

FINAL

MUNICIPAL SERVICE REVIEW & SPHERE OF INFLUENCE



***Byron-Bethany Irrigation District
and
The West Side Irrigation District***

Prepared for: San Joaquin LAFCo

June 13, 2019

Final
Municipal Service Review &
Sphere of Influence

Byron Bethany Irrigation District
The West Side Irrigation District

Prepared for:

San Joaquin LAFCO

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<https://www.sjgov.org/commission/lafco/>

Prepared by:



June 13, 2019

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Chapter 1: EXECUTIVE SUMMARY



This Municipal Service Review (MSR) and Sphere of Influence (SOI) addresses major issues of service delivery and efficiency and includes an analysis and a written statement of conclusions, known as determinations, for each of the following MSR factors:

- Growth and population projections for the affected area
- Disadvantaged unincorporated communities
- Present and planned capacity of public facilities
- Financial ability of the agency to provide services
- Opportunities for shared facilities
- Accountability for government service needs
- Any other matter relative to service delivery as required by Commission Policy

The specific determinations and the key facts that support each determination for each service provided are discussed in Chapters 3 and 4. The areas of description and analysis contain the essential operational and management aspects for the two service providers and together constitute a review of the ability of the providers to meet the service demands of the customers within their boundaries. The services considered in this MSR are irrigation water, raw water supply to municipalities, and storm drainage management. These services are primarily

provided to farms, ranches, and nearby communities by the two special districts. The Districts are typically operated under the provisions of their “principal acts,” and they govern the provision of one or more public services. Boundaries and spheres of influence are determined by their Local Agency Formation Commission (LAFCO). This MSR addresses the two water service providers: the Byron Bethany Irrigation District and The West Side Irrigation District. A discussion of the sphere of influence is presented in Chapter 8.

1.1: SUMMARY OF DISTRICTS

Table 1-1 below presents a profile of the Byron Bethany Irrigation District (BBID), and Table 1-2 presents a profile of The West Side Irrigation District (TWSID).

Table: 1-1: Profile of Byron Bethany Irrigation District (Current Configuration)	
Type of District:	Irrigation District
Principal Act:	California Water Code, Division 11, Section 20500 <i>et seq.</i>
Functions/Services:	Raw untreated water for agricultural irrigation and municipal purposes.
Main Office:	7995 Bruns Road, Byron, CA 94514
Mailing Address:	Same as above
Email:	r.gilmore@bbid.org
Phone No.:	(209) 835-0375
Fax No.:	none
Web Site:	http://bbid.org
General Manager:	Rick Gilmore
Governing Body of BBID (Current Configuration)	
Board of Directors (Directors own land within their representative Division and are elected by registered-voters within that Division)	
	Larry Enos, Jr., Division 1
	Mark Maggiore, Division 2
	Timothy Maggiore, Vice President, Division 3
	Felix Musco, Division 4
	Russell Kagehiro, President, Division 5
	Charles Tusso, Division 6
	Jeff Brown, Division 7
Meeting Schedule:	3rd Tuesday at 9:00 a.m.
Meeting Location:	Charles Spatafore Auditorium 7995 Bruns Road, Byron, CA
Date of Formation:	December 22, 1919
Principal County:	San Joaquin County
Other Counties:	Alameda, Contra Costa
Other:	None

Table: 1-2: Profile of The West Side Irrigation District) (Current Configuration)	
Type of District:	Irrigation District
Principal Act:	California Water Code, Division 11, Section 20500 <i>et seq.</i>
Functions/Services:	Raw untreated water for agricultural irrigation and municipal purposes.
Main Office:	1320 Tracy Boulevard, Tracy, CA
Mailing Address:	same as above
Email:	Rick Gilmore - r.gilmore@bbid.org or Carol Petz (TWSID Secretary) - wsid2@comcast.net
Phone No.:	(209) 835-0375
Fax No.:	(209) 835-2702
Web Site:	None
General Manager:	Rick Gilmore
Governing Body of The West Side Irrigation District (current Configuration)	
Board of Directors (Directors own land within their representative Division and are elected by registered-voters within that Division)	
	Thomas Pereira, Vice President, Division 1
	Vacant, Division 2
	Stephen R. Serpa, Division 3
	Randy Mattos, Division 4
	Jack Alvarez, President, Division 5
Meeting Schedule:	2 nd Wednesday at 6:00 p.m.
Meeting Location:	TWSID offices at 1320 Tracy Boulevard, Tracy, CA
Date of Formation:	October 12, 1915
Principal County:	San Joaquin County
Other Counties:	None
Other:	None

1.2: SUMMARY OF MSR FACTORS

Chapters 3-6 provide more detailed information on issues and challenges faced by the two Districts. For the purposes of this Executive Summary, however, some important issues facing the Districts now or in the recent past are encapsulated below.

Growth and Population Projections

The proximity of BBID and TWSID to the San Francisco Bay Area indicates that the area may experience some market pressure for growth, especially in urban areas near the City of Tracy. Future population levels are used to predict future service demands. An economic forecast of

Alameda, Contra Costa, and San Joaquin Counties is provided in Appendix A-4. Details about population and future growth in the area are provided in Chapter 4, Socio-Economics.

Disadvantaged Unincorporated Communities

Senate Bill (SB) 244, which became effective in January 2012, requires LAFCO to consider the presence of any Disadvantaged Unincorporated Communities (DUCs) when preparing a MSR that addresses agencies that provide water, wastewater or structural fire protection services. A DUC is a geographic area characterized as having a median household income of 80 percent or less of the statewide median household income. Chapter 4 describes several disadvantaged areas near the Districts borders. No DUCs were found within the Districts' boundaries.

Present and Planned Capacity of Public Facilities

The public services and infrastructure within and planned for by the Byron Bethany Irrigation District and The West Side Irrigation District is presented in Chapter 5 of this document. Both BBID and TWSID provide the delivery and sale of raw untreated water for agricultural irrigation and municipal purposes. Additionally, the TWSID provides agricultural drainage and storm and municipal drainage. The analysis in Chapter 5 relies upon information provided by: 1) TWSID's November 2009 Water Management Plan, 2) BBID's 2017 Agricultural Water Master Plan, and 3) other sources. Based on the analysis presented in Chapter 5, both BBID and TWSID have sufficient infrastructure capacity and water supply to serve existing agricultural and municipal customers.

Financial Ability of the District to Provide Services

Annual budgets and annual financial statements are prepared by both The West Side Irrigation District and the Byron Bethany Irrigation District. These reports provide data which indicate that each has the financial ability to continue providing public services. Key performance indicators and other information are provided in Chapters 6.

Opportunities for Shared Facilities

Both BBID and TWSID have indicated the intent to consolidate their two districts together to more efficiently provide services to their customers.

Accountability for Government Service Needs

In a municipal service review, LAFCO is required to make a determination about a district's government structure and accountability. In California, there are two types of special districts:

- **Dependent districts:** Function as subdivisions of another multi-purpose local government such as a county board of supervisors or a city council.

- Independent districts: Have their own governing board and are usually elected directly by voters.

Both The West Side Irrigation District and the Byron Bethany Irrigation District are independent districts as detailed in Chapters 2 and 3. Both TWSID and BBID representatives comply with the requirements of the Brown Act, the Political Reform Act, and similar laws as described in Chapter 3 of this MSR. BBID maintains a website that functions as a communication tool for meeting agendas, minutes, and adopted resolutions, and provides information about the District's services and programs. TWSID does not have a website.

Any Other Matter Relative to Service Delivery as Required by Commission Policy

Cortese-Knox Hertzberg allows LAFCOs to establish policies to implement the law and process applications. Application of discretionary standards lies with the Commission. There are no other aspects of water and storm drainage service required to be addressed in this report by LAFCO policies that would affect delivery of services.

1.3: SUMMARY OF SOI FACTORS

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 requires that LAFCO review and update the Sphere of Influence (SOI or Sphere) for each district within the county. In determining the Sphere of Influence for an agency, LAFCO must consider and prepare written determinations with respect to five factors [Government Code §56425(e)]. These factors relate to the present and planned land uses including agricultural and open-space lands, the present and probable need for public facilities and services, the present capacity of public facilities and adequacy of public services, the existence of any social or economic communities of interest in the area, and the present and probable need for public facilities and services of any disadvantaged unincorporated communities within the existing sphere. This analysis is presented in Chapter 8. As part of the sphere of influence analysis, a proposal to merge BBID with TWSID is also discussed.

If LAFCO approves the consolidation of BBID and TWSID then the consolidated District would have Board of Directors as shown in Table 1-3, below. In early 2017, The West Side Irrigation District Board of Directors selected Tom Pereira to represent Division 8 of the consolidated district and Jack Alvarez to represent Division 9.

Table 1-3: Governing Body of Consolidated BBID/TWSID	
Board of Directors (Directors own land within their representative Division and are elected by registered-voters)	
Division 1	Larry Enos, Jr.
Division 2	Mark Maggiore
Division 3	Timothy Maggiore, Vice President
Division 4	Felix Musco
Division 5	Russell Kagehiro, President
Division 6	Charles Tusso
Division 7	Jeff Brown
Division 8	Tom Pereira (from TWSID)
Division 9	Jack Alvarez (from TWSID)

Chapter 2: INTRODUCTION

Local Agency Formation Commissions (LAFCo's) are independent agencies that were established by state legislation in 1963 in each county in California to oversee changes in local agency boundaries and organizational structures. It is LAFCo's responsibility to:

- oversee the logical, efficient, and most appropriate formation of local cities and special districts;
- provide for the logical progression of agency boundaries and efficient expansion of municipal services;
- assure the efficient provision of municipal services; and
- discourage the premature conversion of agricultural and open space lands (Government Code [GC] §§ 56100, 56301, 56425, 56430, 56378).

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (CKH Act) requires each LAFCo to prepare a Municipal Service Review (MSR) for its cities and special districts. MSRs are required prior to and in conjunction with the update of a Sphere of Influence (SOI). This document presents a MSR and is intended to provide San Joaquin LAFCo with the necessary and relevant information for the District(s) (BBID and TWSID), in preparation for an analysis of the Districts' sphere of influence (SOI) which is presented in Chapter 8.

2.1: About San Joaquin LAFCo

Although each LAFCo works to implement the CKH Act, there is flexibility in how these state regulations are implemented so as to allow adaptation to local needs. As a result, San Joaquin LAFCo has adopted policies, procedures and principles that guide its operations. Municipal Service Review Policies were adopted on June 21, 2007 and amended on December 14, 2012. Sphere of Influence Policies and Procedures were adopted on September 21, 2007 and amended on December 14, 2012. These policies and procedures can be found on San Joaquin LAFCo's website (<https://www.sjgov.org/commission/lafco/default>).

Existing efficiencies in public service deliveries and suggestions for new opportunities to improve efficiencies is a key objective of this MSR/SOI, consistent with LAFCo's purposes. Since this MSR/SOI will be published on LAFCo's website, it also contributes to LAFCo's principle relating to transparency of process and information. A public workshop followed by a noticed public hearing will be conducted by LAFCo on this MSR/SOI, thereby contributing to LAFCo's aim of encouraging an open and engaged process.

Commissioners

This MSR is written under the auspices of San Joaquin LAFCo. San Joaquin LAFCo has a public Commission with five regular Commissioners and three alternate Commissioners as follows:

Table 2.2: LAFCo Commissioners	
Regular Members	
Member	Appointing Authority
Doug Keuhne	City Member, Lodi
Miguel Villapudua	Board of Supervisors Member
Peter Johnson (Chair)	Public Member
Tom Patti	Board of Supervisors Member
Vacant	City Member, Escalon
Alternate Member	
Member	Appointing Authority
Mike Morowit	Public Member
Chuck Winn	Board of Supervisors Member
Jesus Andrade (Vice Chair)	City Member, Stockton

Staff / Administrative

San Joaquin LAFCo has four staff as listed below.

- James Glaser, Executive Officer
- Elizabeth Contreras, LAFCo Analyst
- Mitzi Stites, Commission Clerk
- Rod Attebery, Legal Counsel, Neumiller & Beardslee

2.2 PURPOSE OF THE MUNICIPAL SERVICE REVIEW AND SPHERE OF INFLUENCE

MSRs are intended to provide LAFCo with a comprehensive analysis of services provided by cities and special districts that fall under the legislative authority of LAFCo. Chapters 1-7 contain the MSR portion which provide San Joaquin LAFCo with the information and analysis necessary to evaluate existing boundaries and consider SOIs for the two water service providers. This MSR is designed to provide technical and administrative information on municipal services provided

by BBID and TWSID. This information is presented so that LAFCo can make informed decisions based on the best available data for the public services and area served. Written determinations, in each of seven mandated areas required by law, are presented in Chapter 7 *MSR Determinations* of this MSR for LAFCo's consideration. San Joaquin LAFCo is ultimately the decision maker on approval or disapproval of any determinations, policies, boundaries, and discretionary items related to this MSR. The MSR determinations provide the basis for LAFCo's consideration of the service provider's SOI Update and proposed consolidation, presented in Chapter 8.

An SOI is defined in GC § 56425 as "a plan for the probable physical boundary and service area of a local agency or municipality as determined by the Commission." LAFCo is required to adopt an SOI for each District and each agency in its jurisdiction. When reviewing and determining SOI's for these service providers, LAFCo will consider and make recommendations based on the following information:

- The present and planned land uses in the area;
- The present and probable need for public services and facilities in the area;
- The present capacity of public facilities and adequacy of public services that the agency provides;
- The existence of any social or economic communities of interest in the area if LAFCo determines that they are relevant to the service provider; and
- The presence of disadvantaged unincorporated communities for those agencies that provide water, wastewater, or structural fire protection services.

An analysis and presentation of the existing spheres of influence analysis and a Plan for the (proposed) consolidated district is presented in Chapter 8 of this document. Ideally, this MSR and SOI Update will support not only LAFCo but will also provide the following benefits to the subject agencies:

- Provide a broad overview of agency operations including type and extent of services provided;
- Provide background information to support the sphere of influence analysis (Chapter 8);
- Evaluate governance options and financial information;
- Demonstrate accountability and transparency to LAFCo and to the public; and
- Allow agencies to compare their operations and services with other similar agencies.

BBID is an independent district encompassing portions of three counties: San Joaquin, Alameda, and Contra Costa and there is a LAFCo for each of the three counties. The CKH Act notes that the principal LAFCo is that County which has the greatest portion of the entire assessed value based on the last equalized tax assessment roll. Although, San Joaquin LAFCo is currently the principal LAFCo for BBID and TWSID, in the past (1990's) Contra Costa County had a higher portion of the entire assessed value and was therefore the principal LAFCo. Both Alameda

LAFCo and Contra Costa LAFCo were provided an opportunity to share their comments on the March 2019 Public Review Draft MSR/SOI during the public comment period.

2.3 METHODOLOGY FOR THIS MSR

This is the first MSR for BBID and TWSID within San Joaquin County and prepared under the auspices of San Joaquin LAFCo. In 2014 Contra Costa LAFCo approved a MSR for that portion of the BBID within its jurisdiction as part of Contra Costa LAFCo's second round Water/Wastewater MSR. This previous MSR by Contra Costa LAFCo only analyzed that portion of the District which falls geographically within Contra Costa County. Contra Costa LAFCo also developed and approved a MSR for the Byron Sanitary District (BSD) in May 2006. BSD is an independent district that is managed by BBID staff. In January 2017, San Joaquin LAFCo approved a MSR for the Mountain House Community Services District (MHCSD) which purchases water from BBID. These three previous MSRs were utilized as background information for this new MSR. For TWSID, this is the first MSR prepared for the District.

This new MSR evaluates the structure and operation of two municipal service providers (BBID and TWSID) and discuss possible areas for streamlining, improvement, and coordination. Key references and information sources for this study were gathered. The references utilized in this study include published reports; review of agency files and databases (agendas, minutes, budgets, contracts, audits, etc.); master plans; capital improvement plans; engineering reports; Environmental Impact Reports; finance studies; General Plans; and state and regional agency information (permits, reviews, communications, regulatory requirements, etc.) as listed in *Chapter 9, References*, in this document. Additionally, the consulting team sent the District a Request for Information (RFI) and also visited District offices to personally interview District representatives during a kick-off meeting held on December 27, 2016. The District's response to the request for information is a key information source utilized in this analysis.

This MSR forms the basis for specific judgments, known as determinations, about each agency that LAFCo is required to make (GC § 56425, 56430). These determinations are described in the MSR Guidelines from the Office of Planning & Research (OPR) as set forth in the CKH Act, and they fall into seven categories, as listed below:

1. Growth and population projections for the affected area;
2. Location and characteristics of any disadvantaged unincorporated communities within or contiguous to the sphere of influence;
3. Present and planned capacity of public facilities and adequacy of public services including infrastructure needs or deficiencies;
4. Financial ability of agency to provide services;
5. Status of, and opportunities for, shared facilities;
6. Accountability for community service needs, including government structure and operational efficiencies; and

7. Any other matter related to effective or efficient service delivery, as required by commission policy.

An MSR must include an analysis of the issues and written determination(s) for each of the above determination categories.

2.4 METHODOLOGY FOR SOI ANALYSIS

The CKH Act indicates that LAFCo should review and update a sphere of influence periodically, as necessary, consistent with GC § 56425(g) and § 56106¹. A description of the existing sphere of influence for the two irrigation districts is presented in Chapter 8. The SOI determinations listed above and required by the CKH Act are considered. Additionally, a consolidation of BBID and TWSID is proposed. As described in Chapter 8, merger means the termination of the existence of a district when the responsibility for the functions, services, assets, and liabilities of that district are assumed by a City as a result of proceedings taken pursuant Gov. Code, § 56030. This can be compared to a consolidation which is the uniting or joining of two or more districts into a single new successor district (Gov. Code, § 56030). BBID and TWSID each adopted resolutions (“Concurrent Resolution No. 1” of 2016) stating their intent to consolidate.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) is contained in Public Resources Code § 21000, et seq. Under this law, public agencies are required to evaluate the potential environmental effects of their actions. Typically, MSRs are exempt from CEQA under a Class 6 categorical exemption. However, this document also includes an SOI Analysis presented in Chapter 8. LAFCO’s EO recommends that the proposed SOI determinations and the proposed consolidation in Chapter 8 be subject to an initial study prepared consistent with CEQA by BBID as the “lead” agency with LAFCO as the “responsible” agency. Therefore, BBID has prepared an initial study to consider the potential effects of the proposed project on the following resources:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems
- Mandatory Findings of Significance

¹ The CKH Act (GC § 56106) states that all timeframes are directive. Any provision governing the time in which Commission is to act, is deemed directory rather than mandatory.

The initial study determined that the project would not negatively impact the above resources. The initial study will be available for public review on BBID's website.

2.5 PUBLIC PARTICIPATION

LAFCo conducted a public workshop on the Public Review Draft MSR/SOI in March 2019. Comments from the public were solicited. The Commission will hold a public hearing to approve the Final MSR on June 13, 2019.

After this MSR/SOI is finalized, it will be published on the Commission's website (<https://www.sjgov.org/commission/lafco/default>), thereby making the information contained herein available to anyone with access to an internet connection. A copy of this MSR/SOI and e-copies of many of the planning documents and studies that were utilized in the development of this MSR may be viewed during posted office hours at LAFCo's office located at 509 W. Weber Ave. Suite # 420, Stockton, CA 95203. In addition to this MSR, LAFCo's office maintains files for each service provider in San Joaquin County. These materials are also available to the public for review.

CHAPTER 3: DISTRICT GOVERNANCE

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This chapter describes the governance of both the Byron Bethany Irrigation District (BBID) and The West Side Irrigation District (TWSID). Information is provided on BBID and TWSID individually as separate entities. Projections describe the future district following consolidation.

3.1: DISTRICT OVERVIEW

Byron Bethany Irrigation District

BBID became a public district in December 1919. Originally formed as a private company, called the Byron-Bethany Irrigation Company, in 1914 it utilized long-term (pre-1914) water rights. As an irrigation district per California Water Code (Division 11, Section 20500 *et seq.*) BBID procures and supplies raw water to be used for irrigation and municipal purposes. In addition to its pre-1914 water rights, BBID also has a contract with the Bureau of Reclamation for 20,600 acre-feet (AF) for the Central Valley Service Area. The District consists of approximately 29,477 acres and is located in Alameda, Contra Costa, and San Joaquin Counties.

The West Side Irrigation District

TWSID was originally formed on October 12, 1915 and began making its first water deliveries four years later in 1919 (SJCFCWCD, 2001). TWSID provides the delivery and sale of irrigation water, agricultural drainage, storm and municipal drainage, and municipal and industrial water. The District consists of approximately 6,589 acres located in the unincorporated territory to the east and west of and within the City of Tracy. TWSID has a license from the State Water Resource Control Board to divert 27,000 AF of water from Old River. TWSID also has a contract with the U.S. Bureau of Reclamation to receive 2,500 AF from the Central Valley Project. TWSID currently functions as an independent district governed by a five-member Board of Directors elected from within five divisions of the District.

3.2: LOCATION AND SERVICES

Location and Size

BBID and TWSID are both located approximately 50 miles east of San Francisco and 60 miles south of Sacramento. BBID and TWSID lie within the great Central Valley of California and are in an area of world-renowned agricultural productivity.

The Byron-Bethany Irrigation District extends from Old River north of Mountain House and southerly to Highway 132. BBID's boundary (pre-consolidated - 2018) encompassed 29,477 acres of land. BBID includes portions of three counties, San Joaquin, Alameda, and Contra Costa as shown in Figures 3-1 and 3-2. The San Joaquin County portion of BBID includes portions of the City of Tracy and the community of Mountain House. Approximately 21,029 acres of BBID's territory lies within San Joaquin County; 3,925 acres are within Alameda County, and 10,343 acres are within Contra Costa County (CH2MHill GIS data, 2017). As shown in Table 3-1, BBID contains 29,477 acres with approximately 14,000 acres currently irrigated (R. Gilmore, personal communication, 23Aug2017). The number of irrigated acres changes annually depending on crop patterns and precipitation.

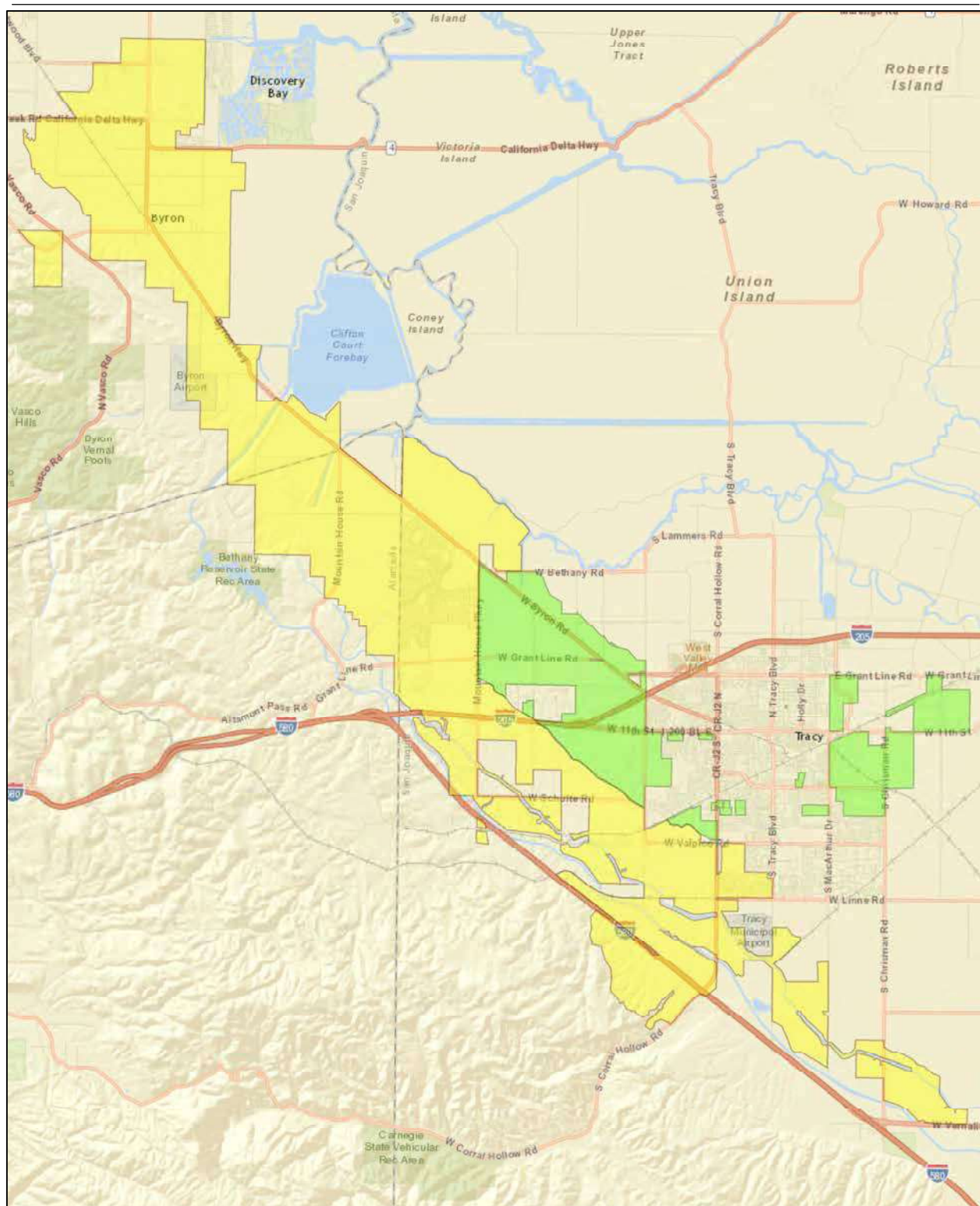
The West Side Irrigation District is located in agriculturally zoned lands beyond current developed areas that lie within the City of Tracy's boundary, Sphere of Influence, and Planning Area as defined by the City of Tracy 2011 General Plan and as also shown in Figures 3-3 and 4-4. Approximately one-third of TWSID's area is located within the east side of the City of Tracy's Sphere of Influence and Planning Area, while approximately two-thirds of the district is located to the west of the City of Tracy. The District covers about 6,000 acres¹ and provides water to about 30 farms as shown in Table 3-1, below (San Joaquin County Planning Dept. 2009). Back in 2009, the TWSID encompassed 37 farms; however, since then land has been annexed to the City of Tracy and the number of farms has decreased slightly (TWSID, 2009). Of the roughly 6,000 acres in the district, 5,722 acres are irrigated and 867 acres are not irrigated.

The existing population estimates and other geographic data for BBID and TWSID are shown in Table 3-1, below.

¹ SJ County GIS_Acres layer says 9,299.54 acres in TWSID. Consultants believe this GIS layer is outdated. The 2009 West Side Irrigation District Water Management Plan says 6,082 acres. Tracy Press Online news report says about 6,000 acres (http://www.goldenstatenewspapers.com/tracy_press/news/water-districts-consider-merger/article_47f3c8a8-d131-11e5-8952-6b774e6c50e8.html?mode=image&photo=0).

Table 3-1: Geographic Data			
	<i>BBID</i>	<i>TWSID</i>	<i>Consolidated BBID/TWSID</i>
Size of Boundary*	29,477 acres [46.9 sq. mi.]	6,589 acres [10.3 sq. mi.]	36,066 [57.2 sq. mi.]
Size of Sphere of Influence* Area (including boundary)	SOI is equivalent to the boundary area at 29,477	SOI is equivalent to the boundary area at 6,589	Currently equivalent to the boundary.
Number of farms served**	50 farms (some farms have multiple connections/customers)	30 (some farms have multiple connections/customers)	80
Total Number of Assessor's Parcels (APNs)*	9,157 APNs	908 APNs	10,065 APNs
Water Customers**	110 agricultural surface irrigation users and two municipal type customers	Within the 30 farms, TWSID has identified 120 properties that receive agricultural water.	140
Population Served***	16,800 within BBID service area (15,000 in Mountain House and 1,800 in Divisions 1-3, and 5-7).	3,000	19,800
Data Sources: *GIS data from CH2MHill. **BBID, 2017b and Personal communication, R. Gilmore, August 2017. ****U.S. Census ***Contra Costa LAFCO			

A map of the District's boundaries and sphere of influence is provided as Figure 3-1. Figure 3-2 shows the geographic distribution of Alameda County, Contra Costa County, and San Joaquin County in relation to BBID and TWSID.



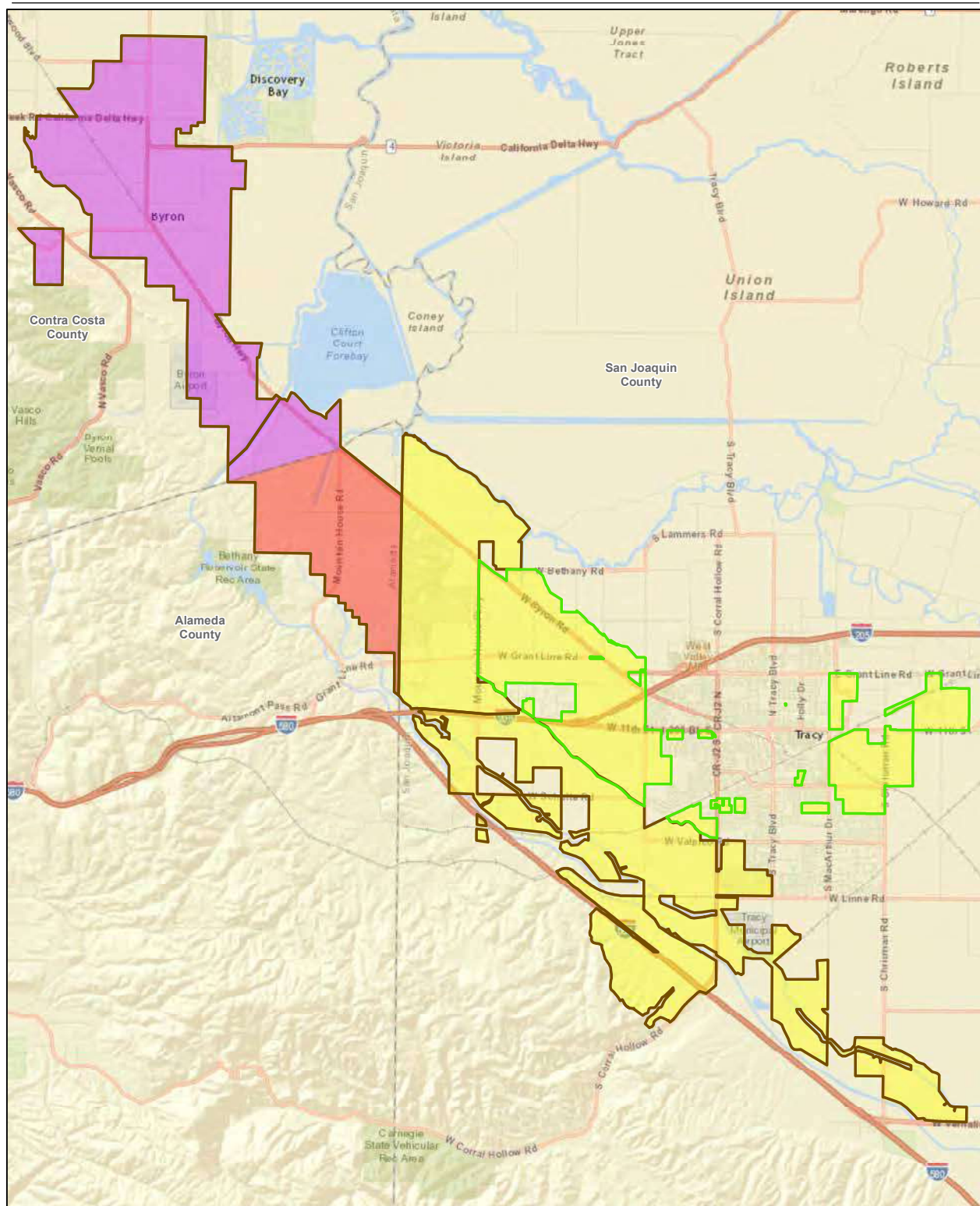
LEGEND

- Byron Bethany Irrigation District
- Westside Irrigation District

Figure 3-1: Boundary and Sphere of Influence for BBID & TWSID



Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
 Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, IPC, TomTom



LEGEND

- Byron Bethany Irrigation District
- The West Side Irrigation District
- Alameda County
- Contra Costa County
- San Joaquin County

Figure 3-2: Relation of Three Counties to District Boundaries

0 1 2
Miles



Byron Bethany Irrigation District, California

ch2m

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, IPC, TomTom
Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

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Type and Extent of Services

BBID Raw Water: The Byron-Bethany Irrigation District utilizes its pre-1914 water rights, water purchases through the federal Central Valley Water Project and other water sources described in Table 5-2 for delivery to agricultural and municipal and industrial uses. The Community of Mountain House receives approximately 9,813 AF of raw untreated water per year from the District, which the community's water treatment facility processes and delivers to its customers (Mountain House CSD, 2016). The Mountain House water treatment facility capacity is being phased with development with expected completion by 2030. In addition, less than 5,000 AF of raw untreated water is sent to the City of Tracy for treatment by the City for subsequent municipal use. BBID also provides management services to the Byron Sanitary District (BSD), which is a separate district² with its own Board of Directors. BSD contracts with BBID for staff services & management.

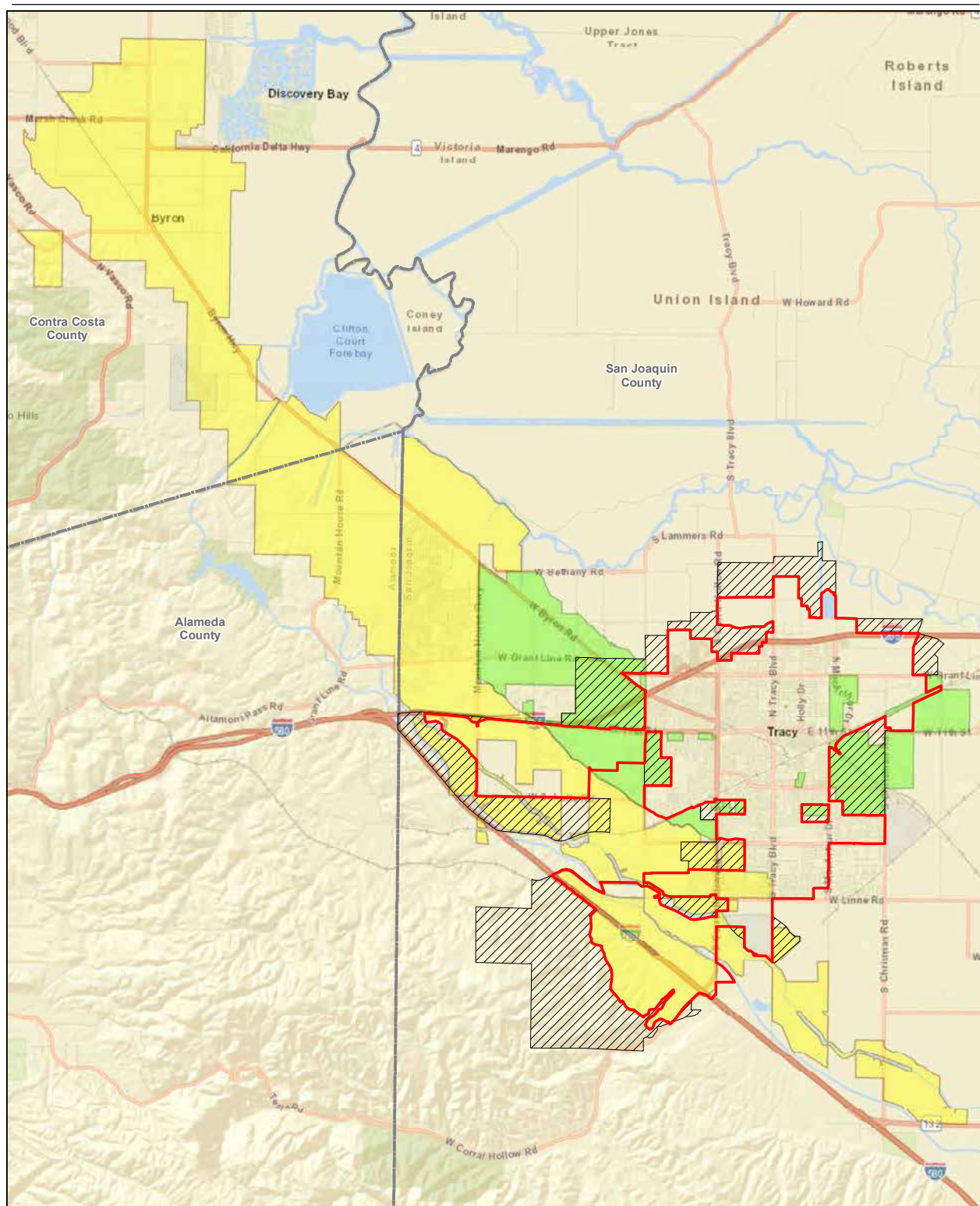
BBID - Recycled Water: BBID does not currently utilize water recycled from local wastewater treatment plants or other sources. However, the District is actively having conversations with neighboring agencies to explore options for the future use of recycled water (BBID, 2017b).

TWSID Raw Water: The West Side Irrigation District provides for the delivery and sale of raw irrigation water. Historically, TWSID provided occasional and incidental raw water to the City of Tracy, but it is not providing water at this time. The consolidated BBID/TWSID will assume responsibility for the provision of these services.

TWSID Recycled Water: TWSID is currently coordinating with the City of Tracy regarding water from the City's wastewater treatment plant that could be treated and then discharged into TWSID canals; thereby presenting a recycled water supply. The City of Tracy recently applied for a grant from the CA Department of Water Resources to support its recycled water program. TWSID hopes that recycled water discharged to its canals could be used for irrigation purposes. The geographic proximity of BBID and TWSID to City of Tracy is shown in Figure 3-3.

TWSID Drainage Services: TWSID provides agricultural drainage services to properties located within its legal boundaries. Additionally, TWSID provides storm and municipal drainage services to the City of Tracy (i.e. outside the District's legal boundaries) as described in this MSR section "Extra-Territorial Services" on page 3-11.

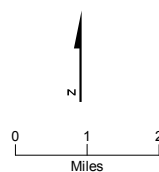
² Byron Sanitary District Municipal Service Review was prepared by Contra Costa LAFCO in May 2006. This MSR is available at http://www.contracostalafco.org/municipal_service_reviews.htm



LEGEND

- Byron Bethany Irrigation District The
- West Side Irrigation District City of
- Tracy, boundary
- Sphere of Influence, City of Tracy

Proposed consolidated District consists of BBID (shown in yellow) and WSID (shown in green)



VICINITY MAP



Figure 3-3: BBID and WSID in Relation to City of Tracy

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, IPC, TomTom
 Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

3.3: FORMATION AND BOUNDARY

The Byron Bethany Irrigation District (BBID) was formed as a public irrigation district in December 1919 under the auspices of its Principal Act, the California Water Code, Division 11, Section 20500 *et seq.* Prior to 1919, a private company called the Byron-Bethany Irrigation Company provided irrigation services. The Company's water rights were transferred/assumed by BBID when the Company was transformed into an irrigation district. It is important to note that the voter approved "California Water Commission Act" became law in 1914; auspicious when considering that BBID has pre-1914 water rights.

The West Side Irrigation District (TWSID) was formed as a public irrigation district on October 12, 1915 in order to provide the delivery and sale of irrigation water, agricultural drainage, storm drainage and other public services. The Principal Act for TWSID is the California Water Code, Division 11, Section 20500 *et seq.* TWSID lies entirely within San Joaquin County. Both BBID and TWSID are classified as independent special districts, governed by directly elected Boards of Directors.

Boundary History

BBID: Since its initial formation on December 22, 1919, BBID's boundaries have undergone periodic changes as described herein. In 1994, BBID applied to LAFCo and the SOI was adjusted to include Mountain House. On December 10, 1999, San Joaquin LAFCo approved the annexation of 2,006 acres of the Tracy Hills planning area to BBID via Resolution No. 1007.

In past years, Contra Costa LAFCo was considered the principal LAFCo for BBID. However, after BBID consolidated with the Plain View Water District in 2004, the principal LAFCo became San Joaquin LAFCo. Contra Costa LAFCo approved five boundary changes (i.e. annexations, detachments, activation of latent powers for electrical) (CC LAFCo, 2015b). Specifically, in 1996, Contra Costa LAFCo approved a boundary change for BBID.

On August 12, 2004, Byron Bethany Irrigation District consolidated with the former Plain View Water District (PVWD), an adjacent district located solely within San Joaquin County, along the Delta-Mendota Canal. This reorganization consisted of dissolving the Plain View Water District with annexation of the territory into BBID. The consolidation was approved by San Joaquin LAFCo via Resolution No. 1101, now the principal LAFCo for BBID. The "principal" LAFCo is the county with the greatest portion of the entire assessed value of land within the District based on the last equalized assessment roll. The Plain View Water District held a water service contract under the Central Valley Project (CVP), which is a federal water management program managed by the Bureau of Reclamation (USBOR). BBID now manages these water rights, coordinates with USBOR, and provides customer services to those customers within the former PVWD, which is now BBID Divisions 5, 6, and 7.

In February 2016, Contra Costa LAFCo approved Resolution No. 2016-3 authorizing the detachment of a 480+ acre territory from BBID as it overlapped with the Town of Discovery Bay Community Services District's boundary. The jurisdiction for this detachment was transferred from San Joaquin LAFCo to Contra Costa LAFCo. This overlap issue was analyzed in Contra Costa LAFCO's 2014 Countywide Water/Wastewater Municipal Service Review (MSR).

Approximately 3,925 acres of BBID's jurisdiction lie within unincorporated Alameda County³. This area is also within the jurisdiction of the Alameda County Flood Control and Water Conservation District, Zone 7. However, Zone 7 does not provide water service to any of the local properties within the overlap area.

TWSID: When The West Side Irrigation District was formed in October 12, 1915, its original size was 11,900 acres [18.6 sq. mi.] and it soon grew to 12,160 acres (TWSID, 2009). As the City of Tracy grew in size, it annexed nearby agricultural land and allowed that land to be converted to suburban and municipal uses. Much of that annexed agricultural land was originally within the TWSID boundaries. As the City of Tracy grew, there was a correlated shrinkage in the size of TWSID to reach its current size of 6,589 acres.

Since 1972, there have been 28 actions by San Joaquin LAFCo involving TWSID boundary. Twenty-four actions involved direct detachments from the District; or detachments involving concurrent annexations to the City of Tracy (called 'reorganizations'). These actions reduced the District by approximately 5,500 acres. Two actions (the Tracy Gateway Reorganization and the Filios-Dobler Reorganization) annexed a total of 601 acres to the City of Tracy, but did not detach from TWSID, allowing for continued agricultural irrigation until development occurred. There were also two annexations to the District (Presidio-Plasencia Annexation and Parkway Reorganization) which added 49.5 acres to the District.

The most recent annexation to the District occurred in December 2013, when San Joaquin LAFCo approved annexation of the Edwards property to The West Side Irrigation District via Resolution No. LAFC 26-13. The Certification of Completion No. 2014-009501 was issued January 29, 2014. LAFCO's resolution added the Edwards property to TWSID's boundary and SOI. The Edwards property is 239.43 acres in size and was annexed to TWSID to allow the provision of irrigation water to this uninhabited property for agricultural purposes. The parcel is zoned "Agriculture, 40-acre minimum (AG-40)." The Edwards property is located at the northeast intersection of Banta Road and Eleventh Street, Tracy (APN 250-120-040), as shown in Figure 5-4, Place of Use.

As urban development projects occurred for the City of Tracy, these project sites were typically detached from TWSID boundary and then annexed into the City. In 1987, the City of Tracy

³ In its 2005 Utility MSR, Alameda LAFCo identified one small area known as the Rivers End Marina, a private company operating a marina and recreational vehicle facility located at 6020 Lindemann Road in Byron. This location is within unincorporated Alameda County. There is no municipal water system in the area.

adopted a residential Growth Management Ordinance (GMO) to achieve a steady and orderly growth rate, allowing for the adequate provision of services and community facilities, including a balance of housing. The population for the City of Tracy grew by 142 percent between 1988 and 2003, at an average rate of approximately 6 percent per year. As the City grew, so did its demand for water. In 2001, the City increased groundwater extraction, using groundwater within The West Side Irrigation District (City of Tracy⁴, 2014).

Sphere of Influence

BBID's SOI: BBID's sphere of influence was adopted by San Joaquin LAFCo (District's principal LAFCo) on December 17, 1993 via Resolution No. 896. BBID's adopted SOI is coterminous with District boundaries of 29,477 acres, which is concurrent/coterminous with its existing boundary.

It should be noted that a small portion of the Mountain House area (lands located north of Byron Rd. along Old River) are not within BBID's existing boundaries. LAFCo's 1999 SOI document anticipated that this specific area could be annexed into BBID for provision of raw water supply as this portion of Mountain House developed in the future (SJ LAFCo, 1999). (The other areas of the Mountain House region were previously included in BBID's boundaries as described in Table 4-6.)

TWSID's SOI: San Joaquin LAFCo adopted TWSID's SOI on April 15, 1983 (LAFCo Resolution No. 565). As shown on Figure 3-1, TWSID's SOI appears to be congruent with its boundary, based on available GIS data. However, it is possible that historically as some lands detached from the District, the sphere did not change. When LAFCo adopted Resolution 565, the Commission's meeting minutes noted the following: "The Sphere of Influence for the West Side Irrigation District (is) as follows:

- All territory currently within the district;
- Excluding any territory which is annexed to the City of Tracy for urban development;
- Excluding any territory developed in the unincorporated area for urban or suburban, having no need for irrigation services."

