and minority communities. Environmental justice is achieved when everyone, regardless of race, culture, or income, enjoys the same degree of protection from environmental and health hazards and equal access to the decision-making process to have a healthy environment in which to live, learn, and work. An EJ community is one that is mapped with an EJ Index of 80-100 percentile for any EJ Index compared to the State on the EPA’s EJScreen tool (https://ejscreen.epa.gov/mapper/). EJ Indices include PM2.5, Ozone, NATA* Diesel PM, NATA* Air Toxics Cancer Risk, NATA* Respiratory Hazard Index, Traffic Proximity and Volume, Lead Paint Indicator, Superfund Proximity, RMP Proximity, Hazardous Waste Proximity, and Wastewater Discharge Indicator.

Figure 1: DACs, EDAs, and URCs in the San Diego Funding Area
Navigating the Integrated Regional Water Management (IRWM) Funding Process
A How-To Guide
August 13, 2018

What does the IRWM Program fund?
The IRWM Grant Program provides funding for projects that help meet the long-term water needs of Californians. The IRWM Grant Program is designed to encourage integrated regional strategies for management of water resources with an overall goal of improving water supply, water quality, and natural resources. Grant funding is distributed through three regional IRWM Programs within our area – San Diego, South Orange County, and Upper Santa Margarita (see contact info on back page).

This round of implementation grant funding, “Proposition 1: Regional Water Security, Climate and Drought Preparedness,” focuses specifically on:

- Assisting water infrastructure systems to adapt to climate change;
- Providing incentives throughout each watershed to collaborate in managing the region’s water resources and setting regional priorities for water infrastructure; and
- Improving regional water self-reliance, while reducing reliance on the Sacramento-San Joaquin Delta.
Projects may include, but are not limited to, the following elements:

- water reuse and recycling
- direct and indirect potable reuse
- water-use efficiency and conservation
- surface and underground water storage
- groundwater cleanup and recharge
- conjunctive use
- water desalination
- decision support tools to model regional strategies for climate change
- water quality improvement
- regional water conveyance facilities
- watershed protection and restoration
- water supply reliability
- wildfire risk reduction
- stormwater management
- stormwater capture and use
- multi-benefit stormwater projects
- decision support tools for multi-benefit stormwater projects
- stormwater resource plan projects

What is the IRWM application process?

In general, the IRWM Grant application process takes about 5-9 months. The next round of grants is expected to begin in Summer 2018. Overseen by the California Department of Water Resources (DWR), a solicitation is released with specific guidance on the grant program. Once that is available, the three IRWM Programs within our area release their respective "Call for Projects." Projects are submitted to each IRWM Program and then projects are selected locally using project scoring criteria from the three regions’ IRWM Plans that rank applications based on regional goals, beneficial uses, community partnerships, etc. Scoring criteria specific to your IRWM Program for a given round of funding is generally made available during the local Call for Projects. After projects are chosen locally, they are submitted to DWR in a consolidated application by each IRWM Program. The next round of grants is expected to be awarded in Spring 2019 by DWR.

What are key IRWM application considerations?

If you are interested in applying for IRWM funding, please contact your IRWM Program representative (see contact info on back page) for specific information about the application process for your region and to get on the email list for the Call for Projects.

A few highlights that we have found to be of importance to applicants follow:

- The IRWM Grant Program provides grant funding only. Applicants are responsible for implementing their submitted projects and administering the grant contract.
- DWR’s method of payment is via reimbursements. However, disadvantaged communities and NGOs with grant awards less than $1 million are eligible for 50% advanced payment.

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1 Project Selection Process for the three IRWM regions are available at the following links:
   San Diego IRWM Program: Chapter 9 of the IRWM plan found here (http://www.sdirwmp.org/pdf/SDIRWM_09_Projects_Sep2013.pdf)
   South Orange County IRWM Program (http://arcg.is/1WWTmb). Refer to Chapter 6 of the IRWM plan for the local scoring criteria.
   Upper Santa Margarita IRWM Program: Chapter 5 of the IRWM plan found here (https://www.ranchowater.com/DocumentCenter/Index/38)
• DWR withholds 10% retention on all reimbursements and advanced payments. Upon full completion of the project, the retention is released.
• Activities must be in compliance with the California Environmental Quality Act (CEQA) and labor compliance program laws.
• Post-performance monitoring and reporting is required for 10 years after the project has been completed.

What is the anticipated timeline?

<table>
<thead>
<tr>
<th>Milestone or Activity</th>
<th>Tentative Schedule*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round 1 Final Solicitation from DWR</td>
<td>Fall 2018</td>
</tr>
<tr>
<td>Round 1 Project Applications due to the IRWM Programs</td>
<td>TBD (typically 6 weeks after DWR releases solicitation)</td>
</tr>
<tr>
<td>Round 1 Grant Applications Due to DWR</td>
<td>Beginning April 2019</td>
</tr>
<tr>
<td>Round 1 Grant Awards</td>
<td>Summer 2019</td>
</tr>
<tr>
<td>Round 2 Solicitation Process Begins</td>
<td>2020</td>
</tr>
</tbody>
</table>

*Note: Emails with updated timelines will be sent regularly. Be sure to subscribe to IRWM email communications by contacting your local regional representative (see below).

Who are eligible grant applicants?
The following entities qualify as eligible IRWM grant applicants: public agencies, non-profit organizations, public utilities, federally recognized Indian Tribes, State Indian Tribes listed on the Native American Heritage Commission’s tribal consultation list, and mutual water companies.