Since 1983, TWSID has interpreted LAFCo's 1983 meeting minutes as follows: "The District's policy is to detach urbanizing area both within the City of Tracy and the unincorporated area. It is the policy of the district to detach any territory which changes its use from agricultural to urban

⁴ City of Tracy, Tracy Hills Specific Plan, Water Supply Assessment Final Report, Dec. 2014. Retrieved: http://www.ci.tracy.ca.us/documents/Water_Supply_Assessment.pdf

or suburban, no longer needing irrigation. This policy has been implemented in past years through simultaneous detachment as properties annex to the City and periodic detachment of territory where suburban development is occurring in the unincorporated areas.” However, in recent years TWSID has changed its practice to evaluate and consider each annexation/detachment on an individual basis (TWSID, 2014).



Consistent with this practice, TWSID continues to provide irrigation service to several parcels after detachment from the District as long as facilities remain intact.

Both BBID and TWSID have formally identified their intentions via “Concurrent Resolution No. 1” of 2016 (as shown in Appendix A) to reorganize their governance structure to consolidate the districts and service provisions. A sphere of influence update plan, which describes merging the TWSID SOI with the BBID SOI and other options, is provided in Chapter 8 of this document.

Extra-territorial Services

This section describes public services that are currently provided to parcels located outside a district’s proper boundary.

BBID: BBID’s public services are only provided to those areas that are located within the District boundaries.

TWSID Raw Water: TWSID continues to provide raw water service to two parcels, after being detached from the District boundaries. These parcels (APN 250-030-06 and 07) total 105 acres in size. This land became part of the City of Tracy and was detached from TWSID in 1991. Although these parcels became detached, they remain in agricultural use. These are the only “detached” properties receiving raw water delivery from the District.

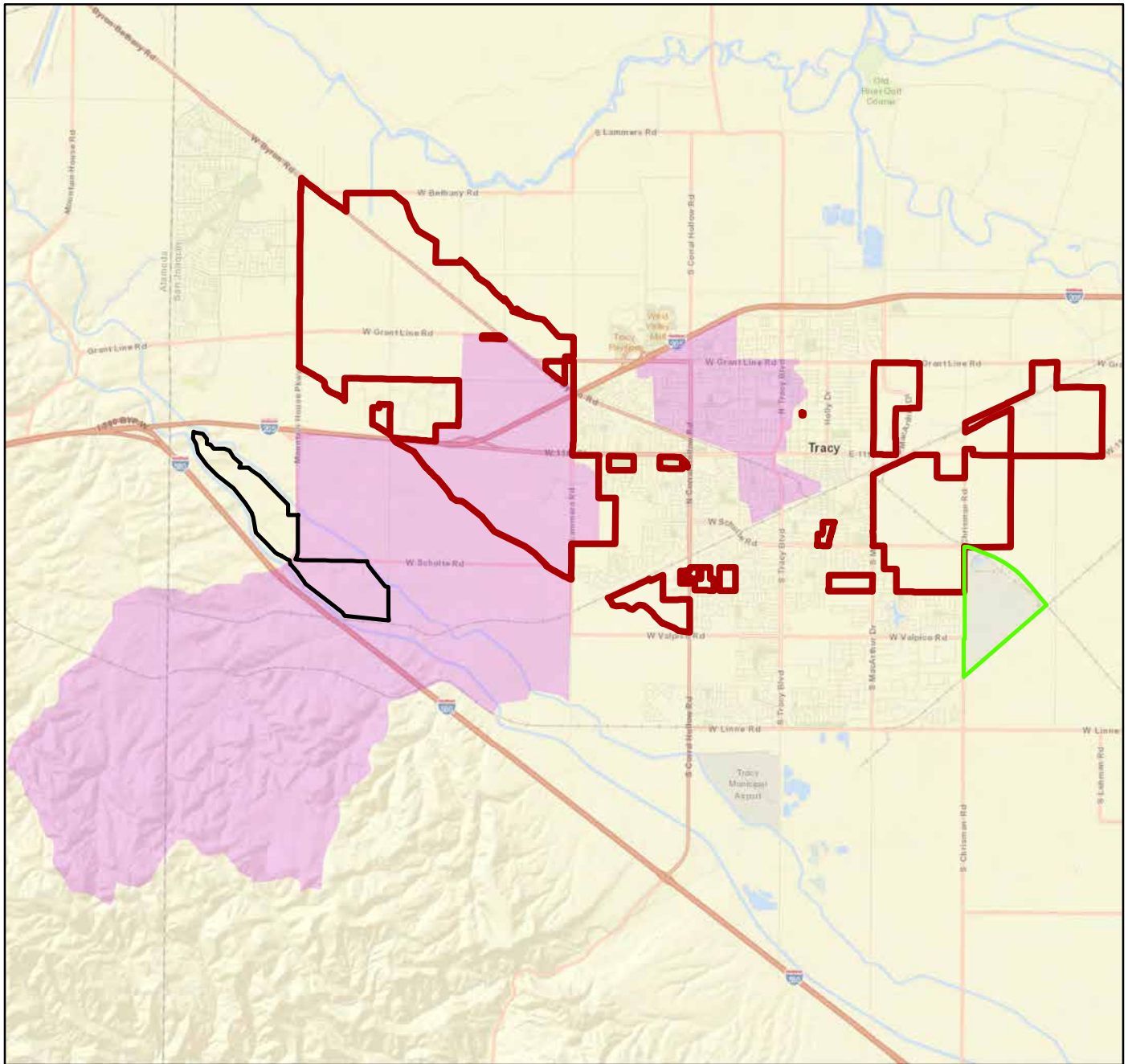
The District also provides surplus water to some properties adjacent to the District. These properties have never been within the District but have historically received service (Elizabeth Contreras, San Joaquin LAFCo; personal communication, 9/28/17). Although Figure 3-1 and available GIS data indicate that TWSID’s adopted SOI is coterminous with the existing boundaries, it is not clear whether these parcels are located within TWSID’s SOI as there are no available records regarding the status of these parcels. It is noted that only LAFCO has the authority to decide a district’s boundaries and SOI, consistent with the CKH Act.

TWSID Drainage Services: TWSID provides direct storm water collection, conveyance, and discharge services for two parcels located adjacent to but outside the District boundaries. These two parcels are APN 246-150-02 and APN 209-460-21. These two parcels are considered for addition to the SOI as described in Chapter 8.

TWSID also provides limited drainage services, consisting of conveyance and discharge, to a large portion of the City of Tracy, the Defense Depot, and to a small portion of unincorporated San Joaquin County and Alameda County, most of which is located outside the TWSID boundaries as depicted in purple in Figure 3-4, Drainage Service Area, next page. Most of the area depicted in purple as the Drainage Service Area in Figure 3-4, is located outside the TWSID boundary. TWSID has been providing these drainage services in excess of 50 years. Drainage services provided to the City of Tracy and the Tracy Defense Distribution Depot by TWSID are under contractual agreements that were in place prior to January 1, 2001. Therefore, these services are exempt from LAFCo review under Section 56133(e)(4) (i.e. 'grandfathered in'). Government Code Section 56133 was revamped in 2001 as part of the Cortese-Knox-Hertzberg refinements. Additionally, for the other areas located within the City of Tracy, the provision of drainage services is consistent with the 2010 Drainage Agreement Between the City of Tracy and The West Side Irrigation District, which documented past drainage practices⁵. Under this agreement the City of Tracy collects storm water through a network of municipal storm drains that are owned and maintained by the City and usually located within a street or road right-of-way. The City then conveys that storm water to TWSID storm water conveyance facilities for discharge to local waterways. Additionally, TWSID coordinates with County Service Area No. 50 (CSA50), shown on Figure 3-4, regarding drainage service. CSA50 provides storm drainage and street lighting services to the Patterson Pass Business Park (personal communication, J. Rutz, San Joaquin County, 2018). TWSID has not considered adding the drainage areas (purple) to the District SOI. However, the Defense Depot is described as a TWSID SOI Study Area in Chapter 8.

TWSID storm water infrastructure includes canals, pipes and outfalls as described in Chapter 5 of this MSR. TWSID owns and maintains this storm drainage infrastructure and much of this infrastructure is located within the City Limits, and outside the legal boundaries of TWSID. As properties were developed and detached from TWSID, TWSID often continued to provide drainage services because its infrastructure was in place and available for use. Additional information about the drainage services that TWSID provides can be found in Chapter 5, Services and Infrastructure.

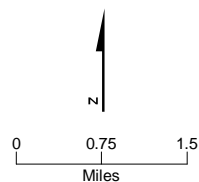
⁵ This 2010 Agreement is consistent with LAFCo rules (Government Code section 56133 because it is a contract between two public agencies.



VICINITY MAP

LEGEND

- 2008 WSID Service Area
- Drainage Service Area, City of Tracy with TWSID
- CSA 50
- Defense Depot



Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, IPC, TomTom
 Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

Figure 3-4: TWSID Drainage Service Area

3.4: GOVERNMENT STRUCTURE AND ACCOUNTABILITY

Tables 1-1 and 1-2 (see Chapter 1) list the members of the Board of Directors for both districts. This section describes the existing governance structure and accountability features for BBID and for TWSID. Additionally, this section describes how the governance structure would function after consolidation of the two districts.

BBID: BBID's regularly scheduled Board meetings are held on the third Tuesday of each month at 9:00 a.m. Meetings are located at District headquarters in the Charles Spatafore Auditorium, at 7995 Bruns Road in Byron. All meetings are open to the public in accordance with the Brown Act (Government Code §§ 54950-54926). The agenda for meetings of the Board of Directors includes a public comment period. The District's website (www.bbid.org) is a communication vehicle for meeting agendas, videos of meetings, and technical information regarding water conservation and water rights. Additionally, the website hosts several documents related to District operations, financial reports, and significant Board items. The District's website has been substantially upgraded in recent years and additional improvements are planned in 2018. One of these planned improvements is the posting of recent meeting minutes resulting from Board of Directors meetings that will allow the general public to follow Board activities. During the course of research, nothing was found to suggest the District and its representatives have not adhered to the requirements of the Brown Act, the Political Reform Act, and similar laws. No information was found on the California Fair Political Practices Commission website. Although limited information is available on-line about BBID compliance with laws, the District thoroughly understands and consistently complies with *CA Government Code §53235*, *Government Code §81000, et seq*, *California Code of Regulations §18730*, and *Government Code §87203* which govern independent districts (personal communication, R. Gilmore, June, 2018). For example, the District approved its Ethics Guidelines on June 13, 2011 and this document is available upon request from District staff. The Ethics Guidelines are a 30-page document which describes appropriate Proceedings of the Board, Directors' Compensation and Expense Reimbursement, Health Benefits for Directors, and ethics training and this document is provided herein as Appendix G.

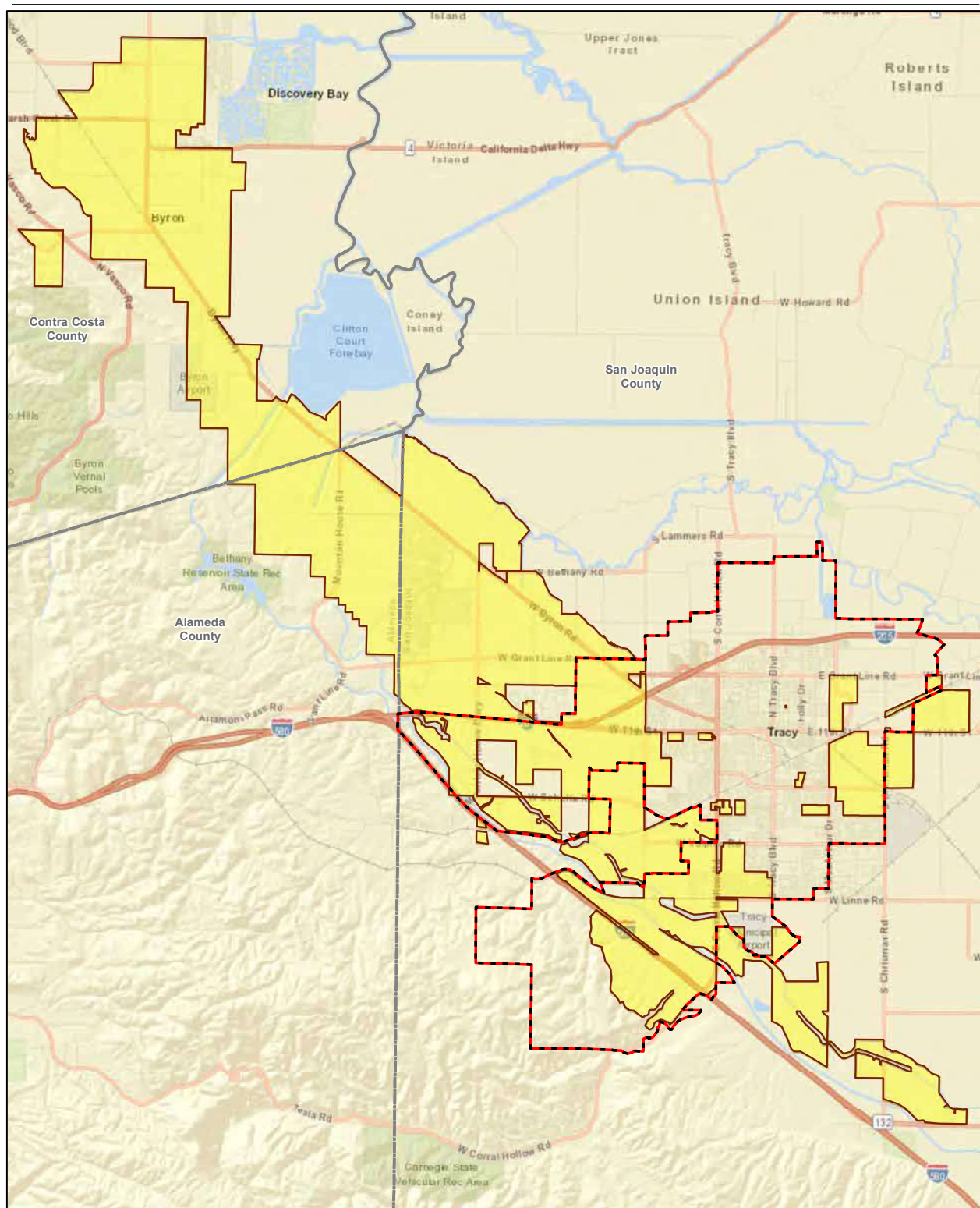
To serve on the BBID Board of Directors, candidates must own land within the District. Each Director on the Board represents a division within BBID. For example, Divisions 1 and 2 are located solely in Contra Costa County. Division 3's geographic area crosses into both Alameda and Contra Costa County. Divisions 4 through 7 are all located in San Joaquin County. Mountain House is within Division 4.

TWSID: TWSID is governed by an elected Board of Directors which are elected by registered-voters. Directors must own land within their representative Division. Although there are usually five elected Directors, currently one position remains vacant (See Table 1-2 in Chapter 1 of this MSR). TWSID's regularly scheduled Board meetings occur on the 2nd Wednesday of each month at 6:00 p.m. The meeting location is TWSID offices at 1320 Tracy Boulevard in Tracy.

Consolidation: The Boards of Directors of Byron Bethany Irrigation and The West Side Irrigation District approved a concurrent resolution for the consolidation of the two Districts. The Districts propose to accomplish the consolidation by combining the territory of TWSID with the territory of BBID, and creating BBID as the single successor district. TWSID would no longer be a separate entity. The reason for the consolidation is to enhance the services provided to the territories of both BBID and TWSID as described in the analysis of the District's sphere of influence presented in Chapter 8. In the interim, TWSID and BBID entered into a December 2016 Management Agreement (Agreement for Services) such that BBID provides management services to TWSID. Management services covered under the 2016 Agreement include provision of a General Manager, operations, and maintenance support. TWSID retains its separate legal counsel, until the consolidation is formally approved by LAFCo.

After consolidation of BBID and TWSID occurs, BBID will gain two divisions (8 and 9) that represent current TWSID territory. The consolidated BBID/TWSID will be governed by a 9-member Board of Directors⁶ (BOD), elected by division to staggered 4-year terms by registered voters within each division. As shown in Figures 3-5 and 3-6, next page, Divisions 1 and 2 are located in Contra Costa County. Division 3 is shared with Alameda and Contra Costa County, and Divisions 4 through 7 are located in San Joaquin County, with the Mountain House Community being Division 4. Divisions 8 and 9 will be comprised of TWSID territory, located in San Joaquin County, as shown in Figure 3-6, Proposed Consolidated Divisions. Candidates considered for election to the consolidated BBID Board of Directors must own land within the division they hope to represent. For example, the Division 1 Director must own land within Division 1 and so on. The consolidated irrigation district will employ 20 staff members (16 employees from BBID and 4 employees from TWSID) (Rick Gilmore; personal communication, 23Aug2017).

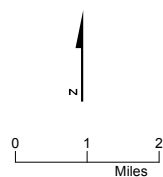
⁶ It should be noted that in June 2010, voters approved Measure B, which reduced the number of members on the BBID Board of Directors from nine (9) down to seven (7). Measure B passed in each of the three counties (San Joaquin, Alameda, and Contra Costa) with the total votes in favor of Measure B at 1,568 votes representing 85.7% of the total. When Byron Bethany Irrigation District consolidated with the former Plain View Water District in August 12, 2004, nine divisions were formed. Details are available on-line at: <http://www.smartvoter.org/2010/06/08/ca/cc/meas/B/>.



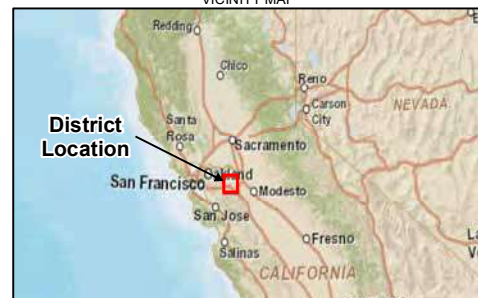
LEGEND

Proposed Consolidated District Boundary (BBID/WSID)

Tracy , City of. Sphere of Influence



VICINITY MAP

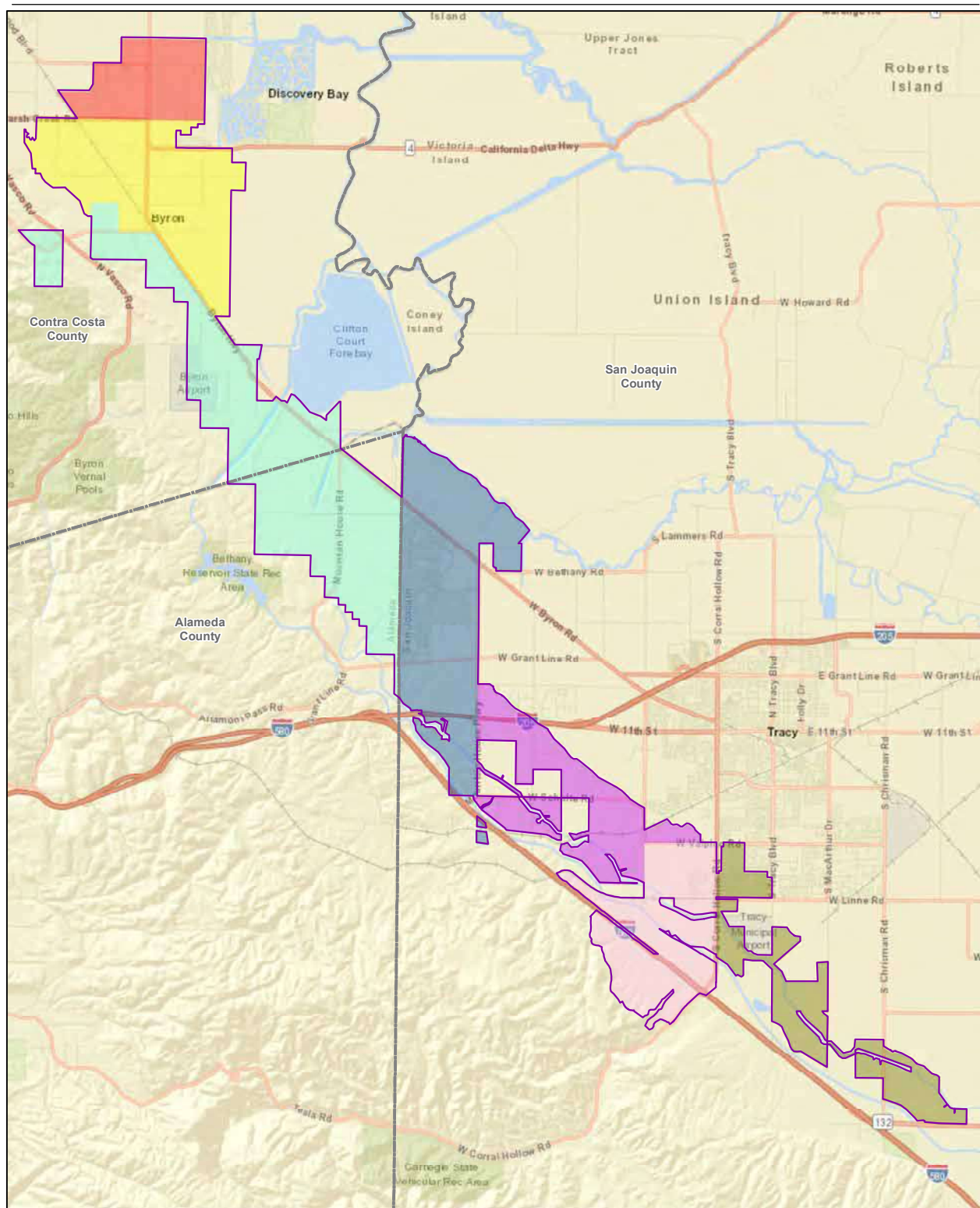


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Figure 3-5: Proposed Consolidated District

Byron Bethany Irrigation District, California

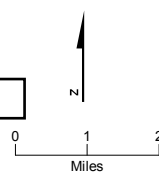
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LEGEND

- Division 1
- Division 2
- Division 3
- Division 4
- Division 5
- Division 6
- Division 7

Figure 3-6: Existing BBID Divisions



VICINITY MAP



Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, IPC, TomTom
 Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

Byron Bethany Irrigation District, California

3.5: MANAGEMENT EFFICIENCIES AND STAFFING

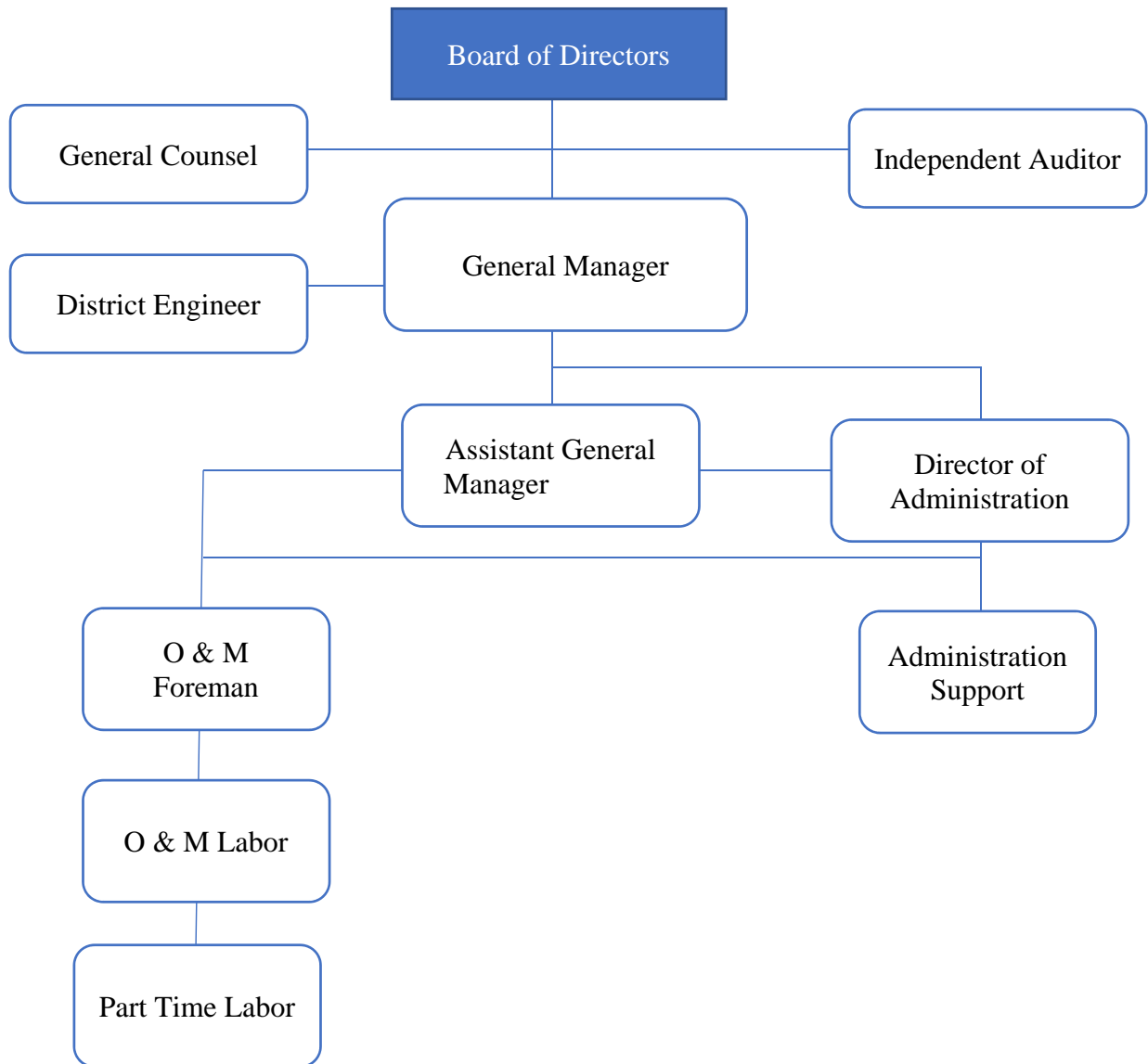
Byron Bethany Irrigation District operates under the direction of the elected Board of Directors. The District Manager reports to the Board and is responsible for directing District operations. The District Manager's job is to plan, organize, direct, and review the overall activities and operations of the District; represent the District locally, regionally and at the state and federal levels; and to ensure the best interests of the District are met. BBID's General Manager has recently assumed additional duties. The additional duties including serving as the General Manager for TWSID and for Byron Sanitary District. An Assistant General Manager position has been created to assist the General Manager in performing these duties.

CONTACT INFORMATION:

Rick Gilmore,
BBID General Manager
7995 Bruns Road
Byron, CA 94514
209-835-0375 www.bbid.org

BBID had 16 employees as of 2016, and TWSID had four employees. Since then, TWSID's General Manager has retired. Currently, TWSID has three water operations/maintenance employees and one full-time staff person who serves as the District Secretary (4.0 FTE). Upon consolidation of the two districts, TWSID's four employees will become BBID employees. In addition to employees, BBID utilizes a human resources consultant, a Director of Public Affairs consultant, GIS and engineering consultants, and legal consultants. Figure 3-7 shows an Organization Chart for the proposed consolidated District.

Figure 3-7
Organizational Chart - Consolidated BBID/TWSID



Summary of FTEs

*O&M labor =19 FTE (16 BBID and 3 TWSID)

*Admin support = 3 FTE's (2 BBID and 1 TWSID)

Chapter 4: SOCIO-ECONOMICS

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4.1 Growth and Population.....	4-1
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4.3 Disadvantaged Unincorporated Communities	4-19

This Chapter provides information on the existing population, future growth projections, land-use, and disadvantaged communities for BBID/TWSID. LAFCo is required to make MSR determinations related to growth and population projections and disadvantaged unincorporated communities and the data to support these determinations are provided in this chapter.

4.1 GROWTH AND POPULATION

Existing Population

This section describes the existing population and future growth projections for Byron Bethany Irrigation District (BBID) and The West Side Irrigation District (TWSID), including factors that must be considered when planning for provisions of services within the consolidated district. An overview of the existing population characteristics for each of the three affected counties is shown in Appendix B. An economic forecast for each of the three counties is shown in Appendix A.

Together, BBID and TWSID jointly cover an area of approximately 57.2 sq. miles, spanning Alameda, Contra Costa, and San Joaquin Counties. Since the U.S. Census does not designate the irrigation districts as a census-designated place, detailed population statistics for the Districts are not available. The current population in the BBID and TWSID areas is estimated based on available data. Table 4-1 below shows the total existing county-wide population for each of the three counties. Additional demographic detail for each of the three counties is provided in Appendix B.

Table 4-1 - Existing Population by County		
	2010	2018
Alameda	1,510,271	1,660,202
Contra Costa	1,049,025	1,149,363
San Joaquin	686,585	758,744
<i>Data Source: California Department of Finance</i>		

BBID services over 160 agricultural customers and two municipal customers across three counties. The two municipal customers are the community of Mountain House with approximately 15,000 residents as of 2017, and portions of the City of Tracy (Contra Costa LAFCo, 2014). The population within BBID is estimated to be at roughly 16,800 persons, which includes 15,000 in Mountain House and 1,800 in BBID's agricultural area as shown in Tables 4-2 and 4-4.

TWSID serves over 30 agricultural customers and has approximately 3,000 people within its boundary area and SOI (US Census, 2011-2015). This brings the total population within BBID/TWSID to 19,800 people. As shown in Table 4-2 below, the average population density for BBID is about 358 persons per square mile.

Between census years 2010 and 2015, the population grew in all three counties by a total of 141,739 people. Alameda saw a 1.15 percent annual growth rate; Contra Costa a 0.86 percent annual growth rate; and San Joaquin a 1.23 percent annual growth rate, which equates to an average 1.08 annual growth rate across all three counties for the five-year period. BBID/TWSID's service area is located in multiple Census Tracts. As shown in Table 4-2 below, the average population density for TWSID is about 291 persons per square mile.

Table 4-2 - Existing Population			
	Total population	Land area (sq. miles)	Average population per sq. mile
BBID			
2016	16,800	46.9	358
TWSID			
2015	3,000	10.3	291

Projected Growth and Development

Population growth in the region is dependent upon land use, General Plan designations, and zoning on properties. Irrigation districts do not have any decision-making authority over land-use as that responsibility lies with the three counties and the City of Tracy. As mentioned above, BBID is located within the unincorporated area of three separate counties and a portion of the City of Tracy. The Association of Bay Area Governments (ABAG) makes population projections at the County level for Alameda and Contra Costa Counties. For San Joaquin County, the California Economic Forecast modeled data for use by the California Department of Transportation (Caltrans) projected population growth to 2035. Figure 4-1 below shows projected population growth by county from 2015 to 2035. Table 4-3 indicates the projected population growth by county in more detail for this same period.

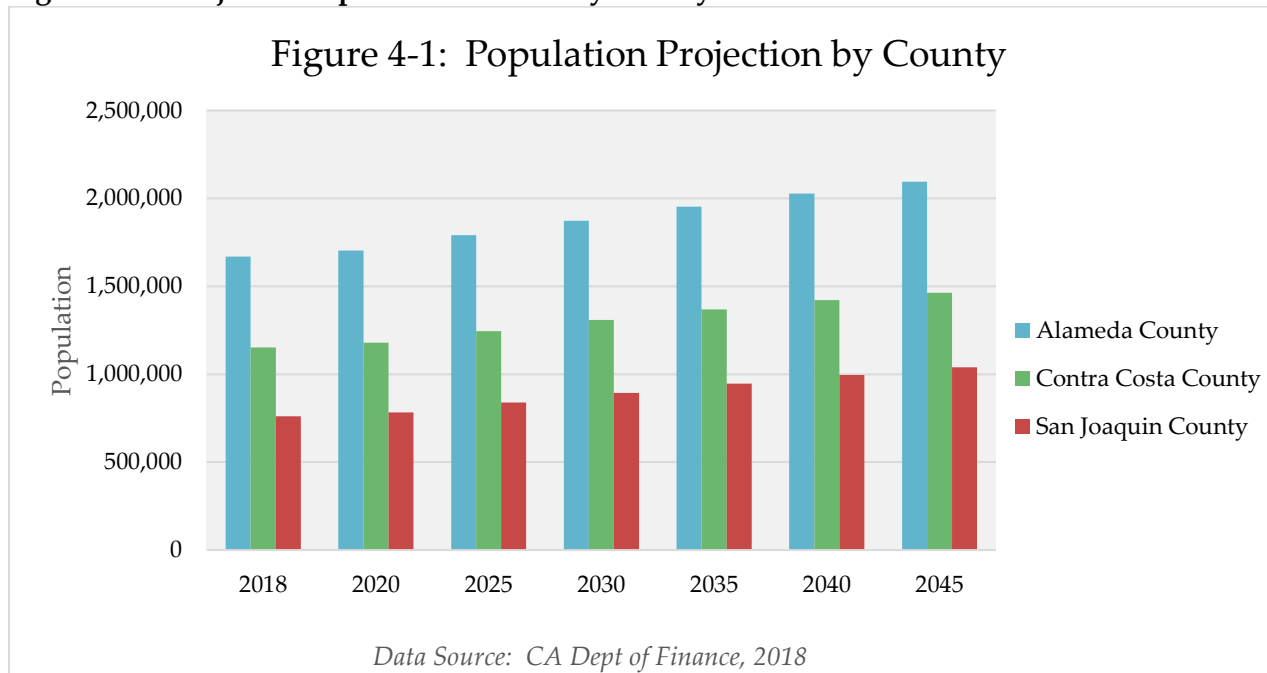
Figure 4-1 – Projected Population Growth by County from 2015-2045

Table 4-3 - Projected Population Growth for 3 Counties							
Population	Projections						
	2018	2020	2025	2030	2035	2040	2045
California	39,952,483	40,639,392	42,326,397	43,939,250	45,440,735	46,804,202	48,007,817
Alameda County	1,668,399	1,703,660	1,790,456	1,873,622	1,953,455	2,027,328	2,094,635
Contra Costa County	1,151,442	1,178,639	1,245,480	1,309,118	1,368,495	1,420,595	1,463,803
San Joaquin County	760,173	782,662	838,755	894,330	947,019	995,469	1,039,105

Projections Prepared by Demographic Research Unit, California Department of Finance, January 2018

Data Source: California Department of Finance, Demographic Research Unit. January 2018. P1,

Total Population by County, Projections (2010-2060), 1-year increments. Available on-line at:

<http://www.dof.ca.gov/Forecasting/Demographics/Projections/>

As shown in Table 4-3, above, Alameda County is anticipated to have the highest population, followed by Contra Costa and San Joaquin Counties respectively. All three counties are anticipated to have a steady increase in population from 2018 to 2045; roughly a 25 percent total increase for Alameda, a 27 percent increase for Contra Costa, and a 37 percent increase for San Joaquin County over the 27-year time period. Though San Joaquin County has the lowest population among the three counties, the County has the highest projected change in growth from 2015 to 2045.

Projecting future population growth for a small district such as BBID and TWSID is problematic due to a variety of unknown factors associated with the annexation rate. Based on an average growth rate across all three counties, the projected average annual growth rate is calculated at 0.044 percent for the BBID. The average annual growth rate is calculated at 0.733 percent for the TWSID based on the average growth rate for unincorporated San Joaquin County (San Joaquin Council of Governments, 2016). A comparison of growth rates for both irrigation districts is shown in Table 4-4, below.

Table 4-4: Projected Population Growth (2015–2040)						
	2015	2020	2025	2030	2035	2040
BBID – Mtn House ¹	~15,000	18,500	26,600	32,400	38,200	~44,000
BBID – Tracy Hills ²	0	4,000	17,650	17,650	17,650	17,650
BBID – Ag area	1,800	1,850	1,900	1,950	2,000	2,050
BBID Total ³	16,800	24,350	46,150	52,000	57,850	63,700
TWSID Moderate Growth ³	3,000	3,055	3,110	3,170	3,225	3,285
TWSID Fast Growth ⁴	3,000	3,110	3,225	3,350	3,470	3,600
¹ Data for the community of Mountain House is derived from Table III-1 in the Mountain House Municipal Service Review approved by San Joaquin LAFCo in January 2017. The Mountain House Community is located with the service area for BBID. The MSR projects a total build out for the community to be 44,000 persons by 2040. This assumes a growth rate of 5,800 persons every 5 years beginning in 2015. ² Assumes approximately 4,000 persons for the Tracy Hills Specific Plan in 2020 per conversation with Victoria Lombardo, 20 October 2017. The Tracy Hills Specific Plan includes build out of an area to the southwest of Tracy; within the BBID service area, for an estimated population of 17,650 by 2025. ³ See also references for Contra Costa LAFCO 2016 and Contra Costa County, 2016. ⁴ Initial Data for year 2015 from the U.S. Census Bureau. Fast rate of growth assumes a base average annual growth rate of 0.733 percent within TWSID beginning with the population in 2015. The 0.733 percent average annual growth rate for unincorporated San Joaquin County is based on data from San Joaquin Council of Governments, Jurisdiction Fact Sheets, 2016.						

The City of Tracy General Plan identifies ten growth areas within the City's sphere of influence and city limits with an Urban Reserve designation. The purpose of this designation is to provide guidance regarding the vision and types of land uses allowed in these areas, each requiring comprehensive planning and preparation of a zoning district, specific plan, or planned unit development (PUD). The ten Urban Reserve areas encompass roughly 4,032 acres of land in undeveloped areas surrounding the City of Tracy. Each Urban Reserve area will provide a mix of uses with approximate development types in acres. Most of these areas are within the service districts for both BBID and TWSID, however due to the location of these areas adjacent to existing urban areas in the City of Tracy, it can be assumed the City will most likely request to annex these areas into the City limits as they are developed.

Future growth in TWSID will be minimal as seen in Table 4-4. Based on this slow growth rate, there will be minimal population growth within the TWSID service area over the next 15 years. Therefore, it is unlikely that the District will have a significant increase in demand for water during this time frame, as described in Chapter 5. Within the BBID, there will be a significant population growth over the next 15 years. Therefore, water demand is anticipated to rise as the Mountain House Community and Tracy Hills area continue to develop as described in Chapter 5.

4.2: PRESENT AND PLANNED LAND USES

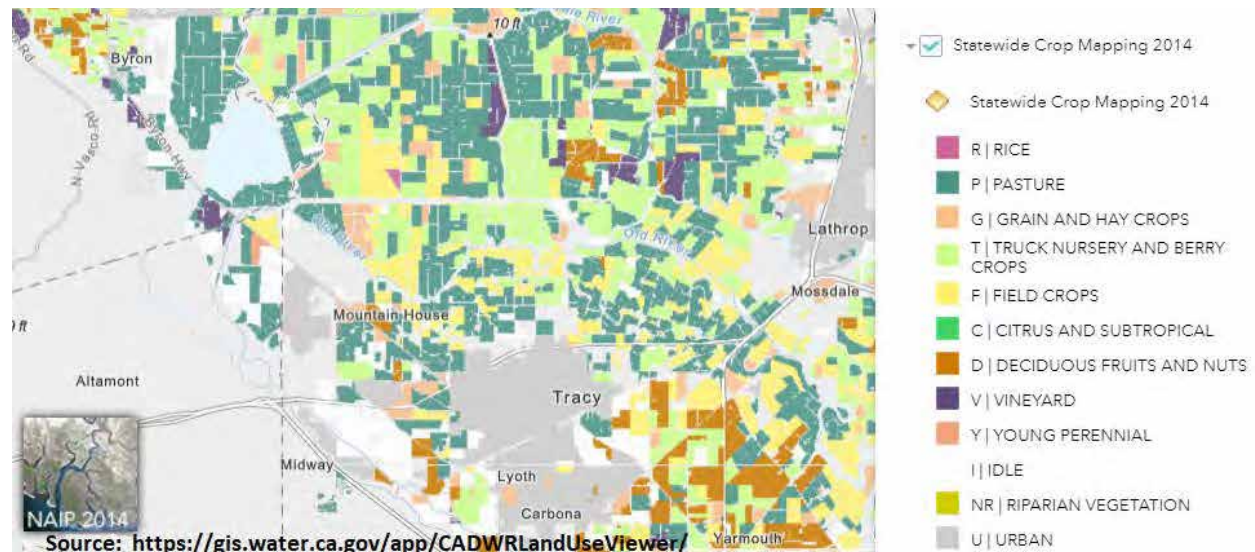
Existing land use

BBID/TWSID does not have the legal authority to make land use decisions. Most land-use decisions, initiated by private property owners over the last decade, are secured via land-use permits from the County and other agencies. To some extent, population growth in the District is dependent upon land use, General Plan designations, and zoning of properties. This section summarizes existing land-uses, as the CKH Act requires LAFCo to make a specific determination regarding population and land-use.



Land use within the BBID boundaries is predominantly agricultural. BBID has a diversity of farms and ranches including organic farms and traditional farms. Major crops grown include tomatoes, sweet corn, almonds, cherries, and walnuts as shown on Figure 4-2. The soil types found within BBID are described in detail in its 2017 Agricultural Water Management Plan available on-line at: <http://bbid.org/>. Other land uses include single-family suburban homes, high-density residential, rural residential, commercial, and open space. Urban and suburban uses are centered in the unincorporated Mountain House community, unincorporated Byron community, the City of Tracy, including the Tracy Hills area. Municipal and industrial water customers include Safeway and Costco distribution centers, G3 Enterprises¹, Patterson Pass Business Park, Musco Family Olive, and the Prologis-Cordes Ranch. Two power plants include the Mariposa Energy Plant and GWF energy (gas fired plants). Institutional land uses within the District includes the Contra Costa fire service located at the Byron Airport and the Airport itself.

Figure 4-2: Crops grown In Tracy Region



Water infrastructure associated with the federal Central Valley project such as the Delta-Mendota Canal; infrastructure associated with the California State Water Project such as the Clifton Court Forebay; BBID infrastructure; and TWSID infrastructure are also present in the service area. Roads and highways are a small percentage of the overall land-use within the District(s). Land outside and adjacent to BBID is characterized by rural agriculture and the development centers of Tracy, Byron, and the community of Discovery Bay, as well as concentrated industrial uses along Interstate 580 (San Joaquin County General Plan, 2014).

Land uses within the TWSID boundaries are characterized as mainly agricultural with some residential, industrial, and commercial in the areas adjacent to and within the City of Tracy (City

¹ G3 Enterprises is a sand mining plant, that produces sand used to create wine bottles by the Modesto Glass Plant.

of Tracy, 2014). Major crops grown within TWSID include almonds, tomatoes, beans, and alfalfa (TWSID, 2009). Soils within the TWSID boundaries are agriculturally productive and well drained. The three soil types found within TWSID include: Capay Clay, El Soylo Clay Loam, and Stomar Clay Loam. The majority of the TWSID area is within the City of Tracy Sphere of Influence (SOI), with a few areas of overlap with the City of Tracy and San Joaquin County. Land adjacent to the TWSID boundaries near the City of Tracy is characterized by high-density urban development or planned urban development. Areas within the unincorporated San Joaquin County are mainly agricultural (San Joaquin County, 2016). Table 4-5 below shows a breakdown in acres per county for the Byron-Bethany and The West Side Irrigation Districts.

Table 4-5: Relationship of the Consolidated District to County Boundaries	
County	Acres within BBID/TWSID
San Joaquin	21,029
Contra Costa	10,343
Alameda	3,925
<i>Data Source: GIS data from CH2MHill, Ed Douglas, personal communication dated 1Feb2017</i>	

San Joaquin County contains the highest percentage of acreage within the combined BBID and TWSID (the District) at 59.6 percent, when compared to the other two counties. Approximately 29.3 percent of the District land is located within Contra Costa County, and the smallest percentage is in Alameda County at 11.1 percent. BBID is considered part of the East Contra Costa County Integration Regional Water Management Plan (ECCIRWMP), which has developed a comprehensive planning process and enhanced communications between jurisdictions within the plan area. Figure 3.2 (previous chapter) shows the combined BBID and TWSID Irrigation Districts land area by County.

General Plan, Zoning, and Policies

Because BBID is located within the unincorporated area of three separate counties and the City of Tracy, it is under the land use authority for each county and city it occupies. TWSID is located only within San Joaquin County. A summary of applicable general plan, zoning, and policies for each county as it relates to each irrigation district are provided in the following paragraphs.

San Joaquin County:

San Joaquin County is the principal county for and has the greatest portion of assessed property in the BBID (LAFCo, 2016). TWSID is located entirely within San Joaquin County. The San Joaquin County General Plan Update Policy Document was adopted in December 2016. A Housing Element for the County was adopted in January of 2010. The San Joaquin General Plan Update identifies new goals for land use, including the following: “direct most urban development towards cities and urban and rural communities within the unincorporated county to promote economic development, while preserving agricultural lands and protecting open space resources” (Goal LU-1) (SJ County, 2016). In order to achieve this goal, the County proposes to maintain clear boundaries among cities and unincorporated communities, encourage infill development, and provide land for urban development to accommodate projected population and employment growth.

Development densities for the County are identified within its Zoning regulations. A large percentage of the properties located within BBID for San Joaquin County are identified as agricultural lands of local importance or prime agricultural land. Of those areas within BBID zoned for development, the majority is located in the master planned community of Mountain House and the outskirts of the City of Tracy. Those areas within TWSID boundary zoned for development are located within the City of Tracy city limits. Zones in these areas include Planned Urban Development as well as Industrial and some Low Density Residential. Within the County of San Joaquin, the areas within the District boundary are zoned General Agriculture, Agriculture-Urban Reserve, Limited Industrial, and Warehouse Industrial. There are small pockets of residential and commercial zones as well near the City of Tracy.

Contra Costa County:

The Contra Costa General Plan was adopted in January of 2005. The Contra Costa County General Plan lists goals relating to land use, including “[t]o permit urban development only in locations of the County within identified outer boundaries of urban development where public service delivery systems that meet applicable performance standards are provided or committed.” Land within Contra Costa County that is serviced by the Byron-Bethany Irrigation District is generally agriculturally zone with a small concentration of residential and commercial development around the town of Byron. Roughly 1,460 people live in the census block group area of Contra Costa County that contains the BBID.

Alameda County:

The Alameda General Plan was adopted in segments with the most recent being the Safety Element in 2014 and the most historic being the Recreation Plan in 1956. The area that contains the BBID is located within the County’s East County Area Plan, which was adopted in 1994. The

Area Plan specifies many goals for the region including a goal to “protect regionally significant open space and agricultural land from development.” Land serviced by the BBID within the County is zoned as large parcel agriculture with a wind resource area overlay. Adjacent land to the southwest maintains the same zone and resource overlay.



Mountain House

Mountain House² is a master planned community located in unincorporated San Joaquin County, approximately five miles northwest of the City of Tracy. The Mountain House Community Services District (MHCSD) is the local government agency that provides public services including fire protection, wastewater collection, treatment and disposal, library, recreation, and water service to this community. The MHCSD purchases raw water from BBID and treats and distributes the water to its customers. The community of Mountain House is located within the boundaries of BBID’s Division 4. Private developers began construction of the Mountain House community in 2001, but construction slowed during the recession of 2008. Currently, Mountain House has a population of approximately 15,000 residing in 3,500 homes. San Joaquin LAFCo approved a MSR for MHCSD in January 2017 (SJ LAFCo, 2017). A timeline summarizing the history of San Joaquin County and San Joaquin LAFCo actions regarding Mountain House and the relevance to water service is provided in Table 4-6, below.

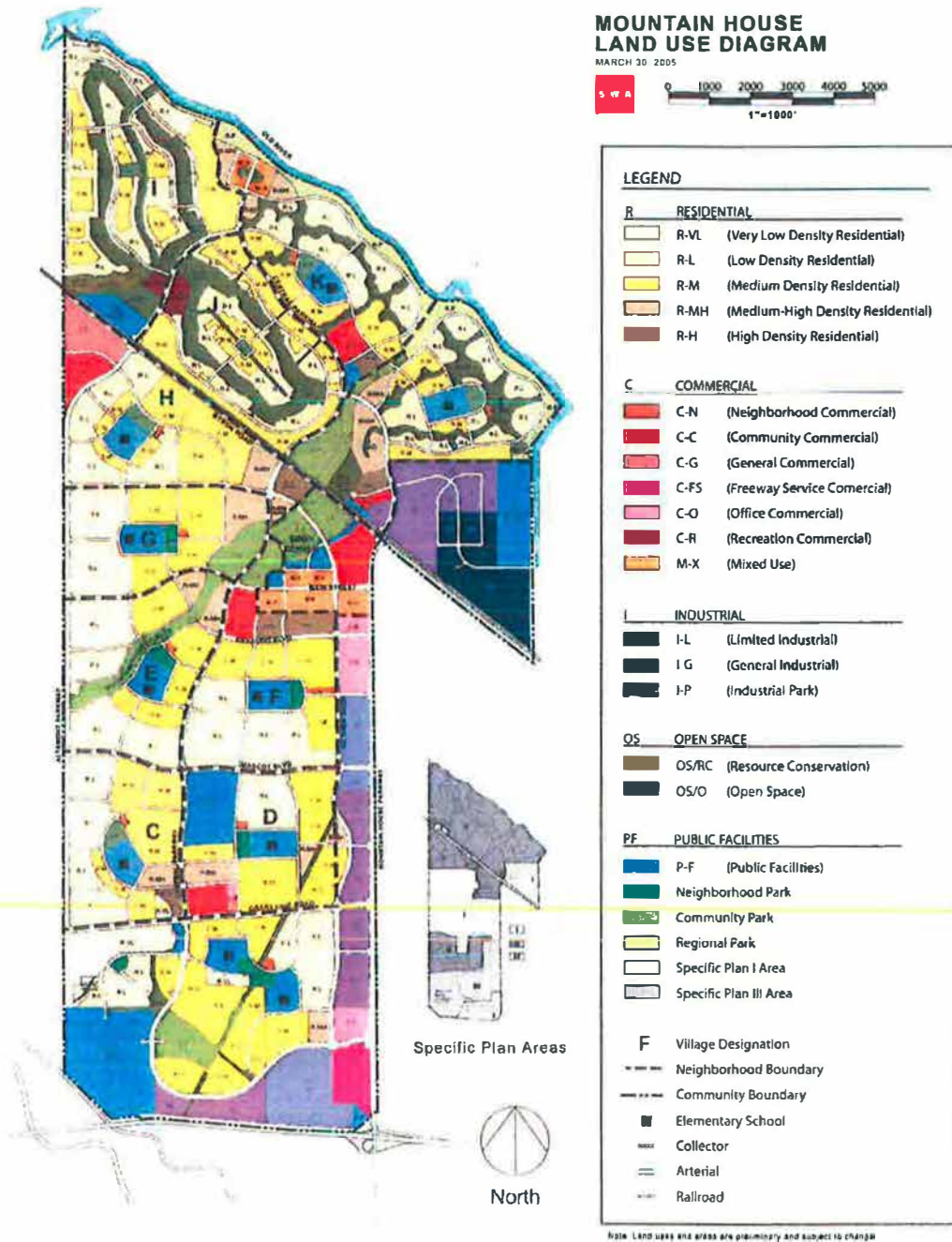
Table 4-6: Timeline Summary of County and LAFCo Actions Regarding the Mountain House Community	
Time Period	Status
Pre-1994	Most of the area (now called “Mountain House”) was part of BBID’s boundaries, with one exception. Lands located north of Byron Rd. along Old River are not within BBID’s boundaries.
1994	<ul style="list-style-type: none"> San Joaquin County Board of Supervisors adopted the Mountain House Master Plan with Amendments (November 10, 1994). The Master Plan has numerous goals, objectives, policies, and actions to ensure that adequate services are provided in a cost-effective manner to accommodate new growth.

² The term “Mountain House” should be distinguished from the historic settlement named “Mountain House” located in unincorporated Alameda County along Mountain House Creek. Alameda County’s historic settlement of “Mountain House” is located two miles south to southwest of the region covered by the Mountain House Community Services District (i.e. San Joaquin County’s master planned community). For details see: https://en.wikipedia.org/wiki/Mountain_House,_Alameda_County,_California

	<ul style="list-style-type: none"> Water supply reliability for the Mountain House community was addressed in the Environmental Impact Report certified by the San Joaquin County Board of Supervisors The 1994 adopted Master Plan for Mountain House recommended a Sphere of Influence boundary to coincide with the ultimate MHCSO community "build-out" boundaries.
Feb 23, 1996	During a Commission meeting, San Joaquin LAFCo approved the Mountain House Reorganization (LAFC 21-95) including formation of the Mountain House Community Services District and detachment from the Tracy Rural Fire District and adopted a sphere of influence for the Community Services District. At that time, it was anticipated that as the Mountain House development expanded, future annexations into BBID would be conducted for provision of raw water supply, as needed.
1994-2008	The initial stage to provide public services to the Mountain House community was to create a "dependent district," with the San Joaquin County Board of Supervisors serving as the District Board of Directors. The state legislation creating the district specified that an election would be held to determine if the residents wanted to change the district to an "independent district."
November 2008	An election was held in November 2008, and the residents voted to convert to an "independent district" governmental structure also known as the "Mountain House Community Service District (MHCSO). The election for the Mountain House Board of Directors was also held in November 2008 and the new Board took office in December 2008.
2017	San Joaquin LAFCo approved the MSR for the MHCSO and this MSR describes how BBID provides raw untreated water to MHCSO.
<i>Data Sources: 1) Personal conversation with Bruce Baracco, Consultant, 2) LAFCo's 2017 MSR on the Mountain House Community Service District, and 3) SJ LAFCo, February 23, 1996. Executive Officer's Report for Commission Meeting Regarding Proposed Mountain House Reorganization (LAFC 21-95) Including Formation of The Mountain House Community Services District and Detachment From the Tracy Rural Fire District and Adopt A Sphere of Influence For The Community Services District. 7 pages. Available in LAFCo files.</i>	

Land-use in this community is regulated by San Joaquin County and is reviewed and approved by the County Planning Commission and Board of Supervisors. Land uses within Mountain House are described by the community's Master Plan (2007) and Specific Plans (1994, 2005, 2012) as a mixture of Very Low Density Residential, Low Density Residential, Medium Density Residential, Medium-High Density Residential, High Density Residential, Neighborhood Commercial, Community Commercial, General Commercial, Freeway Service Commercial, Mixed Use, Office Commercial, Recreation Commercial, Limited Industrial, General Industrial, Industrial Park, Open Space/Resource Conservation, Open Space/Other, Public Facilities, Neighborhood Park, Community Park, and Regional Park as shown in Figure 4-3 (next page).

Figure 4-3: Mountain House Land Use



City of Tracy

The City of Tracy is almost a full service (excepting fire for a portion of the city) incorporated municipality located 67 miles southwest of Sacramento and 23 miles east of Livermore. The City extends a bit north of Interstate 205, to South Chrisman Road and Banta Road to the east, and Interstate 580 to the southwest. This triangular configuration of the freeways gives rise to the City's motto of "Think Inside the Triangle." Scattered portions of the City lie within the BBID/TWSID boundary. The City purchases water from several sources including BBID and TWSID. As the City has grown over the years, it has annexed agricultural land that was once within the boundaries of TWSID. The City has a wide range of land uses including residential very low, residential low, residential medium, residential high, commercial, office, downtown, village center, industrial, urban reserve, public facilities, parks, open space, agriculture, and aggregate. As of 2008, approximately two-thirds of the land within the city limits and SOI is agricultural or vacant land. Additionally, over 15 percent of the land within the City limits and SOI is comprised of single-family homes (San Joaquin LAFCo, December 2011). Land use within the City is described and regulated by the City of Tracy General Plan (2011) and Zoning Ordinance and both documents are available on the Planning Department website at: <http://www.ci.tracy.ca.us>. The City's General Plan contains goals, objectives, policies and actions categorized into ten Elements (chapters). The current General Plan was last amended and updated in 2011. The Housing Element, published separately, covers the timeframe 2009 to 2014 and is scheduled for an update. The Zoning Ordinance is Title 10 of the Tracy Municipal Code. This document guides current development of the City through standards and regulations relating to allowable land uses, conditionally allowable land uses, height, setbacks, parking, signage, etc. The Zoning Code also contains the permit and process requirements for current development.



Of particular note is the Tracy Hills development project which is currently being constructed consistent with the Tracy Hills Specific Plan. Based on the City's Growth Management Ordinance, the community is eligible for up to 406 units per calendar year, all single-family homes. The developer of Tracy Hills has applied for 406 units for 2017 and another 406 units for 2018. Although infrastructure is not yet in place, the City anticipates that all the infrastructure for this project will be built by 2020. Table 4-7 shows that 1,179 residential units in Tracy Hills Phase 1A have been approved and are under construction. At buildout, this development will include a total of 17,650 homes and some commercial areas.

Regional Transportation Plans & Sustainable Community Strategies

All regions in California must complete a Sustainable Communities Strategy (SCS) as part of a Regional Transportation Plan (RTP), consistent with the requirements of state law, Senate Bill

(SB) 375. Senate Bill 375 requires the California Air Resources Board (CARB) to develop regional greenhouse gas emissions reduction targets to be achieved from the automobile and light truck sectors for 2020 and 2035. Senate Bill 215 (Wiggins) was approved by California legislature in 2009 and chaptered in 2010 as part of Government Code Section 56668, relating to local government. This bill requires LAFCOs to consider regional transportation plans and sustainable community strategies developed pursuant to SB 375 before making boundary decisions. This section provides a summary of the RTPs and associated SCSs for the three counties within the BBID and TWSID service areas.

San Joaquin County

The San Joaquin Council of Governments (SJCOG) developed the SACOG Regional Transportation Plan (RTP) in 2011. The Plan acts as the region's comprehensive long-range transportation planning document, providing a vision for the County to the year 2035. The RTP is designed to meet air quality budgets set from the State Implementation Plan as documented in the County's associated Air Quality Document. As part of the RTP principal to preserve the environment, a reduction in water use in the SJC region is called for through the increased use of agricultural water use efficiencies. These include reducing evapotranspiration, conversion of irrigation systems, efficiencies aimed at increased reuse of recoverable flows, and support for other supplier and on-farm technological improvements to reduce irrecoverable loss of applied water.

Contra Costa County

Senate Bill 375 requires California's 18 metropolitan areas to integrate transportation, land-use, and housing as part of an SCS to reduce greenhouse gas emissions from cars and light-duty trucks. In the San Francisco Bay Area, the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG) work together, along with local governments, to develop a SCS that meets greenhouse gas reduction targets adopted by the California Air Resources Board. The RTP and SCS for the Bay Area is called "Plan Bay Area: Strategy for A Sustainable Region" and was adopted on July 18, 2013 (ABAG et al, 2014).

The Contra Costa Transportation Authority (CCTA) developed the Comprehensive Transportation Plan (CTP) in 1995 with periodic updates leading to the most recent update in 2009. The CTP is currently undergoing another update as of the start of 2017. The Plan is one of the key planning tools called for in the County's approved Measure J Growth Management Program (GMP) requiring the Authority to "Support efforts to develop and maintain an ongoing planning process with the cities and the County through the funding and development of a CTP" (CCTA, 2017). A new goal as part of the CTP update includes managing "growth to sustain Contra Costa's economy, preserve its environment and support its communities."

Alameda County

The Alameda County Transportation Commission (ACTC) approved the Countywide Transportation Plan (CTP) to provide for long-range planning through 2040 for Alameda's multimodal transportation network with the most recent update in 2016. In order to meet air quality standards, the updated plan calls for the use of transit to improve air quality and reduce greenhouse gas emissions.

Future Development Potential

Within the BBID and TWSID areas, future development is planned through the use of the General Plan for each of the three counties. A short summary of future development potential is described below.

San Joaquin County

The San Joaquin General Plan (SJGP) Update designates land located within both BBID and TWSID as mainly general agriculture and rural service (SJGP, 2016). Population for the County is projected to grow at 2.5 percent annually, with growth mostly concentrated in the six planning areas identified as Lodi, Stockton, Lathrop, Manteca, Tracy, and Mountain House. A small portion of the growth is expected to occur within the County's existing unincorporated communities. Much of the unincorporated areas of the County within the BBID and TWSID service areas are slated to remain general agriculture, with some general industrial, and public designations in areas outside of the urban reserve line for the City of Tracy (SJGP, 2016). Some portions of the BBID and TWSID service area are located within the City of Tracy. The Mountain House community is planned for a range of land uses from very low density residential to high-density residential, rural residential, commercial, industrial, and mixed use. The community's growth is influenced by the surrounding agricultural land, suggesting that development outside of the designated planned areas would be difficult, limiting growth for the Mountain House community. This suggests that, though development may continue to occur within the community-planned areas, it is not anticipated for growth to occur outside of the existing boundaries.

Contra Costa County

Contra Costa County's General Plan land use map identifies the areas of Byron and the outskirts of Discovery Bay as areas for urban development (Contra Costa, 2014). The land in Contra Costa County located within the jurisdiction of BBID is planned for agricultural lands and delta recreation with some urban development. The policies of the General Plan to protect those areas identified as agricultural lands suggests that very little development potential is available outside

of areas already planned for development within the Byron and Discovery Bay areas (Contra Costa, 2004). Therefore, little growth is anticipated in this region.

Alameda County

The Alameda East County Area Plan (1994 as amended through 2002) established an urban growth boundary for development within the region. Policies within the Area Plan allow for approval of urban development only if it is located within the urban growth boundary. Lands within the urban growth boundary are located near the cities of Livermore, Pleasanton and Dublin, roughly 15 miles from areas within BBID. This suggests that little to no development is anticipated to occur in this region of the County and any development should not increase water use beyond what has historically been agricultural use.

Mountain House

When built out, the Mountain House community will cover 4,784 acres and include ten family neighborhoods and two age-restricted (senior) neighborhoods along with a K-8 school, a small commercial area, and neighborhood parks. **Approximately 800 acres (17 percent) master planned area will be dedicated to retail, office and industrial space.** When completed, the community's population is projected to reach approximately 40,000 people residing in a total of 15,500 households. Additionally, the community developers have anticipated more than 20,000 jobs within the community. Details about projected future build out of this community are provided in San Joaquin LAFCo's Municipal Service Review for the Mountain House Community Services District (Jan. 2017).

City of Tracy

In 2011, an MSR was completed for the City of Tracy, which proposed an updated to the City's sphere of influence (SOI). This update included projections to receive roughly up to 7,500-acre feet of water from TWSID by 2025 and up to 9,000-acre feet of water from BBID by 2025 (San Joaquin LAFCo, 2011). The MSR also projected development out to the 30-year horizon, estimating build out of existing agricultural land within the proposed increased SOI. This suggests Tracy may experience increased population growth and development for the next 30 years. Several future growth areas have been identified by the City of Tracy as shown in Figure 4-4, below and as provided in the City's General Plan. Due to the City's Growth Management Ordinance³, the urban growth rate is carefully planned but is nevertheless increasing. Therefore, these future growth areas may experience an increase in future demand for municipal services including storm water drainage, and water supplies. BBID and/or TWSID may be asked to provide these services. TWSID does not expect residential or commercial development in the

³ Tracy's Growth Management Ordinance can be found on the City's website at: <http://www.ci.tracy.ca.us/?navid=606>

City to have any effect on operations or management (TWSID, 2009). A list of residential development for the City of Tracy as of June 2017 can be seen in Table 4-7 (next page).

The City of Tracy Stormdrain Master Plan, 2012, highlights future project areas in Figure 4-4 (next page). These project areas can be cross-referenced with projects listed in Table 4-7 above for the locations of certain projects. Not all projects will be provided with BBID/TWSID water as the City of Tracy receives surface water supplies from the Delta-Mendota Canal, the Stanislaus River via the South County Water Supply Project, groundwater pumped from nine groundwater wells located within the City and other sources as listed in their 2015 Urban Water Management Plan.

One large project of note is the Tracy Hills Specific Plan, which anticipates a total build out of 17,650 single-family homes by 2025. Table 4-7 (next page) shows that 1,179 residential units in Tracy Hills Phase 1A have been approved and are under construction. A Water Supply Assessment was completed for the Tracy Hills Specific Plan in December of 2014. This assessment concluded that the total projected water supplies will meet the projected water demand associated with the Tracy Hills Specific Plan in addition to existing and planned future uses, including agricultural and manufacturing use. The water supplies for the Specific Plan are listed as:

- BBID Pre-1914 Supplies: 2,430 AF per year
- BBID CVP Supplies: 630 AF per year (approximately 1,315 AF per year available in conjunction with annexation of 387 acres of agricultural land within the Specific Plan area)
- Additional Semitropic Water Storage District⁴ storage to offset reduced deliveries of BBID CVP supplies in dry years: 1,500 AF of storage capacity to provide for 500 AF per year of dry year supplies
- Groundwater: 670 AF per year
- Recycled Water: 1,970 AF per year

As suggested in the Water Supply Assessment, the Tracy Hills Specific Plan development will rely heavily on BBID water while also taking advantage of recycled water infrastructure. This assessment concluded that the total projected water supplies will meet the projected demand.

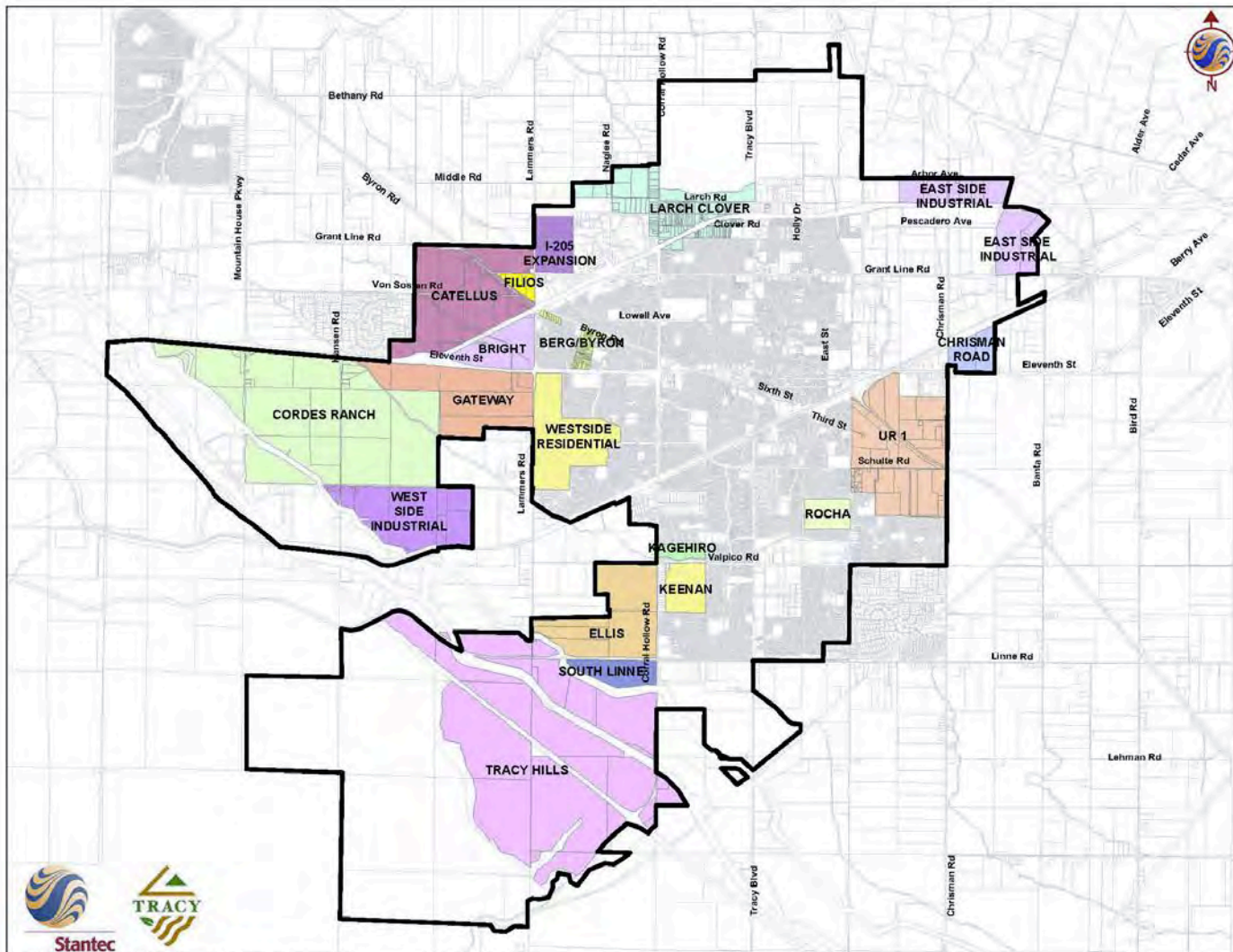
⁴ The Semitropic Water Storage District is located in Kern County as described on its website at: <http://www.semitropic.com/>.

Table 4-7. City of Tracy Residential Development Report – October 2018

CITY OF TRACY RESIDENTIAL DEVELOPMENT PIPELINE REPORT						
Status as of October 2018						
APPROVED AND UNDER CONSTRUCTION						
Name	Application #	Zoning	Acres	# of Units	Location	Developer/Builder
Ventana/Tiburon	TSM13-0002	PUD	18.6	105	West side of MacArthur, south of Debord Dr.	TriPoint Homes
Southgate	3-99-TSM	PUD	18	71	SEC Schulte & Mabel Josephine	Bright Development
Primrose/Kagehiro Phase III	TSM12-0001	LDR	47	252	SEC Corral Hollow Rd. and Kagehiro Dr.	Corral Hollow Development, LLC
Brookview	3-04-TSM	PUD	10.01	80	Brookview / Perennial	Brookview Properties, LLC
Aspire II Apartments	D15-0003	I-205 SP/HDR	2.3	47	Auto Plaza Dr.	Tracy 300, LP
Barcelona Infill	TSM14-0002 PUD14-0002	PUD	10.15	51	NWC Barcelona Dr. & Tennis Lane	TVC Tracy Holdco LLC
Ellis Phase 1	TSM11-0002	ESP	150	289	Ellis Town Dr.	Lennar Homes
Tracy Harvest	D15-0007	PUD	20	304	Henley Pkwy., south of Grant Line Rd	Lewis Homes
Tracy Hills Phase 1A	TSM13-0005	THSP	402	1179	I-205 and Corral Hollow Rd.	Tracy Hills Project Owner, LLC
Gateway Crossing Phase 2	D14-0011	I-205 SP/GC	10	210	Grant Line Rd. west of Lammers Rd.	
Total			688.06	2,598		
APPROVED AND NOT YET UNDER CONSTRUCTION						
Name	Application #	Zoning	Acres	# of Units	Location	Developer/Builder
Elissagaray Infill	TSM12-0002 PUD12-0003	PUD	10	47	Dominique Dr. between Eastlake Circle & Basque Dr.	Ponderosa Homes III
Valpico Apartments	D15-0024	HDR	11.27	252	North side of Valpico Rd. at Glenbriar Dr.	Republic Tracy
Rocking Horse	GPA13-0006	PUD	55	226	Lammers Rd. north of Schulte Rd.	Bates Stringer Development
Berg Road Project	R14-0002 TSM14-0003	MDC	10	71	2774, 2850, 12920 W. Byron Rd.	Mana Investments
Grant Line Apartments	D16-0012 CUP15-0005	GHC	1.9	40	321 E. Grant Line Rd.	Tong Investments
Tracy Village	A/P13-0002	-	130	581	SEC Valpico Rd. & Corral Hollow Rd.	Ponderosa Homes
Ellis Phase 2	TSM16-0003	ESP	105	356	Ellis Town Dr.	The Surland Companies
Trigo Duplexes and Triplexes	D13-0002	MDC	2.01	18	258 - 274 W. Clover Rd.	Larry LaComba
Brookview West	D18-0007 TSM18-0001	LDR	5.6	22	4005 S. Tracy Blvd.	Brookview Properties LLC
Total			330.78	1,613		
UNDER CITY REVIEW (NOT YET APPROVED)						
Name	Application #	Zoning	Acres	# of Units	Location	Developer/Builder
Avenues	TSM16-0004	ASP	95.8	453	South of Valpico, west of Corral Hollow	Greystone Land Investment Partners
East 8th Street Apartments	ZA17-0003 D16-0036 CUP16-0011	CBD	0.23	5	21, 25, & 29 E. 8th Street	F. Adm Architect
Valpico Residential	D18-0019 PUD18-0002 TSM 18-0003	HDR	11.27	90	501 E. Valpico Road	Eric Taylor and Peter MacDonald
Rod-Singh Apartments	D18-0028 CUP18-0004	GHC	73.48	24	508 & 522 W. Grant Line Road	
Southgate High Density	D18-0029 TSM18-0004	PUD	3.43	42	2483 W. Schulte Road	Bright Homes
Total			184.21	614		

W:\Planning\Lists\Residential Pipeline Reports\2018\Residential Pipeline Report - October 2018

Updated 10/2/18



Legend


 Sphere of Influence

Figure 4-4: City of Tracy Growth Areas

Client/Project
CITY OF TRACY
CITYWIDE STORM DRAINAGE
MASTER PLAN

Title
**MAJOR FUTURE
SERVICE AREAS MAP**
NOVEMBER 2012
18.40.10207
SCALE 1" = 5000'

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4.3 DISADVANTAGED UNINCORPORATED COMMUNITIES

LAFCo is required to consider the provision of public services to disadvantaged unincorporated communities (DUCs), including the location and characteristics of any such communities. Senate Bill (SB) 244 (Wolk), which became effective in January 2012, requires LAFCo to consider the presence of any DUCs when preparing a MSR that addresses agencies that provide potable water, wastewater, or structural fire protection services. The Wolk Bill created several definitions related to DUCs, in both LAFCo and planning law, including⁵:

1. “Community” is an inhabited area within a city or county that is comprised of no less than 10 dwellings adjacent to or in close proximity to one another;
2. “Unincorporated fringe community” is any inhabited and unincorporated territory that is within a city’s SOI;
3. “Unincorporated island community” is any inhabited and unincorporated territory that is surrounded or substantially surrounded by one or more cities or by one or more cities and a county boundary or the Pacific Ocean;
4. “Unincorporated legacy community” as a geographically isolated community that is inhabited and has existed for at least 50 years; and
5. “Disadvantaged unincorporated community” is inhabited territory of 12 or more registered voters that constitutes all or a portion of a community with an annual median household income (MHI) that is less than 80 percent of the statewide annual MHI.

This state legislation is intended to ensure that the needs of these unincorporated communities are met when considering service extensions and/or annexations, in particular, potable water, wastewater, and structural fire protection services. Additionally, San Joaquin LAFCo’s policies requires written determinations with respect to the location and characteristics of any DUCs within or contiguous to the Sphere of Influence. In 2014, the statewide annual median household income (MHI) was \$61,933. This yields a DUC threshold MHI of less than \$49,546 (80 percent of the statewide MHI). Relevant data were reviewed for the BBID/TWSID service area. To understand the geographic distribution of disadvantaged communities within BBID/TWSID’s boundaries, five sources of data were considered:

- LAFCo data;
- California Department of Water Resources, on-line mapping tool;
- U.S. Census;
- San Joaquin County Housing Assessment and other County data; and
- ABAG and MTC Equity Analysis.

⁵ State of California, Senate Bill 244 (Wolk Bill) (October 7, 2011).

There are several DUCs within the vicinity of BBID and TWSID as shown in Figure 4-5 (next page).

Disadvantaged Areas within Cities

LAFCo is required to consider the provision of public services to disadvantaged unincorporated communities (DUCs). However, incorporated areas (within the city limits) can sometimes meet the disadvantaged income threshold. LAFCo is not required to study the status of disadvantaged neighborhoods that are located within incorporated cities that provide potable water, wastewater, and structural fire protection services. However, SB 244 required cities to update their land use and housing elements to include an analysis of the potable water, wastewater, and structural fire protection services in these areas along with financing options to help encourage investment in disadvantaged areas should it be needed. As shown in Figure 4-5, the City of Tracy does contain several disadvantaged communities. However, these areas are outside the boundaries of BBID and TWSID. Additionally, these areas receive fire, potable water, and sewer services from the City of Tracy (Email communication with Victoria Lombardo, City of Tracy, 20October2017).

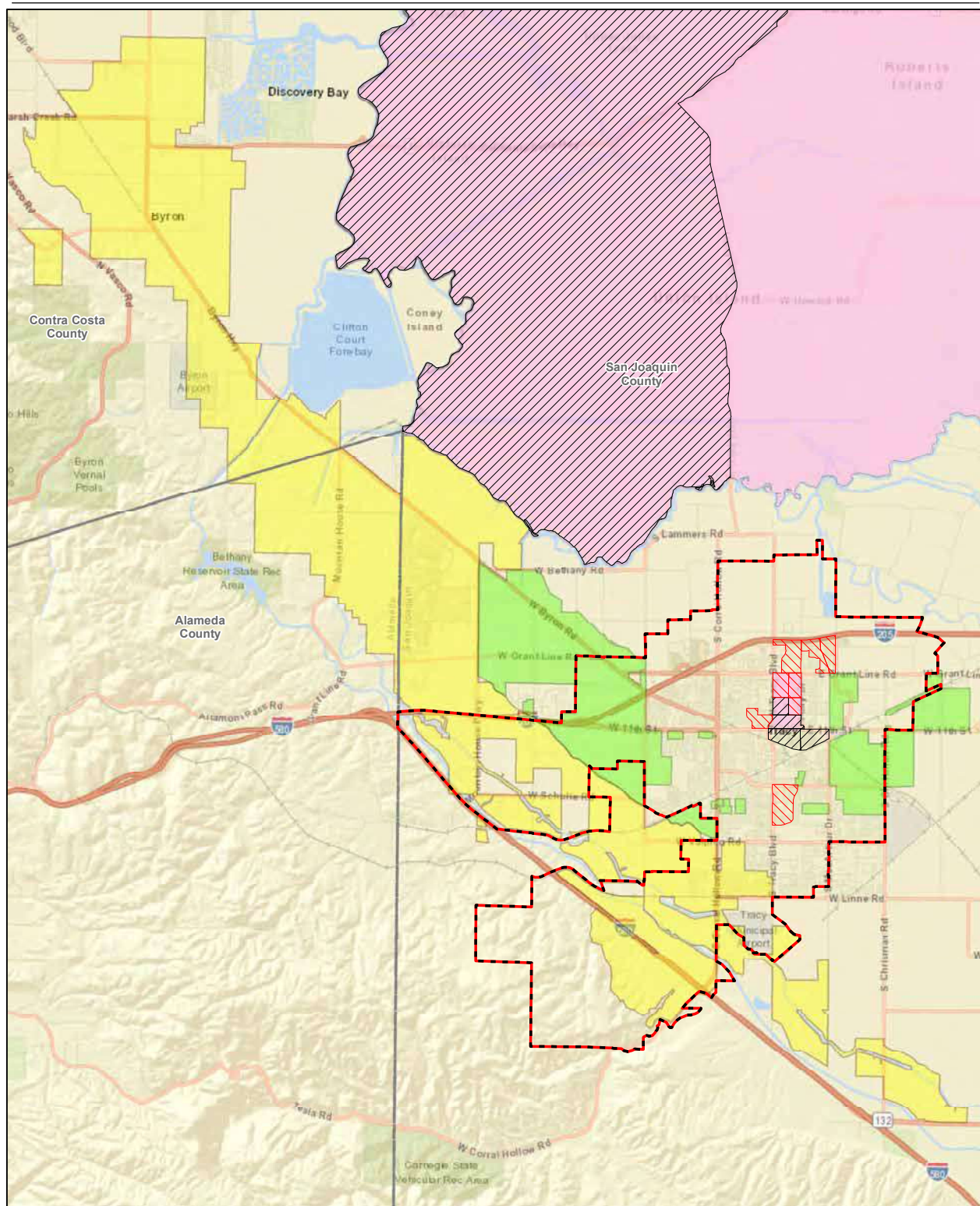
County and LAFCo Data

The Alameda County Community Development Agency conducted a review of DUCs based on requirements outlined in Senate Bill (SB) 244 and found no DUCs within the County (Alameda County, 2016; Correspondence with Alameda County LAFCo, 2017).

Contra Costa LAFCo's August 10, 2016 MSR entitled "2nd Round EMS/Fire Services Municipal Service Review/Sphere of Influence Updates" identified one DUC⁶ east of Brentwood (Block Group ID Number: 060133031031), with the MHI at \$42,058 (CC LAFCo, 2016). This area is sparsely populated with no overlap with BBID's boundary.

The authors of this MSR reviewed San Joaquin LAFCo's policy on DUCs and relevant data. No DUCs have been identified within BBID and TWSID, their SOI, or adjacent areas in the San Joaquin County portion of the District. There are, however, DUCs found within the greater San Joaquin County, including a large area to the northeast of BBID, according to data provided by the California Department of Water Resources Disadvantaged Communities Mapping Tool (CDWR Disadvantaged Communities Mapping Tool, 2016). The large DUC adjacent to BBID is located within Census Tract 39 and has a population of 1,648 persons. Other disadvantaged areas are located within the City of Tracy, in Census Tract 53.03.

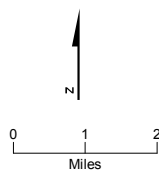
⁶ A map of DUC's in Contra Costa is available in the EMS/Fire Service MSR on LAFCo's website at: <http://contracostalafco.org/agencies/municipal-service-reviews/>



LEGEND

- | | |
|--|--|
| Byron Bethany Irrigation District | Disadvantaged Community Block Groups |
| Westside Irrigation District | Median Household Income |
| Spheres of Influence | Severely Disadvantaged Community |
| Tracy | Disadvantaged Community |
| | Disadvantaged Community Tracts |
| | Median Household Income |
| | Disadvantaged Community |

Proposed consolidated District consists of BBID (shown in yellow) and WSID (shown in green)



Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, IPC, TomTom
Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

Figure 4-5: Disadvantaged Areas

Byron Bethany Irrigation District, California

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CHAPTER 5: SERVICES AND INFRASTRUCTURE

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5.1: DISTRICT SERVICES

Service Overview

This Chapter describes the Byron Bethany Irrigation District and The West Side Irrigation District public services and infrastructure. Both BBID and TWSID provide the delivery and sale of raw untreated water for agricultural irrigation and municipal purposes. Additionally, the TWSID provides agricultural drainage and storm and municipal drainage. The TWSID consists of approximately 6,589 acres located in the unincorporated territory to the east and west of the City of Tracy-and a small portion within the City. The Byron-Bethany Irrigation District consists of

29,477 acres extending from the Old River north of Mountain House and southerly to Highway 132. BBID includes portions of three counties, San Joaquin, Alameda, and Contra Costa.

BBID and TWSID are each responsible for providing reliable and affordable water services to their agricultural, residential, and business customers within their respective boundaries. As part of this responsibility, BBID and TWSID aim to maximize the beneficial use of water. Each District recognizes its obligation to protect customers and ratepayers from any threats to water supply reliability and affordability. Additionally, the Districts have a responsibility to comply with state and federal regulations including environmental protections and compliance with drought risk reduction strategies. Balancing these responsibilities is a key challenge that BBID and TWSID face as they move into the future. The Byron Bethany Irrigation District and The West Side Irrigation District proposes to consolidate into a single water district to serve their agricultural and municipal water customers more efficiently. In the meantime, BBID and TWSID have an agreement to allow BBID staff to provide maintenance and operational services to TWSID beginning December 1, 2016 (BBID, CAFR, 2017). This Chapter (5) describes how BBID and TWSID each function in their current configuration to provide public services and it also describing contextual information about how they will likely function upon consolidation. Preparation of this municipal service review is one of the last steps in the process towards approval of this consolidation.

BBID staff also provides management and administrative services to the Byron Sanitary District (BSD) which is a separate district¹ with its own Board of Directors. In May 2006, Contra Costa LAFCO approved a Municipal Service Review and Sphere of Influence Update for the Byron Sanitary District.

Service Areas

The shape of BBID's and TWSID's service areas are largely due to the linear shape of the irrigation canals, ditches, and other infrastructure. The extent of the service area is driven by the historic and legal features of the associated area, with the water supply to each service area. The BBID (current configuration) service area covers parts of Alameda, Contra Costa, and San Joaquin Counties across 46 square miles (29,477 acres) of farmland, including perennial orchards of almonds and cherries and annual crops of tomatoes and alfalfa. BBID (current configuration) has five service areas as listed in Table 5-1, below.

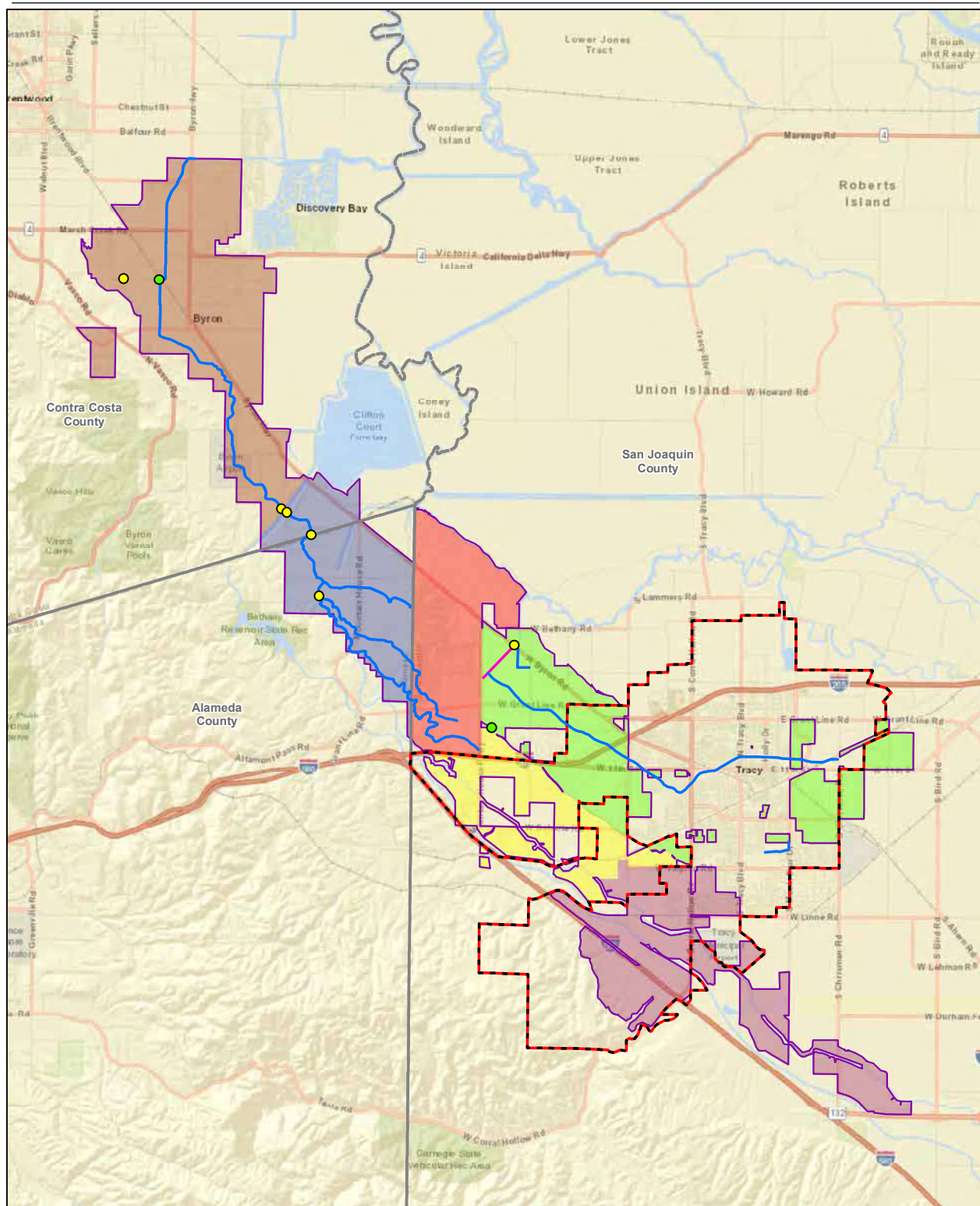
¹ Byron Sanitary District Municipal Service Review is available at:
http://www.contracostalafco.org/municipal_service_reviews.htm

Table 5-1: BBID Service Areas		
Name of Service Areas	Land Acreage	Water Entitlement
Byron Ag Service Division	11,384 acres	pre-1914 appropriative right
Bethany Ag Service Division	5,000 acres	pre-1914 appropriative right
Central Valley Project (CVP) Service Area	6,300 acres	CVP (federal) water via services contract
Raw Water Service Area 1 (Mountain House)	4,784 acres	pre-1914 appropriative right
Raw Water Service Area 2 (Tracy Hills)	2,009 acres	pre-1914 appropriative right (planned)
(Total)	(29,477 acres)	
<i>Data Source: BBID, 2017</i>		

As shown in Figure 5-1 (next page) the Byron Division is located in Contra Costa County and the Bethany Division is located predominantly in Alameda County. It should be noted that CVP Service Area encompasses the area of the former Plain View Water District. The San Joaquin LAFCo approved the consolidation of the Plain View Water District and the Byron Bethany Irrigation District on August 12, 2004, by dissolving the Plain View Water District (PVWD) and reorganizing the territory to the Byron Bethany Irrigation District. As a result, BBID was assigned PVWD's CVP water service contract from U.S. Bureau of Reclamation which is conveyed through the Delta-Mendota Canal. The remaining four service areas are/will be supplied with water through the District's pre-1914 appropriative right.

The West Side Irrigation District² currently consists of one service area, approximately 6,589 acres in size and utilizing water from two sources of water: 1) a post-1914 water license and a water service contract with the U.S. Bureau of Reclamation for 2,500 acre-feet. As shown in Figure 5-1 (previous page), the consolidated BBID/TWSID will have a total of six water service areas. The six service areas are anticipated to remain distinct under the consolidated BBID/TWSID for the next several years.

² TWSID boundaries have been reduced over time as land is annexed into the City of Tracy for municipal development. On June 4, 1992 LAFCo approved the detached of lands from the TWSID (Cal EPA, 2010)



LEGEND

- Consolidated Boundary
- Intertie
- Pump Station
- Canal
- Pipe Line
- Bethany Ag Service Area
- Byron Ag Service Area
- CVP Service Area
- Raw Water Service Area 1
- Raw Water Service Area 2
- West Side Service Area

Spheres of Influence

- Tracy

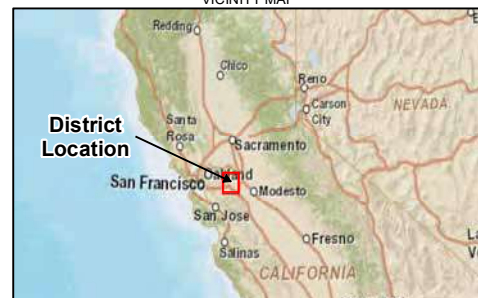
Figure 5-1: BBID/TWSID Consolidated Service Areas & Infrastructure

0 1 2
Miles



Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, IPC, TomTom
Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

VICINITY MAP



Byron Bethany Irrigation District, California

ch2m.