Who are considered disadvantaged communities?
DWR reserves a minimum of 10% IRWM grant funds for projects that benefit the following:
• DAC (Disadvantaged Community): Median Household Income < 80% statewide
Note that these communities are eligible to receive funding from the general IRWM grant funds as well as the 10% minimum set aside. The 10% figure is a floor, not a ceiling.

Who are considered economically distressed areas?
• EDA (Economically Distressed Area): Median Household Income <85% of statewide and a population of <20,000 people. It also has 1) low population density, 2) unemployment 2% higher than statewide average, or 3) financial hardship

Who are considered underrepresented communities?
• URC (Underrepresented Community): All Native American tribes and any other community that is considered to be underrepresented in water policy, water resource management projects, or in public policy or decision-making forums. Some URCs are anticipated to be identified through the Water Needs Assessment process.
• EJ (Environmental Justice): EJ Index of 80-100 percentile in the US EPA’s EJScreen or State’s CalEnviroScreen tools
Who should I contact with questions?

For questions regarding the application process, please contact the IRWM representative in your region. See contact information below:

<table>
<thead>
<tr>
<th>San Diego IRWM Region</th>
<th>South Orange County IRWM Region</th>
<th>Upper Santa Margarita IRWM Region</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mark Stadler</strong></td>
<td><strong>Jenna Voss</strong></td>
<td><strong>Justin Haessly</strong></td>
</tr>
<tr>
<td><a href="mailto:mstadler@sdcwa.org">mstadler@sdcwa.org</a></td>
<td><a href="mailto:jenna.voss@ocpw.ocgov.com">jenna.voss@ocpw.ocgov.com</a></td>
<td><a href="mailto:haesslyj@ranchowater.com">haesslyj@ranchowater.com</a></td>
</tr>
<tr>
<td>858-522-6735</td>
<td>714-955-0652</td>
<td>951-296-6942</td>
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</tbody>
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APPENDIX E: PUBLIC COMMENT MATRIX
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<table>
<thead>
<tr>
<th>#</th>
<th>Date Received</th>
<th>Commenter</th>
<th>Report Section</th>
<th>Page #</th>
<th>Comment</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4/3/2019</td>
<td>SD Workshop</td>
<td>4.4 Outreach Results</td>
<td>28</td>
<td>How did you determine which percentages of the population were considered urban vs. rural? Just because an agency receives municipal water service, this does not mean they consider themselves to be urban. For example, under the municipal water and wastewater services, vs. municipal water or wastewater services, Yuima MWD and Fallbrook would be considered urban, but they would not consider themselves urban. Did this skew the 97% urban, 3% rural population stat?</td>
<td>Added language for clarification in Section 2.2 &quot;There are some DACs, EDAs, and URCs that have rural characteristics but still receive municipal services. For the purposes of this IRWM Plan, such DACs, EDAs, and URCs are considered Urban.&quot; Methodology for how mapping determined Urban and Rural populations was included in Section 2.2.1.</td>
</tr>
<tr>
<td>2</td>
<td>4/3/2019</td>
<td>SD Workshop</td>
<td>1.2 Disadvantaged Community Involvement Program</td>
<td>3</td>
<td>What does a DAC project look like?</td>
<td>Language added to the last paragraph of the introduction in Section 3. &quot;A DAC project is a regular project that serves at least 75% of a DAC, EDA, or tribal community. These projects have the same requirements as other IRWM projects but may require accommodations such as additional outreach or support.&quot;</td>
</tr>
<tr>
<td>3</td>
<td>4/3/2019</td>
<td>SD Workshop</td>
<td>4. Community Outreach and Engagement</td>
<td>21</td>
<td>Did this Assessment also include DAC staff in municipal agencies? For example, did you discuss with the Oceanside DAC team that is working on the census update?</td>
<td>This Assessment collaborated with municipal agencies which may have included DAC staff. The suggestion for direct contact with DAC staff was incorporated in Section 8 as a future collaboration opportunity in opportunity #6.</td>
</tr>
<tr>
<td>4</td>
<td>4/3/2019</td>
<td>San Pasqual Tribe</td>
<td>6.1.3.1 Drinking Water Quality</td>
<td>37</td>
<td>Many rural communities don’t know exactly where their pipelines are in the ground. No access to As-builts or GIS. Same issue in older urban communities.</td>
<td>Incorporated in Section 6.1.1.</td>
</tr>
<tr>
<td>5</td>
<td>4/3/2019</td>
<td>Coastkeeper</td>
<td>6.1.3.1 Drinking Water Quality</td>
<td>37</td>
<td>How many stakeholders commented on aging infrastructure concerns related to disintegrating wastewater and drinking water quality?</td>
<td>No comments received on this topic but language regarding sewer rehab to address failing infrastructure is included Section 6.1.6.</td>
</tr>
<tr>
<td>6</td>
<td>4/3/2019</td>
<td>La Jolla Tribe</td>
<td>6.1.3.2 Stormwater Runoff</td>
<td>37</td>
<td>Low Impact Development (LID) can also provide stormwater benefits in rural areas.</td>
<td>Incorporated in 6.1.3.2 and 6.1.5.</td>
</tr>
<tr>
<td>7</td>
<td>4/3/2019</td>
<td>SD Workshop</td>
<td>6.1.3.2 Stormwater Runoff</td>
<td>37</td>
<td>Proactive land use planning would help with stormwater and flash flooding concerns.</td>
<td>Incorporated.</td>
</tr>
<tr>
<td>8</td>
<td>4/3/2019</td>