Water Supply

A stable water supply is critical to the mission of both the Byron-Bethany Irrigation District and The West Side Irrigation District. This section describes the water supply for both Districts.

Byron Bethany Irrigation District (current configuration) Water Supply

BBID has two primary sources of water as listed below:

- Pre-1914 appropriative water rights, and
- Federal Central Valley Project Surface Area (CVPSA): The U.S. Bureau of Reclamation has approved a long-term water service contract with BBID allowing water from the CVPSA to be delivered to a specified service area.

BBID's pre-1914 appropriative water rights are derived from its predecessor, the Byron Bethany Company, which utilized water from the Italian Slough, a natural tributary to the Old River³ located within the San Joaquin River watershed⁴. Italian Slough is located primarily in Contra Costa County. The Byron Bethany Company's and subsequently BBID's water right to the Italian Slough is a pre-1914 appropriative water right. In 1960, California began construction of the State Water Project which eventually grew to include 21 dams, and 700 miles of canals, pipelines and tunnels. The Clifton Court Forebay, intake channel to the Harvey O. Banks Pumping Plant, and Bethany Reservoir were each part of this state construction. The intake channel to the Harvey O. Banks Pumping Plant was developed in 1964 on top of BBID's historic intake on the Italian Slough, and it essentially bifurcated BBID's delivery canal. To partially mitigate this impact to BBID, DWR and BBID executed a right-of-way agreement on May 4, 1964, to allow the construction of new BBID points of diversion within the DWR right-of-way. Because of this geographic location and historical context, BBID's history with the State Water Project is unique. BBID is not a state water contractor. However, BBID does coordinate with CA-DWR regarding access to BBID's intake channel within state facilities. This pre-1914 appropriative right is sometimes referred to as a senior water entitlement.

³ Discharges are made into the Old River by the City of Tracy (treated wastewater discharges) and TWSID (agricultural return flows).

⁴ Kellogg Creek, Brushy Creek, and Mountain House Creek are natural watercourses located within the San Joaquin River Watershed and within BBID's boundaries.

BBID's second source of water is its long-term water service contract with the U.S Bureau of Reclamation (USBOR), the federal agency that administers the Central Valley Project (CVP). The federal Central Valley Project obtains water originating as snow in northern watersheds of the Klamath Mountains and the northern Coast Range and transmits the water south for export to local irrigation districts serving farms in the Central Valley. As water from the Federal Central Valley Project travels south, it interacts with the Sacramento-San Joaquin Delta, which is part of the largest estuary on the west coast with numerous sensitive and endangered species including chinook salmon and Delta smelt (DSC, 2013). A smaller portion of the water from the federal Central Valley Project is exported for municipal uses and to the Southern California area (DSC, 2013). The main features of the Central Valley Project include 20 reservoirs, the largest of which is Shasta Lake. Other CVP facilities located in the Delta include the Delta Cross Channel, Contra Costa Canal, Jones Pumping Plant, and the Delta Mendota Canal, constructed and operated by Reclamation. The CVP system provides full and supplemental water, as well as temporary water service, for a total of about 380,000 acres of farmland.

Source: https://en.wikipedia.org/wiki/S_1

Locally, when the former Plain View Water District (PVWD) was consolidated, dissolved, and reorganized with BBID in 2004, BBID retained the pre-1914 rights to



this water. Additionally, in 2012, the USBOR approved a long-term (up to 40-year) exchange contract and a long-term (up to 40-year) license with BBID providing 4,725 AFA specifically for the Tracy Hills project (USBOR, 2012a). BBID receives its water from the Central Valley Project from various turnouts on the Delta Mendota Canal (USBOR, 2012a). BBID delivers this water to agricultural and domestic customers within its CVP service area.

In addition to the primary water sources listed above, during times of drought or other water limited situations, BBID has occasionally been able to purchase raw water from neighboring water districts on a temporary basis. For example, in 2014, BBID and the Contra Costa Water District (CCWD) entered into a one-time water transfer agreement. This 2014 agreement allowed BBID and CCWD to pursue regional integrated water management goals and to improve water supply reliability. Due to extraordinarily dry hydrologic conditions and curtailment of its pre-1914 water rights BBID, had a temporary shortfall in its water supplies. The transfer of water from CCWD via the Los Vaqueros Reservoir helped BBID ensure an uninterrupted supply of water to

Table 5-2: Summary of Water Supply Available to BBID				
Water Source	Average Quantity of Water Average in Acre Feet, Annually (AFA) during 2013 - 2015	Full Allocation Allowed in Very Wet Water Years in Acre Feet, Annually (AFA)	Contract or License	Contract Restrictions
Central Valley Project (federal) surface water via services contract*	3,601	20,600	contract	Subject to allocation from BOR
Pre-1914 appropriative right	26,060	50,000	n/a	n/a
Misc. occasional use of local groundwater conveyed by BBID	1,073	None	None	None
Misc. occasional water purchases from neighboring districts during drought**	1,393	None	None	None
**For example, in 2015 BBID made a one-time purchase from Contra Costa Water District via the Los Vaqueros Reservoir in response to curtailment				
Data Source: *Table 5-13 in BBID, 2017 **Table 4-1 in BBID, 2017 and*** personal conversation, R. Gilmore 1/18/18.				

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the Mariposa Energy Center, which operates a 200-megawatt natural-gas-fired power plant located in unincorporated Alameda County. The power plant depends on delivery of water under BBID's pre-1914 water rights for its daily operations (Cal EPA, 2015).

The West Side Irrigation District (current configuration) Water Supply

TWSID has three sources of water including: federal agricultural water, local surface water, and upslope drain water as listed in Table 5-3, (next page). TWSID received its first water service contract with the Bureau of Reclamation for water from the federal Central Valley Project on June 29, 1977 (TWSID, 2009). TWSID's water supply from the Central Valley Project is subject to the conditions in its long-term Contract # 7-07-20-W0045 LT-1 with the U.S. Bureau of Reclamation. TWSID's water supply from local surface water is obtained from the Old River (a tributary to the San Joaquin River) and is permitted by a post-1914 water license from the CA Water Resources Control Board.

Figure 5-2 Tracy Subbasin by USGS

Source: <https://en.wikipedia.org/wiki/S2>

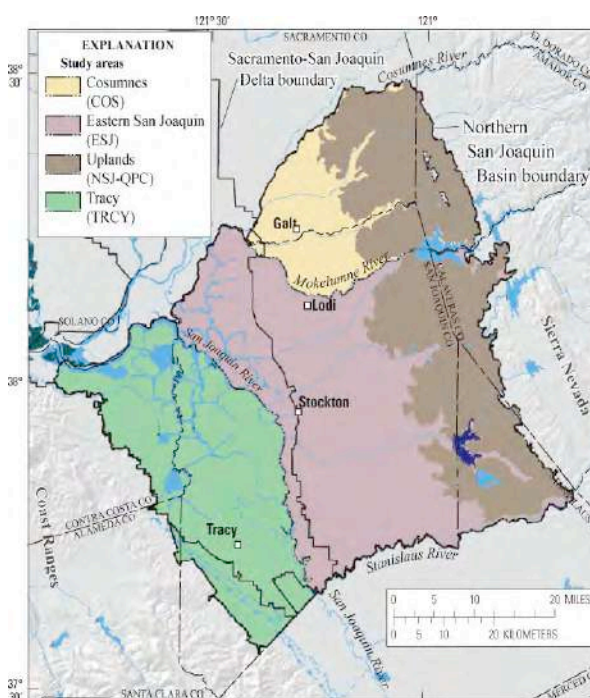


Table 5-3: TWSID Water Supplies				
Source	Quantity of Water Supply Average in Acre Feet, Annually (AFA)	Full Allocation Allowed in Very Wet Water Years in Acre Feet, Annually (AFA)	Contract or License	Contract Restrictions
Federal Central Valley Project	0	2,500	Contract # 7-07-20- W0045 LT-1	Shortage Provisions and Regulatory Constraints
Local surface water	17,000	27,000 (cfs).	License # 1381 Application 301	Permitted on or about 4/1 to 10/31 every year
Upslope drain water.	2,500	2,500 est		
Total	19,2500	29,957		
<i>Data Source: personal conversation R. Gilmore, 1/18/18</i>				

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Recycled Water

Currently, neither BBID nor TWSID use recycled water⁵. TWSID is currently working with the City of Tracy to utilize tertiary treated wastewater to be discharged into a TWSID canal. Then, this recycled could potentially be available for irrigation use. BBID is also open to the concept if a feasible situation arises in the future.

Ground Water

Neither BBID or TWSID own any wells and historically have not directly accessed groundwater. Although several farms and ranchers within BBID's and TWSID's boundaries have utilized groundwater via private wells, the use of groundwater has been limited due to poor water quality with naturally occurring alkalinity and minimal supply. Prolonged use of water with a high pH will harm many agricultural plants.

Local groundwater is also an important resource. BBID and the nearby City of Tracy are located within the Tracy subbasin of the San Joaquin Valley Groundwater Basin as shown in Figure 5-2 (page 5-8) from the USGS. This groundwater basin is not critically overdrafted (DWR 2016).

Due to the recent multi-year drought that affected California, BBID's surface water supply for the Byron and Bethany Divisions was curtailed in 2015. To prevent high value crops from dying, several property owners with private wells, pumped groundwater into BBID's canals. BBID was then able to deliver this water to its customers located downstream. In BBID's CVP service area, groundwater was also utilized as shown in Table 5-4, below. The use of groundwater described in Table 5-4 is not expected to continue in the future due to: 1) limited groundwater supplies and 2) increased precipitation in 2017 signaling the end of the drought.

Table 5-4: Groundwater Delivered in BBID canals, during drought years 2013 to 2015		
Year	Byron and Bethany Divisions (AF)	CVP Service Area (AF)
2013	0	1,064
2014	0	1,534
2015	510	731
<i>Source: BBID Agricultural Water Management Plan (2017) by CH2MHill</i>		

⁵ Recycled water is typically the reuse of wastewater from a local wastewater treatment plant for other compatible purposes. For example, water reuse might include irrigation of gardens, municipal landscaping, cover crops, or groundwater recharge. BBID/TWSID does not currently utilize recycled water.

BBID's Water Shortage Policy contained in the AWMP (2017) has two policy elements related to groundwater:

- In the Byron and Bethany divisions, work cooperatively with landowners with groundwater wells to pump into service canals and laterals.
- In the CVP Service Area, use more groundwater to keep orchards alive.

BBID participates in local groundwater management efforts. The Sustainable Groundwater Management Act of 2014 and Section 12924 of the California Water Code authorize local agencies to manage groundwater in a sustainable fashion. On March 21, 2017, BBID adopted Resolution #2017-5 authorizing the District to execute a memorandum of understanding and to serve as the local groundwater sustainability agency (GSA) for a portion of the Tracy Sub-basin. In April 2017, Zone 7 of the Alameda County Flood Control and Water Conservation District adopted Resolution No 17-18 delegating the GSA responsibility for the Tracy Sub-basin to BBID and adopted a Memorandum of Understanding with BBID regarding groundwater management. For the East Contra Costa County Portion of the Tracy Subbasin, BBID entered into a May 2017 Memorandum of Understanding to facilitate the joint development of a Groundwater Sustainability Plan along with several other water agencies in Contra Costa County. Additional information about groundwater management and BBID's role in this process can be found on DWR's website at: <http://www.water.ca.gov/groundwater/sgml/>.

Water Conservation

During the years 2012 to 2016, California experienced an absence of winter precipitation which lead to a multi-year persistent drought throughout the state. Because clean fresh water is a limited resource it is important to avoid wasteful use of this resource. Water conservation allows the conserved water to be put to a better use. This section describes the water conservation efforts of both BBID and TWSID.

Water conservation is part of BBID's Mission Statement and its Agricultural Water Management Plan (AWMP) (Draft) (2017) includes drought management plans and water shortage allocation policies. In the event of a future drought, the AWMP lists nine specific actions the District can take to cope with the drought situation. Over the long-term, BBID has supported efforts of local growers to reduce water demand by converting to drip irrigation systems and to minimize water runoff from agricultural fields. To improve supply reliability, BBID has implemented several conservation projects including: 1) lining canals, 2) conversion of dirt canal to pipeline; 3) control structure automation projects, and 4) a systemwide supervisory control and data acquisition (SCADA) system (BBID, 2017).

BBID's municipal water customers also conserve water during droughts by refraining from watering outdoor ornamental landscaping and otherwise conserving water. These types of water conservation measures are described in the Urban Water Management Plans prepared by the municipal water customers.

TWSID does not currently have a water conservation plan since small sized districts are not required to develop a conservation plan, consistent with state regulations. However, measuring water is an aspect of water conservation and TWSID measures all discharges from the Bethany Drain into the TWSID Intake Canal. TWSID also measures all diversions from the Intake Channel (TWSID, 2016). If TWSID is consolidated with BBID, the BBID Agricultural Water Management Plan would be updated to include the TWSID acreage and to address conservation.

Water Demand

Generally, the demand for water by BBID and TWSID customers can be influenced by several factors including:

- agricultural conditions, such as the types of crops grown on agricultural land.
- new development occurring within the City Tracy.
- new development occurring within the community of Mountain House.
- climatic factors such as changes to spring snowmelt, prolonged drought, air temperatures, and evapotranspiration rates as described in Section 6 of BBID's 2017 Agricultural Management Plan, and
- water use efficiency and conservation.

Both BBID and TWSID aim for efficient operation of the available water resources given their location in a semi-arid region with a limited amount of water available. This section describes the existing water demand and the projected future water demand for both BBID and TWSID.

Existing Demand

BBID (current configuration) Existing Demand for Water

BBID provides raw (untreated) water to numerous farms and ranches within its boundary. Agricultural water customers irrigate their crops to grow perennial orchards such almonds, apples, cherries, and walnuts; perennial vines such as grapes; and annual crops such as corn, cotton, tomatoes, strawberries, alfalfa, oats, sudan, bell peppers, beans, and more. The demand for agricultural irrigation water peaks during mid- to late summer, as crops mature and crop water use increases. During the winter, farmers may use water for frost control and pre-irrigation of fields to saturate the upper soil. The District's Agricultural Water Management Plan contains many more details about the number of irrigated acres within BBID's divisions and is available on BBID's website at: <http://bbid.org/>. The following paragraphs will consider this information along with demand from municipal customers.

The demand for water from the BBID system originates within the District boundary area. BBID carefully tracks water usage (BBID, 2017). Raw (untreated) water is provided to agricultural

customers and to municipal/industrial customers. BBID serves 110 agricultural surface irrigation customers, and twelve municipal/industrial surface users covering approximately 29,477 acres. The largest municipal user of the BBID/TWSID system is the unincorporated community of Mountain House. A basic summary of existing water demand for water that BBID manages and conveys through its system is shown in Table 5-5 below.

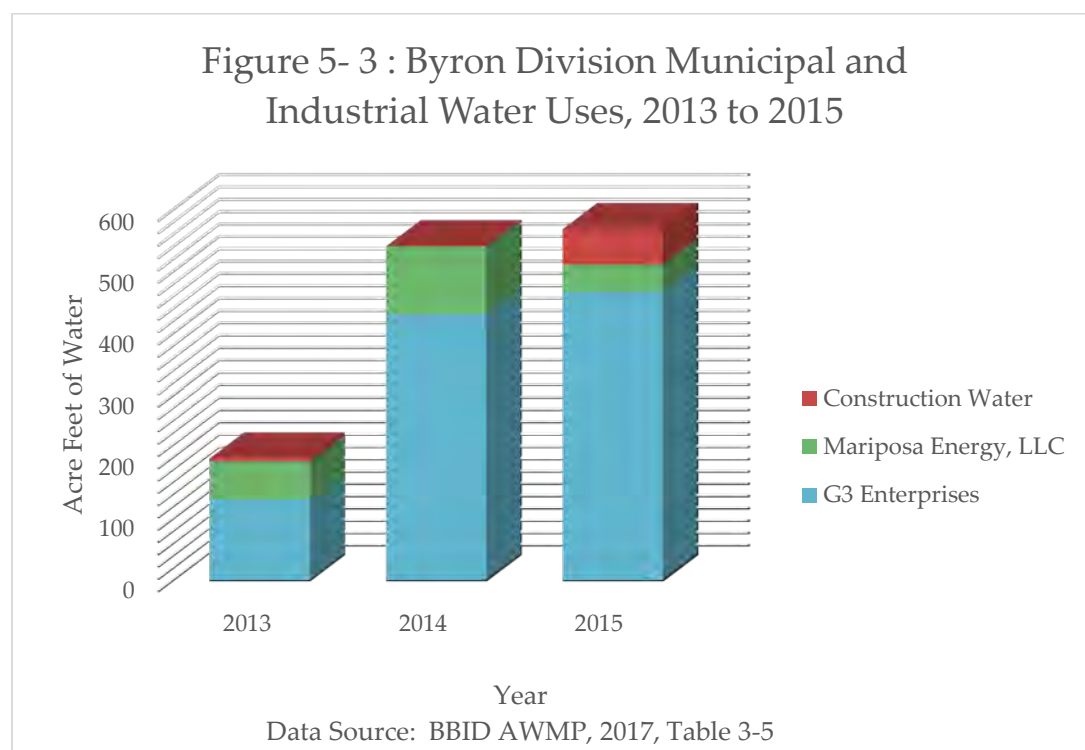
Table 5-5: BBID Existing Water Demand			
Name of Service Areas	2013 Use (AF)	2014 Use (AF)	2015 Use (AF)
Byron & Bethany Ag Service Divisions (Agriculture)	22,974	25,326	18,070
Byron & Bethany Ag Service Divisions (Misc. M&I)	477	632	543
Central Valley Project (CVP) Service Area	2,344	3,233	677
Raw Water Service Area 1 (Mountain House) **	3,391	2,698	2,394
Raw Water Service Area 2 (Tracy Hills)	0	0	0
(Total)	29,186	31,889	21,684
<i>Data Source: BBID, 2017, including Tables 5-3, 5-4, and 5-9. **From Mtn House MSR, Table 1</i>			

BBID's Municipal and Industrial Customers

BBID has 315 metered customer turnouts (BBID, 2017). One metered turnout might serve many customers. Also, one farm might have many metered turnouts. BBID has 110 agricultural customers and twelve municipal and industrial customers (BBID, 2017). Although BBID is primarily an agricultural district, urban development has increased conversion of land use from agriculture to municipal and industrial (M&I). Since the 1990s, approximately 6,000 acres of agricultural land within the BBID service area have been converted to M&I use, predominantly within two communities: Mountain House and Tracy (USBOR, 2012a). Both Mountain House CSD and the City of Tracy have adopted Urban Water Management Plans (UWMP) and BBID has adopted these UWMPs by Resolution #2017-6. The Community of Mountain House is scheduled to receive 10,172 acre-feet of raw untreated water per year from the District upon build out in 2040; however, they currently receive less water. The Mountain House Community Services District (CSD) receives the raw water from BBID and treats it at the community's water treatment facility and then delivers to its customers (Mt Hs CSD, 2016). San Joaquin LAFCo approved a municipal service review for the Mountain House CSD on January 12, 2017 and this document describes existing and future water demand for the District.

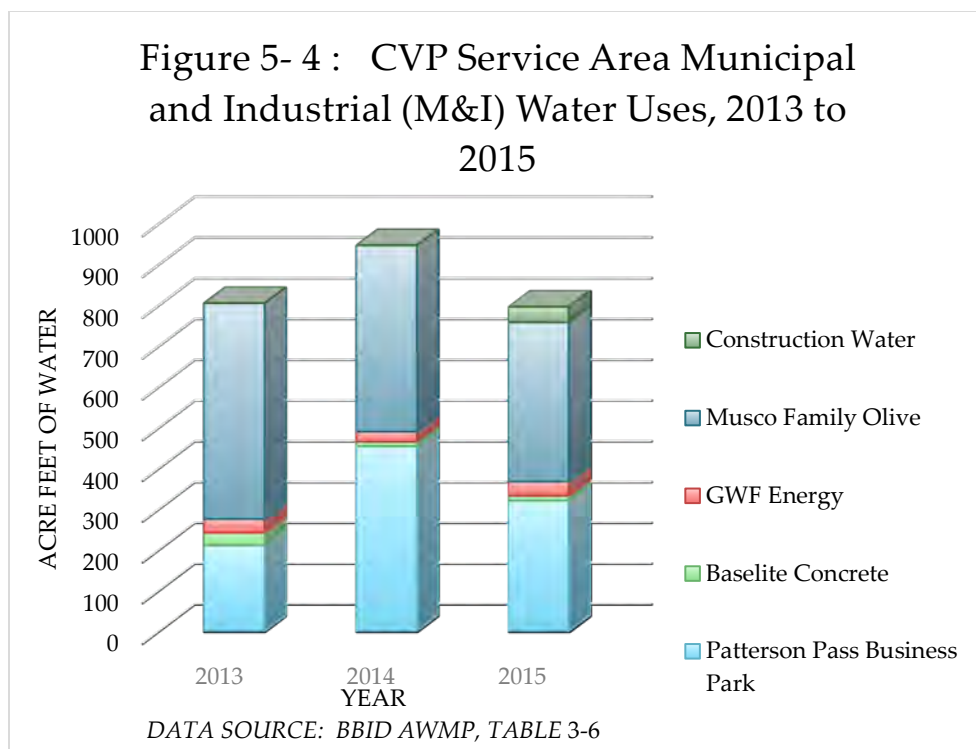
BBID is located west of the City of Tracy (City) and portions of the District overlap with City boundaries and its sphere of influence. Through agreements with the City of Tracy, BBID provides raw water for treatment and retail delivery to a portion of BBID's M&I customers located within the area of overlapping City and BBID boundaries (USBOR, 2012a). BBID's Byron

Division includes an energy plant (Mariposa Energy, LLC) and other industrial uses, which used a total of 570 AF of water in 2015 as shown in Figure 5-3, below.



Within its CVP Service Area, BBID provides water to five M&I customers: Patterson Pass Business Park, Baselite Concrete, GWF Energy, and Musco Family Olive. Also, 38 AF of water was sold for construction use in the area. The City of Tracy⁶ and CSA 50 work together to treat and provide BBID water to the Patterson Pass Business Park which includes the Safeway and Costco distribution centers. The Patterson Pass Business Park is 610- acres in size and is located in BBID's CVP service area. During the years 2009 to 2013, BBID delivered an average of 481 AF annually to the Patterson Pass Business Park and during the years 2013 to 2015 the average volume delivered declined to 328 AF, most likely in response to water conservation during the drought (Tracy, 2014 and BBID, 2017). The City of Tracy provides treatment to BBID's raw water to bring it up to drinking water standards at the City's John Jones Water Treatment Plant. During the years 2013 to 2015, water demand from municipal and industrial customers in the CVP service area averaged 850 AF as shown in Figure 5-4, below.

⁶ The City of Tracy approved Resolution No. 91-374 on November 19, 1991 which granted approval of the Water Delivery and Billing Agreement - King & Lyons, Safeway and Plain View Water District.



One other municipal customer to note is water for fire services at Contra Costa Airport, which uses approximately 4-acre feet per year.

Tables 5-6 and 5-7 below summarize existing water demand for BBID's Byron and Bethany Divisions and CVP Service area respectively. Table 5-5 (above) excludes the groundwater that was pumped via private wells and utilized on private farms as an emergency source during the recent drought, since this water was not conveyed through BBID's canals nor managed by BBID. For BBID's Byron & Bethany Ag Service Divisions and the Central Valley Project (CVP) Service Area, the water demand from specific crop types is described in detail in the District's 2017 Agricultural Water Management Plan, available on its website at: <http://bbid.org/>. BBID's 2017 Agricultural Water Management Plan provided a more detailed water budget which considers additional features such as groundwater pumped and utilized on-site by private property owners, watershed percolation to groundwater, conveyance losses, errors in measurement and recordings, unaccounted drain water, and any errors in assumptions used in the water use calculations. These additional features account for the differences in water volume in Table 5-6 and 5-7 (below) compared to Table 5-5 (above).

Table 5-6. Byron and Bethany Divisions Water Balance Summary

Water Accounting	2013 (AF)	2014 (AF)	2015 (AF)
Subtotal of Water Supplies	33,153	36,164	24,367
Subtotal of Water Uses	26,842	28,656	21,007
Closure Term	6,311	7,507	3,360

Source: Table 5-12, BBID Agricultural Water Management Plan, 2017

Table 5-7: CVP Service Area Water Balance Summary

Water Accounting	2013 (AF)	2014 (AF)	2015 (AF)
Subtotal of Water Supplies	8,181	11,664	6,824
Subtotal of Water Uses	8,154	9,484	6,576
Closure Term	24	2,180	248

Source: Table 5-14, BBID Agricultural Water Management Plan, 2017

TWSID Agricultural Water Demand (Existing)

From its formation in October 12, 1915 to present, The West Side Irrigation District functions as an independent District that provides for the delivery and sale of raw irrigation water, agricultural drainage, and storm and municipal drainage. TWSID serves a diversity of agricultural customers. Demand for water from the TWSID system originates within the District(s) boundary area. Water use in TWSID is measured at the water pump located at the Old River intake (TWSID, 2009). Farmers within TWSID grow a wide range of annual and perennial crops. The crop type changes from year to year because farmers intentionally rotate planting choices based on market demands, soil health, water availability, and other factors. The most recent data available for crop choices in TWSID is from 2007 as listed in Table 5-8, below. TWSID farmers use three irrigation methods to irrigate the crops including furrows on 1,100 acres; borders on 1,670 acres; and sprinklers on 1,447 acres (TWSID, 2009).

Table 5-8: List of TWSID Crops	
Crop Name	Acres
Alfalfa	1,205
Beans	385
Corn	575
Oats	344
Pasture	854
Sudan	362
Other (<5%)	55
Total	4,217
<i>Data Source: TWSID, 2009, based on 2007 Crop Report</i>	

Generally, TWSID and its agricultural customers coordinate water demand in relation to available water supply. TWSID's water supply is described above on page 5-10 of this MSR. The consolidated BBID/TWSID will assume responsibility for the provision of agricultural water service within the TWSID Service Area.

In December 2013, the City of Tracy and The West Side Irrigation District signed an Agreement for Additional Assignment of Entitlement to CVP Water which transfers an entitlement of 2,500 acre-feet of water. Other than this 2013 agreement with the City of Tracy, TWSID does not have any large municipal/industrial customers currently and it does not currently provide any water to the City of Tracy (personal communication, R. Gilmore, August 2017).

Future Water Demand

In the future, demand for water service from BBID and TWSID will arise from two sources: 1) agricultural water demand and 2) municipal water demand. The pages below summarize the water demands from these two sources. On a county-wide basis, the demand for water through the year 2062 is expected to increase in San Joaquin and Alameda Counties and remain steady in Contra Costa County (Wilson, et. al., 2016). Given this potential future trend, it is possible that demand for water from BBID and TWSID may increase in the future, as compared to existing demand levels.

BBID (current configuration) Future Demand

In the future, water demand for BBID's water will arise from two primary sources:

- Agriculture
- Municipal
 - Mountain House CSD
 - City of Tracy – Tracy Hills development
 - City of Tracy – Future Urban Areas (tbd)

Agricultural, Future Water Demand - BBID

BBID carefully updates projections for future water demand within its boundaries. The 2017 Agricultural Water Management Plan states the following:

In the mid-1990s, the District participated in the East County Water Supply Management Study (East County Water Management Association, 1996) and developed projections of agricultural and municipal/industrial demands within its service area for the planning periods of 2000, 2010, 2020, 2030, and 2040. In 1999, the District revisited these projections in support of the annexation of the Tracy Hills Development into the District. In 2002, in support the State of California application for certification proceedings for the East Altamont Energy Center, the District updated their water supply and demand evaluation, and presented evaluation results in testimony before the California Energy Commission. In 2010, the District updated its supply and demand analysis to support its water supply and exchange agreement with the City of Tracy and the Bureau of Reclamation (Reclamation) to support water supply for Tracy Hills.

Demand for water for agricultural purposes is expected to decline slightly in future years due to a variety of factors. The quantity of agricultural lands in production has been generally declining, partially due to recent urbanization. Since 1990, approximately 6,000 acres of land in BBID have been converted from agriculture to M&I use. This type of land-use change is typically driven by economic pressures as landowners seek permission from local governments (including LAFCo) to improve property value. There is also variation in cropping from year to year, and a limited number of growers in the District occasionally fallow (not irrigate) portions of their land. Fallowing land can also be attributed to a number of factors, such as market conditions, desirability to rotate crops off a portion of property to improve productivity, and grower preference (USBOR, 2012). The potential for future increases in demand as a result of climate change (i.e. evapotranspiration rates, increased air and soil temperatures, etc.) is described in BBID's 2017 Agricultural Water Management Plan. Water use efficiency through the improvement of drip irrigation and other techniques may contribute to reduced demand for agricultural water. In the future, the water demand from agricultural customers is not expected to increase in either BBID or TWSID primarily due to water conservation and technological advances such as improvements to drip irrigation efficiency. Non-agricultural acreage within these two Districts is not expected to be converted to agricultural use. (Rick Gilmore, personal conversation Aug 23, 2017).

Municipal Future Water Demand - BBID

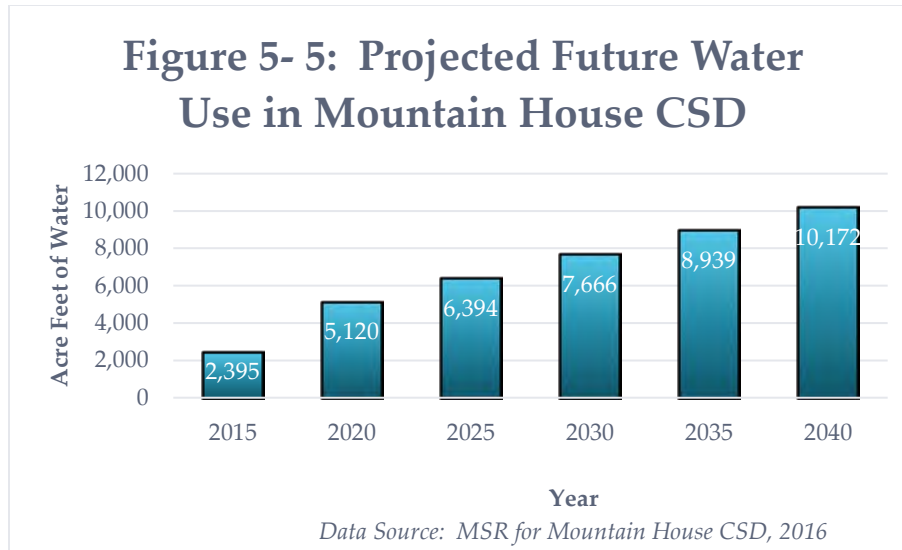
BBID serves as the raw water supplier to two of its sister agencies: Mountain House CSD and the City of Tracy. The proposed consolidation is not expected to affect either of these agencies. As described in Chapter 4 of this MSR, BBID does not have any land-use authority and that authority resides with the local planning agencies (i.e. San Joaquin County and the City of Tracy). Additionally, the CSA-50 has a contract with City of Tracy and the former Plain View District for water.

Mountain House – Future Water Demand

Mountain House is a residential suburban community and its public services are provided through a community services district, the Mountain House Community Services District (MHCSO). MHCSO has a Sphere of Influence (SOI), established by LAFCo, which covers an area of 4,784 acres (7.5 square miles). San Joaquin County adopted the Master Plan for Mountain House in 1994. The SOI encompasses the ultimate MHCSO community "build-out" boundaries. The MHCSO is approaching one-third (1/3) of its "build-out" capacity and San Joaquin County is reviewing future development of the Town Center portion. A contract between MHCSO and BBID provides pre-1914 water to meet current water demands for the existing population while ensuring a long-term supply of water to meet the projected needs of the community at buildout (Mtn Hs CSD, 2016). LAFCo's 2016 Municipal Service Review for the Mountain House CSD relied upon several studies regarding water supply, distribution system, and treatment systems including:

- Potable Water System Master Plan Update (West Yost Associates, July 2016),
- Urban Water Management Plan (West Yost Associates, May 2016)
- SB 221 Written Verification for Mountain House Specific Plan II
- (West Yost Associates, July 12, 2016),
- SB 221 Written Verification for Mountain House Specific Plan III and Mountain House Business Park (West Yost Associates, November 6, 2008),
- Water Services Agreement Between Byron-Bethany Irrigation District and MHCSO" (dated September 7, 1993).

Future (estimated) water demand from the Mountain House CSD is shown in Figure 5.5, below.



Tracy Hills_ – Future Water Demand

The Tracy Hills development project within the City of Tracy is described in Chapter 4 of this MSR. An August 6, 2013 wholesale water agreement between BBID and the City provides that BBID supply raw water to its service area called “RWSA2” (Tracy Hills). This Agreement is effective through February 2053 and allows up to 4,053 AF per year of BBID’s water plus the conveyance of 225 AF of exchange water. When the Tracy Hills project begins construction, the RWSA2 will utilize a portion of BBID’s pre-1914 appropriative water right entitlement to meet the water needs of the development. The Tracy Hills development project is currently being constructed consistent with the Tracy Hills Specific Plan. Based on the City’s Growth Management Ordinance, the community is eligible to get up to 406 units per calendar year, all single-family homes. The developer of Tracy Hills has applied for 406 units for 2017 and another 406 units for 2018. Although infrastructure is not yet in place, the City anticipates that all the infrastructure for this project will be built by 2020. Final buildout of the Tracy project is expected to occur over a period of 30 years.

Ultimately, Tracy Hills will receive water from two of BBID’s service areas: 1) Raw Water Service Area 2, and 2) Inside BBID CVP Service Area (Tracy, 2014). The 1999 BBID annexation agreement identified a potential need in RWSA2 for up to 6,000 acre-feet (AF) per year (AFY) of water. However, the annexation agreement was amended in 2003 in order to clarify the financial terms and water delivery options for Tracy Hills. Included among the changes to the annexation agreement was a reduction in the Tracy Hills water demand and, thus, a reduction in the maximum BBID allocation of water needed in RWSA2. In accordance with the 2003 amended BBID annexation agreement, a maximum of 4,500 AFY of raw water plus conveyance loss has been allocated to meet M&I purposes within RWSA2. In April 2014, the United States Bureau of Reclamation (USBR) and BBID agreed upon a long-term exchange contract providing for the

exchange of water and allowing for the conveyance of these BBID supplies to the City of Tracy using the Delta-Mendota Canal (DMC). In accordance with NEPA, a Final Environmental Assessment and FONSI (FONSI-09-149) were prepared by USBR in December 2013 to facilitate this arrangement. One disadvantage to this arrangement is that supply from the federal Central Valley Project is reliable to the extent needed for agricultural practices (agriculture-reliability) and is subject to reduced deliveries, as low as 10 percent of entitlement, in multiple dry years (Tracy, 2014). USBOR generally reduces the delivery of water to its contractors in the event of drought which is a regular and natural event in this arid region of the State. To cope with this variability in water supply and demand, the City has developed water storage and other water management techniques as outlined in the City of Tracy 2015 Urban Water Plan.

The City of Tracy 2015 Urban Water Management Plan notes the following:

Up to 4,500 AFY of pre-1914 appropriative water rights is available from BBID for use by the Tracy Hills development. This supply can only be used, however, within the portion of the BBID Raw Water Service Area 2 that is within the CVP CPOU. The estimated potable water demand for this area is 2,430. During normal years, the City is anticipating access to 100% of its contractual entitlement. During single dry years and multiple dry years, the City is conservatively anticipating access to 85% of its contractual entitlement.

Table 5-9: Water Supply Assessment by West Yost for Tracy Hills Project

Quantity of Historical Water Deliveries and Existing and Additional Planned Future Water Supplies in Normal Years												
Supply	Historical Water Deliveries, af/yr							Projected Future Available Supplies, af/yr				
	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025	2030	2035
Existing Water Supplies^(4,5)												
USBR CVP Interim Renewal Contract	5,676	5,734	4,968	8,387	7,785	8,920	5,304	11,250	11,250	11,250	11,250	11,250
USBR CVP (WSID Option)	0	0	0	0	0	0	0	1,250	1,250	1,250	1,250	1,250
Total CVP Supplies	5,676	5,734	4,968	8,387	7,785	8,920	5,304	12,500	12,500	12,500	12,500	12,500
South County Water Supply Project (pre-1914)	0	0	0	0	0	3,146	10,850	11,120	11,120	11,120	11,120	11,120
Groundwater ⁽⁵⁾	1,980	2,856	5,838	4,310	6,548	5,826	498	2,500	2,500	2,500	2,500	2,500
BBID (pre-1914) ⁽⁶⁾								2,430	2,430	2,430	2,430	2,430
Semitropic Water Storage Bank ⁽⁶⁾	0	0	0	0	0	0	0	0	0	0	0	0
Total Existing Potable Supplies	7,656	8,590	10,806	12,697	14,333	17,892	16,652	28,550	28,550	28,550	28,550	28,550
Additional Planned Future Water Supplies⁽⁶⁾												
Additional USBR CVP (BBID contract)								1,500	3,000	4,500	5,500	5,500
Additional SCWSP Supplies (pre-1914)								1,880	1,880	1,880	1,880	1,880
Additional Semitropic Water Storage Bank ⁽⁶⁾								0	0	0	0	0
Aquifer Storage and Recovery ⁽⁷⁾								0	0	0	0	0
Recycled Water (non-potable) ⁽⁸⁾								12,400	14,900	17,500	19,900	22,500
Total Additional Planned Future Potable Supplies								3,380	4,880	6,380	7,380	7,380
Total Potable Supplies	7,656	8,590	10,806	12,697	14,333	17,892	16,652	31,930	33,430	34,930	35,930	35,930
Total Additional Planned Future Non-Potable Supplies								12,400	14,900	17,500	19,900	22,500

⁽⁴⁾ Historical supply data based on production data.

⁽⁵⁾ Projected additional supplies based on Table 18 Current and Projected Water Supply Allocations – Normal Year, City of Tracy 2010 Urban Water Management Plan, May 2011.

⁽⁶⁾ Although the City can sustainably extract up to 9,000 af/yr of groundwater, the City is planning to scale back its groundwater extraction in future years to increase the overall quality of its water supply. The City will continue to rely on groundwater for peaking and drought and emergency supplies, up to 9,000 af/yr, on an as-needed basis.

⁽⁷⁾ The water supply available from BBID (pre-1914) is up to 4,500 af/yr; however, this supply can only be used with the BBID Raw Water Service Area 2 that is also within the CVP Consolidated Place of Use. Quantity shown is amount needed to meet potable water demands within the Proposed Project area within the BBID Raw Water Service Area 2 and also with the CVP Consolidated Place of Use under all hydrologic conditions.

⁽⁸⁾ In normal years, supply from the Semitropic Water Storage Bank is assumed to be 0 af/yr, as this is considered a dry year supply.

⁽⁹⁾ In normal years, supply from the ASR Project is assumed to be 0 af/yr, as this is considered a dry year supply.

⁽¹⁰⁾ Table 15, City of Tracy 2010 Urban Water Management Plan, prepared by Erler & Kallinowski, Inc., May 2011.

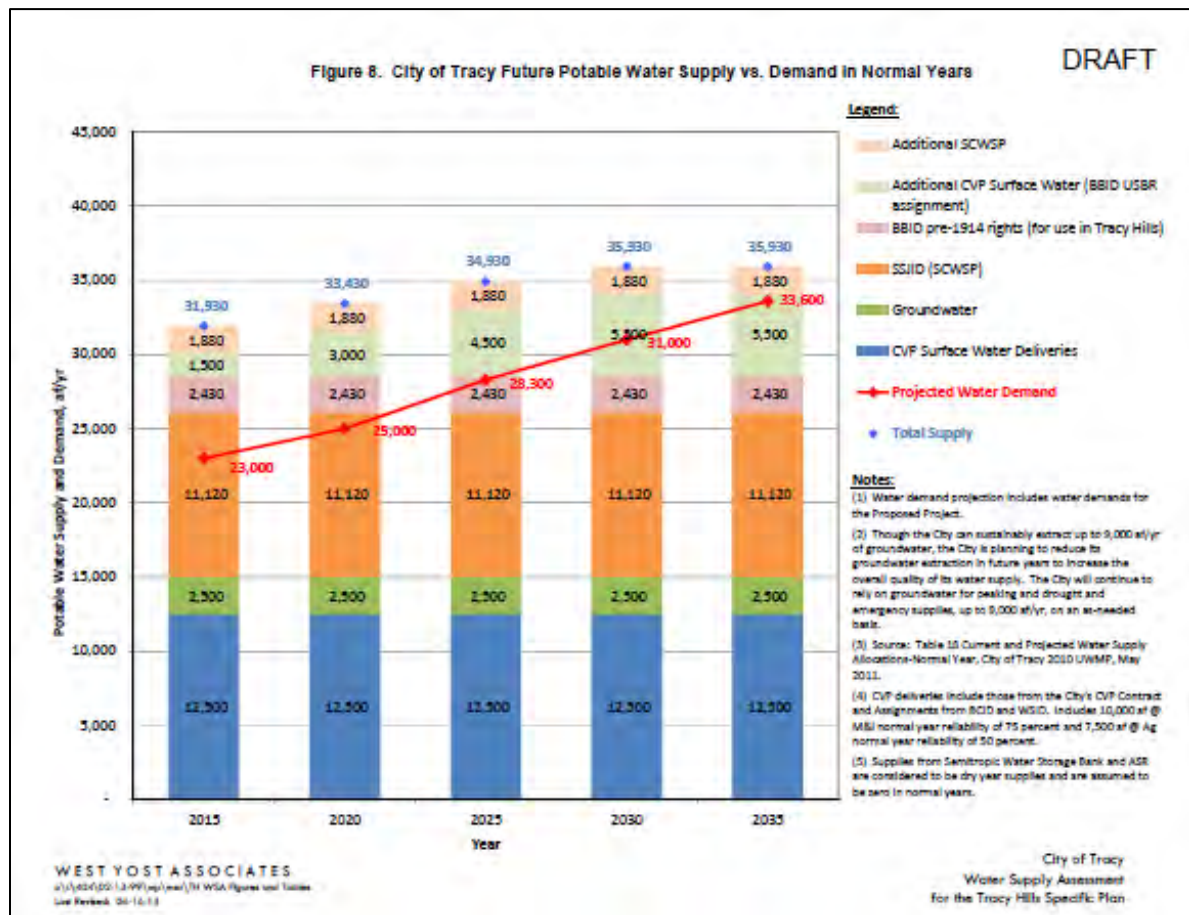
Note: BBID is not anticipated to begin water service to the Tracy Hills project until the year 2019.

Data source: Tracy, City of, December 2014. Table 17 in Tracy Hills Specific Plan, SB610/SB221, Water Supply Assessment, Final Report. Prepared by West Yost Associates. 118-pages.

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However, since the actual amount of water that may be used (2,430 AFY) is significantly less than the contractual entitlement (4,500 AFY), these reductions in supply in dry years are not expected to reduce the actual amount of supply available to the City (Tracy, 2016).

Figure 5-6: City of Tracy Future Potable Water Supply vs. Demand in Normal Years



Another source of information about water demand anticipated by the Tracy Hills project is the West Yost Water Supply Assessment (Tracy 2014). Table 5-9 (previous page) shows data from West Yost Water Supply Assessment anticipating that BBID will provide 2,930 AF in future years and this would include 2,430 in water using pre-1914 water rights and 1,500 AF in post-1914 water rights.

The Water Supply Assessment by West Yost (2012 and published in 2014) mapped out the BBID service areas that will serve the future development in the Tracy Hills project as shown in Figure 5-6 (above). BBID's contribution to the future water demand of the City of Tracy is described in

the 2012 Water Assessment prepared by West Yost and a summary graph of their analysis is shown in Figure 5.7, next page (Tracy, 2014). This graph shows that by the year 2035, BBID will likely contribute 7,380 AF⁷ annually in normal water year types to the City of Tracy's water supply. Although this volume is less than that estimated by the City's 2015 Urban Water Management Plan, it is useful because it shows the range of water supply sources the City aims to tap into.

The developers of the Tracy Hill project started grading and construction activities in October 2017. Future homes in the initial phase of this site will not likely not be ready to finalize the building process or to receive water service until the years 2019 to 2020.