<td>San Pasqual Tribe</td>
<td>6.1.4 Water Storage/Supply</td>
<td>38</td>
<td>Rural areas need expertise to study and develop their water rates structure.</td>
<td>Incorporated.</td>
</tr>
<tr>
<td>9</td>
<td>4/3/2019</td>
<td>San Pasqual Tribe</td>
<td>6.1.4 Water Storage/Supply</td>
<td>38</td>
<td>How to finance the extension of transmission mains in rural areas when it only supports a few residents?</td>
<td>Incorporated into the discussion of barriers in Section 7.1.2.</td>
</tr>
<tr>
<td>10</td>
<td>4/3/2019</td>
<td>Zoological Society</td>
<td>6.1.4 Water Storage/Supply</td>
<td>38</td>
<td>In reference to Comment 9: Share information with DACs on grant opportunities. Are there pro bono grant writing teams that could help?</td>
<td>Funding assistance was identified as a barrier in Section 7 and discussed as an opportunity in Section 8</td>
</tr>
<tr>
<td>11</td>
<td>4/3/2019</td>
<td>San Pasqual Tribe</td>
<td>6.1.4 Water Storage/Supply</td>
<td>38</td>
<td>How do you diversify water supplies in rural areas? Rain barrels, greywater, small-scale recycled water? Need to remove barriers to larger scale use. Work with County on rules and regulations. Many people don’t realize that urban communities have done a lot to diversify water supplies in recent years.</td>
<td>Incorporated.</td>
</tr>
<tr>
<td>12</td>
<td>4/3/2019</td>
<td>Sustainable Living</td>
<td>6.1.5 Flooding</td>
<td>39</td>
<td>Review Facebook groups for anecdotal information on flooding issues?</td>
<td>Incorporated into Section 8 as a future opportunity in Opportunity #6.</td>
</tr>
<tr>
<td>13</td>
<td>4/3/2019</td>
<td>San Pasqual</td>
<td>6.1.2 Key Water Challenges by IRWM Region</td>
<td>35</td>
<td>Silver tide of retiring operators for drinking water and wastewater systems. Replacing employees who are retiring is a drain in rural DACs. Need operators that can replace them or get training.</td>
<td>Incorporated in Section 6.1.1.</td>
</tr>
<tr>
<td>#</td>
<td>Date Received</td>
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<td>Report Section</td>
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<tr>
<td>14</td>
<td>4/3/2019</td>
<td>Sustainable Living</td>
<td>6.1.6 Wastewater</td>
<td>40</td>
<td>NPR episode on SB966: Onsite treated nonpotable water systems. The episode discussed nonpotable reuse with small scale wastewater treatment plants. Is this a potential for septic to sewer conversion programs? May have threshold density issues.</td>
<td>Incorporated</td>
</tr>
<tr>
<td>15</td>
<td>4/3/2019</td>
<td>La Jolla Tribe</td>
<td>7.2.3 Programmatic and Regulatory Barriers</td>
<td>45</td>
<td>CEQA is a barrier for tribes.</td>
<td>This barrier was identified in Section 7.2.3. Language was added to also note CEQA hardships for tribes due to federal jurisdiction.</td>
</tr>
<tr>
<td>16</td>
<td>4/3/2019</td>
<td>SD Coastkeeper</td>
<td>1.3 Water Needs Assessment</td>
<td>4</td>
<td>Concerned this Assessment only achieved 35% engagement with a majority of rural respondents. This WNA does not represent all urban communities or the population of the SDFA.</td>
<td>The number of respondents does not equal the percent of the population they represent. Many rural respondents were individuals while urban respondents of municipalities represented large service areas including the City of San Diego, City of Escondido, City of Oceanside, and the City of El Cajon. RCAC was brought on board to leverage their contacts and better understand rural issues. Language added to the end of Section 4.4.</td>
</tr>
<tr>
<td>17</td>
<td>4/5/2019</td>
<td>Art Harrison</td>
<td>6.1.3.2 Stormwater Runoff</td>
<td>37</td>
<td>As a member of the under represented community, I am appalled by the plan for storm water in San Diego. In fact, I fail to see any plan. There is a utopian dream that storm water will solve the problem of the coastal desert we live in. My neighborhood has no storm drains. It was developed in the 1920s. Standing storm water has caused the roads to sink and the foundations of the housing to settle. The roads are crumbling and the water and sewer mains are leaking. I can only assume that leaks and sink holes in the rest of the city are to some extent caused by the lack of storm water planning. I’m not a climatologist but I do know that it’s either a rainy year or it’s a drought and there are more droughts than not. I can see your job is depending on planning, but can you see some people (the under represented) are dissatisfied with what you all have done. I don’t want to see you defunded. I want you to do a better job. The concerns of the native population, the river conservation community and the others are important but SDCWA seems to hand out money to satisfy special interests. Incidentally, I have seen some special interest groups that may have been created and financed to promote a certain project. I can’t prove that but there is snow on the ground (this is a bad metaphor). Is it possible to satisfy the special interests, the stakeholders and handle the flooding on the roads?</td>
<td>Incorporated language regarding roadway flooding and lack of storm drains in DAC communities in Section 6.1.3.2 Stormwater.</td>
</tr>
<tr>
<td>18</td>
<td>4/9/2019</td>
<td>SOC Workshop</td>
<td>2.2.2 South Orange County IRWM Region DACs</td>
<td>15</td>
<td>Other areas in South Orange County may qualify for EDA. Take another look at Iglesia and Malta I, II, and III in El Toro Water District.</td>
<td>Clarified that EDA requires a low population density, not a high population density to be eligible. These communities have a high population density.</td>
</tr>
<tr>
<td>19</td>
<td>4/8/2019</td>
<td>SD RWMG</td>
<td>N/A</td>
<td>N/A</td>
<td>Add narrative about urban/rural DACs that participated. Many urban NGOs are already at the table.</td>
<td>See Comment 1.</td>
</tr>
<tr>
<td>20</td>
<td>4/8/2019</td>
<td>SD RWMG</td>
<td>Section 6: Summary of Water Management Issues and Needs</td>
<td>N/A</td>
<td>Add narrative about aging infrastructure in urban areas (sewer assets in coastal areas)</td>
<td>Incorporated.</td>
</tr>
<tr>
<td>21</td>
<td>4/8/2019</td>
<td>SD RWMG</td>
<td>Section 6: Summary of Water Management Issues and Needs</td>
<td>N/A</td>
<td>Add narrative about infrastructure in rural area (often don’t even know where piping is)</td>
<td>Incorporated. See Comment 4.</td>
</tr>
<tr>
<td>22</td>
<td>4/9/2019</td>
<td>SOC Workshop</td>
<td>2.2.1 Identification and Mapping Methods</td>
<td>6</td>
<td>Mapping may not reflect current land use</td>
<td>Language included in Section 2.2.</td>
</tr>
<tr>
<td>23</td>
<td>4/9/2019</td>
<td>SOC Workshop</td>
<td>7 Barriers to DAC Involvement in IRWM</td>
<td>44</td>
<td>Great job capturing barriers in the report.</td>
<td>None needed</td>
</tr>
<tr>
<td>24</td>
<td>4/9/2019</td>
<td>Mike Beanan, Laguna Bluebelt Coalition</td>
<td>6.1.6 Wastewater</td>
<td>40</td>
<td>Laguna Beach has 6-8 million visitors but a population of 20,000. Many of the visitors are DACs. Over carrying capacity to handle sewage for DACs coming to the beach, leading to wastewater issues. Map coastal receiving waters and issues. Retrieve data with polling at a beach location.</td>
<td>Incorporated.</td>
</tr>
<tr>
<td>#</td>
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</tr>
<tr>
<td>25</td>
<td>4/9/2019</td>
<td>Laguna Bluebelt Coalition</td>
<td>1.5 Definitions</td>
<td>5</td>
<td>Are DACs only eligible for services where they are living? What about the places that they aggregate? Or work during the day?</td>
<td>In order for other places to be eligible a visitor survey is needed to demonstrate that visitors are DACs. This comment was added as a challenge in Section 7.2.3 to state existing mechanisms for identifying DACs are not well suited for areas that serve DACs but are not a primary residence.</td>
</tr>
<tr>
<td>26</td>
<td>4/9/2019</td>
<td>SOC Workshop</td>
<td>1.5 Definitions</td>
<td>5</td>
<td>Income is not the right variable to determine DACs. DWR's definition of clean and safe drinking water is skewed to water supply. How do you make a case outside if everyone has access to clean drinking water?</td>
<td>This comment was added as a challenge in Section 7.2.3. DACs are defined in subdivision (a) of Section 79505.5 of the Water Code (<a href="http://bondaccountability.resources.ca.gov/PDF/Prop1/PROPOSITION_1_text.pdf">http://bondaccountability.resources.ca.gov/PDF/Prop1/PROPOSITION_1_text.pdf</a>). EDAs are defined in subdivision (b) of Section 79702 of the Proposition 1 bond language. EDAs, URCs, and EJs provide the opportunity to define DACs beyond only income. Example DAC projects have demonstrated that not all projects are related to water supply. Example projects are included in Section 3.</td>
</tr>
<tr>
<td>27</td>
<td>4/9/2019</td>
<td>SOC Workshop</td>
<td>6.1.6 Wastewater</td>
<td>40</td>
<td>South Laguna City gets all of the downstream impacts of Aliso Creek watershed. Map southwest plumes and wastewater discharges. There are insufficient toilets at beaches contributing to this issue.</td>
<td>Incorporated.</td>
</tr>
<tr>
<td>28</td>
<td>4/9/2019</td>
<td>SOC Workshop</td>
<td>6.1.2.3 Key Water Challenges by IRWM Region: South Orange County IRWM Region</td>
<td>36</td>
<td>Localized issue of thermal expansion. Sea level rise from wastewater discharge temperatures, not glacial melt. Water in the gulf of Santa Catalina doesn’t move out to the Pacific Ocean as quickly as originally thought.</td>
<td>Incorporated in Section 6.1.2.3.</td>
</tr>
<tr>
<td>29</td>
<td>4/9/2019</td>
<td>SOC Workshop</td>
<td>6.1.3.1 Drinking Water Quality</td>
<td>38</td>
<td>Seismic resilience is a key issue (response after natural disaster)</td>
<td>Incorporated.</td>
</tr>
<tr>
<td>30</td>
<td>4/9/2019</td>
<td>SOC Workshop</td>
<td>6.1.3.1 Drinking Water Quality</td>
<td>37</td>
<td>Look at &quot;OC Water Reliability Study&quot; from MWDOC. This study looks at decentralized systems as a solution to seismic resilience.</td>
<td>Incorporated MWDOC’s report into the literature review in Section 3.2.3.</td>
</tr>
<tr>
<td>31</td>
<td>4/9/2019</td>
<td>SOC Workshop</td>
<td>6.1.3.1 Drinking Water Quality</td>
<td>37</td>
<td>Water quality is different now than it was 55 years ago. All future local water supply has to meet MCLs. Cost of water will rise no matter the source. This is a messaging issue.</td>
<td>Incorporated.</td>
</tr>
<tr>
<td>32</td>
<td>4/9/2019</td>
<td>SOC Workshop</td>
<td>6.1.3.1 Drinking Water Quality</td>
<td>38</td>
<td>Expand delivery of the nonpotable reuse system. Recycled water and expansion of nonpotable systems is a need.</td>
<td>Incorporated.</td>
</tr>
<tr>
<td>33</td>
<td>4/9/2019</td>
<td>SOC Workshop</td>
<td>6.1.3.1 Drinking Water Quality</td>
<td>38</td>
<td>Storage of stormwater and water storage in general is a huge problem in SOC</td>
<td>Incorporated.</td>
</tr>
<tr>
<td>34</td>
<td>4/9/2019</td>