City of Tracy – Cordes Ranch Future Demand

Cordes Ranch is located off of Mountain House Parkway and I-205. The City of Tracy annexed 1,780 acres of unincorporated San Joaquin County area into its City boundary with approval from San Joaquin LAFCo's Resolution #1301 in September 2013. BBID currently provides a small amount of raw untreated water to the City of Tracy for treatment and distribution to Cordes Ranch site. There is the potential for additional future demand from this site per the City of Tracy's recently approved Cordes Ranch private development consisting of a business park called the International Park of Commerce at the Cordes Ranch and constructed by the industrial real estate developer Prologis. The City of Tracy approved the Cordes Ranch Specific Plan and the Final Environmental Impact Report in September 2013 (Tracy, 2013b and 2013c). Additionally, a 25-year development agreement awards Prologis vested development rights on 1,200 acres of the total. The business park is expected to have 19 million square feet when fully built out. The Cordes Ranch Draft EIR states that both BBID and TWSID are expected to provide raw water service to this site. The EIR anticipates that BBID will supply water from its surface water supply from the Delta-Mendota Canal (CVP) and from its surface water supplies from pre-1914 water rights and deliver this water to the City of Tracy. A portion of the Cordes Ranch project lies within the former PVWD boundaries and is therefore eligible to receive CVP water. The Draft EIR states that "The City and BBID are negotiating a phased option agreement to assign portions of BBID's CVP/DMC contract right to the City. The exact quantity of BBID CVP water entitlement is the subject of the future agreement between the City and BBID. However, previous discussions have indicated that a contract entitlement quantity of water equal to 3.4 acre-feet per year per acre of converted agricultural land may be available for M&I use. It is estimated that an agreement between the City and BBID can be achieved within the next few years to allow for the transition of additional CVP supplies to be available to the City. An approval will be required from the USBR and compliance with CEQA and NEPA will be required." (Tracy, 2013a, page 4.15-13). The

⁷ 7,380 AF represents approximately 20 percent of the City's potential water supply in normal years in the year 2035.

Draft EIR also notes that “Thus, the approximately 1,180 acres of the Specific Plan Area overlying BBID and TWSID service areas would have an associated water supply entitlement of approximately 4,000 af/yr of Ag-reliability CVP supplies (3.4 af/ac/yr x 1,080 acres). It is proposed that, when annexation to the City occurs, these lands would not be de-annexed from the respective irrigation district so as to maintain the entitlements to the historically available agricultural water supplies” (Tracy, 2013a, page 4.15-21). The agreements for the additional CVP water have not yet been approved.

The West Side Irrigation District (current configuration) Future Demand

TWSID has taken numerous steps to conserve water which should help to reduce future water demand or at least help demand remain steady including: 1) Fallowed Land and/or Dry Cropped several parcels located within TWSID boundaries and, 2) certain farmers installed microsprinklers drip irrigation. Demand for water from agricultural customers within TWSID boundaries is not expected to increase in the future (personal communication, R. Gilmore, August 2017). The City of Tracy’s 2015 Urban Water Plan states that future demand for water from TWSID to the City of Tracy will be 5,000 AFA, as shown in Figure 5-7, above.

Summary of Future Water Demand, BBID & TWSID

The 2015 Urban Water Management Plan for City of Tracy indicates that by the year 2014, approximately 16,240 AF of water per year will be needed from BBID and TWSID to supply the City as shown in Figure 5-7, below.

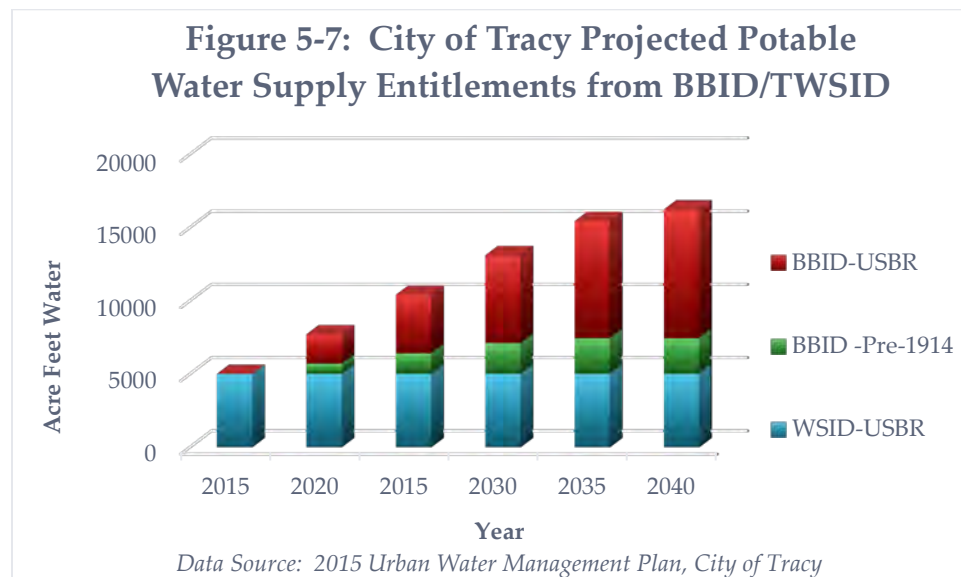


Table 5-10, below, summarizes the anticipated future water demand from existing plus new sources of demand for the consolidated BBID/TWSID

Table 5-10: Summary of Future Water Demand, Consolidated BBID/TWSID in Average Acre Feet (AF) per year							
Customer Name	Existing Demand 2016	2020	2025	2030	2035	2040	Notes
<i>Municipal & Industrial</i>							
Mountain House CSD	2,395	5,120	6,394	7,666	8,939	10,172	Mtn House CSD, 2016
City of Tracy (including RWSA2)	0	5,000	10,400	13,100	15,430	16,230	Source: 2015 Urban Water Management Plan, Tracy and personal conversation R. Gilmore 18Jan18
Contra Costa County - water for fire services at Contra Costa Airport	4	4	4	4	4	4	
<i>Agricultural</i>							
Agricultural customers within BBID (all)	24,900	24,900	24,900	24,900	24,900	24,900	Source: BBID, 2017 and an Average of water years shown in Table 5-5 on page 5-13 of this MSR
Agricultural customers within TWSID (all)	12,000	14,000	14,000	14,500	14,500	15,000	Data Source: Personal conversation with R. Gilmore, January 2018. See also Table 5-3 on page 5-9 of this MSR.

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Table 5-10 (previous page), summarizes available data regarding projected future demand for water from BBID/TWSID. Since urban uses generally utilize less water than agricultural use, when properties convert from agriculture to urban they will use less BBID water. BBID feels that it has sufficient water supply to meet the demands of both its agricultural and municipal water customers.

Water Rights

Byron Bethany Irrigation District -Water Rights

Upon formation, BBID initially acquired its water rights directly from its predecessor, the Byron Bethany Irrigation Company, a corporation and a public utility in Contra Costa County which was allowed to sell its property and water facilities to the Byron Bethany Irrigation District (BBID). Application No. 5599 was filed with the California Railroad Commission in San Francisco and on May 10, 1920, the Commission approved Decision No. 7553 which allowed water rights and irrigation facilities to be transferred to BBID and a certified statement was filed with the Commission (CA Railroad Commission, 1921). This transfer included the pre-1914 water rights⁸ that allows BBID to draw water from the intake channel at the Banks Pumping Plant in Contra Costa County formerly known as Italian Slough.

In 2004, BBID consolidated with the Plain View Water District and assigned PVWD's Central Valley Project (CVP) water service contract from the Bureau of Reclamation. Table 5-11 (next page) summarizes the water rights associated with BBID.

⁸ Prior to 1914, California allowed water users to establish a water right by simply putting water to beneficial use. In some cases, notice was with the county or at the point of water diversion. Water rights initiated before 1914 are referred to as pre-1914 appropriative rights. This is the type of "right" that BBID has. The priority date for pre-1914 water rights is based on the date the notice was posted or the date water was first put to beneficial use. Generally, those with the most senior priority date may divert up to the full quantity of their right during a drought (before those with a junior right can begin diverting). The scope of a pre-1914 appropriative right is limited to the quantities of water that were historically put to beneficial use. Pre-1914 appropriators are precluded from wasting water. The Byron-Bethany Irrigation Company recorded on May 27, 1914 in the amount of 40,000 miner's inches (BBID 2017 references Hill, 1964).

Table 5-11: BBID (current configuration) Water Rights Summary

State or Federal	Reference Number	Type	Source of Water	Face Value	Amount directly diverted (Acre Feet)	Purpose	Data Source
California DWR	May 28, 2003 Agreement	Pre-1914 Claim	Italian Slough	50,000 AF	Total of 15,874 AF the year 2015. Total of 30,291 AF in 2014. 29,241 AF in 2013.	Irrigation and M&I use.	Cal EPA, 2016a
Federal	USBOR Agreement 11-WC-20-0149	Long-term Exchange Contract (AKA Warren Act Contract)		4,725 AF per year of non-federal water.		Raw Water Service Area 2 for Tracy Hills Development. Irrigation and M&I. Contract is effective through February 28, 2054.	Approval letter from BOR sent April 2014. Distribution, transmittal Agreement.
Federal	USBR Contract # 14-06-200-785-LTR1		Delta Canal Mendota	20,600 AF per year		Irrigation and M&I. Contract is effective through February 28, 2030.	USBOR approved a Long-Term Renewal Contract on July 25, 2005. Previous contracts had been approved on May 22, 1953 and February 28, 1994. This contract recognized the consolidation with Plain View Water District.

Table 5-12: TWSID Water Rights Summary

State or Federal	Reference Number	Type	Source of Water	Date Issued	Face Value	Amount directly diverted (Acre-feet)	Purpose	Data Source
California	License Number: 001381. See also CAWRCB ORDER WR 2010-0012-EXEC	Supplement	Old River	Priority of this right dates from April 17, 1916. Proof of maximum beneficial use of water under this license was made as of August 22, 1933. See also data from ORDER WR 2010-0012-EXEC	27,000.00 AF ORDER WR 2010-0012-EXEC clarified allowed diversion of 82.5 cfs, with an annual limit of 27,000 AF	Report of Licensee For 2015 March 1,368.95 AF; April 1,635.13; May 735.51	Irrigation of 11,993.76 Acres Mixed Crop In 2010, it was agreed that expanded water use included water delivery for new domestic, municipal and/or industrial customers in addition to historic irrigation uses.	Cal EPA, 2016 and Cal EPA 2010
Federal	Contract # 7-07-20-W0045-LTR1		Delta Mendota Canal	??		2,500		Cal EPA, 2016

The West Side Irrigation District -Water Rights

The West Side Irrigation District holds a post-1914 appropriative water License #1381, originally issued on September 29, 1933 as listed in Table 5-12, above. This water License was amended on August 19, 2010. License 1381 has a priority date of April 17, 1916 and it authorizes TWSID to directly divert 82.5 cubic-feet per second (cfs) from Old River between the time period of April 1 to October 31 of each year. The maximum amount diverted under License 1381 is not to exceed 27,000 acre-feet per year. During the years 2007 through 2013 TWSID diverted an average of 22,543 acre-feet per year under this License 1381. Although TWSID does not hold or claim any other appropriative or riparian water rights, it does have a contract to receive water from the Federal Central Valley Project as detailed in Table 5-12, above. License 1381 also has a designated “Place of Use” as shown in Figure 5-8 (next page). A place of use (i.e. service area) is where the water was/is allowed⁹ to be utilized under state rules, including areas that are now within the City of Tracy. These areas were once located within TWSID’s boundary, but were detached by LAFCo as described in “Boundary History” above. Additionally, portions of TWSID’s physical irrigation infrastructure remains within the City of Tracy. Since a large portion of this area is located within the City of Tracy the place of use area is not analyzed or considered as a SOI Study Area for TWSID in terms of raw water service in Chapter 8.

In addition to the water supply listed in Table, 5-12 above, TWSID may also have use of recycled water from the City of Tracy. This recycled water will substantially add to the TWSID water supply for irrigation purposes and this supply will incrementally grow in the future as growth occurs within the City.

Litigation

During the past several years, water cutbacks prompted by the recent drought have resulted in disagreements between BBID and TWSID and the State Water Resources Control Board. This litigation involved both water supply and water rights. The State Water Resources Control Board considered two Enforcement Actions against TWSID /BBID during a hearing date on March 21, 2016 as listed below:

- Enforcement Action ENF01949 Draft Cease and Desist Order Regarding Unauthorized Diversions or Threatened Unauthorized Diversions of Water from Old River in San Joaquin County
- Enforcement Action ENF01951- Administrative Civil Liability Complaint Regarding Unauthorized Diversions by Byron-Bethany Irrigation District

The State Water Resources Control Board eventually dropped these enforcement actions due to lack of evidence. Since then, BBID filed suit to halt the new water restrictions and has supported new legislation to address procedural issues.

⁹ It is noted that only LAFCo has the authority to decide a district’s boundaries and SOI, consistent with the CKH Act.

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Water Resource Planning

BBID/TWSID is actively engaged in water resource planning efforts at the local, regional, state, and federal levels. BBID/TWSID's engagement in these planning efforts increase the District's effectiveness in community outreach, grant and fiscal development, protection of water sources, and sharing resources with sister districts to mutual benefit. This section summarizes the following six regional and statewide planning efforts:

- Groundwater Sustainability
- Contra Costa IRWM
- Los Vaqueros Reservoir Expansion Project
- Northern Delta-Mendota Canal Groundwater Management Plan
- San Joaquin – West Side IRWM

Groundwater Sustainability

BBID serves as a groundwater sustainability agency (GSA) pursuant to the Sustainable Groundwater Management Act, Water Code section 10720 et. seq., for a portion of the Tracy Subbasin within BBID's territory. The West Side Irrigation District has also elected to become a GSA pursuant to Water Code section 10723.8, and has undertaken sustainable groundwater management for that portion of the Tracy Subbasin of the San Joaquin Valley Groundwater Basin (DWR Basin No. 5-22.15) that lies within the service area of WSID. Both BBID and TWSID have (separately) signed MOUs and are working with numerous local government agencies to develop groundwater management plans for these two GSA areas.

East Contra Costa IRWM

The East Contra Costa County Integrated Regional Water Management (IRWM) is a collaborative effort to manage all aspects of water resources in a region covering 350 square miles, which is isolated from its neighboring regions by the ridge lines of Mt Diablo to the south and west, and the Delta waterways to the north and east. The East Contra Costa IRWM most recently completed the 2015 IRWM Plan Update. The IRWM Plan has facilitated the successful pursuit of grant funding for the region. Under Proposition 50, the region received \$12.5 million and under Proposition 84, \$2.66 million. In addition, individual agencies with projects included in the IRWM Plan have received approximately \$15 million under Proposition 1E. BBID is part of the East County Water Management Association (ECWMA), which forms the basis of the ECCC-IRWM Program's governing body, the Regional Water Management Group (RWMG). Each member of the ECWMA appoints staff to serve as representatives on the RWMG (ECWMA, 2015).

Los Vaqueros Reservoir Expansion Project

Los Vaqueros is a 160,000 AF reservoir. It was originally created in 1998 with a capacity of 100,000 AF by the Contra Costa Water District. In 2012, the Los Vaqueros Dam height was increased to 218 feet which increased capacity of the reservoir to 160,000 AF. Expansion of this reservoir is proposed to add 115,00 AF bringing the total capacity up to 275,000 AF. To develop the proposed expansion, Contra Costa Water District is bringing on several partners potentially including BBID. BBID signed an MOU with the Contra Costa Water District on January 6, 2017 regarding storage and water transfer from the Los Vaqueros Reservoir expansion. A Draft Supplement to the Final EIS/EIR will be issued. In early 2018, a Public Draft Federal Feasibility Report is expected to be published. Final design and permits are expected to be approved in the year 2021 with construction starting soon thereafter (USBOR, 2017).

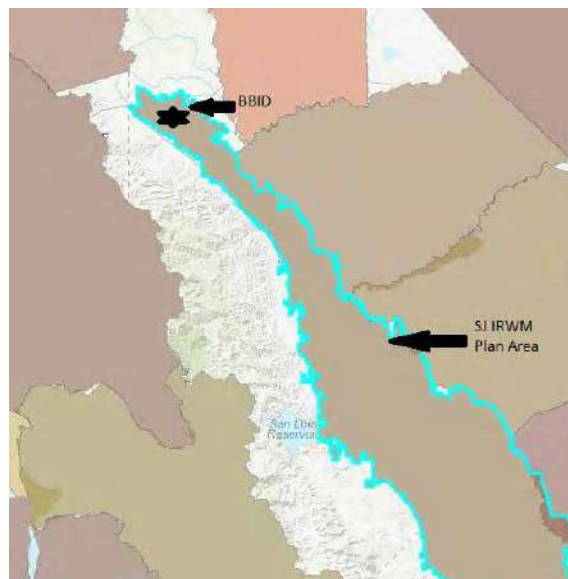
Northern Delta-Mendota Canal Groundwater Management Plan

The Northern Delta-Mendota Canal Groundwater Management Plan was originally adopted in 1996 pursuant to Water Code Sections 10750 et seq., also known as AB 3030. The Plan was developed in coordination with Delta-Mendota Canal northern agencies, including: BBID, BCID, Del Puerto Water District, Patterson Irrigation District, West Stanislaus Irrigation District, the City of Tracy, and San Joaquin County. The Plan considered information on groundwater quantity and quality, conjunctive management of groundwater and surface water resources, and measures to protect groundwater resources within the Plan area. The GMP was updated in 2007 and in 2011, to comply with requirements of the State Legislature. (SLDMWA, 2007 and Tracy, 2014).

San Joaquin – West Side IRWM

The San Luis & Delta-Mendota Water Authority (SLDMWA) is in the process of updating the West Side-San Joaquin Integrated Water Resources Plan (WIWRP) to meet new State guidelines and currently has a draft plan available. BBID is located in the north corner of this planning area, as shown in Figure 5-9, below. Projects identified in the draft plan are related to drainage, flood control, groundwater management, land use, water conservation, water quality, water supply, and water use efficiency (SLDMWA, 2014).

Figure 5-9: IRWM Area San Joaquin & West Side. Data source: <https://gis.water.ca.gov/app/edas/>



Drainage Services: Agricultural, Storm, and Municipal

The topography in this region consists of rolling hills and gentle slopes which naturally direct drainage to flow north towards the Delta (Alameda County, 2011). Runoff is primarily conveyed via culverts and agricultural drainage ditches. As runoff flows north, it encounters several barriers including canals, the State Water Project's California Aqueduct system, the Central Valley Project's Delta Mendota Canal, and other facilities. The runoff is often directed under or around these facilities by culverts. However, there are a few points where runoff drops directly into a canal or aqueduct.

BBID has specific policies regarding return flows for each of its divisions as outlined in its Agricultural Water Management Plan (2017). In summary, runoff from the agricultural fields within BBID's boundaries is minimal due to on-farm water conservation measures, such as drip irrigation as referenced in the Agricultural Water Management Plan (personal conversation, R. Gilmore, 2017).

TWSID provides agricultural drainage, and storm and municipal drainage to customers within its boundaries. Land within the district boundaries is level (0-2%) and no problems with storm runoff management have been experienced (TWSID, 2009). TWSID does own and maintain several linear miles of drains for agricultural and municipal runoff both within and outside its boundaries (CH2MHill GIS data, 2017). Overall, the TWSID storm drainage infrastructure is over 75 years old and is in need of repairs.

TWSID provides surface drainage services to the "Defense Depot" as shown on Figure 3-4, TWSID Drainage Service Area. The Department of the Army approved Contract No. DACAOS-72-C-0070 in 1971 with TWSID for these services.

TWSID has drainage infrastructure located within the City of Tracy's boundaries and it has several interconnections with the City of Tracy's storm drain infrastructure. TWSID utilizes this infrastructure to provide storm drainage services to a portion of the City of Tracy. These services are provided under an approved agreement between the City of Tracy and The West Side Irrigation District. The agreement specifies the location and charges associated with this service. This Drainage Agreement was originally approved in 2010 and was amended March 5, 2017 to include service to the Harvest Apartments development on 18.73 acres of land within the City. A copy of the Drainage Agreement and its amendments is available by contacting TWSID staff.

The City of Tracy manages storm water by conveying it in City owned and maintained storm drains and smaller sized open channels. This water is then conveyed into The West Side Irrigation District drainage facilities including closed conduits and open channels and to four outfalls that discharge to Old River and ultimately to the San Joaquin Delta. TWSID's four major drainage outfalls include: 1) the TWSID Main Drain, 2) West Side Channel Outfall, 3) the Old River Force Main, and 4) the Sugar Cut Outfall. These drainage outfalls are owned and

maintained by TWSID. TWSID's drainage facilities do have capacity limitations (City of Tracy 2003 and 2012). LAFCo approved a Municipal Service Review for the City of Tracy MSR in December 2011. This MSR provides a summary of that portion of TWSID's storm drainage system located within the City as follows:

The Westside Channel Watershed is located in the central portion of the City's SOI and is approximately 12.9 square miles in size. This watershed includes two separate outfalls for stormwater runoff: the TWSID Main Drain, which serves approximately 2 square miles in the northeast portion of the watershed, and a large detention basin (DET 10/11), which serves the remaining majority of the watershed. Through drainage agreements, the City is authorized to discharge City stormwater runoff into the TWSID Main Drain via a 72-inch trunk line storm drain that extends along Grant Line Road between Corral Hollow Road and Lammers Road, along with smaller connection trunk lines. In addition, the City's Reach "C" Channel is located to the west of Corral Hollow Road between the Union Pacific Railroad and the Grant Line Road, and discharges into the 72-inch trunk line at Orchard Parkway. The underground storm drains in this area generally have the capacity for a 10-year storm; the stormwater is then metered into the Reach "C" Channel which has a capacity that exceeds the 100-year storm discharge.

The Lammers Watershed is located in the western portion of the City's SOI and is approximately 8.6 square miles in size. Much of this area is undeveloped but planned for future development. Two large delivery canals, the California Aqueduct and Delta Mendota Canal, traverse this watershed and control and regulate discharges into downstream areas. Other drainage features include agricultural ditches and tailwater ponds, TWSID's Upper and Lower Main Canals, and the TWSID Sub-Main Drain tailwater ditch. In addition, this watershed includes three industrial sites that provide on-site detention basins and retention ponds: the Patterson Pass Business Park, Safeway Distribution Center, and OI Thermal Energy Development (LAFCo, 2011).

Prior to the formation of CSA-50, TWSID provided drainage services to the geographic territory covered by the Patterson Pass Business Park, Safeway, and portions of Tracy. CSA-50 is a dependent district and it now provides drainage service to these areas and coordinates with TWSID regarding storm water drainage.

Due to its geographic proximity, existing infrastructure, and many years of experience with drainage issues, the TWSID provides storm drainage services to the City of Tracy. There is no other service provider that can provide these drainage services to the City of Tracy. A significant portion of the storm drainage infrastructure facilities located within Tracy's boundaries are owned by TWSID. The City pays The West Side Irrigation District an annual drainage fee.

TWSID also provides municipal storm drainage service to the John Kimball High School located on Lammers Road, just outside the boundaries of the City of Tracy at Assessor Parcel No. 240-020-02. The contract for service was approved in February 2008 and it anticipates that TWSID will provide service for ten years. Thereafter, it is anticipated that the City of Tracy will construct its own infrastructure to service this site. In addition to the City of Tracy and the High School, TWSID also provide outside drainage services to two parcels located adjacent to but outside the District boundaries (APN 246-150-02 & APN 209-460-21). In the past, TWSID has executed several interim service agreements for municipal storm drainage.

5.2 INFRASTRUCTURE AND PUBLIC FACILITIES

The CKH Act requires LAFCo to make a determination about the present and planned capacity of public facilities for districts it reviews. This section analyzes the present and planned capacity of public facilities owned or operated by BBID and TWSID. A description of existing facilities and a description of planned improvements to those facilities is provided in the following paragraphs.

Water Service Facilities

The BBID and TWSID water facilities include intake/collection facilities and a distribution system consisting of pump stations, pipelines and open ditch canals. BBID and TWSID do not treat water for municipal purposes and therefore they do not own or operate a water treatment plant. All BBID and TWSID water is classified as raw untreated water.

BBID Water Facilities

BBID's headquarters located at 7995 Bruns Rd, Byron, CA 94514 sits on 150 acres of District owned property located in Contra Costa County. The District headquarters consisting of offices, administration, operations, maintenance facility occupy only 5 acres. The remaining 145 acres is leased out for dry-farming. BBID's water conveyance canals are located on private property with easements granted to the District for water conveyance and maintenance purposes.

Inter-ties: The Byron Bethany Irrigation District does have emergency (and non-emergency) connections with adjacent water purveyors. BBID's physical infrastructure includes a connection to the federal Delta Mendota Canal. A new intertie with Contra Costa Water District is under construction. There is also an infrastructure interconnection between BBID and TWSID.

Equipment: BBID owns and leases construction equipment, including backhoes, dump trucks, bucket trucks, excavators etc. BBID provides operations and maintenance support and supplies equipment to TWSID, as needed, as part of the management agreement between the two agencies.

To obtain its water via water right originally from Italian Slough, the Byron Bethany Irrigation District (BBID) diverts flow from the Harvey O. Banks Pumping Plant approach channel located upstream of the Harvey O. Banks Pumping Plant. Portions of the State Water Project Delta export facilities have the responsibility to deliver flow to the BBID pumps. Actual flows are dictated by technical issues, such as pump submergence requirements to prevent cavitation (CA-DWR, 2015). For the Byron & Bethany Ag Service Divisions and the Raw Water Service Area #1, the raw water is currently accessed from the Harvey O. Banks Pumping Plant Intake Channel, a facility of the state water project. Although Raw Water Service Area #2 does not currently receive water, it is anticipated that once construction begins, water will be conveyed using a combination of federal and BBID infrastructure.

BBID's CVP Service Area obtains water from the federal Central Valley project through several intakes located on the Delta-Mendota Canal (DMC). The 116-mile DMC carries CVP water to farms, communities, and wetlands between Tracy and Mendota. The canal is operated and maintained by The San Luis and San Luis Delta-Mendota Water Authority, which serves as the non-federal operating entity for the San Luis Unit and Delta Division of the Central Valley Project, in coordination with the Bureau of Reclamation. Both BBID and TWSID are members of the San Luis Delta-Mendota Water Authority. BBID takes the water from the Delta Mendota canal using 28 turnouts and distributes it using 9.2 miles of pipeline. The pipes are enclosed and meters are used to measure the flow volume to points of delivery (SJCFCWCD, 2001).

The Mountain House Community Service District obtains raw water from BBID through a 1993 agreement¹⁰ for up to 9,813 acre-feet per year. The raw water facilities serving this community were built by the Mountain House Master Developer (Trimark) and dedicated to BBID. BBID obtains the raw water from the State Water Project canal. This water is diverted using a pumping station with primary and backup pumps and conveyed through a 30-inch, cathodic protection, pipeline to MHCSO's water treatment plant which currently has 15 million gallons per day (mgd) capacity for treatment to drinking water standards. Future expansion (up to 20 mgd) of this water treatment plan is being phased with new development and is expected to be completed by 2030 (Mtn Hs CSD, 2016).

¹⁰ The "Water Services Agreement Between Byron-Bethany Irrigation District and MHCSO" is located in Appendix 12-A, Mountain House Master Plan, dated September 7, 1993.

Existing BBID and TWSID infrastructure currently connect to the City of Tracy and to Mountain House, and this infrastructure is sufficient to meet demands. New residential or commercial development projects typically construct their own infrastructure (R. Gilmore, personal communication, August, 2017)

Storage: BBID is working to improve its water storage situation by supporting the Los Vaqueros Reservoir expansion. This project may allow BBID to store water providing greater flexibility in distribution to its customers.

BBID's Capital Improvement Plan is embedded in its 2017 Agricultural Water Management Plan and is readily available on the District's website. The proposed capital improvements include seepage reduction projects such as those listed in Table 5-13, below. Examples of other CIP projects BBID is implementing include the development of a SCADA telemetry plan that will allow expansion of SCADA capabilities in the Byron Division. Another example is the replacement of Pumping Station 5 in the Byron Division. Some of BBID's infrastructure, such as Main Canal (No. 9) constructed in 1919, is a century old (Alameda County, 2011). Ageing infrastructure does need periodic replacing through the capital improvement plan. Facilities to service new development areas are financed or provided by the requesting party.

Table 5-13. BBID Seepage Reduction Projects	
<i>BBID Agricultural Water Management Plan</i>	
Project	Status
Canal 45 South Lining	Completed
Canal 120 Lined Portion	Completed
Canal 155 Lined Portion	Completed
Canal 45 North Lined Portion	Completed
Gate 14 Pipeline Replacement with Fused HDPE Pipe	Completed
Green Line Phases I-IV Pipeline Replacement and Canal Conversion to Pipe	Completed
H-Line Pipeline Replacement with Fused HDPE Pipe	Completed
Taylor Lane Culvert Replacement Project	Completed
Canal 45 North Canal Conversion to Pipe	In progress: design
R-Line Pipeline Replacement	In progress: design
Green A-Line and Green B-Line Pipe Replacement	In progress: design
Kellogg Creek-Canal 45 Radial Gate Replacement and Canal Lining	In progress: construction
12 Canal Lining and Lining Rehabilitation Projects	Future planned
13 Pipeline Replacement Projects	Future planned

In addition to its own facilities, BBID and TWSID are able to utilize federal facilities. Specifically, BBID has a Warren Act Contract with the United States Bureau of Reclamation that grants permission from Reclamation for BBID to store non-project water in federal facilities, such as the Delta-Mendota Canal, O'Neill Forebay, and San Luis Reservoir. For example, BBID has a long-term exchange contract #11-WC-20-0149 to divert up to 4,725 acre-feet annual of its pre-1914 water (for the Tracy Hills project). This water would be routed via pipeline from the District's Pump Station 3 off Canal 70 and routed into the federal Delta Mendota Canal during the months of March through October. This water is intended for Municipal and Industrial purposes (USBOR, 2012b).

On August 17, 2015 the US BOR approved an amendment to BBID's Multi-Year Temporary Warren Act Contract No. 13-WC-20-4382 for the storage and conveyance of non-federal water. This contract allows the conveyance of groundwater through the Delta-Mendota Canal during the years 2013 through 2023. This is part of a Delta Mendota Canal Pump-in Program, in which several districts participate together. The maximum for this program is 50,000 AF annually for all participating districts. BBID's share is estimated to be 2,592 AF annually of groundwater (i.e. non-federal water). The groundwater is supplied from wells located along the Delta-Mendota Canal.

The West Side Irrigation District Water Facilities

TWSID has two main water supply sources: CVP water from the Delta-Mendota Canal, and water from the Old River, which is a natural tributary of the San Joaquin River. CVP water is diverted via the Delta-Mendota into the district from two gravity-flow turnouts/interconnections. The water is distributed from the turnouts throughout the TWSID using two main canals (9 miles each) and 24 miles of piped laterals. Water from the Old River is diverted via an unlined intake canal to District pumping facilities. From the pumping facilities, pipelines lift the water to two main canals. From there, water flows via gravity to final delivery to TWSID customers (SJCFCWCD, 2001). Several of TWSID's water conveyance canals and the associated land are owned in fee title by the District. However, many of the canals are situated on land owned by private property owners, with an easement granted to TWSID for purposes water conveyance. TWSID actively manages and maintains its agricultural conveyance system which includes the features, listed in Table 5-14, below.

Table 5-14: TWSID Agricultural Conveyance System	
System Feature	Linear Miles
Canal Unlined -	16
Canal Lined -	3.5
Pipes	39
<i>Data Source: TWSID, 2009</i>	

TWSID has no surface storage facilities (TWSID, 2009). TWSID owns and/or leases several pieces of construction equipment. TWSID owns their office and the associated land located at 1320 Tracy Blvd, Tracy, CA. TWSID has a pumping plant on 4 acres and a maintenance yard on District owned property.

Agricultural production within the District has been declining, partially due to the annexation of farmland to the City of Tracy for development. Therefore, TWSID believes the existing size of its facilities and infrastructure are adequate to meet the existing demand for agricultural water. However, it is acknowledged that TWSID's water facilities are old. TWSID does not have a capital improvement plan; however, such a plan could help them address ageing infrastructure. TWSID does have an annual maintenance program that takes place, for the most part during the winter months when no irrigation service is provided. Maintenance tasks include pump inspection and repairs; dredging of all dirt-lined canals and laterals; repairs to canal-side control gates, if needed; and repairs to any leaks noted during the irrigation season (TWSID, 2014).

Drainage Facilities

TWSID has provided agricultural drainage, and storm drainage to customers within its boundaries. Additionally, TWSID provides municipal storm drainage to a portion of the City of Tracy. Existing drainage facilities are generally described under the section entitled "Drainage Services: Agricultural, Storm, and Municipal" on page 5-37 of this MSR. In some areas, TWSID's irrigation canals and pipes also serve as storm water conveyance during the winter, as agricultural customers do not require irrigation service during the winter.

Challenges in Provision of Service and Infrastructure

Similar to other irrigation districts, both BBID and TWSID face challenges regarding the provision public of services. Challenges include aligning water conservation with naturally occurring droughts and other water supply limitations, addressing anticipated future regulations dealing with water quality, and supporting various regional water resource planning efforts. The challenges faced by BBID and TWSID are indicative of an agency that functions in a multi-jurisdictional environment and this contributes to the complexity of situations that BBID and TWSID each face.

In order to continue the adequate provision of public service and infrastructure, BBID utilizes several best management practices. Best management practices are defined as methods or techniques found to be the most effective and practical means in achieving an objective (such as minimizing pollution) while making optimal use of the District's resources. Some of the

BBID's best management practices are incorporated into its 2017 Agricultural Water Management Plan and others are incorporated into its standard engineering and maintenance protocols. Consolidating with BBID, would allow TWSID services to be provided consistent with these best management practices.

Conclusion of Chapter 5, Services and Infrastructure

Both BBID and TWSID provide raw water service to their customers. Additionally, TWSID also provides drainage service to its agricultural water customers and to areas outside its boundaries. Currently, both BBID and TWSID have sufficient water supply and water/drainage infrastructure to continue services to their existing customers. With regards to water service, Table 5-10 shows that demand for raw water supply will increase by the year 2040 to a total of approximately 66,000 AF annually in the consolidated district. Comparing this projected future demand to Tables 5-11 and 5-12 shows that the consolidated district has sufficient water rights to supply the projected future demand in the year 2040 as estimated in Table 5-10. However, during drought or low precipitation years, the consolidated district may receive less than its full allocation of water and the actual supply will resemble that listed in Tables 5-2 and 5-3. Any potential shortfalls in water supply during future drought years will be overcome through the use of recycled water and water conservation and these measures are described in more detail on the preceding pages of this chapter.

Both BBID and TWSID share an aspiration to do what's best for all of their water ratepayers. Merging the BBID and TWSID will help the District(s) obtain benefits of unified water resources planning and management which will result in more efficient delivery of public services to customers. Under the recently approved management agreement between BBID and TWSID a more efficient service plan can be developed. LAFCo's approval of the proposed consolidation described in Chapter 8 will allow BBID/TWSID to more effectively engage with regional partners and to continue making improvements in the areas of water supply reliability and water use efficiency. Combining these two districts will create significant public benefits. Chapters 6 and 8 of this MSR describes how merging the BBID and TWSID will help the District(s) achieve economies of scale to improve efficiency and reduce the risk of future increases to ratepayer costs.

CHAPTER 6: FINANCIAL ABILITY TO PROVIDE SERVICES

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LAFCo is required to make a determination regarding the financial ability of both the Byron Bethany Irrigation District and The West Side Irrigation District to provide public services. This Chapter provides an overview of financial health and provides a context for the financial determinations. The audited 2015/16 Comprehensive Annual Financial Report (CAFR) from the Districts is the primary source of information for this Chapter. For comparative purposes, financial information for multiple years is provided.

In California, funding for special districts comes in two distinct types, based on their source (or sources) of revenue:

- **Enterprise Districts:** Financing of district operations is via fees for public service, similar to a business. Under this model, the customers that consume goods or services such as drinking or irrigation water, waste disposal, or electricity, pay a fee. Rates are set by a governing board and there is a nexus between the costs of providing services and the rates customers pay. Sometimes enterprise district may also receive property taxes which comprise a portion of their budget.

- **Non-enterprise Districts:** Non-enterprise districts provide services that indirectly benefit the entire community, such as recreation, libraries, parks, community centers, fire protection, and cemetery districts. Since these types of services don't lend themselves to being funded totally by fees, they are often funded through property taxes and/or assessments.

BBID and TWSID are hybrid districts in that they operate as an enterprise district to the extent possible, and they also receive a significant portion of their revenue from property taxes¹. Property taxes are administered by the Counties of San Joaquin, Alameda, and Contra Costa, and these tax revenues are considered subventions not restricted as to purpose.

6.1: FINANCIAL POLICIES & TRANSPARENCY

Byron Bethany Irrigation District Financial Policies

BBID prepares an annual budget prior to the start of each fiscal year. At the end of each fiscal year, the District prepares a Comprehensive Annual Financial Report (CAFR) which includes an audited review prepared by a certified accountant (CPA). The most recent independent auditor's report was prepared for Fiscal Year (FY) 2016 and dated August 3, 2017 and was attached to the District's Financial Statements. The audit found that BBID financial statements fairly present the financial position of BBID, and the results of its operations and its cash flows for the year ended in conformity with accounting principles generally accepted in the United States of America, as well as the accounting systems prescribed by the California State Controller's Office. The Comprehensive Annual Financial Report contains a statement of net position, statement of revenues and expenses, and changes in net position, statement of cash flows, and notes to basic financial statements. Additionally, the District's financial statements are prepared in accordance with generally accepted accounting principles (GAAP). The Government Accounting Standards Board (GASB) is responsible for establishing GAAP for state and local governments through its statements and interpretations. The District uses the accrual basis of accounting; revenues are recognized when they are earned, and expenses are recognized when they are incurred (BBID, 2017).

Budgets are adopted in public meetings on an annual basis by the District Board of Directors. The fiscal year begins on January 1 and ends on December 31. Annual budgets are available upon

¹ It is very common for independent districts in California to charge for services and to collect property taxes. BBID and TWSID are not unusual in this respect. The availability of water supply, access to well-maintained irrigation infrastructure (even if that infrastructure is not directly utilized) and productive agriculture provides a benefit to all parcels within the districts. Additionally, each district faces fixed costs associated with securing the water supply and maintaining infrastructure. The property tax revenue supports those fixed costs and helps the districts provide these benefits to all parcels within the District(s).

request from District staff. The annual financial statement (CAFR) for the past five years is available to the public via the District's website. District salary information is readily accessible via a hyperlink from the District's website to the State Controller's Office. BBID has several accounting policies including a method of accounting policy, investment policy, and funding policy for the defined benefit retirement plan. These accounting policies are clearly defined within the District's annual CAFR. One of these policies is called the Reserve Fund Policy which describes three types of reserves: 1) Legally Restricted Reserves; 2) Board Designated Reserves; and 3) Unrestricted Reserves. This policy establishes the level of reserves necessary for maintaining the District's credit worthiness and for adequately providing for funding infrastructure replacement, economic uncertainties, coping with potential catastrophic events, and other factors. The amount of funding to be saved within each reserve fund is specified.

BBID is committed to financial transparency and has recently made significant upgrades to its website and posted key financial documents. District staff continues to work on the website improvements to meet its financial transparency goals. A summary of the consultant's evaluation of BBID Financial Policies & Transparency is shown in Table 6-1, below.

Table 6- 1: Summary of BBID Financial Policies & Transparency		
Indicator*	Score	Notes
Summary financial information presented in a standard format and simple language.	✓	The annual CAFR and budgets clearly and transparently present financial information.
District has a published policy for reserve funds, including the size and purpose of reserves and how they are invested.	✓	BBID has an adopted reserve policy which specifies the size and purpose of reserves and how they are invested.
Other financing policies are clearly articulated.	✓	Yes; BBID's accounting policies are clearly listed within the annual CAFR.
Compensation reports and financial transaction reports that are required to be submitted to the State Controller's Office are posted to the district website.	✓	District salary information is readily accessible via a hyperlink from the District's website to the State Controller's Office.
Key to score: ✓= Above average (compared to similar irrigation districts) ! = Average 0= Below average *Indicators are based on recommendations from the Little Hoover Commission		

The West Side Irrigation District Financial Policies

TWSID prepares an annual budget prior to the start of each fiscal year. At the end of each fiscal year, the District prepares a Comprehensive Annual Financial Report (CAFR) which includes an audited review prepared by a certified accountant (CPA). The most recent independent auditor's

report was prepared for Fiscal Year (FY) 2016 and dated April 11, 2017 and was attached to the District's Financial Statements.

The audit found that TWSID financial statements fairly present the financial position of TWSID and the results of its operations and its cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America, as well as the accounting systems prescribed by the California State Controller's Office (with one caveat on post-retirement health benefits described below). The Comprehensive Annual Financial Report contains a statement of net position, statement of revenues and expenses, and changes in net position, statement of cash flows and notes to basic financial statements. Additionally, the District's financial statements are prepared in accordance with generally accepted accounting principles. The District uses the accrual basis of accounting. Revenues are recognized when they are earned, and expenses are recognized when they are incurred (TWSID, 2017).

The audit noted one item related to post-retirement health benefits as follows:

The West Side Irrigation District's post-retirement health insurance liability is carried at \$1,798,323 on the statement of net position as of December 31, 2016. We were unable to obtain sufficient appropriate audit evidence about the carrying amount of the liability as of December 31, 2016 because management did not obtain a current actuarial calculation of the liability as management felt assumptions to compute this liability could be subject to change. Consequently, we were unable to determine whether any adjustments to these amounts were necessary (TWSID, 2017).

TWSID once offered its employees and board members post-retirement health benefits as described in Appendix E, Resolution 2016-02. The benefits accrued to employees hired prior to February 9, 2011 and who met other stringent conditions. Employees hired on or after February 9, 2011 are not entitled to post-retirement health benefits as the policy was terminated. The post-retirement health benefits also accrued to board members who assumed office prior to February 1, 2015 and who met other stringent conditions. TWSID has a reserve fund to support this benefit.

Budgets are adopted in public meetings on a biennial basis by the Board of Directors. The fiscal year begins on January 1 and ends on December 31. Annual budgets are available upon request from District staff. Since TWSID does not have a website, its annual financial statement and

budget may be obtained by making a request to District staff. District salary information is regularly reported to the State Controller's Office (SCO).

TWSID adopted its investment policy on December 11, 2013. The policy frames the objectives for all investments are to achieve safety, liquidity, and return on investments. The policy details authorized and suitable investments types such as United States treasury bills and local government agency bonds. It also describes prohibited types of investments. The policy specifies that it should be reviewed on an annual basis, and modifications must be approved by the Board of Directors. TWSID does not appear to have a policy specifying the size of reserve funds. Please note that TWSID does not have a retirement liability as it does not offer its employees a retirement plan, other than Social Security (personal communication, R. Gilmore, 2018). TWSID's accounting policies may be viewed by making a request to District staff. A summary of policies and transparency metrics is shown in Table 6-2.

Table 6- 2: Summary of TWSID Financial Policies & Transparency		
Indicator	Score	Notes
Summary financial information presented in a standard format and simple language.	✓	The annual CAFR and budgets clearly and transparently present financial information.
District has a published policy for reserve funds, including the size and purpose of reserves and how they are invested.	✓	TWSID adopted its investment policy on December 11, 2013.
Other financing policies are clearly articulated...	0	Insufficient data.
Compensation reports and financial transaction reports that are required to be submitted to the State Controller's Office are posted to the district website.	1	District salary information is reported to the State Controller's Office and posted on the SCO website. However, TWSID does not have a website, so the information is not cross-posted.
Key to score: ✓= Above average (compared to similar irrigation districts) 1= Average 0= Below average		

6.2: REVENUES

Byron Bethany Irrigation District Revenue

BBID has two basic types of revenue:

- Operating revenues consisting primarily of charges for services; and

- Non-operating revenues and expenses related to financing and investing type activities

The District obtains revenue from numerous sources including property taxes, water sales, reimbursements, and water transfers. In 2016, the District obtained \$6.6 million in revenue as shown in Figure 6-1 and Table 6-3, below. BBID provides raw water to 110 agricultural customers and 12 municipal/industrial customers. California's drought and water conservation efforts during years 2010 to 2015 resulted in reduced flows that may have temporarily affected revenues from water sales.

Figure 6- 1: BBID Sources Of Revenue, 2016

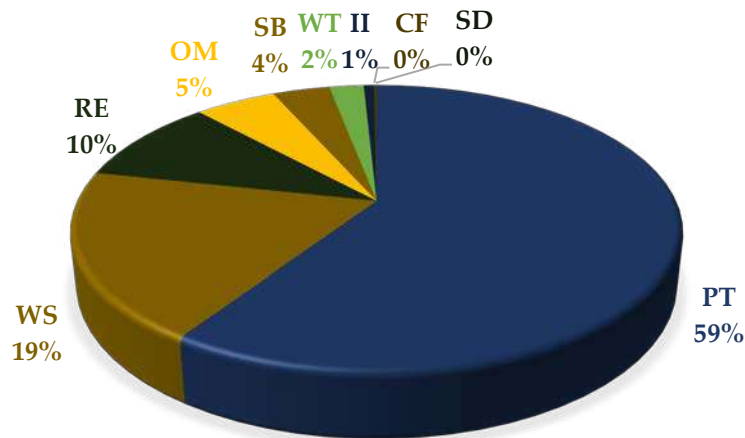


Table 6-3: BBID Sources of Revenue 2016		
Category	Abbreviation	2016 Revenue
Property tax revenue	PT	\$4,170,270
Water sales	WS	\$1,465,484
Reimbursements	RE	\$470,808
O&M charges	OM	\$241,043
Stand-by charges	SB	\$128,159
Water transfers	WT	\$90,000
Investment income	II	\$54,119
Customer finance charges	CF	\$15,769
Sale/disposal of fixed assets	SD	\$4,600
Total Revenue		\$6,640,252
<i>Data Source: BBID, 2017</i>		

BBID Charges for Service

Water Sales represent only a portion (23%) of BBID's operating income; however, it is the primary purpose of the District and a significant source of income². In the six-year study period, 2011 had the smallest income from water sales, with BBID's water sales at just over \$1 million as shown in Figure 6-2 and Table 6-4, below.