<td>SOC Workshop</td>
<td>6.1.5 Flooding</td>
<td>39</td>
<td>NPDES permit requires hydromodification in SOC (may also be an issue). Hydromodification impacts addressed at new development or redevelopment (since 2009) will help address downstream impacts of DACs to implement infrastructure or groundwater storage to reduce the flow.</td>
<td>Incorporated.</td>
</tr>
<tr>
<td>35</td>
<td>4/9/2019</td>
<td>SOC Workshop</td>
<td>6.1.5 Flooding</td>
<td>39</td>
<td>Retrofit parking lots throughout region for groundwater percolation?</td>
<td>Added LID strategies to Section 6.1.5.</td>
</tr>
<tr>
<td>38</td>
<td>4/9/2019</td>
<td>SOC Workshop</td>
<td>6.1 Evaluation of Process and Engagement</td>
<td>29</td>
<td>Recommended to produce a short video that can be distributed to communities. Broadcast information to residents at neighborhood clubhouses or on YouTube for the public to understand.</td>
<td>Incorporated and included in Section 8 as a future opportunity in Opportunity #8.</td>
</tr>
<tr>
<td>39</td>
<td>4/9/2019</td>
<td>SOC Workshop</td>
<td>7.1 Participant Barriers</td>
<td>44</td>
<td>Compensation for DAC representation. Disadvantaged communities are losing money by the hour through participating. It is necessary to increase the incentive to participation.</td>
<td>Incorporated.</td>
</tr>
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<tr>
<td>40</td>
<td>4/9/2019</td>
<td>SOC Workshop</td>
<td>8. Opportunities to Address Barriers to Participation and DAC Needs</td>
<td>47</td>
<td>Human interest stories in the local paper, OC Register.</td>
<td>Incorporated and included in Section 8 as a future opportunity in Opportunity 46.</td>
</tr>
<tr>
<td>41</td>
<td>4/9/2019</td>
<td>SOC Workshop</td>
<td>6.1.3.1 Drinking Water Quality</td>
<td>37</td>
<td>Small noncompliant water systems require 1MF assistance.</td>
<td>Incorporated. Potential assistance includes consolidation and technical support.</td>
</tr>
<tr>
<td>42</td>
<td>4/9/2019</td>
<td>SOC Workshop</td>
<td>8. Opportunities to Address Barriers to Participation and DAC Needs</td>
<td>47</td>
<td>Show up at community fairs, festivals and farmers markets.</td>
<td>Incorporated and included in Section 8 as a future opportunity in Opportunity 46.</td>
</tr>
<tr>
<td>43</td>
<td>4/10/2019</td>
<td>Eastern Municipal Water District</td>
<td>6.1.3.1 Drinking Water Quality</td>
<td>37</td>
<td>Were groundwater contamination issues found to be true?</td>
<td>GAMA data incorporated into the literature review for Funding Area in Section 3.2</td>
</tr>
<tr>
<td>44</td>
<td>4/10/2019</td>
<td>USMW Workshop</td>
<td>6.1.4 Water Storage/Supply</td>
<td>38</td>
<td>Diversifying water supplies is harder in rural areas, so groundwater management is more important.</td>
<td>Incorporated.</td>
</tr>
<tr>
<td>45</td>
<td>4/10/2019</td>
<td>Ramona Band</td>
<td>6.1.5 Flooding</td>
<td>39</td>
<td>During the Valentine’s Day storm in February 2019 the tribe had some roadways wash out. There was only one ingress and much of the community was trapped for a few days.</td>
<td>Incorporated.</td>
</tr>
<tr>
<td>46</td>
<td>4/10/2019</td>
<td>Eastern Municipal Water District</td>
<td>7 Barriers to DAC Involvement in IRWM</td>
<td>44</td>
<td>Were solutions developed for specific identified barriers in Section 7?</td>
<td>Table 6: Barriers and Opportunities Crosswalk added and language describing how opportunities directly and indirectly addressed these barriers were added to Section 8.</td>
</tr>
<tr>
<td>47</td>
<td>4/10/2019</td>
<td>Western Municipal Water District</td>
<td>7 Barriers to DAC Involvement in IRWM</td>
<td>44</td>
<td>Discuss the need to differentiate the physical benefits requirements for DACs. They may not be as competitive if their project doesn’t impact as many people.</td>
<td>Incorporated.</td>
</tr>
<tr>
<td>48</td>
<td>4/10/2019</td>
<td>Anza</td>
<td>N/A</td>
<td>N/A</td>
<td>Identified in Anza to identify/develop one project that residents and the groundwater association can get behind. There are three community systems in Anza. Everyone is on septic. They need a fire suppression line. If it is called a drinking water system there is a debate as some residents do not want growth. But they need a way to slow down wildfire.</td>
<td>The need for a fire suppression line incorporated into Section 9: Conclusion.</td>
</tr>
<tr>
<td>49</td>
<td>4/10/2019</td>
<td>USMW Workshop</td>
<td>7 Barriers to DAC Involvement in IRWM</td>
<td>44</td>
<td>Added barrier: The needs for DACs are not integrated and regional. Develop priorities - this is how we can meet the needs of small projects.</td>
<td>Incorporated.</td>
</tr>
<tr>
<td>50</td>
<td>4/10/2019</td>
<td>USMW Workshop</td>
<td>7 Barriers to DAC Involvement in IRWM</td>
<td>44</td>
<td>Technical assistance needed and understaffed. &quot;I’m a California D2 operator but most of this stuff is up the ladder for me. I have to learn as I go.”</td>
<td>Incorporated.</td>
</tr>
<tr>
<td>51</td>
<td>4/22/2019</td>
<td>Mark Stephens, City of San Diego</td>
<td>1.4.3 Rural Assistance Community Corporation</td>
<td>4</td>
<td>Change to Rural Community Assistance Corporation</td>
<td>Incorporated.</td>
</tr>
<tr>
<td>52</td>
<td>4/22/2019</td>
<td>Mark Stephens, City of San Diego</td>
<td>2.2.1 San Diego IRWM Region DACs</td>
<td>7</td>
<td>Figure 4 and Figure 3 are repeated at the bottom of Page 7</td>
<td>Removed erroneous in-text citation</td>
</tr>
<tr>
<td>53</td>