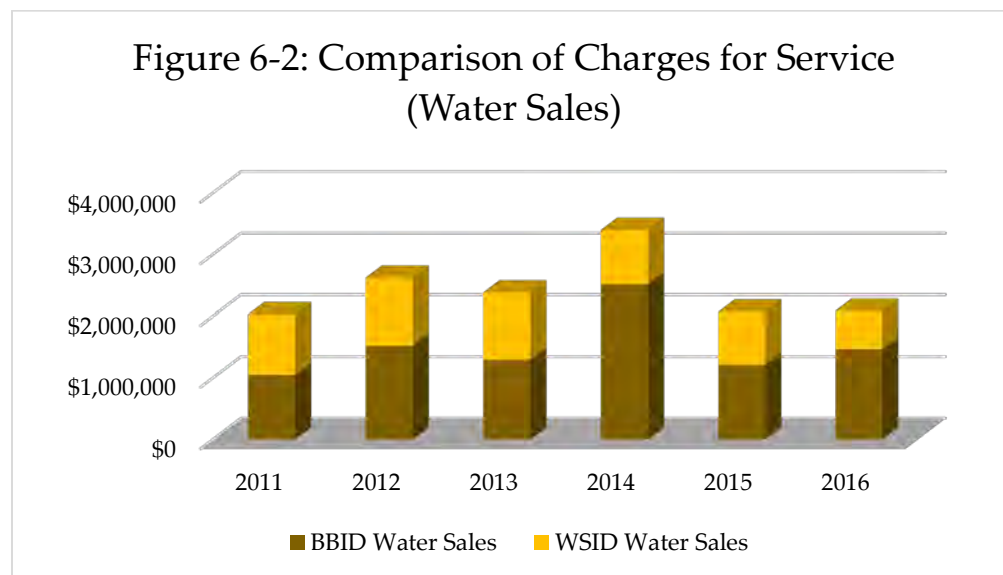


Table 6-4: Charges for Service (Business)

	2011	2012	2013	2014	2015	2016
BBID Water Sales	\$1,048,122	\$1,522,805	\$1,295,155	\$2,512,469	\$1,212,040	\$1,465,484
TWSID Water Sales	\$981,828	\$1,099,734	\$1,086,610	\$886,422	\$860,024	\$621,907

Data Source: Statement of Activities (TWSID) and Statement of revenues, expenses, and changes in net position, (BBID); CAFR, 2011 - 2015

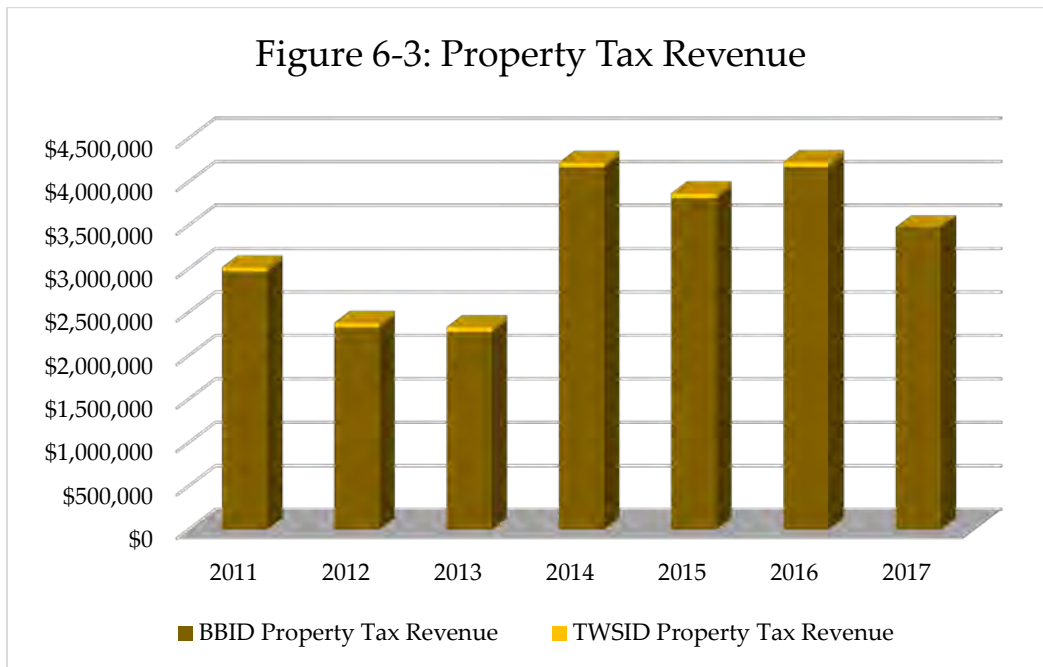
BBID Property Tax Revenue

Property tax is an important source of general purpose revenue for many special districts (League, 2014) and therefore annual property tax revenue is used as a fiscal indicator. However, independent districts such as BBID have no authority over the property tax base, rate or allocation. Since other tax increases require two-thirds voter approval, the ability for independent districts to raise taxes is strictly limited. BBID receives an allocation of property tax revenue from Alameda, Contra Costa, and San Joaquin Counties as authorized by the State of California. Although property tax revenue can be relatively stable, it does sometimes lag approximately two years behind changes in market conditions. In 2016, BBID received \$ 4.17 million in property tax revenue as shown in Figure 6-3, below. During the six-year study period, property tax revenue

² For comparison purposes, water sales represented 72 percent of TWSID's total revenue in 2016.

was at its lowest in FY 2013 and has been steadily increasing since then. This increase is likely due to increased property values, primarily within the Mountain House community, as the region recovers from the national economic recession of 2008-2009.

It should also be noted that in 2016, Contra Costa LAFCo detached 487 acres from BBID in the Discovery Bay area. This resulted in the reduction in property tax revenue in the Contra Costa portion of the District by \$684, 246. Therefore, for 2017, the total property tax revenue district-wide was reduced from \$4.17 million to \$3.48 million.



BBID Revenue from Standby Fees

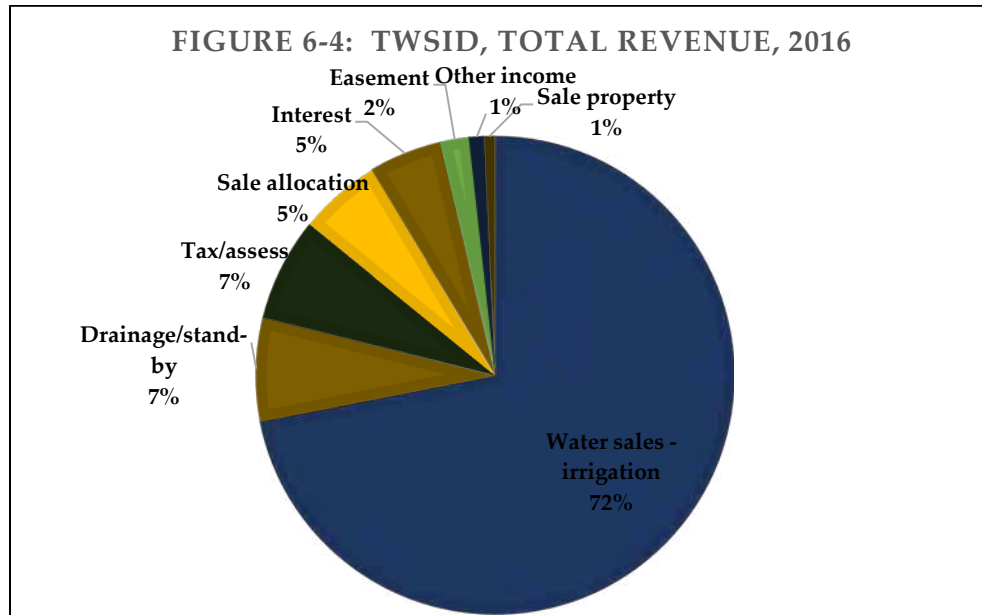
Generally, irrigation districts may charge a standby fee to those parcels which do not receive water service from a District, to compensate for the costs of maintaining and operating existing District facilities capable of serving the parcel. For BBID standby fees are sometimes more complicated due to the timing of the assessment in relation to planting and irrigation decisions. Standby fees are not assessed to residential property owners. Last year, 298 parcels were assessed the stand-by fee and of those, only 39 parcels did not receive water service (personal communication, R. Gilmore, January 2019). In other words, less than one percent of the parcels within BBID were assessed a standby fee, but did not receive water service. As shown in Figure 6-1 and Table 6-3 in the year 2016, BBID collected \$128,159 in standby fees and this is less than two percent of total revenue.

The West Side Irrigation District Revenue

TWSID has two basic types of revenue:

- Operating revenues consist primarily of charges for services; and
- Non-operating revenues and expenses are related to financing and investing type activities

The District obtains revenue from numerous sources including water sales, property tax, reimbursements, and water transfers. In 2016, the District had total revenue of \$864,519 as shown in Figure 6-4 and Table 6-5, below.



<i>Table 6- 5: TWSID Total Revenue, 2016</i>	
Operating Revenue Detail	Amount
Water sales - irrigation	\$621,907
Drainage/stand-by	\$60,097
Taxes (property +) and assessments	\$60,490
Sale allocation	\$48,000
Interest	\$42,332
Easement	\$17,168
Construction water + Other income	\$8,525
Sale property	\$6,000
Total Operating Revenue	\$864,519
<i>Data Source: TWSID CAFR, 2017, Statement of Activities</i>	

TWSID Charges for Service

Water Sales represent a significant portion (72%) of TWSID's total income. Water sales are the primary purpose of the District and primary source of income. In the six-year study period, 2016 had the smallest income from water sales with TWSID's water sales at \$621,907 as shown in Figure 6-2 and Table 6-4 above.

TWSID Property Tax Revenue

Independent districts such as TWSID have no authority over the property tax base, rate or allocation. TWSID receives an allocation of property tax revenue from San Joaquin County as authorized by the State of California. Although property tax revenue can be relatively stable, it does sometimes lag approximately two years behind changes in market conditions. In 2016, TWSID received \$59,352 in property tax revenue as shown in Table 6-6, below. During the six-year study period, property tax revenue was at its lowest in FY2011 and has been mostly increasing since then. This increase is likely due to increased property values as the region recovers from the national economic recession of 2008-2009.

Table 6-6: TWSID Property Tax Revenue						
	2011	2012	2013	2014	2015	2016
TWSID Property Tax Revenue	\$50,294	\$56,207	\$57,329	\$56,366	\$58,035	\$59,352
<i>Data Source: statement of revenues, expenses, and changes in net position, TWSID CAFR 2016, 2015, 2014, 2013, 2012, and 2011</i>						

TWSID Revenue from Standby Fees

Generally, irrigation districts may charge a standby fee to those parcels which do not receive water service from a District, to compensate for the costs of maintaining and operating existing District facilities capable of serving the parcel. For TWSID standby fees are sometimes more complicated due to the timing of the charge in relation to planting and irrigation decisions. Additionally, TWSID's audit lumps drainage fees and standby fees together. Last year, 204 individual parcels were assessed the drainage/stand-by fee and of those, only 89 parcels did not receive water service (personal communication, Carol Petz, January 2019). In other words, less than ten percent of the parcels within TWSID were assessed a standby fee, but did not receive water service. As shown in Figure 6-4 and Table 6-5, in the year 2016 TWSID collected \$60,097 in standby fees and this is approximately seven percent of total operating revenue.

6.3: EXPENSES

BBID Operating Expenses

In FY2016, BBID's total operating expenses were \$6.7 million for the water system, as shown in Figure 6-5 and Table 6-7, below.

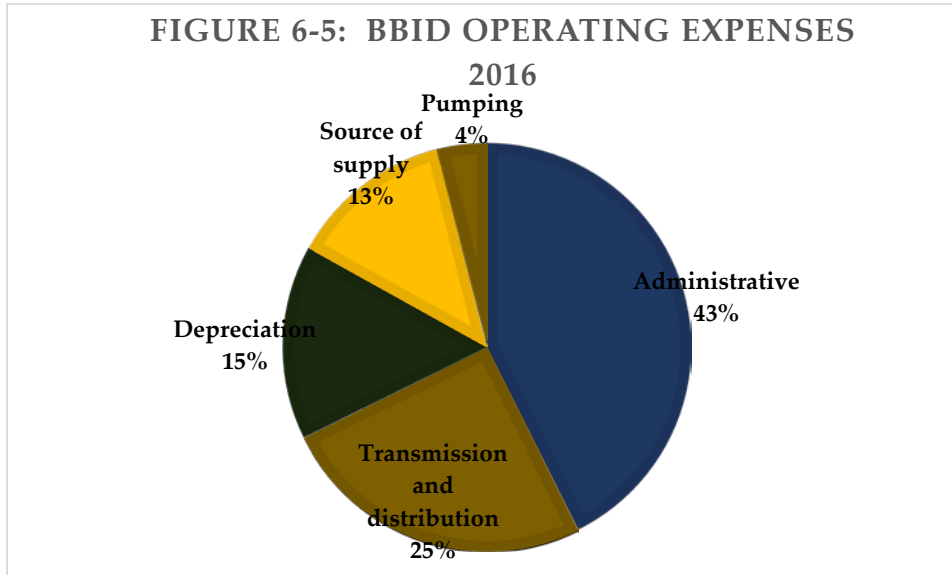


Table 6-7: BBID Operating expenses, 2016

Administrative	\$2,883,795
Transmission and distribution	\$1,696,723
Depreciation	\$1,040,228
Source of supply	\$879,600
Pumping	\$264,916
<i>Total operating expenses</i>	<i>\$6,765,262</i>

It should be noted that 2016 was an unusual year for BBID because it had over \$1.5 million in legal expenses that were lumped in with the "Administrative" expense categories. BBID's lawsuit related to the State Water Resources Control Board's order to cease water diversions during the statewide drought as detailed here: <http://bbid.org/tag/lawsuit/>. BBID won the lawsuit. Additionally, 2017 was a normal water year and this lessened the drought emergency. This legal expense was a temporary expense and for 2018, expenditures on legal representation (and hence the "Administrative" category) will decline. Other typical administrative expenses include office supplies, postage, printing, and costs associated with the Board of Directors. Specific costs associated with the Board of Directors are described in the Districts Ethics Guidelines provided in Appendix G.

TWSID Operating Expenses

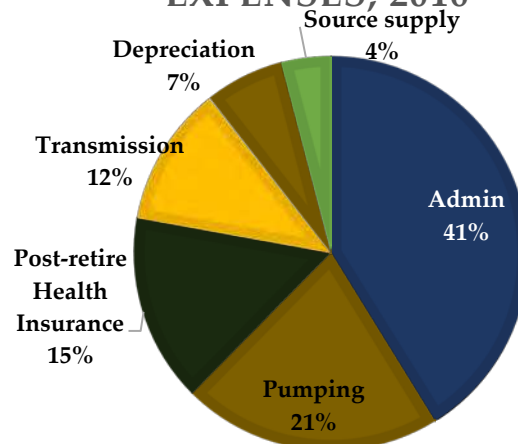
In 2016, TWSID's operating expenses totaled \$1.46 million as shown in Figure 6- 6 and Table 6-8, shown below. Administration and general expenses are the largest expense category, utilizing 41 percent of funds. Insurance, legal expenses, and salaries are the largest types of expenses in TWSID's "administrative" category. During 2016, TWSID experienced an operating loss of \$773,234 (i.e. considering only operating revenue). However, when non-operating revenue (i.e. property taxes and other sources) are added into the equation then total revenues exceeded operating expenses as shown in Table 6-10.

Table 6-8: TWSID Operating Expenses, 2016	
Type of Expense	Cost of Expense
Admin	\$599,216
Pumping	\$309,302
Post-retire Medical Insurance	\$224,484
Transmission	\$168,262
Depreciation	\$94,934
Source supply	\$59,040
Total operating expenses	\$1,455,238
Operating Loss	\$773,234
<i>Data Source: TWSID CAFR, 2017, Statement of Activities</i>	

Operating Revenues vs. Expenditures

Operating revenue includes revenues derived from water sales, stand-by charges, water transfers, O&M charges, customer finance charges, and other. Operating expenses include paying for the raw water supply at the source, pumping, transmission,

FIGURE 6-6: TWSID OPERATING EXPENSES, 2016



distribution, administrative, and depreciation costs. Comparing operating revenues to operating expenses allows consideration of the District's the service obligations from a financial perspective. Comparing operating metrics addresses the extent to which charges for service covered operating expenses and indicates whether the service is self-supporting.

BBID Revenues vs. Expenditures

Figures 6-7 and 6-8 show BBID and TWSID operating revenues and expenses in separate graphs. After the merger is finalized, these costs will be considered jointly in the merged district's budget and financial statements. BBID had operating revenues that exceeded expenses (i.e. positive revenues) for 1 of the 5 study years (2014) as shown in Figure 6-7 and Table 6- 9, below. As shown in Tables 6-9 and 6-10, BBID and TWSID both normally experience less operating revenue in comparison to operating expenses; however, it is important to note that both Districts receive significant non-operating revenue, such as property taxes, that provide a positive net position that is generally carried over into the next fiscal year.

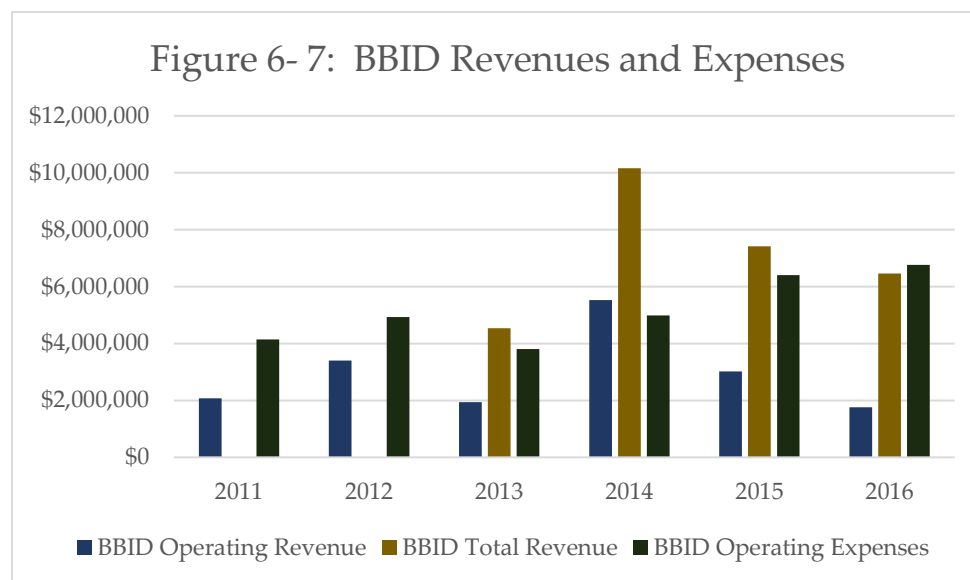


Table 6-9: BBID Revenues and Expenses

BBID Revenues and Expenses						
	2011	2012	2013	2014	2015	2016
BBID Operating Revenue	\$2,076,258	\$3,398,953	\$1,935,034	\$5,527,562	\$3,019,141	\$1,763,303
BBID Total Revenue			\$4,537,073	\$10,159,902	\$7,419,262	\$6,463,100
BBID Operating Expenses	\$4,146,971	\$4,927,497	\$3,804,636	\$4,985,713	\$6,407,658	\$6,765,262
<i>Data Source: Statement of revenues, expenses, and changes in net position, (BBID); CAFR, 2011 - 2015</i>						

TWSID Revenues vs Expenditures

TWSID had operating revenues that exceeded expenses (i.e. positive revenues) for 1 of the 5 study years (2015) as shown in Figure 6-8 and Table 6- 10, below.

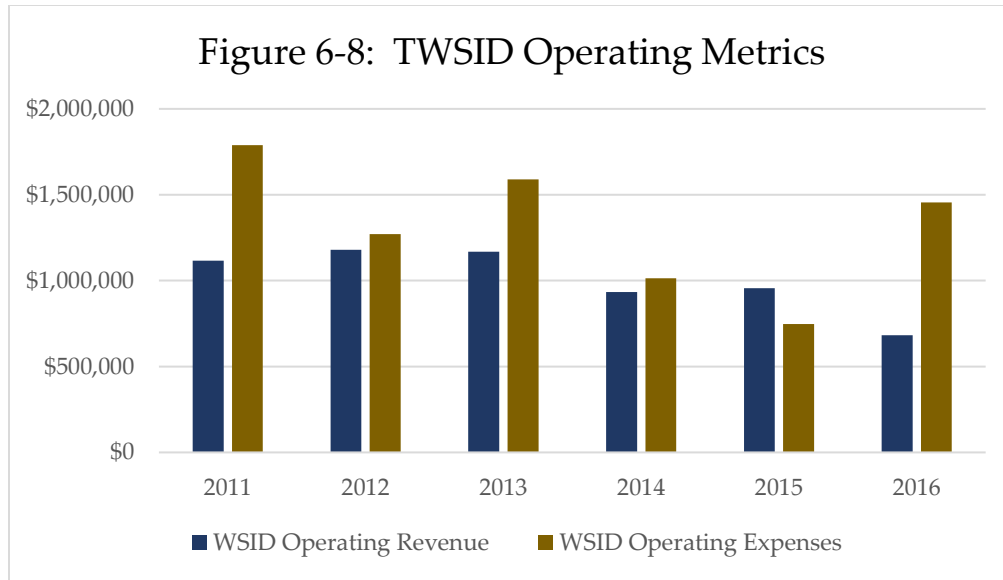


Table 6-10: TWSID Operating Expenditures vs. Revenues

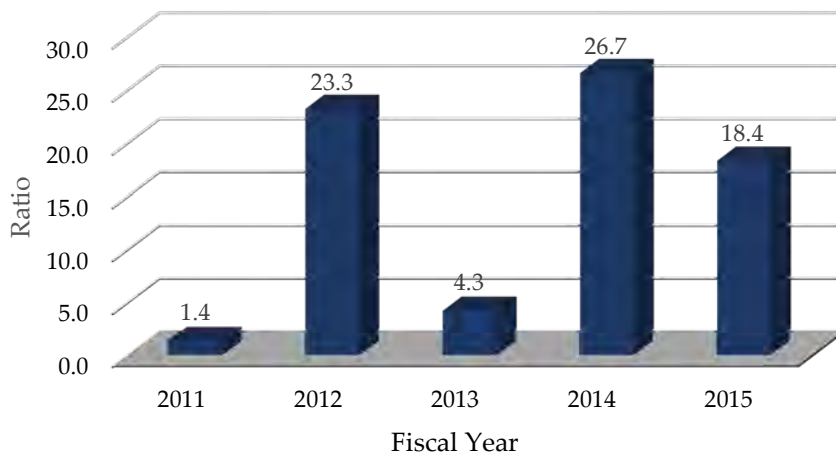
WSID Comparison Total Revenues and Expenditures						
	2011	2012	2013	2014	2015	2016
WSID Total Revenue	\$1,335,870	\$1,431,391	\$1,529,498	\$4,286,487	\$1,253,989	\$864,519
WSID Operating Revenue	\$1,116,586	\$1,179,345	\$1,169,222	\$933,702	\$955,132	\$682,004
WSID Operating Expenses	\$1,788,561	\$1,270,831	\$1,589,636	\$1,014,268	\$746,800	\$1,455,238
<i>Data Source: WSID, CAFR, Statement of Activities and Management Discussion, 2011 - 2015</i>						

Figures 6- 7 and 6- 8 indicate that both BBID and TWSID depend upon non-operating revenue to meet their service obligations.

Liquidity Ratios

Liquidity measures a government agency's ability to meet its short-term obligations. A high ratio suggests an agency is able to meet its short-term obligations. This liquidity ratio was calculated by dividing "cash and cash equivalents" by "current liabilities". The data for Figures 6-9 and 6-10, below, was derived from the Statement of Net Assets within the CAFR, Years 2011 to 2015, as shown in Table 6-11 below. BBID was best able to meet its short-term obligations in 2014, when its liquidity ratio was the highest at 26.7. BBID's Liquidity Ratio is highly variable, as shown in Figure 6-9, below.

Figure 6- 9: BBID Liquidity Ratio



Data Source: BBID CAFR 2011 - 2015

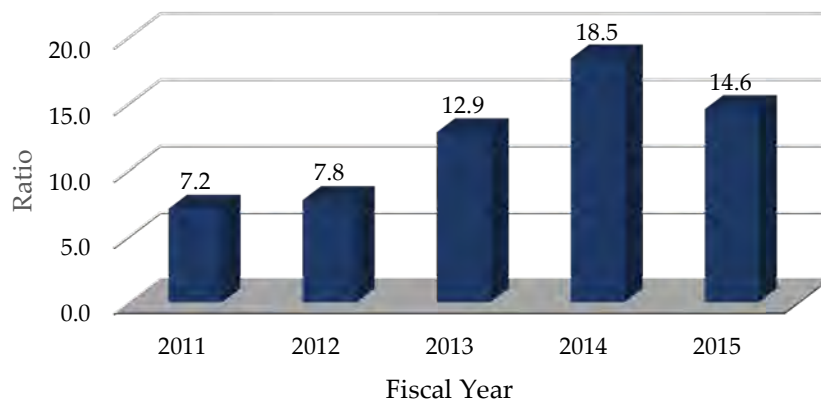
Table 6-11: BBID Liquidity Ratio

BBID Liquidity					
	2011	2012	2013	2014	2015
Cash and Investments	\$8,406,820	\$9,011,519	\$10,248,342	\$12,302,687	\$12,251,215
Current Liabilities	\$5,926,280	\$387,072	\$2,395,497	\$461,545	\$666,330

Data Source: Statement Of Cash Flows and Statement of Liabilities And Net Position, BBID CAFR 2011-2015

As shown in Figure 6-10, below, TWSID was best able to meet its short-term obligations in 2014, when its liquidity ratio was the highest at 18.5.

Figure 6- 10: TWSID Liquidity Ratio



Data Source: TWSID CAFR 2011 - 2015

Table 6-12: TWSID Liquidity Data

TWSID Liquidity Data Table					
	2011	2012	2013	2014	2015
Cash and Investments	\$1,474,476	\$1,676,220	\$1,754,108	\$4,252,358	\$4,410,264
Current Liabilities	\$206,137	\$214,760	\$136,192	\$230,464	\$301,485
<i>Data Source: TWSID, 2017 Annual Financial Report, Statement of Net Position</i>					

Net Position

The Total Net Position is considered a useful indicator of an agency's financial position because it can indicate whether it is improving or deteriorating. Net Position represents the difference between assets and deferred outflows of resources and liabilities and deferred inflows of resources.

Table 6-13: Total Net Position						
	2011	2012	2013	2014	2015	2016
BBID	\$27,367,553	\$33,343,174	\$30,001,374	\$34,793,953	\$35,562,892	\$35,130,281
TWSID	n/a	\$2,134,583	\$2,074,445	\$5,346,664	\$5,843,853	\$5,263,134
<i>Data Source: BBID and TWSID CAFR for 2011 through 2016</i>						

As shown in Table 6-13, above, the Total Net Position for both BBID and TWSID varies from year to year. For BBID, the lowest net position was in 2011 at \$27 million and the trend has been increasing overall. For TWSID the lowest net position was 2013 at \$2 million and it increased during 2014 and 2015. In 2016, the net position at \$5.2 million is slightly lower than it was in 2015 at \$5.8 million.

Summary Scores Revenues, Expenditures, and Net Position

Table 6-14: Summary of BBID & TWSID Revenues, Expenditures, and Net Position		
BBID Indicator	Score	Notes
Revenues exceed expenditures in 50% of studied fiscal years	✓	Although the operating revenue is less than the operating expenditures in most years, the District's non-operating revenue makes up for the difference.
Increases or decreases in net position	1	Pattern of increase in net position appears to be average.
TWSID Indicator	Score	Notes

Revenues exceed expenditures in 50% of studied fiscal years	1	As shown in Table 6-10, revenues exceed expenditures in 50% of studied fiscal years and this is the average condition.
Increases or decreases in net position	1	Pattern of increase and decrease in net position is variable. This pattern appears to be average.
Key to score: ✓= Above average (compared to similar irrigation districts) 1= Average 0= Below average		

6.4: TAX RATE AREAS

The Auditor-Controller groups taxable properties³ into Tax Rate Areas (TRAs). The TRA contains the taxing authority for each area as established by the State Board of Equalization, as well as the tax rates for each authority, including districts such as BBID and TWSID. The TRA is shown on the property tax bill that is mailed to owners of property within each County.

Property taxes are based on the assessed value of both land and structures (improvements) on any particular parcel of land. Under Proposition 13 approved by the voters in 1978, the *ad valorem* property tax rate is limited to 1% of assessed value; plus a maximum annual increase of 2%. Pursuant to Revenue and Taxation Code Section 93(b), revenue from the ad valorem property tax is distributed to local agencies and schools by the Board of Supervisors in each county⁴. Beginning with the 1979-80 Fiscal Year (and as a result of Proposition 13 approved by the voters in June 1978), the Board of Supervisors of each county is responsible for allocating property tax revenues to cities, special districts, school districts, county superintendents of schools, and community college districts, as well as the county itself. The 1% *ad valorem* property is allocated by 'Increment Allocation Factors' (equivalent to rough percentages) within each Tax Rate Area (TRA).

³ A portion of BBID and TWSID's revenues are from local property taxes. Property tax revenue is dependent upon the value of the properties within the District's boundaries. The San Joaquin, Alameda, and Contra Costa County Assessor's Office assigns assessed values to properties. The County Auditor's Office retains records of property assessed values and property taxes collected.

⁴ Historically, Special Districts that were in place and operational as of June 1978 were eligible to receive a portion of the ad valorem property tax as determined by the Board of Supervisors. The County-wide property tax allocation replaced the ability of Special Districts to levy their own property taxes prior to Proposition 13. Property tax allocations are determined by the Board of Supervisors, and are established by the Board in consultation with the affected agencies, by the degree and type of service, and by the historic tax rates prior to 1978.

Byron Bethany Irrigation District has 25 TRAs⁵ within the District boundary: eleven in Contra Costa County; one in Alameda County; and thirteen in San Joaquin County. From the eleven TRAs in Contra Costa County, BBID is allocated approximately 12% to 15% of the 1%, resulting in annual property tax revenue of approximately \$314,932. From the single TRA in Alameda County, BBID is allocated approximately 24% of the 1%, resulting in annual property tax revenue of approximately \$395,787. From the thirteen TRAs in San Joaquin County, BBID is allocated approximately 2 to 4% of the 1%, except for the Mountain House TRA⁶, for which BBID is allocated approximately 10% of the 1%. Prior to the formation of the Mountain House Community Services District (MHCSD) in 1996, property taxes in the area were allocated based on a formula determined by the San Joaquin County Board of Supervisors in previous years. Pertinent example allocations are listed in Tables 6-15 and 6-16, below.

Table 6-15: Mountain House Tax Allocations TRA 092-002 (not annexed)				
TRA: 092-002	Tax Increment: (526,344.21)			
	Entity		Allocation	
10001	County General Fund	971,124.59	0.215945	(113,661.40)
10527	Road District 5	190,180.40	0.042290	(22,259.10)
10618	County Library	78,353.96	0.017423	(9,170.50)
12830	Lammersville Unified Schools	921,389.67	0.204886	(107,840.56)
13001	S.J. Delta Comm College	174,329.57	0.038765	(20,403.73)
13201	County Office of Education	69,447.42	0.015443	(8,128.33)
13401	Tracy Cemetery	24,193.51	0.005380	(2,831.73)
15401	Tracy Rural Fire	564,779.86	0.125588	(66,102.52)
16001	SJC Flood Control	7,643.96	0.001700	(894.79)
21901	SJC Mosquito Abatement	34,313.14	0.007630	(4,016.01)
24201	Byron-Bethany Irrigation	181,593.40	0.040380	(21,253.78)
41100	ERAF - Educational Revenue Augmentation Fund	1,279,737.26	0.284570	(149,781.77)
TRA Totals:		4,497,086.74	1.000000	(526,344.21)

Table 6-15 above shows the tax allocations for TRA 092-002 which is located in proximity to MHCSD, but is not annexed to the District. The allocations for TRA 092-002 are similar to the allocations that were once given to TRA 092-018 prior to its inclusion into the MHCSD. Following

⁵ Please note that no new taxes were added after the passage of Proposition 13. All properties were levied a property tax equal to 1% of the then assessed value or market value of land and improvements (buildings). All properties with the county (except public lands) are assessed property taxes at the same rate.

⁶ The Mountain House Community property was located within the BBID boundary prior to Proposition 13. Upon creation of the Mountain House Community Services District, the existing property tax allocation for BBID was included in the overall 1% ad valorem property tax allocation. With the Mountain House development factored in, consultants estimate that property tax revenue for BBID would increase an average 6% per year. TWID on the other hand, would remain static and increase 2% per year (as allowed by Prop 13).

formation of MHCSD, the San Joaquin County Board of Supervisors re-allocated property tax revenues within the MHCSD boundary (Tax Rate Area 092-018) as listed in Table 6-16, below.

Table 6-16: Mountain House Tax Allocations Tax Rate Area 092-018 (annexed into MHCSD)					
TRA: 092-018	Tax Increment: 2,128,769.22				
	Entity		Allocation		
10001	County General	4,175,054.88	0.202424	430,913.98	4,605,968.86
10527	Road District 5	0.00	0.000000	0.00	0.00
10618	County Library	336,833.70	0.016331	34,764.93	371,598.63
12830	Lammersville Unified Schools	3,958,660.49	0.191933	408,581.06	4,367,241.55
13001	S.J. Delta Comm College	749,432.31	0.036336	77,350.96	826,783.27
13201	County Office of Education	299,315.76	0.014512	30,892.70	330,208.46
13401	Tracy Cemetery	103,993.42	0.005042	10,733.25	114,726.67
16001	SJC Flood Control	32,856.35	0.001593	3,391.13	36,247.48
21901	SJC Mosquito Abatement	147,513.00	0.007152	15,224.96	162,737.96
24201	Byron-Bethany Irrigation	2,198,709.31	0.106603	226,933.19	2,425,642.50
26001	Mountain House - CSD	3,245,474.69	0.157355	334,972.48	3,580,447.17
41100	ERAF - Educational Revenue Augmentation Fund	5,377,387.92	0.260719	555,010.58	5,932,398.50
TRA Totals:		20,625,231.83	1.000000	2,128,769.22	22,754,001.05

Tax Revenue from the Mountain House Area

As Tables 6-15 and 6-16 in the MSR/SOI illustrate, BBID was allocated 4.0% of the property tax revenue prior to the formation of the Mountain House Community Services District⁷ (MHSCD). Following the MHCSD formation, the San Joaquin County Board of Supervisors (BOS) re-allocated property tax revenue. BBID did have informal discussions with the BOS and the Master Developer to coordinate information on the cost of services during the time of MHCSD formation. As a result, BBID's property tax allocation increased to 10.7%.

⁷ Table 6-16 reflects the tax allocations within MHCSD, which is now responsible for fire protection and road maintenance. For example, those funds from Tracy Rural Fire Protection District (12.5%) and Road District No. 5 (4%) shown in Table 6-15 were re-allocated to MHCSD in Table 6-16. Byron Bethany Irrigation District's allocation increased from 4.0% to 10.7%, drawing from the County General Fund and other adjustments. The rationale for this increase was to provide sufficient funding for BBID to construct waterworks improvements to serve MHCSD, and for future new construction, repairs, and maintenance. Of the four TRA's shared with MHCSD, BBID's proportional share ranges from a low of 0.000662 to 0.106603. Property owners within MHCSD do not pay a monthly service charge for water supplied by BBID.

Within San Joaquin County, BBID is currently within thirteen Tax Rate Areas⁸; four of which are shared with MHCSD and six are shared with Lammersville Unified School District (LUSD). Approximately four to six TRAs were within BBID, prior to its consolidation with the Plain View Water District (PVWD) in 2004. Approximately seven to nine TRAs were within PVWD, pre-consolidation. BBID's percentage of the property tax was higher than that of PVWD. Under the BBID/PVWD reorganization, a separate zone was created to collect property tax from the previous PVWD territory; and at the same tax rate, which had been received by Plain View. In 2008 or 2009, the San Joaquin County Auditor Controller "consolidated" the two zones.

Of the thirteen TRAs currently with BBID, four are within TRAs with MHCSD, while the other nine do not include MHCSD. For these non-MHCSD TRAs, BBID receives between 1.8% and 4.0% of the allocated property tax. Within the four TRAs common with MHCSD, BBID receives 10.7%, 0.06%, 4.0% and 4.0%. It is only within TRA 092-018 that BBID receives the 10.7% allocation. This generates approximately \$2.43 million each Fiscal Year that is utilized by BBID for the services described below.

Costs and Benefits of Services Provided to MHCSD

Currently, the untreated raw water rate to MHCSD, which has not increased in four years, is \$149.29 per acre-foot. Based on BBID's 2019 Budget, the cost of service to MHCSD is \$585.19 per acre-foot, for Routine General & Administrative and O&M Expenses, including Capital Repayment for the 2017 Series Revenue Bonds. Fees and taxes paid by MHCSD to BBID contribute towards BBID's expenses for general and administrative expense, routine operations and maintenance expense, and 2017 series revenue bond refunding expense.

In addition to utilizing non-operating revenue (property tax) to off-set the MHCSD water rate, BBID also utilizes non-operating revenue for the following Extra-Ordinary and water resources/planning expenses:

- Capital equipment replacement
- Water resources planning
- Assistance with Division of Drinking Water
- Infrastructure Vulnerability Assessment Implementation
- Urban water management compliance
- Planning of emergency untreated water transmission pipeline

⁸ TRAs for BBID within San Joaquin County are numbered as follows: 004-053, 088-012, 122-006, 092-032, 092-030, 088-010, 092-027, 004-072, 004-068, 092-002, 092-016, 004-086, and 092-018.

Other Tax Rate Information

Because the San Joaquin County Board of Supervisors is solely responsible for allocating the 1% Ad Valorem Tax, only the Board can change the allocation formula. Currently, San Joaquin County non-Mountain House TRAs generate approximately \$482,826 per year, while the Mountain House TRA generates approximately \$2,198,709.

Total property tax revenues for BBID in San Joaquin County is approximately \$2,681,535. These are 2016 figures, which usually increase 2% per year under Prop 13. District-wide, BBID received approximately \$3.48 million in property tax revenues in 2017.

The Westside Irrigation District has 13 TRAs within the District boundary, all within San Joaquin County. From these thirteen TRAs, TWSID is allocated approximately 1.5% to 1.9% of the 1%, resulting in annual property tax revenue of approximately \$55,800.

Under the BBID-TWSID consolidation, it is expected that there will be no change to the TRA allocations for each County; and that the revenues from each County will be combined into one revenue account.

6.5: CAPITAL IMPROVEMENT PLAN

BBID's Capital Improvement Plan is embedded in its 2017 Agricultural Water Management Plan and is readily available on the District's website. The proposed capital improvements include seepage reduction projects such as those listed in Table 6-17, below. Examples of other CIP projects BBID is implementing include the development of a SCADA telemetry plan that will allow expansion of SCADA capabilities in the Byron Division. Another example is the replacement of Pumping Station 5 in the Byron Division. Some of BBID's infrastructure, such as Main Canal (No. 9) constructed in 1919, is a century old. Ageing infrastructure does need periodic replacing through the capital improvement plan. Facilities to service new development areas are financed or provided by the requesting party.

Table 6-17: BBID Seepage Reduction Projects	
<i>Project</i>	<i>Status</i>
Canal 45 South Lining	Completed
Canal 120 Lined Portion	Completed
Canal 155 Lined Portion	Completed
Canal 45 North Lined Portion	Completed
Gate 14 Pipeline Replacement with Fused HDPE Pipe	Completed

Green Line Phases I-IV Pipeline Replacement and Canal	Completed
H-Line Pipeline Replacement with Fused HDPE Pipe	Completed
Taylor Lane Culvert Replacement Project	Completed
Canal 45 North Canal Conversion to Pipe	In progress: design
R-Line Pipeline Replacement	In progress: design
Green A-Line and Green B-Line Pipe Replacement	In progress: design
Kellogg Creek-Canal 45 Radial Gate Replacement and	In progress:
12 Canal Lining and Lining Rehabilitation Projects	Future planned
13 Pipeline Replacement Projects	Future planned

Data Source: 2017 BBID Agricultural Water Management Plan

TWSID does not have a capital improvement plan.

6.6: RESERVES

In California, many special districts have accumulated reserves. There are no standards guiding the size and use of reserve funds. Reserve and investment policies and practices could be improved through the establishment of guidelines and enhanced scrutiny. The amount set aside in reserve funds can vary from year to year, depending on the needs of the district. As of 2016, BBID had Restricted reserves in the amount of \$1.9 million and Board designated reserves in the amount of \$7.5 million. BBID's 2016 CAFR contains additional detail about these reserves. Although TWSID did not maintain a specifically designated reserve fund in 2016, they do maintain bank cash deposits in excess of the \$ 250,000 FDIC insured amounts. Additionally, TWSID maintains a fund for retiree medical insurance expenses.

6.7: OUTSTANDING DEBTS AND LIABILITIES

TWSID has no long-term debt associated with capital improvement projects and infrastructure. Since TWSID has sufficient deposits on account to meet any capital projects that might arise, there are no plans to add long-term debt financing (TWSID, 2017). However, TWSID does have a long-term unfunded liability associated with post-retirement medical insurance. Specifically, "West Side Irrigation District's post-retirement medical insurance liability is carried at \$1,798,323 on the statement of net position as of December 31, 2016" (TWSID, 2017). TWSID does have a reserve fund set aside to manage this liability.

BBID does have long-term debt in the form of revenue bonds for capital improvement projects and funds owed for the cost of using federal facilities with the USBR as shown in Table 6-18, below.

Table 6-18: Summary of BBID Long Term Debt					
	Balance 1/1/16	Increase	Debt Retired	Balance 12/31/16	Current Portion
Revenue Bonds (Series 2007A and 2032 Term bonds)	\$2,900,000	-	\$185,000	\$2,715,000	\$195,000
Bureau Service Contract	\$3,215,202	\$31,709	\$14,307	\$3,232,604	0
Series 2018 Enterprise Revenue Bonds	0	0	0	0	\$5,000,000
Totals	\$6,115,202	\$31,709	\$199,307	\$5,947,604	\$5,195,000

Data Source: BBID, CAFR, 2017

In 2007, BBID issued \$5,750,000 in Series 2007A Lease Revenue Bonds. The bonds were issued to provide financing for acquisition and construction of the District's administration building. The bonds bear interest at rates from 4.5% to 4.625%, and principal on the bonds is due each October 1. The bonds consisted of two components - Term bonds maturing through 2027 at 4.5%; and Term bonds maturing through 2032 at 4.625%.

Pursuant to two Board Resolutions, there were two sales of 2032 Term Bonds. On February 26, 2010, the District purchased \$1,230,000 in Term Bonds and subsequently on April 29, 2011, the District purchased the \$515,000 balance of the 2032 Term Bonds (a combined total of \$1,745,000 comprising all of the 4.625% in 2032 Term Bonds). The bond indenture requires amounts to be on deposit with a Trustee. This deposit is for a total of \$319,539 (BBID, CAFR, 2017). In 2016 this bond was refinanced.

In October 2018, BBID sold Series 2018 Enterprise Revenue Bonds to fund construction of a new pump station and a Waterline Replacement Project for a total of \$5 million. These bonds have a 3.26% rate. The Series 2018 Bonds provided the District with net proceeds of \$4,911,750 after payment of \$88,250 issuance costs. Total scheduled debt service is \$6,394,701 which results in level annual debt service of \$428,606 (Caldwell Sutter Capital, 2018). BBID will file an "Annual Debt Transparency Report" pursuant to Section 8855(k) of the Government Code California Debt with the Investment Advisory Commission which has a mission of transparency regarding local agency obligations.

Capital Leases: In 2016 the District entered into two capital lease agreements to acquire operating equipment (excavator and track loader). Both leases expire September 28, 2020. The capitalized value of this equipment is \$160,709 and amortization of this leased equipment is included in depreciation expenses.

6.8: RATES

BBID and TWSID charge fees for water service. The Districts' rates cover a portion of the costs of operation, maintenance and repair (OM&R), and debt financed capital improvements, plus other costs anticipated in connection with its programs.

BBID Rates: On May 17, 2016, the BBID Board of Directors adopted Resolution 2016-6 approving an increase in agricultural water user rates based upon the water rate study prepared by CH2M (Jacobs Engineering Group, Inc.). This increase was the first increase of rates in more than two decades. Resolution 2016-6 also established consumptive based water rates and operation & maintenance (O&M) charges for 2016. The new rates were adopted in accordance with the provisions of Articles XIII C and XIII D, of the California Constitution. The Board adopted Resolution 2016-4 adopting procedures for receiving and tabulating protests against agricultural water user charge increases under Proposition 218. The rates and charges applicable to BBID's agricultural customers are shown in Table 6-19.

Table 6-19: BBID Rates		
Service Area/ Type	Description	Rate
Byron & Bethany Agricultural Service Areas	Agricultural Water Rate with a minimum charge of one acre-foot per turn-on	\$65.00 per acre-foot
Byron Service Area	Industrial Raw Water Rate - sand-mining purposes & wetlands mitigation	\$95.00 per acre-foot
Byron & Bethany Agricultural Service Areas	Annual Flat Rate Water Service Charge (Interruptible), based on 2 acres or less	\$120.00 per year
District Wide	Construction Water	\$6.00 per unit (3500 gallons);
Byron & Bethany Agricultural Service Areas	Water Availability/Stand-by Charge;	\$8.00 per acre
Central Valley Project Service Area	Category 1 O&M Charge	\$5.15 per acre
Central Valley Project Service Area	Category 2 O&M Charge	\$66.00 per acre
Central Valley Project Service Area	Category 3 O&M Charge;	\$145.50 per acre
Central Valley Project Service Area	Category 4 O&M Charge	WAIVED
Central Valley Project Service Area	Applicable rates and charges of the Bureau of Reclamation and San Luis & Delta Mendota Water Authority, including the Authority membership assessment, shall constitute the per acre-foot water charge	Applicable rates and charges

TWSID Rates: TWSID rates were approved by their Board of Directors by Resolution during a public meeting. TWSID lists the current rates in its annual notice to water users. Additionally, the rates are provided to the public upon request to District staff. The service charge for raw water/agricultural customers located within TWSID boundary is \$70 per acre foot of water plus misc. fees. TWSID collects an annual Minimum Water Service Stand-By Charge to those properties that are irrigable and are provided irrigation service (TWSID, 2014). The rates and fees that TWSID charges for water and drainage service are listed in Table 6-20, below.

Table 6- 20: TWSID 2017 Schedule of Rates & Tolls

Regular Water Rate	\$70/af + Refundable Security Deposit \$7.50/acre
Water Rate – Detached Land	\$85/af + Refundable Security Deposit \$15.00/acre
Annual Fee – 11 acres or less	\$500/acre
Annual Fee – Mt. View Road	\$400/acre, based on assessor's acres
Annual Fee – Lincoln Acres	\$600/acre, based on assessor's acres
M&I Water Rate	\$480/af
M&I Water Rate – CVP Water	\$1,000/af
Minimum Water Service Stand-By Charge	\$25/acre, applied to irrigation according to existing policy
Drainage Fee – Outside Land	\$15/acre
Annual Fee – Valpico Rd.	\$600/acre
Construction Water	\$7.00 per unit (1 unit = 3,500 gallons) and \$500 non-refundable deposit required at execution of agreement As available per General Manager
Dewatering Schedule	\$2,000/month – 0-5 acres \$3,000/month – 6-40 acres \$4,000/month – 41-80 acres \$5,000/month – over 80 acres As available per General Manager

Indicators about rates for BBID and TWSID are summarized below in Table 6-21.

Table 6- 21: Rate Indicators		
BBID Rate Indicator	Score	Notes
Rates were adopted by the Board of Directors	✓	BBID's Board of Directors adopted Resolution 2016-6
Rates are consistent with requirements of the State Water Resources Control Board and the process for adopting rates are consistent with Proposition 218	✓	Resolution 2016-6 describes consistency with state laws
Rates are readily available to constituents	✓	Rates are transparently displayed on the District's website at: http://bbid.org/governance/your-water-rates/
TWSID Rate Indicator	Score	Notes
Rates were adopted by the Board of Directors	0	Insufficient data (Resolution not yet provided to MSR authors)
Rates are consistent with requirements of the State Water Resources Control Board and the process for adopting rates are consistent with Proposition 218	0	Insufficient data
Rates are readily available to constituents	1	TWSID lists the current rates in its annual notice to water users. Additionally, the rates are provided to the public upon request to District staff.
Key to score: ✓= Above average (compared to similar irrigation districts) 1= Average 0= Below average		

6.9: OPPORTUNITIES FOR SHARED FACILITIES

LAFCo is required by the CKH Act to make a determination regarding opportunities for shared facilities. Both BBID and TWSID work closely with surrounding agencies. Specific examples of shared facilities, equipment, and/or staff are as follows:

- BBID shares staff with TWSID as authorized by its November 9, 2016 agreement approved by both Board of Directors that allows BBID to provide maintenance and operational services. This agreement became effective on December 1, 2016 and as part of this agreement, BBID shares equipment (tractors etc.) with TWSID on an as needed basis;

- BBID provides management services to the Byron Sanitary District (BSD), which is a separate district⁹ with its own Board of Directors. BSD contracts with BBID for staff services & management; and
- TWSID provides storm drainage service, including use of TWSID storm facilities and TWSID expertise to a portion of the City of Tracy.

Aside from Consolidation of TWSID with BBID, no additional opportunities for shared facilities has been identified.

6.10: MISCELLENIOUS FINANCIAL INFORMATION

Joint Power Authorities

Effective January 1, 2017, Government Code §6503.6 and §6503.8 require LAFCo to be a repository for all Joint Powers Authority Agreements (JPA) within a county that relate to the provision of municipal services. Below are the qualifying JPAs that BBID and or TWSID participate in. Both the irrigation Districts belong to joint power authorities (JPAs) as listed in Table 6-22.

Table 6- 22: Joint Power Authorities	
BBID	TWSID
San Luis Delta Mendota Water Authority ¹⁰	San Luis Delta Mendota Water Authority
Association of Calif Water Agencies and Joint Powers Insurance Authority (workers compensation insurance, property liability insurance and medical insurance)	Association of Calif Water Agencies and Joint Powers Insurance Authority (workers compensation insurance, property liability insurance and medical insurance)
Power Water Pooling Authority ¹¹	Power Water Pooling Authority
Byron Bethany Joint Powers Authority (Byron Sanitary District and BBID)	Delta-Mendota Canal Contractors Authority (Note: This agency was formed as a joint defense powers agency.)
East County Water Management Association	

⁹ Byron Sanitary District Municipal Service Review was prepared by Contra Costa LAFCO in May 2006. This MSR is available at http://www.contracostalafco.org/municipal_service_reviews.htm

¹⁰ Both BBID and TWSID are a part of the San Luis and Delta Mendota Water Authority, which has produced an AB3030 Groundwater Management Plan for the water districts within San Joaquin County (SJCFCWCD, 2001).

¹¹ The Power Water Pooling Authority is a Joint Power Authority serving 14 California Water purveyors from Willows in the Northern Sacramento Valley to the Bakersfield area in the Southern San Joaquin Valley.

Cost Avoidance

This section highlights cost avoidance practices, given necessary service requirements and expectations. Ideally, proposed methods to reduce costs would not adversely affect service levels. In general, irrigation systems have a fixed cost associated with infrastructure, operations and maintenance and has a variable cost related to supply. Given these constraints, both BBID and TWSID pursue an array of cost avoidance techniques that each contributes incrementally towards keeping costs at a reasonable level. Specifically, both BBID and TWSID carefully utilize their budgeting processes to serve as one means to avoid unnecessary costs. Additionally, BBID's and TWSID's accounting policies provide a consistent treatment of expenditures and review thereof. Also, both BBID and TWSID participate in several joint powers authorities as listed above, and cooperation with these entities tends to reduce costs. BBID's General Manager also serves as the General Manager of TWSID and the Byron Sanitary District, and this shared staff and expertise saves money for all three districts. Additionally, BBID and TWSID do share some equipment. Each of these cost reduction strategies contributes incrementally to saving money for ratepayers and taxpayers.

Financial Implications of Consolidation

The financial implications of consolidating the BBID and TWSID consist the three key issues:

- Retiree medical insurance payments
- Capital improvement funding
- Property tax

For several years in the past, TWSID had an employee benefit program that was not sustainable and since then the District has changed its policy. However, the result of the old employee benefit program is that TWSID is responsible for the retiree medical insurance (not dental or vision) for a few of the retired and current Directors (once they retire) and a few past employees. TWSID has set aside \$1.5 million in reserve funds to pay for this expense as detailed in the TWSID treasurer report. However, since it is not clear whether the reserve funds will be sufficient to fully cover this responsibility, it remains a partially unfunded liability. Upon consolidation BBID would bear this responsibility. After the two districts are consolidated, BBID will prepare an actuarial study of the TWSID finances. If this study determines there are deficits, then a plan to pay for the liabilities will be developed. If needed, the rates for TWSID service area may be modified. BBID currently has a trust fund to set aside funds for CalPERS retirement charges and this is "super-funded" (in excess of).

Although the TWSID does not have a capital improvement plan, they do have a small reserve fund to pay for needed capital improvement projects. However, it is not certain that these reserve funds will be adequate to pay for needed capital projects within the proposed TWSID Service Area after consolidation. Ideally, TWSID Service Area would be self-sufficient. Once

consolidation occurs, BBID will create a capital improvement plan for the new TWSID Service Area and bring it into a consistent approach that aligns with BBID's overall capital improvement plan. This new plan will consider all the capital improvement projects and their associated costs and then develop a plan to pay for the improvements. BBID's General Manager has indicated that TWSID Service Area could be eligible for grant funding from the Bureau of Reclamation water smart program and from the Integrated Regional Water Management Plan. However, applying for these grants requires information such as that provided in a capital improvement plan and requires a careful strategy. BBID will not be able to provide this type of management strategy until after the consolidation of the two districts is approved by LAFCo.

Financial trends regarding property tax revenue and operation costs of the Districts after consolidation are described in Chapter 8.

7: MSR Determinations

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Based on the information included in this report, the following written determinations make statements involving the service factors the Commission must consider as part of a municipal service review¹. The Commission’s final MSR determinations will be part of a Resolution which the Commission formally adopts during a public meeting.

7.1: BYRON BETHANY IRRIGATION DISTRICT DETERMINATIONS

Growth and Population Projections

1. The Byron Bethany Irrigation District (BBID) provides raw water services to approximately 110 agricultural customers and 16,800 residents, plus business and other municipal users in San Joaquin, Contra Costa, and Alameda Counties.
2. BBID provides services within its boundaries. Its boundaries encompass 46.9 square miles.
3. Between the years 2015 to 2040, an additional 47,000 persons are expected to reside within BBID’s boundaries and this population growth can be attributed to changing land-use.

Disadvantaged Unincorporated Communities

5. The According to the U.S. Census, the median household income (MHI) for the State was \$61,933 in 2014 (US Census, ACS, 2010-2014). This yields a DUC threshold MHI of less than \$49,546 (80 percent of the statewide MHI).

¹ The service factors addressed in this report reflect the requirements of California Government Code §56430(a).

6. One unincorporated area located in the north corner of BBID's service area was identified as a potential DUC. However, after researching this area further, this area is found to have a median income of \$53,200, which is above the MHI threshold for DUC status. Therefore, it is determined that BBID does not contain any DUCs.
7. Although there are other disadvantaged areas near BBID, but outside its boundaries, BBID will not likely provide direct municipal water to these areas since BBID supplies only raw water and does not have any treatment facilities.

Present and Planned Capacity of Public Facilities

8. BBID has 315 metered customer turnouts (BBID, 2017). One metered turnout might serve many customers. Also, one farm might have many metered turnouts. BBID has 110 agricultural customers and twelve municipal and industrial customers (BBID, 2017).
9. The facilities and infrastructure on which BBID depends have variable ages. BBID replaces and repairs infrastructure on a regular basis. BBID has implemented preventative maintenance. BBID has a capital improvement plan to address scheduled replacement of aging infrastructure.
10. BBID's recent facility improvements demonstrate its continued investment in the system.
11. Generally, new development occurring within the District could result in an increase in the demand for water services and the need for additional infrastructure. For example, the implementation of the Tracy Hills Specific Plan and other projects within the City of Tracy could result in additional demand for water service. As new development occurs, the City of Tracy typically requires the developer to install new water infrastructure to allow the project to connect to the municipal water facilities. Since District owned facilities already connect to Tracy's municipal facilities and to the Mountain House CSD, new or additional improvements to District facilities may be defined and evaluated on a case-by-case basis.
12. BBID has specific policies regarding return flows for each of its divisions as outlined in its Agricultural Water Management Plan. Runoff from the agricultural fields within BBID's boundaries is minimal due to on-farm water conservation measures, such as drip irrigation as referenced in the Agricultural Water Management Plan.
13. Similar to other irrigation districts, BBID faces challenges regarding the provision of public services. Challenges include aligning water conservation with natural occurring droughts and other water supply limitations, addressing anticipated future regulations dealing with water quality, and supporting various regional water resource planning efforts. The challenges faced by BBID are indicative of an agency that functions in a multi-jurisdictional environment and this contributes to the complexity of situations that BBID faces.

Financial Ability of Agency to Provide Services

14. BBID's financial information includes an annual budget and an annual financial statement which are adopted during a publicly noticed meeting by the Board of Directors. This financial information presented in a standard format and clearly presented.
15. BBID's accounting policies are clearly listed within its annual Financial Statements and Independent Auditor's Report.
16. The District's policy on Reserves is available by request to BBID staff. It is recommended that BBID publish its policy for reserve funds on its website.
17. District salary information is readily accessible via a hyperlink from the District's website to the State Controller's Office.
18. BBID collects property taxes and charges fees for water service to support its public service to supply raw water to its customers.
19. In FY 2016, total annual revenue was \$6.46 million and total annual expense was almost \$6.76 million. However, 2016 was the only year studied where total expenses exceeded total revenues.
20. Although the operating revenue is less than the operating expenditures in most years, the District's non-operating revenue makes up for the difference.
21. The overall trend in net position is positive.
22. As of 2016, BBID had Restricted reserves in the amount of \$1.9 million and Board designated reserves in the amount of \$7.5 million. The District's 2016 CAFR contains additional detail about these reserves.

Opportunities for Shared Facilities

23. BBID has a solid track record of working cooperatively with its neighboring government agencies including TWSID, BSD, Mountain House CSD, and the City of Tracy, among others. The relationship between TWSID and BBID is particular close, with BBID providing staff support and management services to TWSID per their 2016 agreement.
24. Participation in local watershed associations, integrated regional water management groups, and groundwater sustainability agencies may provide additional opportunities for regional cooperation.
25. It is recommended that BBID continue to be open to new opportunities to provide service in a collaborative manner.

Accountability for Community Service Needs

26. The governance structure of BBID is that of an independent district such that their seven members are elected to serve on the BBID Board of Directors.
27. The BBID Board of Directors holds public meetings on a regular basis, scheduled for the 3rd Tuesday of each month at 9:00 a.m. in the Charles Spatafore Auditorium, 7995 Bruns Road, Byron, California.
28. BBID Board meetings are noticed according to the Brown Act and the meetings provide an opportunity for public comment.
29. A key performance indicator suggests that archives of meeting minutes and agendas for three years should be available on a district's website. However, agendas/minutes only for the past year are available on the BBID website. The archives for the two prior years are available upon request directly to BBID staff. BBID recently updated its website and this update will allow the inclusion of archival meeting materials to be posted soon.
30. The BBID Board of Directors and staff have demonstrated that they understand the needs of their customers and they aim to improve the efficiency of the public services they offer.
31. Recently, BBID developed its 2017 Draft Agricultural Water Management Plan which provides details about water use, conservation, and best management practices. A quality assurance or adaptive management plan that shows how activities and actions undertaken contribute to learning and progress which then leads to an adjustment in objectives and best management plans would also be helpful. BBID has taken positive steps in this direction through its provision of vision, mission, and purpose on its website. It is recommended that BBID use its website to provide a link to an actual strategic plan.

Any Other Matters Related to Service Delivery as Required by LAFCo Policy

32. There are no other aspects of wastewater or storm drainage service required to be addressed in this report by LAFCo policies that would affect delivery of services.

7.2: THE WEST SIDE IRRIGATION DISTRICT DETERMINATIONS

Growth and Population Projections

1. The West Side Irrigation District (TWSID) provides raw water services and agricultural/municipal drainage service to local farms and ranches which contain an estimated 3,000 residents. Additionally, TWSID has storm drainage facilities and provides drainage services to a portion of the City of Tracy.
2. TWSID is located in San Joaquin County and provides raw water service and agricultural drainage service within its boundaries. Its boundaries encompass 10.3 square miles.
3. Between the years 2015 to 2040, an additional 285 persons are expected to reside within TWSID's boundaries and this slow to moderate rate of population growth can be attributed to consistent agricultural land-use.

Disadvantaged Unincorporated Communities

4. The According to the U.S. Census, the median household income (MHI) for the State was \$61,933 in 2014 (US Census, ACS, 2010-2014). This yields a DUC threshold MHI of less than \$49,546 (80 percent of the statewide MHI).
5. There are no disadvantaged unincorporated communities within TWSID boundaries.

Present and Planned Capacity of Public Facilities

6. TWSID has two main water supply sources: CVP water from the Delta-Mendota Canal, and water from the Old River, which is a natural tributary to the San Joaquin River. CVP water is diverted via the Delta-Mendota into the district from two gravity-flow turnouts/interconnections. The water is distributed from the turnouts throughout the TWSID using two main canals (9 miles each) and 24 miles of piped laterals. San Joaquin River water is diverted via an unlined intake canal to District pumping facilities. From the pumping facilities, pipelines lift the water to two main canals. From there, water flows via gravity to final delivery to TWSID customers
7. The facilities and infrastructure on which TWSID depends have variable ages. TWSID does not have a capital improvement plan. It is recommended that if LAFCo approves the consolidation between BBID and TWSID, that a capital improvement plan be developed for the TWSID service area in order to address ageing infrastructure.

8. TWSID has no surface storage facilities (TWSID, 2009). TWSID owns an excavator and a backhoe. TWSID owns their office and the associated land located at 1320 Tracy Blvd, Tracy, CA. TWSID has a pumping plant on 4 acres and a maintenance yard on District owned property.
9. Agricultural production within the District has been declining, partially due to the annexation of farmland to the City of Tracy for development. Therefore, TWSID believes the existing size of its facilities and infrastructure are adequate to meet the existing demand for agricultural water.
8. New development occurring within the City of Tracy could result in an increase in the demand for municipal storm drainage services and the need for additional infrastructure. As new development occurs, the City of Tracy typically requires the developer to install new drainage infrastructure to allow the project to connect to the municipal and/or TWSID storm drainage facilities. Although future improvements to District municipal storm drainage facilities could be evaluated on a case-by-case basis, it is recommended that within the next five years, TWSID (or its successor) provide a holistic evaluation of existing drainage facilities and identify any needed improvements.
9. Similar to other irrigation districts, TWSID faces challenges regarding the provision of public services. Challenges include aligning water conservation with natural occurring droughts and other water supply limitations, addressing anticipated future regulations dealing with water quality, and supporting various regional water resource planning efforts. The Board and former staff of TWSID worked diligently to address these challenges. However, in the future, the complexities of functioning in a multi-jurisdictional environment with numerous regulations and collaborators may be better addressed by a consolidated TWSID/BBID.

Financial Ability of Agency to Provide Services

10. TWSID's financial information includes an annual budget and an annual financial statement which are adopted during a publicly noticed meeting by the Board of Directors. This financial information presented in a standard format and clearly presented.
11. TWSID's investment policy was adopted in December 2013.
12. Other TWSID accounting policies were not readily available for inclusion in this MSR. It is recommended that if TWSID is not consolidated with BBID, that TWSID develop a website and post its accounting policies on-line. However, it is recognized that consolidation with BBID would improve accounting transparency for customers.
13. District salary information has been provided the State Controller's Office on a regular basis.

14. TWSID collects property taxes and charges fees for water service to support its public service to supply raw water to its customers.
15. In FY 2016, total annual revenue was \$ 864,519 and total annual expense were significantly higher at \$1.45 million. Total expenses exceeded total revenues in 50 percent of the years studied in this MSR. If this financial trend continues, in the future, an independent TWSID might not be financially sustainable.
16. The overall pattern of increase and decrease in net position is variable.

Opportunities for Shared Facilities

17. TWSID has a solid track record of working cooperatively with its neighboring government agencies including BBID and the City of Tracy, among others. The relationship between TWSID and BBID is particular close, with BBID providing staff support and management services to TWSID per their 2016 agreement.
18. Participation in local watershed associations, integrated regional water management groups, and groundwater sustainability agencies may provide additional opportunities for regional cooperation.
19. It is recommended that TWSID pursue consolidation with BBID to provide service in a more efficient and collaborative manner.

Accountability for Community Service Needs

20. The governance structure of TWSID is that of an independent district such that their five members are elected to serve on the TWSID Board of Directors. However, there is one existing vacancy on the Board.
21. The TWSID Board of Directors holds public meetings on a regular basis, scheduled for the 2nd Wednesday at 6:00 p.m. in TWSID offices at 1320 Tracy Boulevard, Tracy, CA.
22. TWSID Board meetings are noticed according to the Brown Act and the meetings provide an opportunity for public comment.
23. A key performance indicator suggests that archives of meeting minutes and agendas for three years should be available on a district's website. However, TWSID does not have a website and therefore does not meet this indicator. Current and past meeting minutes and agendas are available by contacting TWSID staff directly by phone or email.
24. TWSID has a Water Management Plan approved in 2009 and on file with the California Department of Water Resources. Although the District does not have other current planning documents such as a strategic plan, water conservation plan, or a drainage facilities plan, these types of documents are not legally required.

Any Other Matters Related to Service Delivery as Required by LAFCo Policy

25. There are no other aspects of wastewater or storm drainage service required to be addressed in this report by LAFCo policies that would affect delivery of services.

CHAPTER 8: SPHERE OF INFLUENCE

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8.1: SPHERE OF INFLUENCE BACKGROUND INFORMATION

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (CKH Act) requires that LAFCo review the Sphere of Influence (SOI or Sphere) for each of the special districts and cities within the county. San Joaquin LAFCo is being asked to consider the Byron Bethany Irrigation District/The Westside Irrigation District’s (BBID/TWSID’s) SOI at this time in conjunction with its review of the MSR (presented in Chapters 1-7 of this document). In determining the Sphere of Influence for an agency, LAFCo must consider and prepare written determinations with respect to five factors [Government Code §56425(e)]. These factors relate to the present and planned land uses including agricultural and open-space lands; the present and probable need for public facilities and services; the present capacity of public facilities and adequacy of public services; the existence of any social or economic communities of interest in the area and, for agencies that provide sewer, water or structural fire protection, the present and probable need for those services for any disadvantaged unincorporated communities within the sphere. The determinations for each of these factors are presented in Tables 8-4 to 8-8, below.

BBID and TWSID determined that their sphere of influence should be updated at this time due to the following considerations:

- The MSR is being updated concurrently in Chapters 1-7 of this document.
- It has been several years since LAFCo approved the SOI for BBID and for TWSID.
- Bringing the spheres into conformance with California law and with LAFCo policies is necessary in order to allow continued coordination of boundary issues.
- Property owners of land adjacent to BBID or TWSID (outside the District Sphere) have expressed a need or desire for water service or drainage service in the near future and these parcels are referred to as study areas on Figure 8-2.
- Consolidation of TWSID and BBID is proposed and an SOI Update is part of the process required by LAFCo.

Standard SOI Approaches

The intent of an SOI is to identify the most appropriate areas for an agency's service area in the probable future. Pursuant to San Joaquin LAFCo policies relating to SOIs, LAFCo discourages inclusion of land in an agency's Sphere if a need for services provided by that agency cannot be demonstrated. Accordingly, territory included in an agency's Sphere is an indication that the probable need for service has been established, and that the subject agency has been determined by LAFCo to be the most logical service provider for the area. LAFCo has a number of ways to consider Spheres of Influence and the variety of approaches are listed in Table 8-1, below.

Table 8-1: Standard SOI Approaches	
Type of Approach	Description of Standard Approach
Coterminous Sphere of Influence	For a District that does not plan to provide public services beyond its present boundary, a Sphere boundary that is the same as the agency boundary is called a <i>Coterminous Sphere of Influence</i> .
Minus Sphere of Influence	A <i>Minus Sphere of Influence</i> (or Reduced Sphere of Influence) excludes territory currently within an agency's Sphere.
Zero Sphere of Influence	A <i>Zero Sphere of Influence</i> for a City or District, signals that the City or District does not have the wherewithal, governance capability, financial means, and/or operational capability to provide the municipal services for which it was formed, and should be dissolved or its function(s) reallocated to another agency.
Service Specific Zone within a Sphere	To accommodate situations where territory within an agency's jurisdiction may require some, but not all of the services that the agency is authorized to provide, LAFCo may designate an area within an SOI to which it may attach specific policies,

	including limiting the types of services authorized in that area. The intent of a service specific zone is to limit the types of services provided in a defined area and is not intended in any way to circumvent annexation.
Growth Sphere	Contains territory beyond the jurisdictional boundaries of the local agency and is an indication that the need for public services in the area has been established and the agency has the ability to effectively and efficiently extend the full spectrum of services provided by the agency.
Special Cases	Sphere areas for which public services are not intended to be provided; that is, areas within a Sphere which will remain vacant (such as open space or 'protected lands'). Such an area is a special case and requires the agency to demonstrate why an area should be included within a Sphere for which no public services will be provided.

Currently, both BBID and TWSID have a coterminous SOI which is defined in Table 8-1, above and described in more detail in Section 8.2 below. Additionally, Section 8.3 of this Chapter presents several alternative options to update and modify the Sphere of Influence for the BBID/TWSID, which San Joaquin LAFCo (principal LAFCo) will consider.

8.2: EXISTING SPHERE OF INFLUENCE

Currently, both BBID and TWSID have a coterminous SOI. BBID's sphere of influence is coterminous with its 1993 boundary line as detailed below, and encompasses a total of 29,477 acres as shown in Table 8-2 and Figure 8-1. TWSID's sphere of influence is coterminous with its boundary line and encompasses a total of 6,589 acres.

Table 8-2: Geographic Data			
	<i>BBID</i>	<i>TWSID</i>	<i>Consolidated BBID/TWSID</i>
Size of Boundary*	29,477 acres [46.9 sq. mi.]	6,589 acres [10.3 sq. mi.]	36,066 [57.2 sq. mi.]
Size of Sphere of Influence* Area (including boundary)	SOI is equivalent to the boundary area at 29,477 acres	SOI is equivalent to the boundary area at 6,589 acres	
<i>Data Sources: *GIS data from CH2MHill.</i>			

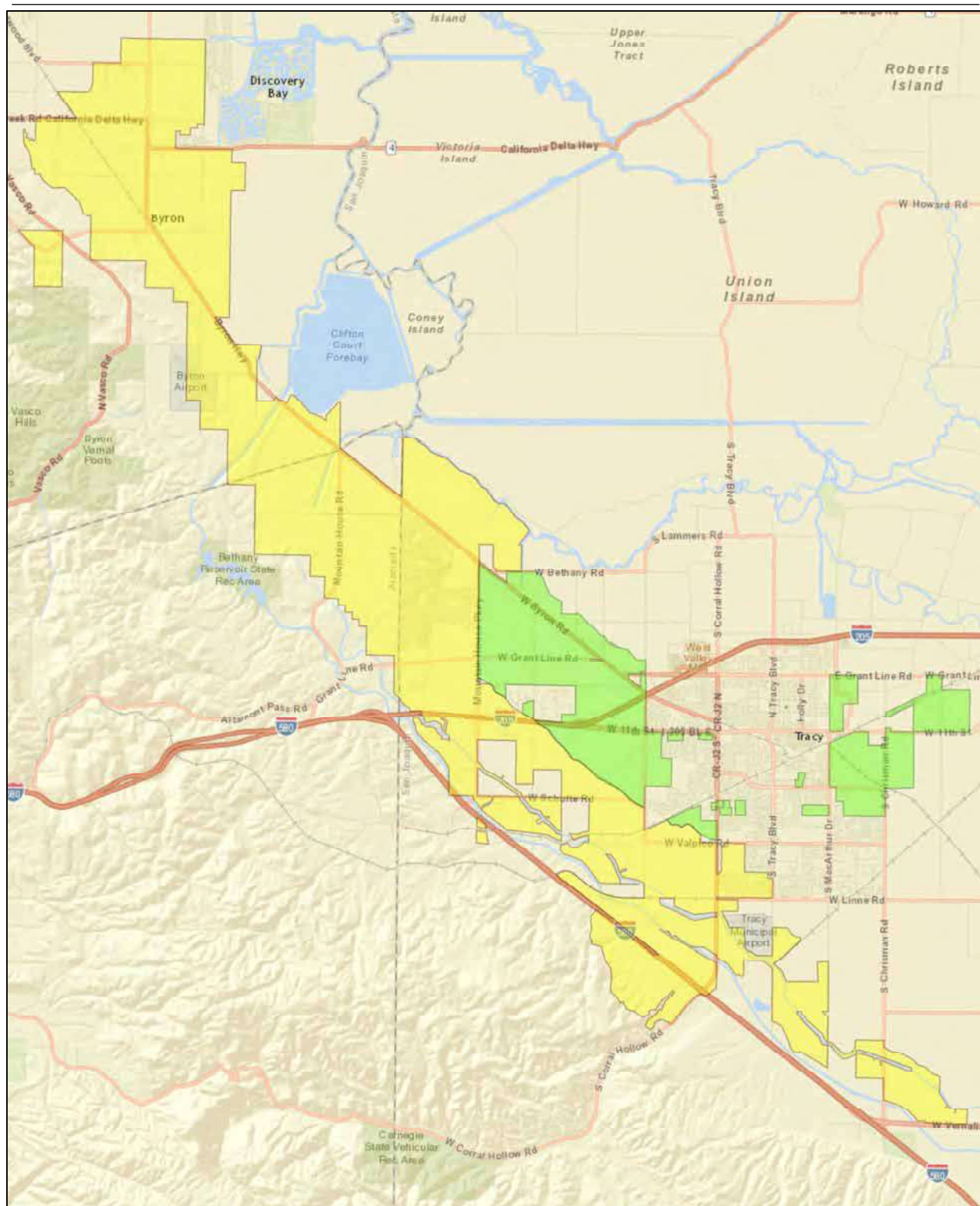
BBID's Existing SOI: BBID's sphere of influence was adopted by San Joaquin LAFCo (the District's principal LAFCo) on December 17, 1993 via Resolution No. 896. BBID's adopted SOI was coterminous with District boundaries of 29,477 acres as it existed in 1993 (see February 2016 boundary change for Discovery Bay CSD described in Option #3 on page 8-8).

It should also be noted that a small portion of the Mountain House area (lands located north of Byron Rd. along Old River) are not within BBID's existing boundaries. LAFCo's 1999 SOI document for the Mountain House Community Services District anticipated that this specific area could be annexed into BBID for provision of raw water supply as this portion of Mountain House developed in the future (SJ LAFCo, 1999). (The other areas of the Mountain House region were previously included in BBID's boundaries as described in Table 4-6.)

TWSID's Existing SOI: San Joaquin LAFCo adopted TWSID's SOI on April 15, 1983 (LAFCo Resolution No. 565). As shown on Figure 8-1, TWSID's SOI appears to be congruent with its boundary, based on available GIS data. However, it is possible that historically as some lands detached from the District, the sphere did not change. When LAFCo adopted Resolution 565, the Commission's meeting minutes noted the following: "The Sphere of Influence for the West Side Irrigation District (is) as follows:

- All territory currently within the district;
- Excluding any territory which is annexed to the City of Tracy for urban development;
- Excluding any territory developed in the unincorporated area for urban or suburban, having no need for irrigation services."

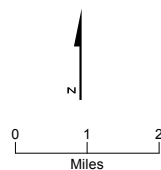
Since 1983, TWSID has interpreted LAFCo's 1983 meeting minutes as follows: "The District's policy is to detach urbanizing area both within the City of Tracy and the unincorporated area. It is the policy of the district to detach any territory which changes its use from agricultural to urban or suburban, no longer needing irrigation. This policy has been implemented in recent years through simultaneous detachment as properties annex to the City and periodic detachment of territory where suburban development is occurring in the unincorporated areas." However, in recent years TWSID has changed its practice to evaluate and consider each annexation/detachment on an individual basis" (TWSID, 2014). Consistent with this practice, TWSID continues to provide irrigation service to several parcels after detachment from the District as long as facilities remain intact. The District also provides surplus water to some properties adjacent to the District. These properties have never been within the District but have historically received service (Elizabeth Contreras, San Joaquin LAFCo; personal communication, 9/28/17). Figure 8-1 indicates that TWSID's adopted SOI is coterminous with the existing boundaries. It is noted that only LAFCo has the authority to decide a district's boundaries and SOI, consistent with the CKH Act.



LEGEND

- Byron Bethany Irrigation District
- Westside Irrigation District

Figure 8-1: Boundary and Sphere of Influence for BBID & TWSID



Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
 Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, IPC, TomTom

8.3: SPHERE OF INFLUENCE UPDATE OPTIONS

Process for SOI Updates

The Commission heard a presentation about the proposed consolidation of BBID/TWSID during their September 8, 2016 meeting. As directed by LAFCo, BBID/TWSID began the process to update their municipal service reviews as presented in Chapters 1-7 of this document. This Chapter (8) relies upon the information in the updated MSR and identifies preliminary SOI policy alternatives and recommends an SOI option for BBID and TWSID. Following release of the combined MSR/SOI document for public review, the Commission will conduct a workshop session at a regular Commission meeting. After the workshop, the Commission will conduct a noticed public hearing to consider approval of the MSR and adoption of an Updated SOI for the consolidated districts. As part of the SOI update process, the Commission will adopt written statements of fact regarding the SOI, also known as determinations.

Five options for updating the SOI for BBID and TWSID are described herein as listed below:

- Option #1: Retain the existing boundaries & SOI for BBID and TWSID as separate entities.
- Option #2: Consolidate the two Districts without expanding either boundaries or SOI for either District.
- Option #3: Modify SOI and boundaries to: A) include three study areas for BBID and B) reduce the BBID SOI to reflect the Discovery Bay detachment.
- Option #4: Expand SOI and boundaries to include include two water study areas and two parcels for drainage for TWSID.
- Option #5: Consolidate the two Districts (Option #2) + “Option #3” + “Option #4”

Description of Options

Option #1: Retain the existing boundaries & SOIs for BBID and TWSID as separate entities.

If San Joaquin LAFCo determines that the existing government structure is appropriate to provide water services for both BBID and TWSID, then the existing Spheres should be retained.

Option #2: Consolidate the two Districts without expanding either boundaries or SOI for either District

This option would allow BBID and TWSID to be consolidated together and to retain their existing SOIs as shown in Figures 3-5 and 3-6. Both BBID and TWSID have formally identified their intentions via “Concurrent Resolution No. 1” of 2016 (as shown in Appendix A) to reorganize their governance structure to consolidate the districts and service provisions. Both BBID and

TWSID share an aspiration to seek the most efficient provision of service for their water ratepayers. Consolidating BBID and TWSID will help the District(s) obtain benefits of unified water resources planning and management which will result in more efficient delivery of public services to customers. Under the recently approved management agreement between BBID and TWSID, a more efficient service plan can be developed. LAFCo's approval of this proposed consolidation will allow BBID/TWSID to more effectively engage with regional partners and to continue making improvements in the areas of water supply reliability and water use efficiency. Combining these two districts will create significant public benefits. Consolidating BBID and TWSID will help the District(s) achieve economies of scale to improve efficiency and reduce ratepayer costs.

TWSID's current financial trends indicate that expenses sometimes exceed revenues and over the long-term as described in Chapter 6 and this trend is not sustainable. In order to function as an independent organization and deliver adequate service levels in the future, TWSID would need to either seek additional funding or cut expenses. Financial considerations related to consolidation includes the apportionment of property tax, which should not be a concern as the consolidated BBID would simply receive any existing property tax revenues being received currently by each individual district. With the Mountain House development factored in, it is estimated that property tax¹ revenue for BBID would increase an average 6% per year. TWSID on the other hand, would remain static and increase 2% per year (as allowed by Proposition 13) (Bruce Baracco, personal conversation, June 2018).

Operating costs of the District(s) before and after consolidation will be somewhat similar; some minor increases in efficiency are anticipated. Specifically, upon consolidation, TWSID will become the Westside Service Area of BBID, and the costs of operating this service area will be borne by its specific water users. Water customers located within the consolidated Westside Service Area will receive advantages resulting from consolidation. For example, BBID's maintenance crew will establish a regular maintenance schedule for the Service Area. BBID is accustomed to shared services, which are services BBID provides to all its service areas. Each service area pays a proportionate cost. Should LAFCo approve this MSR and SOI, BBID will submit an application to LAFCo for consolidation. At that time, BBID will have a budget showing shared services.

Option #3: Modify SOI and boundaries to: A) include three study areas for BBID, and B) reduce the BBID SOI to reflect the Discovery Bay detachment.

Areas located outside the existing BBID boundaries and spheres of influence where the District: 1) has the technical capacity to provide service at some point in the future, or 2) informally monitors activities that may affect water supply/demand or drainage management are referred to as “study areas”. “Study Areas” are proposed to be added to the sphere of influence. Although the Cortese Knox Hertzberg Act (Government Code 56133) provides an exemption allowing untreated agricultural water to be provided to parcels located outside an irrigation district’s boundaries, this state code isn’t germane to irrigation districts that utilize water from the federal Central Valley Project. Federal regulations require these irrigation districts provide water only to those parcels that are located within a district’s boundaries.

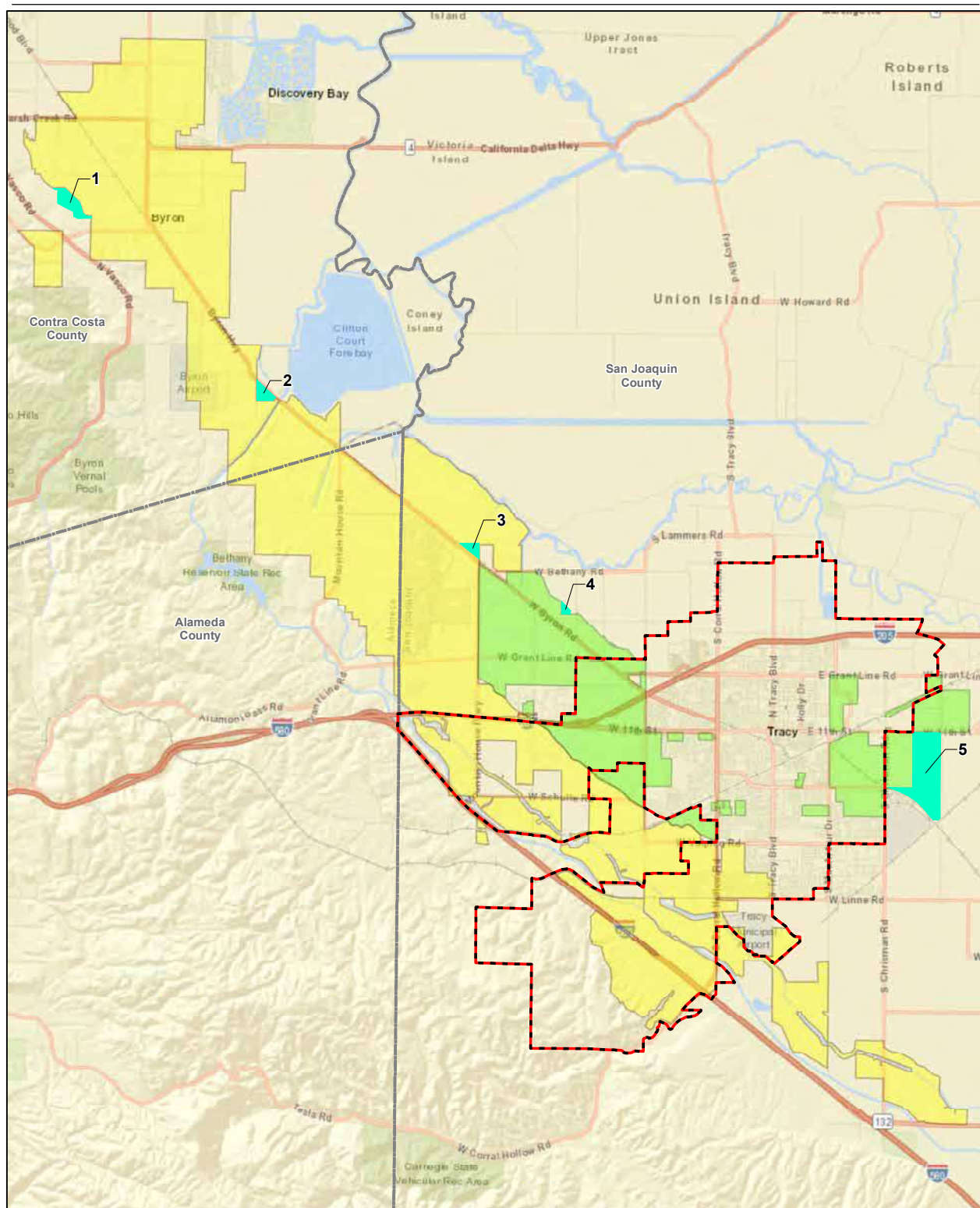
BBID has identified three study areas where it has the technical capacity to provide water service. Each Study Area has been numbered in Figure 8-2 (shown in teal blue) and those numbers correspond to the paragraphs below.

Area #1: Area #1 is a 92.8-acre area located in Contra Costa County. This Area is commonly referred to as the Lawrence property. The Area is located off of Hoffman Road, north of Vascoe Road, in Contra Costa County with Assessor Parcel Numbers 003-070-015, 003-070-017, 003-070-019, and 003-070-021. In December 2013, Contra Costa LAFCo staff² met with BBID staff and the landowner regarding a potential annexation and SOI adjustment for this area. On August 22, 2017 BBID’s Board of Directors approved an annexation agreement with Mr. J. Lawrence to facilitate the process and permissions needed to finalize the proposed annexation, including approval from LAFCo. The 2017 Agreement indicates that upon annexation, the property would be entitled to water from the District for agricultural, municipal and industrial purposes. Water service to the area would be subject to the current rules and regulations of the District governing the distribution of water and payment of tolls and charges established by the District for such service.

Area #2: Study Area #2 is 45.86-acres located in Contra Costa County as shown in Figure 8-2: Study Areas. The Area consists of two parcels with the following Assessor’s Parcel Numbers: 001-041-036 and 001-041-004.

Area #3: Study Area #3 is a 32-acre area located in San Joaquin County as shown in Figure 8-2: Study Areas. This area contains one parcel with Assessor’s Parcel Number 020-904-009. This site is actively farmed and raw water for irrigation purposes would support this land use. San Joaquin County lists this site as being within the Mountain House Planning Area with a general plan designation of OS/PR which is Open Space or Parks and Recreation.

² Source: Water & Wastewater Districts MSR-SOI Study (2nd Round) Contra Costa LAFCO, May 2014



LEGEND

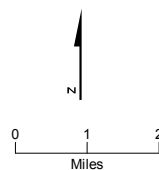
- Byron Bethany Irrigation District
- The West Side Irrigation District
- Study Areas

Spheres of Influence

- Tracy

Figure 8-2: Study Areas

Proposed consolidated District consists of BBID (shown in yellow) and WSID (shown in green)



Byron Bethany Irrigation District, California

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, IPC, TomTom
 Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

BBID indicates that it has the technical capacity to provide water service at some point in the future to each of these three Study Areas. Additionally, BBID informally monitors activities within these Areas that may affect water supply/demand. These Study Areas are proposed to be potential additions to BBID's SOI and considered for future annexation to the District.

In February 2016, Contra Costa LAFCo approved Resolution No. 2016-3 authorizing the detachment of a 480+ acre territory from BBID as it overlapped with the Town of Discovery Bay Community Services District's boundary. In considering an Updated SOI for BBID, this area should be detached from the District SOI. The SOI should be reduced in this area to be coterminous with the current District boundary.

Option #4: Expand SOI and boundaries to include two water study areas and two drainage parcels for TWSID

TWSID Raw Water Study Areas: TWSID has the technical capacity to supply raw water to areas that are located outside of its current boundary, but located inside its original service area³. Figure 8-2 shows two SOI Study Areas for TWSID, Area #4 and Area #5.

Study Area #4 is 15.6 acres in size, located in San Joaquin County. This Area contains one parcel with APN 020-931-034. San Joaquin County places this parcel within the Tracy Planning Area and gives it a general plan designation of A/G (General Agriculture) and a zoning designation of AG-40 which is General Agriculture with a minimum parcel size of 40 acres. This parcel is actively farmed and would benefit from the provision of raw irrigation water.

Area #5 is 472 acres in size and is located in San Joaquin County. This Study Area contains four parcels with APN 025-020-004, 025-020-005, 025-020-006, and 025-207-001. The TWSID proposes to formally add to its SOI these four parcels which currently receive agricultural water service. Since the parcels remain undeveloped, utilize agricultural irrigation water, and have facilities remaining intact, TWSID continues to provide irrigation service to these parcels.

Please note that TWSID continues to provide raw water service to two parcels, after being detached from the District boundaries. These parcels (APN 250-030-06 and 07) total 105 acres in size. This land became part of the City of Tracy and was detached from TWSID in 1991.

³ In addition to Areas #4 and #5, there may be some other properties located adjacent to the TWSID which receive surplus water from TWSID. These properties have never been within the District but may have historically received service. However, it is not clear whether these parcels are located within TWSID's SOI as there are no available records regarding the status of these parcels. Due to a lack of information, these few parcels are not proposed for addition to the TWSID SOI at this time.

Although these parcels became detached, they remain in agricultural use. More recently, two additional areas (Tracy Gateway and Filios-Dobler) totaling four parcels on 601 acres were annexed to the City of Tracy but were not detached from TWSID, allowing for continued agricultural irrigation until development occurs. These four parcels are not proposed for inclusion in this Updated SOI.

TWSID Drainage Study Areas: TWSID provides direct storm water collection, conveyance, and discharge services for three parcels located adjacent to but outside the District boundaries. Two parcels are APN 246-150-02 and APN 209-460 and they are proposed for inclusion in the TWSID SOI. Maps for these two parcels are shown below.