<td>4/22/2019</td>
<td>Mark Stephens, City of San Diego</td>
<td>3.1.1 San Diego IRWM Region</td>
<td>14</td>
<td>[Flood control bullet] Edit needed</td>
<td>Revised sentence: Difficulty in permitting invasive species removal, and limitations on geographic or seasonal access to channels, and in addition, zoning or land use restrictions increases the difficulty of flood control management.</td>
</tr>
<tr>
<td>54</td>
<td>4/22/2019</td>
<td>Mark Stephens, City of San Diego</td>
<td>3.1.1 San Diego IRWM Region</td>
<td>14</td>
<td>[Climate change bullet] Change “timings” to “timing”</td>
<td>Incorporated.</td>
</tr>
<tr>
<td>55</td>
<td>4/22/2019</td>
<td>Mark Stephens, City of San Diego</td>
<td>3.1.1 San Diego IRWM Region</td>
<td>19</td>
<td>[Second paragraph on Page 19] Consider including MS4 in acronyms and abbreviations if not spelled out elsewhere.</td>
<td>Revised to define MS4 as municipal separate storm sewer system and acronym added to list of acronyms and abbreviations on Page ii.</td>
</tr>
<tr>
<td>57</td>
<td>4/22/2019</td>
<td>Mark Stephens, City of San Diego</td>
<td>4.4 Outreach Results</td>
<td>28</td>
<td>[Middle of second paragraph] Duplications of “characterized.”</td>
<td>Revised.</td>
</tr>
<tr>
<td>58</td>
<td>4/22/2019</td>
<td>Mark Stephens, City of San Diego</td>
<td>7.2.3 Programmatic and Regulatory Barriers</td>
<td>46</td>
<td>[Second to last paragraph on Page 46] Change &quot;puts them at the same level are larger organizations&quot; to &quot;as&quot;</td>
<td>Revised.</td>
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<tr>
<td>59</td>
<td>4/22/2019</td>
<td>Mark Stephens, City of San Diego</td>
<td>8. Opportunities to Address Barriers to Participation and DAC Needs</td>
<td>47</td>
<td>Number 6 may want to reflect results of any additional workshops held, such as April 3, 2019 workshop.</td>
<td>Statement moved to Section 9: Conclusion.</td>
</tr>
<tr>
<td>60</td>
<td>4/22/2019</td>
<td>Carlos Michelon, San Diego County Water Authority</td>
<td>6.2 Input on Most Pressing Needs and Concerns</td>
<td>43</td>
<td>[Sixth bullet under San Diego IRWM Region] Infrastructure and programs that supports residential conservation or economic development.</td>
<td>Revised.</td>
</tr>
<tr>
<td>61</td>
<td>4/22/2019</td>
<td>Carlos Michelon, San Diego County Water Authority</td>
<td>6.2 Input on Most Pressing Needs and Concerns</td>
<td>43</td>
<td>Perhaps you can also find a place to acknowledge MWD’s new regional DAC pilot program to promote water conservation in DACs. IRWM grant funds would be needed by local agencies as a potential cost share to leverage benefits from this new MWD program.</td>
<td>Incorporated into Section 8 as a future opportunity in Opportunity #11.</td>
</tr>
<tr>
<td>62</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>Table of Contents</td>
<td>1</td>
<td>Change TDC from all upper case letters</td>
<td>Revised.</td>
</tr>
<tr>
<td>63</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>1.1 Integrated Regional Water Management Program</td>
<td>1</td>
<td>Spacing after the SOC bullet on Page 1</td>
<td>Revised.</td>
</tr>
<tr>
<td>64</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>1.1 Integrated Regional Water Management Program</td>
<td>1</td>
<td>[Second to last sentence on page] Remove comma after Proposition 84 funding</td>
<td>Revised.</td>
</tr>
<tr>
<td>65</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>1.2 Disadvantaged Community Involvement Program</td>
<td>3</td>
<td>(Footnote 1) See footnote! If DWR doesn’t consider URCs and EJs as DACs, then why would we?</td>
<td>DWR acknowledges that URCs (Ejs are considered a subset of URCs by the SDFA) are disadvantaged communities but are constrained by the language in Prop 1 to provide funding for the 10% set-aside. See Section 1.2 for clarification.</td>
</tr>
<tr>
<td>67</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>1.3 Water Needs Assessment</td>
<td>3</td>
<td>[Second sentence] Inconsistency flagged between the County of Orange and Orange County.</td>
<td>The County of Orange refers to the municipal agency and Orange County refers to the location. No change made.</td>
</tr>
<tr>
<td>68</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>1.3 Water Needs Assessment</td>
<td>3</td>
<td>Highlighted URCs and EJs in Bullet #1 - “Not really DAC”</td>
<td>See response to Comment 65.</td>
</tr>
<tr>
<td>69</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>1.3 Water Needs Assessment</td>
<td>3</td>
<td>[First sentence in last paragraph] Change “funding where they are needed” to “specifically”</td>
<td>Revised.</td>
</tr>
<tr>
<td>70</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>1.3 Water Needs Assessment</td>
<td>-</td>
<td>[Second sentence in first paragraph] The outcomes of this Water Needs Assessment reflect the responses of participants, and while considered representative of some needs facing faced by DACs...</td>
<td>Revised.</td>
</tr>
<tr>
<td>71</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>1.4.1 Woodard &amp; Curran</td>
<td>4</td>
<td>Woodard &amp; Curran...“has helped 85% of California’s population complete their IRWM planning efforts.” - Indirectly? It sounds like they did this for individual public members.</td>
<td>Clarified sentence to “...has supported IRWM regions that represent 85% of California’s population in their IRWM planning efforts.”</td>
</tr>
<tr>
<td>72</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>1.4.1 Woodard &amp; Curran</td>
<td>4</td>
<td>Change Upper Santa Margarita IRWM Region to lowercase region.</td>
<td>Did not change due to consistency with report.</td>
</tr>
<tr>
<td>73</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>1.4.2 Climate Science Alliance</td>
<td>4</td>
<td>Add comma after government: “CSA is a boundary organization focused on bridging relationships between scientists, government, and the broader community.”</td>
<td>Revised.</td>
</tr>
<tr>
<td>74</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>1.4.2 Climate Science Alliance</td>
<td>4</td>
<td>Add comma after schools: “...directly support disadvantaged communities and Title 1 schools, and works closely with regional tribes...”</td>
<td>Revised.</td>
</tr>
<tr>
<td>75</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>1.4.3 Rural Assistance Community Corporation</td>
<td>4</td>
<td>Change “vision” to “visions” in “RCAC provides training, technical and financial resources, and advocacy so rural communities may achieve their goals and vision.”</td>
<td>Did not incorporate. RCAC has multiple goals to achieve their guiding vision.</td>
</tr>
<tr>
<td>76</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>1.4.3 Rural Assistance Community Corporation</td>
<td>4</td>
<td>Add comma after technical: “RCAC provides training, technical and financial resources and advocacy so rural communities may achieve...”</td>
<td>Revised to add comma after resources: “RCAC provides training, technical and financial resources, and advocacy so rural communities may achieve...”</td>
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<td>77</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>1.5 Definitions</td>
<td>5</td>
<td>[Bullet 3 under EDA definition] Change persons to people: &quot;Less than 100 persons people per square mile&quot;</td>
<td>No change to match language used in water bond language.</td>
</tr>
<tr>
<td>78</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>1.5 Definitions</td>
<td>5</td>
<td>If we call URCs a DAC as stated in 1.2, then agencies with tribes will have a significant edge.</td>
<td>Refer to terminology in Section 1.2.</td>
</tr>
<tr>
<td>79</td>
<td>4/21/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>1.5 Definitions</td>
<td>5</td>
<td>Is this statement true for tribal nations? &quot;URCs and EJ communities are both communities that do not have equal access to water resource-related decision-making, or historically have not been involved in such decision making.&quot;</td>
<td>Refer to URC definition in Section 1.5.</td>
</tr>
<tr>
<td>80</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>2.2.1 San Diego IRWM Region DACs</td>
<td>7</td>
<td>Figure 4 and Figure 3 are repeated at the bottom of Page 7.</td>
<td>Revised and removed erroneous in-text citation (Figure 4).</td>
</tr>
<tr>
<td>81</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>3 Existing Understanding of DAC Needs</td>
<td>12</td>
<td>[Funding amount in paragraph 3] Just a note - Many projects executed by enviros and water agencies through IRWM have benefitted DACs also - so greater % impact.</td>
<td>Clarified that at least $19 million has been awarded to DACs</td>
</tr>
<tr>
<td>82</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>3.1.1 San Diego IRWM Region</td>
<td>14</td>
<td>(Institutional issues bullet) This is a stretch and too political. More like technical, managerial, and financial issues with some governance related items.</td>
<td>This statement is included in the San Diego IRWM Plan. No change.</td>
</tr>
<tr>
<td>83</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>3.2.1 San Diego IRWM Region</td>
<td>19</td>
<td>[This sentiment is echoed by other DAC communities within the Chollas Creek sub-watershed as the creek feeds directly into the San Diego Bay and infrastructure is needed to capture, minimize, and prevent pollutants in urban areas.] This is surface water issues with trash and some sewer issues. Is that focus of IRWM to clean trash?</td>
<td>Trash issues are identified by stakeholders in Section 6.</td>
</tr>
<tr>
<td>84</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>3.2.2 Upper Santa Margarita Watershed IRWM Region</td>
<td>20</td>
<td>Additional efforts are needed to understand contaminant sources and control options which includes a better understanding of septic tanks as a potential source of groundwater contamination and further coordinated planning and data collection should be a priority to assess current trends in water levels and quality.</td>
<td>No revisions needed.</td>
</tr>
<tr>
<td>85</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>5. Evaluation of Process and Engagement</td>
<td>29</td>
<td>[Partnering with NGOs proved an effective way to engage with communities that already have established relationships with those organizations, such as RCAC.] Why not use Regional Water Quality Control Board (RWQCB)?</td>
<td>Incorporated into Section 8 as a future opportunity in Opportunity #6.</td>
</tr>
<tr>
<td>86</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>6.1.1 Themes of DAC Water-Related Needs and Issues</td>
<td>31</td>
<td>[Middle of paragraph one] Add a period at the end of the sentence; &quot;...combined with a concern about rising demand.&quot;</td>
<td>Revised.</td>
</tr>
<tr>
<td>87</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>Table 5: Summary of Key Water Challenges in Urban and Rural Communities Identified by Survey Participants</td>
<td>33</td>
<td>[Bullet one under San Diego IRWM Region] Add that a small percent of &quot;cross-border water quality contamination causes public health and ecosystem problems&quot;</td>
<td>Revised.</td>
</tr>
<tr>
<td>88</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>6.1.3 Drinking Water Quality</td>
<td>37</td>
<td>Question about water quality issues in SWP and CRA supplies. &quot;The City of San Diego’s 2015 UWMP cited water quality issues associated with imported water including high levels of bromide and total organic carbon in SWP supplies and high salinity levels, uranium, and perchlorate in CRA supplies.&quot; Question = Are there violations? Past Consumer Confidence Reports (CCR’s) would say no on imported water.</td>
<td>Added language from the San Diego County Water Authority UWMP to Section 3.2: &quot;Water agencies treat all water to meet state and federal drinking water standards before delivering it to customers.&quot;</td>
</tr>
<tr>
<td>89</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>6.1.6 Wastewater</td>
<td>40</td>
<td>Why include the issue on breaching the levee in SOC if it has not an issue that has occurred in recent years?</td>
<td>This concern was raised by a stakeholder in South Orange County as it had occurred in the past and would be a high impact event if it occurred again. Stakeholder wanted the issue highlighted.</td>
</tr>
<tr>
<td>90</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>6.1.6 Wastewater</td>
<td>40</td>
<td>Agrees that trash and wastewater from a treatment plant near the border are seen as pressing public health and safety issue, especially when wet weather drives runoff and sewage throughout the nearby canyons and to communities near the coast in the San Diego IRWM Region.</td>
<td>No revisions needed.</td>
</tr>
<tr>
<td>91</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>6.1.6 Wastewater</td>
<td>40</td>
<td>[Tribal representatives, last paragraph] Casino funding? Federal money since the tribe is a federal nation?</td>
<td>See Opportunity 13 for additional funding opportunities.</td>
</tr>
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<tr>
<td>92</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>Appendix A: DAC Needs Based on Literature Review</td>
<td>N/A</td>
<td>Alpine CPA: Is water affordable for the community - No. Question: What was the metric to determine this?</td>
<td>Identified in a questionnaire and erroneously included in Appendix A. Revised to be NA.</td>
</tr>
<tr>
<td>93</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>Appendix A: DAC Needs Based on Literature Review</td>
<td>N/A</td>
<td>Alpine CPA: Drinking water system issues - uranium and perchlorate contamination. Question: Does this apply to SDCWA? I don't think so - may need to reword in all rows. Need to define better. This makes it sound like all SDCWA water is contaminated - we get SDCWA water and it is not contaminated!</td>
<td>Added language to clarify constituents of concern, but no violations. “Water is treated before delivering to customers.”</td>
</tr>
<tr>
<td>96</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>Appendix B: Summary of Water Challenges Identified by Survey Participants</td>
<td>N/A</td>
<td>Identify who the migrant bullet applies to in the community characteristics column. Confusion due to multiple cities listed in respondents.</td>
<td>While we do not want to identify specific concerns from coastal communities, we have identified the migrant community statistics that were included in the questionnaire in Appendix B.</td>
</tr>
<tr>
<td>97</td>
<td>4/23/2019</td>
<td>Julia Escamilla, Rincon Water District</td>
<td>Appendix B: Summary of Water Challenges Identified by Survey Participants</td>
<td>N/A</td>
<td>Drinking water issues: Add - Cultural issues that are brought to the country? Some aren’t educated enough about are water that is predominantly potable.</td>
<td>Comment incorporated in Section 6.1.3.1. Appendix B reflects comments from questionnaire respondents.</td>
</tr>
<tr>
<td>98</td>
<td>4/22/2019</td>
<td>Mike Beanan, Laguna Bluebelt Coalition</td>
<td>4.1 Community Water Needs Questionnaire</td>
<td>26</td>
<td>Submitted questionnaire input for SOC</td>
<td>Incorporated comments from questionnaire throughout Section 6, updated numbers in Section 4, and included in Appendix B summary.</td>
</tr>
<tr>
<td>99</td>
<td>4/23/2019</td>
<td>Mike Beanan, Laguna Bluebelt Coalition</td>
<td>4.1.6 Wastewater</td>
<td>40</td>
<td>Case for Environmental Justice? &quot;As a City of 24,000, Laguna Beach must somehow sustainably accommodate the public health and safety impacts of over 6 million annual visitors along with residents. Community average income surveys likely also miss the average income of visitors from Disadvantaged Communities (DAC). Within Laguna Beach, average incomes are possibly distorted by recent wealthier buyers and may miss a larger group of fixed income, 30 to 50 year residents as well as a hidden local resident population of undocumented construction and domestic workers. When one group of people and impacts, like tourists and inland city urban runoff and wastewater, is so large as to overwhelm another smaller community, like South Laguna, is there a case for considering Environmental Justice in determining funding for projects?”</td>
<td>See Comment 31.</td>
</tr>
</tbody>
</table>