Figure 8-3: APN 209-460-21 Proposed for TWSID SOI

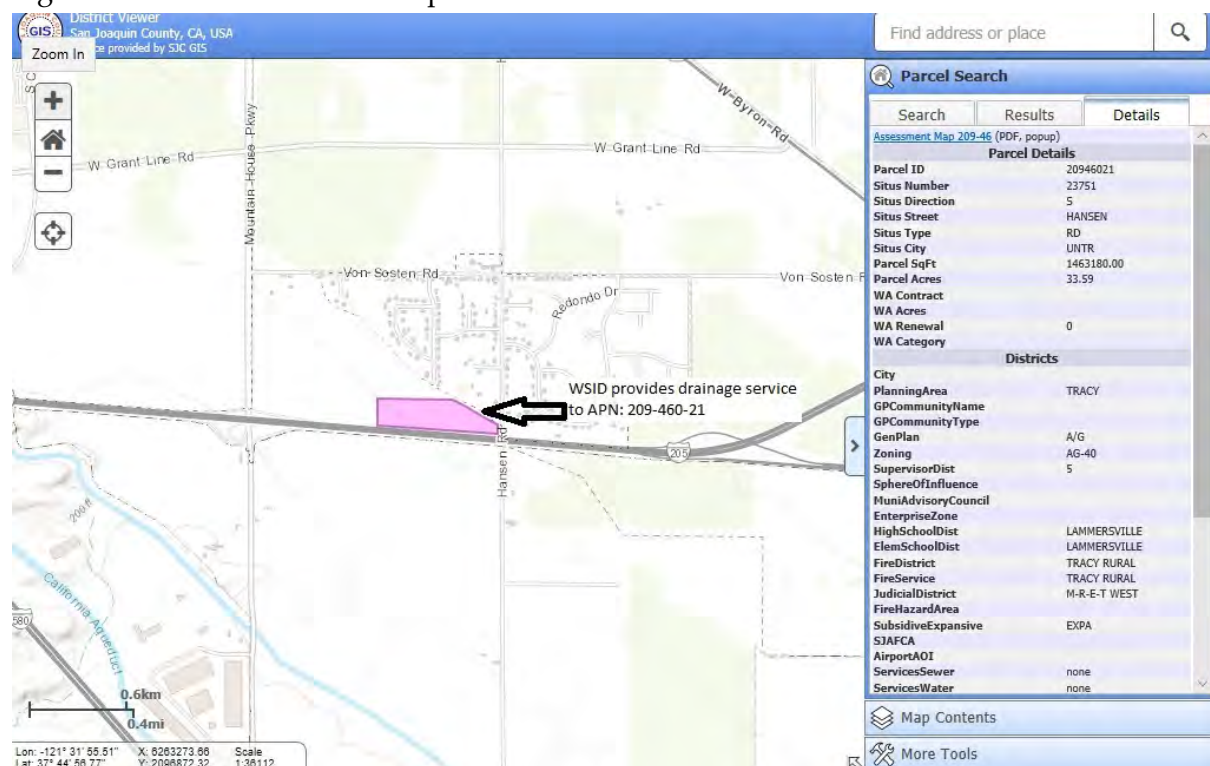
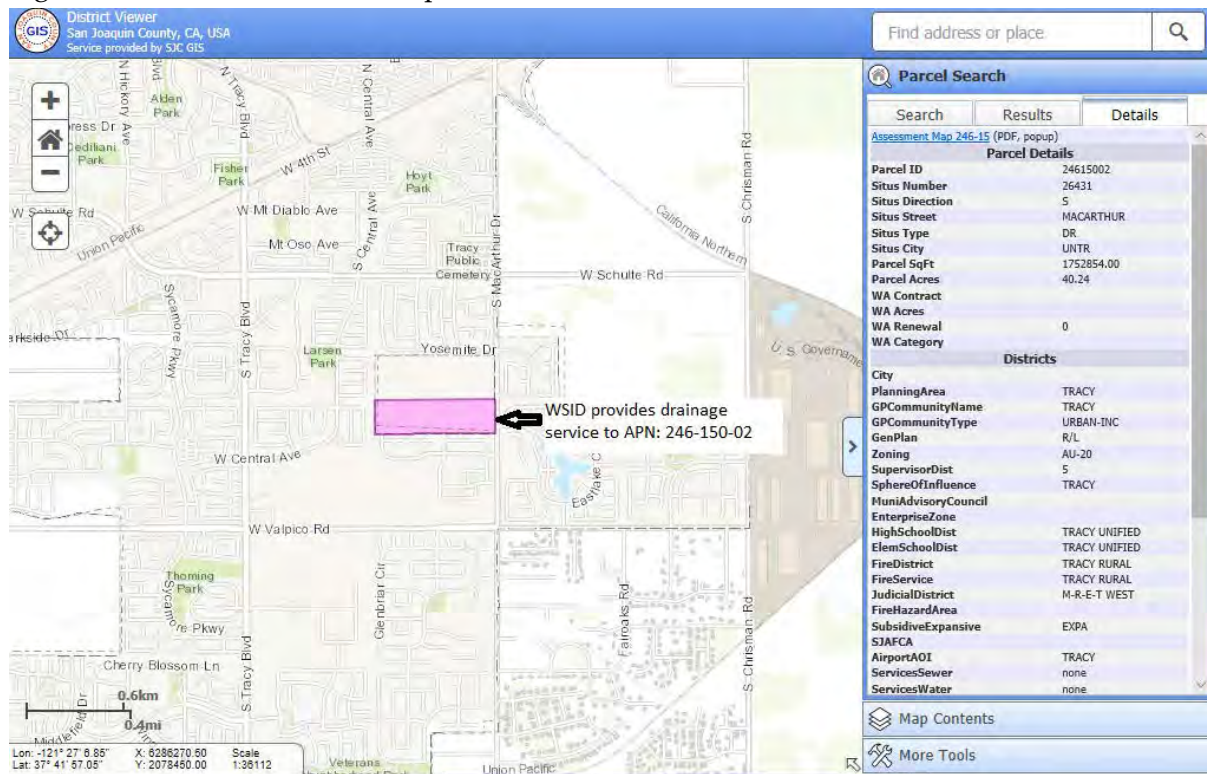


Figure 8-4: APN 246-150-02 Proposed for TWSID SOI



The third parcel proposed for inclusion to TWSID's SOI as a drainage study area is the Tracy Defense Distribution Depot. TWSID provides limited drainage services, consisting of conveyance and discharge, to the Defense Depot which is located outside the TWSID boundaries as depicted in Figure 3-4, Drainage Service Area. TWSID has been providing these drainage services in excess of 50 years. Drainage services provided to the Tracy Defense Distribution Depot by TWSID are under contractual agreements that were in place prior to January 1, 2001. Therefore, these services are exempt from LAFCo review under Section 56133(e)(4) (i.e. 'grandfathered in'). Government Code Section 56133 was revamped in 2001 as part of the Cortese-Knox-Hertzberg refinements.

The proposed additions to the BBID and the TWSID SOI(s) are summarized in Table 8-3 below.

Table 8-3: Option #3 + Option #4 regarding Size of the District's SOI			
	Existing SOI	Proposed Addition to the SOI	Proposed Total SOI
BBID Option #3	29,477 acres	Area #1 = +92.8 acres	
		Area #2 = +45.86 acres	
		Area #3 = +32-acres	
		Detachment of Discovery Bay (-480 acres)	29,167.66 acres

TWSID Option #4	6,589 acres	Area #4 = 15.6 acres	
		Area #5 = 472 acres	
		APN 246-150-02 = 40.24 acre	
		APN 209-460 = 33.59 acres	
		Defense Depot = 450 acres	7,600.43 acres
<i>Data Source: GIS from CH2MHill</i>			

Option #5: Consolidate the 2 Districts (Option #2) + “Option #3” + “Option #4”

Option #5 combines the actions outlined in Options #2, #3, and #4 as described above. Under Option #5, BBID and TWSID would be allowed to consolidate as described under Option #2 above. Additionally, the three study areas would be added to the BBID portion of the SOI as described in Option #3”. This would also include the detachment of the Discovery Bay area from BBID as described in Option #3. The two study areas and two drainage parcels described in Option #4 would also be added to the TWSID SOI. Other pertinent details about Option #5 are provided in the Determinations listed on the following pages.

Recommendation 8.1

BBID/TWSID’s General Manager has considered the information provided in this MSR/SOI and has recommended that LAFCo adopt Option #5 allowing the consolidation BBID and TWSID (Option #2); the addition of three study areas to the BBID SOI as described in Option #3”, and addition of two study areas to the TWSID SOI. This would also include the detachment of the Discovery Bay area from BBID as described in Option #3. The determinations listed below support the General Manager’s recommendation. If the Commission chooses a different option, the suggested determinations provided below can be modified to support the Commission’s preferred option.

8.5: SOI DETERMINATIONS

In reviewing BBID/TWSID’s MSR and SOI, LAFCo must consider and prepare determinations for the following five factors pursuant to Government Code Section 56425 of the 2000 Cortese-Knox-Hertzberg Act:

- Present and planned lands uses in the area, including agricultural and open space lands
- Present and probable need for public facilities and services in the area
- Present capacity of public facilities and adequacy of public services that the agency provides or is authorized to provide

- Existence of any social or economic communities of interest in the area if the commission determines that they are relevant to the agency
- For an update of an SOI of a city or special district that provides public facilities or services related to sewers, municipal and industrial water, or structural fire protection, the present and probable need for those public facilities and services of any disadvantaged unincorporated communities within the existing sphere of influence.

Supporting facts and analysis of the determinations listed above are provided in the sphere of influence analysis provided on the following pages, below.

Present and Planned Lands Uses

LAFCo is required to make a determination as it updates a District's SOI, regarding the present and planned lands uses in the area, including agricultural and open space lands. The existing land uses within BBID's and TWSID's existing boundaries and existing SOIs are described in Chapter 3. The existing land uses within the study areas proposed for inclusion in the SOI are discussed in Section 8.3, Options #3 and #4, above. The potential environmental impacts associated with the proposed SOI expansion have been analyzed by the BBID/TWSID as part of a proposed Initial Study and Negative Declaration that the District has prepared. CEQA requirements related to the MSR/SOI are described in Section 2.4 of this document. SOI Determinations for Present and Planned Lands Uses are listed in Table 8-4, below.

Table 8-4: SOI Determinations for Present and Planned Lands Uses

Indicator	Determination
Present and planned land uses in the area	<ul style="list-style-type: none"> ▪ Since BBID, TWSID, and LAFCo do not exercise land use authority, changes to a Sphere of Influence would not change land use intensity, modify or establish zoning or vested rights, nor will it commit or permit development to occur in an area. ▪ Presently land use within Study Areas #1-#5 consist of agricultural uses.
Potential effects on agricultural and open-space lands	<ul style="list-style-type: none"> ▪ The County's General Plan includes goals, policies and implementing programs aimed at managing growth and protecting agricultural land uses. ▪ As part of the proposed SOI Expansion, the Study Areas would be eligible to receive cost effective agricultural water supplies from BBID and/or TWSID. This water supply will support the existing agricultural land uses. ▪ There are no existing Williamson Act Contracts associated with the five Study Areas.
Are there any present or planned land uses in the area that would create the	<ul style="list-style-type: none"> ▪ Yes. Within the five Study Areas, the existing agricultural land-uses would benefit from receiving the agricultural water supply that BBID and TWSID provide.

Indicator	Determination
need for an expanded service area?	
Potential environmental impacts	<ul style="list-style-type: none"> ▪ The potential environmental impacts associated with the proposed SOI expansion have been analyzed by the BBID/TWSID as part of a proposed Initial Study and Negative Declaration that the District prepared. ▪ LAFCo is a Responsible Agency under CEQA with respect to a Sphere of Influence.

Present and Probable Need for Public Facilities and Services in The Area

LAFCo is required to make a determination as it updates the Districts' SOI, regarding the present and probable need for public facilities and services in the area. Existing public services and public facilities within the Districts' boundaries is described in Chapter 5. Currently, the three study areas proposed for inclusion in the BBID's SOI do not receive water. There are no public facilities located within Study Areas #1 - #3. The two study areas proposed for inclusion in the TWSID's SOI currently receive water due to practices involved with detachment from TWSID and subsequent annexation into Tracy. TWSID does have infrastructure located in Study Areas #4 and #5.

Table 8-5: SOI Determinations for Present and Probable Need for Public Facilities & Services

Indicator	Determination
Services Provided	<ul style="list-style-type: none"> ▪ Services provided by the BBID/TWSID directly include raw water for agricultural and municipal use, as described in Chapter 5. ▪ In addition to the direct services described in detail in Chapter 5, BBID and TWSID also protect water rights, provide advice regarding groundwater management and monitoring, and participate with other agencies in regional water planning. ▪ TWSID provides storm drainage services within its boundary and within portions of the City of Tracy.
Would the amended sphere expand services that could be better provided by a city or another agency?	<ul style="list-style-type: none"> ▪ TWSID and BBID Board of Directors have agreed that the public services provided by TWSID would best be provided by a consolidated BBID/TWSID as described in Resolution No. 1 of 2016, located in Appendix A.

Indicator	Determination
	<ul style="list-style-type: none"> Options #3 and #4 describe several study areas that would be included within proposed SOI Expansion for BBID and TWSID. Currently, study areas #1-#3 do not receive water services and study areas #4-#5 do receive water. Upon approval of a SOI expansion as described under Options #5, the consolidated BBID/TWSID would be the best agency suited to provide water service due to geographic proximity and available water supply.
Would the amended sphere represent premature inducement of growth or facilitate conversion of agriculture or open space lands?	<ul style="list-style-type: none"> Updating the SOI and allowing the consolidation of BBID/TWSID as described in Option #5 would serve to retain the existing agricultural uses of this local region, specifically the properties located within BBID/TWSID.
Location of facilities, infrastructure and natural features	<ul style="list-style-type: none"> As described in Chapter 5, BBID's and TWSID's water facilities and services appear to be adequate based on State inspection reports, recent regulatory compliance, and treatment effectiveness rates. Adoption or modification of a Sphere of Influence does not commit an agency to a course of action regarding the installation of infrastructure improvements or any other physical improvements. However, consolidation of BBID and TWSID will help the District(s) obtain benefits of unified water resources planning and management which will result in more efficient delivery of public services to customers.

Present Capacity of Public Facilities and Adequacy of Public Services

LAFCo is required to make a determination as it considers the District's SOI, regarding the present capacity of public facilities and adequacy of public services that the agency provides or is authorized to provide. The capacity and adequacy of public services and public facilities within the District's boundaries is described in Chapter 5.

Table 8-6: SOI Determinations for Capacity of Public Facilities and Adequacy of Public Services

Indicator	Determination
Present capacity of public facilities and adequacy of	<ul style="list-style-type: none"> The public facilities and services provided by BBID are adequate to meet the needs of the current water users.

public services related to water services and storm drainage services	<ul style="list-style-type: none"> ▪ The public facilities and services provided by TWSID are adequate to meet the needs of the current water users and storm drainage customers. However, TWSID does have financial constraints which may impede its ability to maintain its infrastructure over the long-term. ▪ BBID's Capital Improvement Plan is embedded in its 2017 Agricultural Water Management Plan and is readily available on the District's website. This Plan providing enhancements to public facilities and infrastructure for water users as described in Chapter 5 of this document. The annual establishment of the Capital Improvement Plan gives the District the ability to plan for future critical needs. ▪ TWSID could benefit from BBID's ability to plan for capital improvements. TWSID does not have a capital improvement plan; however, such a plan could help them address ageing infrastructure. TWSID does have an annual maintenance program. ▪ LAFCo's approval of this proposed consolidation will allow BBID/TWSID to: 1) develop a more efficient service plan so as to better meet the needs of existing and future water users, and 2) more effectively engage with regional partners and to continue making improvements in the areas of water supply reliability and water use efficiency. Combining these two districts will create significant public benefits.
Effects on other agencies	Effects on other agencies is expected to be limited and to be within the scope estimated by the County's General Plan at buildout.
Willingness to serve	Both BBID and TWSID have demonstrated a willingness to consolidate as shown in Resolution No. 1 of 2016 in Appendix A. The BBID/TWSID has indicated a willingness to provide water and/or storm drainage services to the proposed SOI Expansion described as study areas #1-#5. Consolidating BBID and TWSID will help the District(s) achieve economies of scale to improve efficiency and maintain ratepayer costs over the long-term.
Geographic proximity to existing public services.	TWSID and BBID are located in close proximity to each other as shown in Figure 8-1 and this proximity facilitates the consolidation of the two districts. Additionally, the Study Areas (#1-#5) proposed for SOI Expansion (Figure 8-2) are located near the Districts' boundaries and associated public services.

Social or Economic Communities of Interest

LAFCo is required to make a determination as it considers the District's SOI, regarding the existence of any social or economic communities of interest in the area if the commission determines that they are relevant to the agency.

Table 8-7: SOI Determinations for Social or Economic Communities of Interest	
Indicator	Determination
The existence of any social or economic communities of interest in the area	<ul style="list-style-type: none"> Disadvantaged Unincorporated Communities (DUCs) were analyzed in Chapter 4 of this MSR/SOI document. The proposed expansion of the SOI is not anticipated to adversely affect any adjacent social and economic communities of interest.
Are there particular neighborhoods or areas that should be added or excluded from your agency's sphere because those areas function as part of your community or another community socially or economically?	<ul style="list-style-type: none"> Chapter 3 describes extra-territorial services where TWSID provides public services to parcels located outside its proper boundary. TWSID has been providing drainage services to several areas located outside its boundaries, including portions of the City of Tracy and County Service Area No. 50 as described in Chapters 3 and 5 and these areas are not proposed for addition to the SOI (with the exceptions of Study Areas #4 and #5 which are proposed for addition to the SOI).
Would the consolidation and/or amended sphere impact the identity of any existing communities; e.g. would it conflict with existing postal zones, school, library, sewer, water, census, fire, parks and recreation boundaries?	<ul style="list-style-type: none"> The proposed consolidation would not impact or conflict with any communities of interest and would not affect existing postal zones, school, library, sewer, census, fire, parks and recreation boundaries. Consolidation would allow water service and storm drainage service to be provided more efficiently to within the combined service area of BBID/TWSID. Expanding the SOI to add in the five Study Areas would not impact existing postal zones, school, library, sewer, census, fire, parks and recreation boundaries
Potential for consolidations or other reorganizations when boundaries divide communities	<ul style="list-style-type: none"> The consolidation of BBID and TWSID proposed under Option #5 would function to unite agricultural property owners and allow them to more efficiently receive water service. The proposed expansion of BBID/TWSID's SOI will align the properties more closely with the District and will not divide any existing communities. The proposed consolidation and expansion of the SOI(s) will not divide a community of interest.

Disadvantaged Unincorporated Communities

Disadvantaged unincorporated communities within the BBID/TWSID's existing boundaries and SOI are described in Chapter 4. SB 244 (Chapter 513, Statutes of 2011) made changes to the CKH Act related to "disadvantaged unincorporated communities," to include this factor in the analysis of an SOI and its determination. Disadvantaged unincorporated communities, or "DUCs," are inhabited territories (containing 12 or more registered voters) where the annual median household income is less than 80 percent of the statewide annual median household income as described in more detail in Chapter 4 of this MSR/SOI document. SB 244 requires LAFcos to consider disadvantaged unincorporated communities when developing spheres of influence as follows:

- 1) The location and characteristics of any disadvantaged unincorporated communities within or contiguous to the sphere; and
- 2) The present and planned capacity of public facilities, adequacy of public services and infrastructure needs or deficiencies including needs or deficiencies related to sewers, municipal and industrial water, and structural fire protection in any disadvantaged unincorporated community within or contiguous to the sphere of influence.

SB 244 authorizes LAFCo to assess the feasibility of proposed spheres of influence and to recommend reorganization and consolidation of local agencies to further orderly development and improve the efficiency and affordability of infrastructure and service delivery.

Table 8-8: SOI Determinations for Social or Economic Communities of Interest	
Indicator	Determination
Does the subject agency provide public services related to water, sanitary sewers, or structural fire protection?	Yes, both BBID and TWSID currently provide raw water service for agricultural and municipal customers. Under consolidation, the consolidated BBID/TWSID would continue to provide water service.
If yes, does the proposed sphere exclude any nearby disadvantaged unincorporated community (80% or less of the statewide median household income) that does not already have access to public water or sanitary sewer service?	<ul style="list-style-type: none"> ▪ DUCs were analyzed in Chapter 4 of this MSR/SOI document. ▪ There are no disadvantaged communities within or adjacent to the BBID/TWSID Sphere of Influence. ▪ The proposed expansion of the SOI is not anticipated to adversely affect any nearby DUC.

Conclusion

This Chapter (8) presents five options for updating the SOI for BBID and TWSID. LAFCo is considering approval of Option #5 as listed below:

- Option #5 which includes:
 - Consolidate the two Districts (Option #2);
 - Modify BBID's SOI and boundaries to: A) include three study areas for BBID and B) reduce the BBID SOI to reflect the Discovery Bay detachment. (Option #3); and
 - Expand TWSID's SOI and boundaries to include two water study areas and two parcels for drainage for TWSID. (Option #4)

Option #5 (including the sub-options 2, 3, and 4) are shown on Figure 8-5 (next page).

Chapter 9: References



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Report Preparers

A team of consultants authored this MSR and provided an independent analysis. The expertise and contributions provided by this consulting team are appreciated. The names and roles of the individual experts responsible for writing this MSR are provided below.

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Chapter 11: Acronyms and Abbreviations

ACS	American Community Survey
AF	Acre-Feet
AWMP	Agricultural Water Master Plan
BBID	Byron Bethany Irrigation District
BMP	Best Management Practices
BSD	Byron Sanitary District
CAFR	Comprehensive Annual Financial Report
CCWD	Contra Costa Water District
CEQA	California Environmental Quality Act
CIP	Capital Improvement Plan
CKH	Cortese-Knox-Hertzberg Reorganization Act of 2000
DAC	Disadvantaged Community
DUC	Disadvantaged Unincorporated Community
DWR	Department of Water Resources
FY	Fiscal Year
FTE	Full-Time Equivalent
GAAP	Generally Accepted Accounting Principles
GASB	Government Accounting Standards Board
GIS	Geographic Information System
LAFCO	Local Agency Formation Commission
MHI	Median Household Income
MSR	Municipal Services Review
O&M	Operation, Maintenance,
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SCADA	Supervisory Control and Data Acquisition; a software application
SCO	State Controller's Office
SCS	Sustainable Communities Strategy
SFR	Single Family Residence
SOI	Sphere of Influence
SWRCB	State Water Resources Control Board
UWMP	Urban Water Management Plan
TWSID	The West Side Irrigation District
WTP	Water Treatment Plant

Chapter 12: Glossary

Acre-foot: The volume of water required to cover one acre of land to a depth of one foot. This is equal to 325.851 gallons or 1,233 cubic meters. An “acre-foot” of water usually supplies enough water to support two urban households for one year.

Appropriation Doctrine: In the western US, the doctrine of Prior Appropriation was in common use as early settlers and miners began to develop the land. The prior appropriation doctrine is based on the concept of “first in time, first in right”; meaning that the first person to use a quantity of water and put it to Beneficial Use has a higher priority of water right than a subsequent user. In drought conditions, high priority users are allocated water before junior users receive water. Appropriative rights can be lost through nonuse or transferred apart from the land.

Appropriative rights: Water rights based on the “Appropriation Doctrine”. Not related to riparian land ownership. In California and since 1914, a state-issued permit or license is required to establish appropriative rights.

Aqueduct: A conduit, pipe, or channel designed to transport water from a remote source, usually by gravity.

Aquifer: A below-ground geologic formation that bears water, stores water, and/or transmits water, such as to wells and springs.

Annexation: The annexation, inclusion, attachment, or addition of territory to a city or district.

Area of origin statutes: Statutes designed to protect counties and watersheds where the water originates, in the form of rain or snow, from the export of water outside the regions.

Beneficial use: Includes irrigation, municipal, domestic, industrial, recreational use, and protection of fish wildlife and their habitat, and aesthetic enjoyment. The California Constitution (Article X, Section 2) requires that all water resources must be put to beneficial use, without waste or unreasonable use.

Best Management Practices: Best management practices are defined as methods or techniques found to be the most effective and practical means in achieving an objective (such as minimizing pollution) while making the optimum use of the District’s resources.

Board of Directors: The legislative body or governing board of a district.

Bond: An interest-bearing promise to pay a stipulated sum of money, with the principal amount due on a specific date. Funds raised through the sale of bonds can be used for various public purposes.

Buildout: The maximum development potential when all lands within an area have been converted to the maximum density allowed under the General Plan.

City: Any charter or general law city.

CFS: Abbreviation for cubic feet per second. Used to describe a rate of the flow in streams and rivers. One "cfs" is equivalent to 7.48 gallons of water flowing each second. Also, equal to a volume of water one foot high and one foot wide flowing a distance of one foot in one second.

Consumptive use: Any use of water that permanently removes water from the natural stream system. 2. Water that has been evaporated, transpired, incorporated into products, plant tissue, or animal tissue and is not available for immediate reuse.

Conveyance loss: Loss of water from a channel or pipe during conveyance, including losses due to seepage, leakage, evaporation and transpiration by plants growing nearby.

Community Services District (CSD): A geographic subarea of a county used for planning and delivery of parks, recreation, and other human services based on an assessment of the service needs of the population in that subarea. A CSD is a taxation district with independent administration.

Consolidation: The uniting or joining of two or more districts into a single new successor district, consistent with Gov. Code, § 56030.

Contiguous: In the case of annexation, territory adjacent to an agency to which annexation is proposed. Territory is not contiguous if the only contiguity is based upon a strip of land more than 300 feet long and less than 200 feet wide.

Cost avoidance: Actions to eliminate unnecessary costs derived from, but not limited to, duplication of service efforts, higher than necessary administration/operation cost ratios, use of outdated or deteriorating infrastructure and equipment, underutilized equipment or buildings or facilities, overlapping/inefficient service boundaries, inefficient purchasing or budgeting practices, and lack of economies of scale.

Discharge: The volume of water that passes a given location within a given period of time. Usually measured in cfs.

Drainage basin: A watershed (land area) where precipitation runs off into streams, rivers, lakes, and reservoirs. A drainage basin may be identified by tracing a line along the highest elevations between two areas on a map, often along a ridgeline.

Evaporation: A physical process such that liquid water transforms to water vapor, including vaporization from water surfaces, land surfaces, and fields.

Evapotranspiration: Combination of evaporation from free water surfaces and transpiration of water from plant surfaces to the atmosphere.

Design storm: An abstraction based on historical data that determines the amount of stormwater inflow and rainfall-dependent infiltration.

Detachment: The removal from a city or district of any portion of the territory of that city or district.

Development Fee: A fee charged to the developer of a project by a county, or other public agency as compensation for otherwise-unmitigated impacts the project will produce. California Government Code Section 66000, et seq., specifies that development fees shall not exceed the estimated reasonable cost of providing the service for which the fee is charged. To lawfully impose a development fee, the public agency must verify its method of calculation and document proper restrictions on use of the fund.

Dissolution: The termination of the existence of a district or city and the cessation of all its corporate powers, except for the purpose of winding up the affairs of the district.

District or special District: An agency of the state, formed pursuant to general law or special act, for the local performance of governmental or proprietary functions within limited boundaries. Services may also be provided in areas outside district boundaries when authorized by the commission pursuant to Section 56133. Gov. Code, § 56036. "District" or "special district" may also be referred to as a district of limited powers. May include the following: airport district, community services district, county service area, municipal utility district, public utilities district, fire protection district, harbor district, port district, recreational harbor district, small craft harbor district, resort improvement district, library district, local hospital district, local health district, municipal improvement district formed pursuant to any special act, municipal water district, police protection district, recreation and park district, garbage disposal district, garbage and refuse disposal district, sanitary district, or county sanitation district.

Formation: The formation, organization, or creation of a district or city.

Function: Any power granted by law to a local agency or a county to provide designated governmental or proprietary services or facilities for the use, benefit, or protection of all persons or property.

General plan: A document containing a statement of development policies including a diagram and text setting forth the objectives of the plan. The general plan must include certain state mandated elements related to land use, circulation, housing, conservation, open-space, noise, and safety.

General revenues: Revenues not associated with specific services or retained in an enterprise fund.

Groundwater: Water under the earth's surface, often in aquifers, rock crevices, or the pores of geologic materials. Water that flows or seeps downwards and saturates soil or rock, supplying springs and wells. The upper surface of the saturated zone is called the water table.

Independent Special District: Any special district having a legislative body all of whose members are elected by registered voters or landowners within the district, or whose members are appointed to fixed terms, and excludes any special district having a legislative body consisting, in whole or in part, of ex officio members who are officers of a county or another local agency or who are appointees of those officers other than those who are appointed to fixed terms. "Independent special district" does not include any district excluded from the definition of district contained in §56036.

Infrastructure: Public services and facilities, such as pipes, canals, levees, water-supply systems, other utility, systems, and roads.

Infiltration: Flow of water from the land surface into the subsurface.

Local accountability and governance: A style of public agency decision making, operation and management that includes an accessible staff, elected or appointed decision-making body and decision making process, advertisement of, and public participation in, elections, publicly disclosed budgets, programs, and plans, solicited public participation in the consideration of work and infrastructure plans; and regularly evaluated or measured outcomes of plans, programs or operations and disclosure of results to the public.

Local agency: A city, county, or special district or other public entity, which provides public services.

Management Efficiency: The organized provision of the highest quality public services with the lowest necessary expenditure of public funds. An efficiently managed entity (1) promotes and demonstrates implementation of continuous improvement plans and strategies for budgeting, managing costs, training and utilizing personnel, and customer service and involvement, (2) has the ability to provide service over the short and long term, (3) has

the resources (fiscal, manpower, equipment, adopted service or work plans) to provide adequate service, (4) meets or exceeds environmental and industry service standards, as feasible considering local conditions or circumstances, (5) and maintains adequate contingency reserves.

Merger: The termination of the existence of a district, by the assumption of the district's responsibilities by a city. The termination of the existence of a district when the responsibility for the functions, services, assets, and liabilities of that district are assumed by a different agency as a result of proceedings taken pursuant Gov. Code, § 56056.

Municipal services: The full range of services that a public agency provides, or is authorized to provide, except general county government functions such as courts, special services and tax collection. As understood under the CKH Act, this includes all services provided by Special Districts under California law.

Municipal Service Review (MSR): A study designed to determine the adequacy of governmental services being provided in the region or sub-region. Performing service reviews for each city and special district within the county may be used by LAFCO, other governmental agencies, and the public to better understand and improve service conditions.

Ordinance: A law or regulation set forth and adopted by a governmental authority.

Paper water: Water proposed for transfer that exceeds what the user can rightfully sell (e.g. sale of water by a user entitled to the water under contract, but the right has not been historically exercised).

Per Capita Water Use: The water produced by or introduced into the system of a water supplier divided by the total residential population; normally expressed in gallons per capita per day (gpcd).

Plan of reorganization: A plan or program for effecting reorganization and which contains a description of all changes of organization included in the reorganization and setting forth all terms, conditions, and matters necessary or incidental to the effectuation of that reorganization.

Potable Water: Water of a quality suitable for drinking.

Prior appropriation doctrine. In dealing with water rights, the prior appropriation doctrine states that water rights are determined by priority of beneficial use. This means that the first person to use water or divert water for a beneficial use or purpose can acquire individual rights to the water. The rights can be lost through nonuse; they can also be sold or transferred apart from the land.

Principal act: In the case of a district, the law under which the district was formed and, in the case of a city, the general laws or a charter, as the case may be.

Principal LAFCO for municipal service review: The LAFCO with the lead responsibility for a municipal service review. Lead responsibility can be determined pursuant to the CKH Act §56388 and is typically, the LAFCO in the Principal County with the greatest assessed value. See also definition of a Principal LAFCO as it applies to government organization or reorganization actions, by negotiation, or by agreement among two or more LAFCOs.

Public agency: The state or any state agency, board, or commission, any city, county, city and county, special district, or other political subdivision, or any agency, board, or commission of the city, county, city and county, special district, or other political subdivision.

Public trust: The public's rights to many natural resources, including running water, the sea, and the shore. The Public Trust Doctrine traditionally applied to commerce and fishing in navigable waters and has been expanded to include fish, wildlife, habitat, and recreation, and the preservation of natural resources and ecosystems.

Rate restructuring: Rate restructuring does not refer to the setting or development of specific rates or rate structures. During a municipal service review, LAFCO may compile and review certain rate related data, and other information that may affect rates, as that data applies to the intent of the CKH Act (§56000, §56001, §56301), factors to be considered (§56668), SOI determinations (§56425) and all required municipal service review determinations (§56430). The objective is to identify opportunities to positively impact rates without adversely affecting service quality or other factors to be considered.

Raw water: Untreated water.

Reorganization: Two or more changes of organization initiated in a single proposal.

Responsible LAFCO: The LAFCO of a county other than the Principal County that may be impacted by recommendations, determinations or subsequent proposals elicited during a municipal service review being initiated or considered by the Lead LAFCO.

Reserve: (1) For governmental type funds, an account used to earmark a portion of fund balance, which is legally or contractually restricted for a specific use or not appropriable for expenditure. (2) For proprietary type/enterprise funds, the portion of retained earnings set aside for specific purposes. Unnecessary reserves are those set aside for purposes that are not well defined or adopted or retained earnings that are not reasonably proportional to annual gross revenues.

Retained earnings: The accumulated earnings of an enterprise or intragovernmental service fund which have been retained in the fund and are not reserved for any specific purpose (debts, planned improvements, and contingency/emergency).

Return flow: Irrigation drainage water from irrigated farmlands that re-enters the water system to be used further downstream.

Riparian water right: The legal right held by an owner of land contiguous to or bordering on a natural stream or lake, to take water from the source for use on the contiguous land. The doctrine of riparian rights is an old one, having its origins in English common law. Riparian rights cannot be sold or transferred for use on nonriparian land.

Service review: A study and evaluation of municipal service(s) by specific area, subregion or region culminating in written determinations regarding seven specific evaluation categories.

Specific plan: A policy statement and implementation tool that is used to address a single project or planning problem. Specific plans contain concrete standards and development criteria that supplement those of the general plan.

Sphere of influence (SOI): A plan for the probable physical boundaries and service area of a local agency, as determined by the LAFCO.

Sphere of influence determinations: In establishing, amending, or updating a sphere of influence, the Commission must consider five written determinations related to present and planned land uses, need and capacity of public facilities, adequacy of public services that the agency provides, the existence of social and economic communities of interest, including disadvantaged unincorporated communities, and the effect of LAFCO policies.

Stream: A body of flowing water or natural watercourse containing water at least part of the year. In hydrology, it is generally applied to the water flowing in a natural channel as distinct from a canal.

Streamflow: The water discharge that occurs in a natural channel. A more general term than runoff, streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Stormwater runoff: Rainwater which does not infiltrate into the soil and runs off the land.

Subject agency: Each district or city for which a change of organization is proposed or provided in a reorganization or plan of reorganization.

Surface water hydrology: A natural science that deals with the transport and distribution of water, in the liquid, gas and solid stages, in the atmosphere, and on and beneath the earth's surface.

Treated water: Raw water which has been treated for human consumption through secondary or tertiary processes at a water treatment plant (WTP).

Watershed: An area of land that drains water, sediment and dissolved materials to a common receiving body or outlet. The term is not restricted to surface water runoff and includes interactions with subsurface water. Watersheds vary from the largest river basins to just acres or less in size. In urban watershed management, a watershed is seen as all the land which contributes runoff to a particular water body.

Water table: The top of the water surface in the saturated part of an aquifer.

Wheeling: The conveyance of water, as a result of contracts and other arrangements, in canals and other facilities belonging to someone other than the transferring parties.

Appendices

Appendix A: Economic Forecast by Caltrans

Appendix B: Demographic Reports for Alameda, Contra Costa, and San Joaquin
Counties

Appendix C: TWSID List of Interim Drainage Agreements

Appendix D: State Water Resources Control Board, License 1381 (Application 301) Of
West Side Irrigation District, Old River in San Joaquin County

Appendix E: Concurrent Resolution No. 1 - Concurrent Resolution of Application by
Byron-Bethany Irrigation District and The West Side Irrigation District

Appendix F: Calif. Department of Finance 2017 State Population Projections

Appendix G: BBID Approved Ethics Guidelines, June 2011

Appendix A: Economic Forecast by Caltrans

ALAMEDA COUNTY ECONOMIC FORECAST

Alameda County is located on the eastern shore of the San Francisco Bay. Its largest city is Oakland, and it is home to the Port of Oakland, the fourth busiest container port in the United States. Alameda County has a population of 1.6 million people and a total of 738,700 wage and salary jobs. The per capita income in Alameda County is \$59,634, and the average salary per worker is \$78,433.

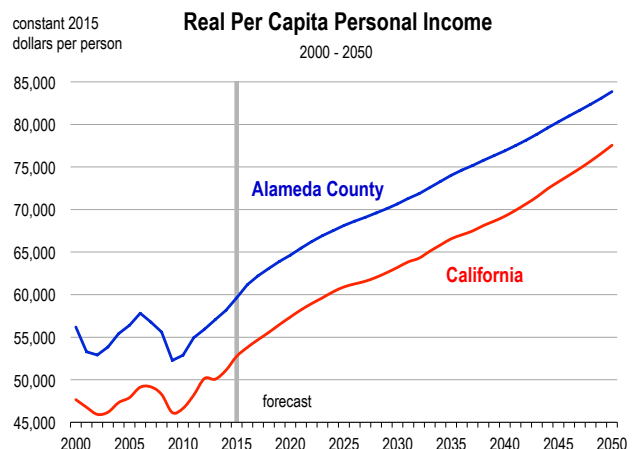
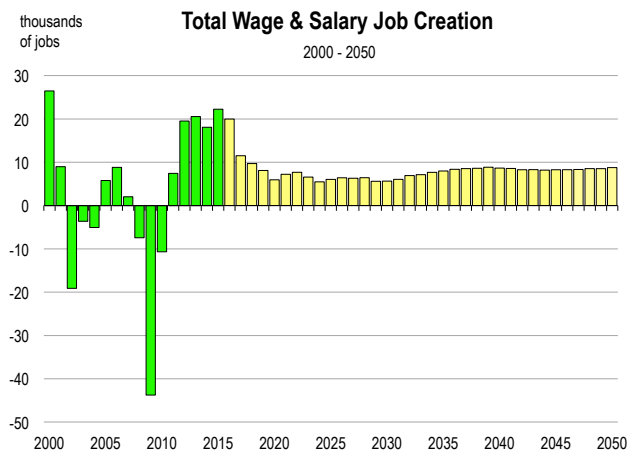
In 2015, employment in Northern California increased by 3.3 percent, whereas employment in the Bay Area grew by 3.8 percent. In Alameda County, a total of 22,300 jobs were gained, representing an increase of 3.1 percent. The unemployment rate improved substantially, falling from 5.9 percent in 2014 to 4.7 percent in 2015.

During 2015, most major sectors were characterized by job growth. Gains were greatest in education and healthcare (+3,500 jobs), manufacturing (+3,000 jobs), professional and business services (+2,900 jobs), leisure and hospitality (+2,700 jobs), and construction (+2,400 jobs).

Over the 2010-2015 period, the Alameda County population grew rapidly, expanding at an average rate of 1.4 percent per year. More than half of this growth was the result of net migration, with an average of 9,000 net migrants entering the county each year. Some of these individuals moved to escape the comparatively high housing prices in San Francisco and Silicon Valley, while others relocated to the Bay Area for its robust job market and high wages.

FORECAST HIGHLIGHTS

- In 2016, total employment will increase by 2.7 percent. From 2016 to 2021, employment growth is expected to average 1.1 percent per year.
- Average salaries are currently well above the California average, and will remain so over the foreseeable future. In Alameda County, inflation-adjusted salaries are forecasted to rise by an average of 1.1 percent per year during the 2016-2021 period.
- The largest employment gains will be observed in professional services, education and healthcare, leisure and hospitality, and government. Together, these sectors will account for 74 percent of net job creation during the 2016-2021 period.
- The population is expected to increase by 1.2 percent in 2016. Annual growth over the 2016-2021 period will average 1.0 percent.

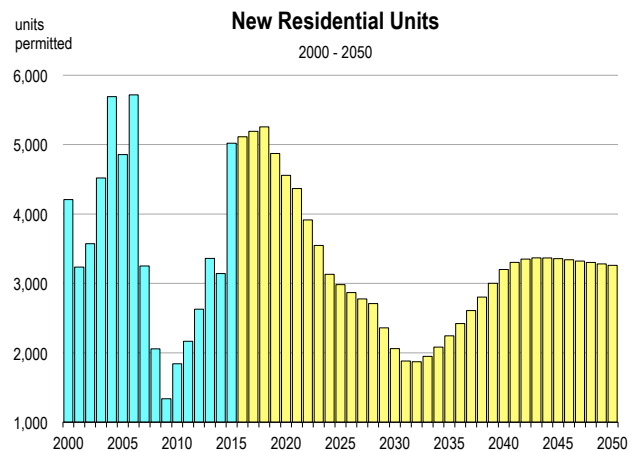
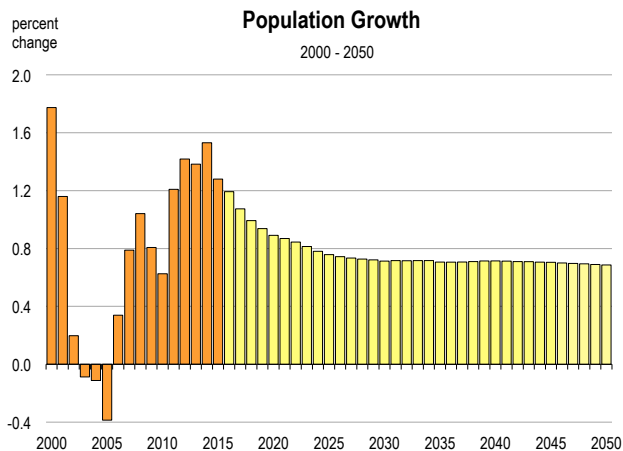


- Over the forecast period, net migration is expected to be more moderate than recent years. Between 2016 and 2021, an average of 6,000 net migrants will enter the county each year.
- Real per capita income will rise by 2.6 percent in 2016. From 2016 to 2021, real per capita income is expected to increase at an average rate 1.4 percent per year.
- Total taxable sales, adjusted for inflation, are projected to increase by an average of 1.4 percent per year between 2016 and 2021.
- Industrial production is expected to increase by 1.6 percent in 2016. From 2016 to 2021, the growth rate of industrial production is forecasted to average 2.3 percent per year.

Alameda County Economic Forecast

2010-2015 History, 2016-2050 Forecast

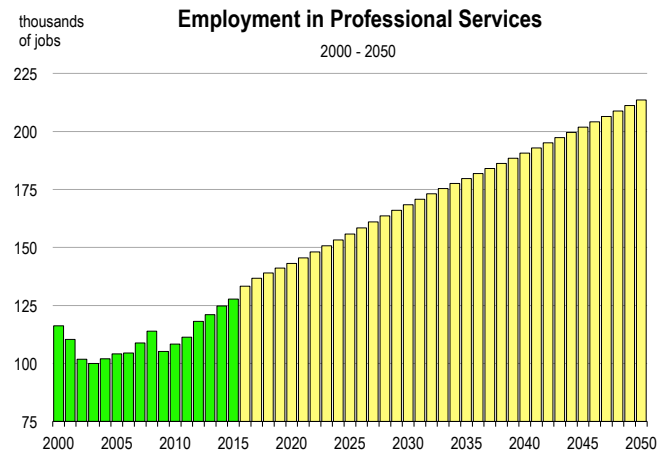
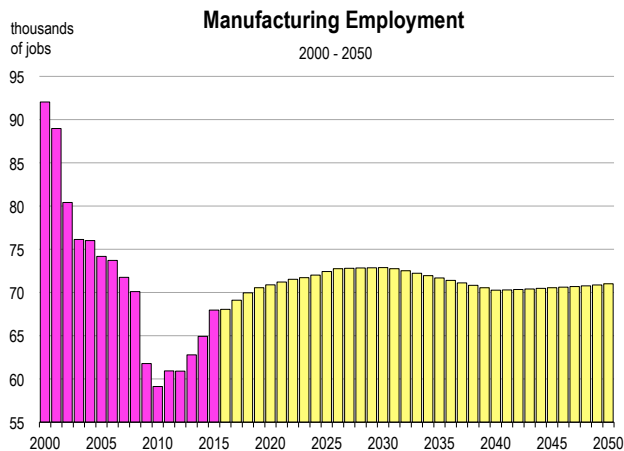
	Population (people)	Net Migration (people)	Registered Vehicles (millions)	Households (thousands)	New Homes Permitted (homes)	Total Taxable Sales (billions)	Personal Income (billions)	Real Per Capita Income (dollars)	Inflation Rate (% change in CPI)	Real Farm Crop Value (millions)	Real Industrial Production (billions)	Unemploy- ment Rate (percent)
2010	1,513,228	-1,545	1.24	544.0	1,843	\$21.5	\$70.4	\$52,881	1.3	40.1	15.2	10.9
2011	1,531,511	8,139	1.23	545.4	2,167	\$23.4	\$76.0	\$54,944	2.7	45.6	15.3	10.1
2012	1,553,219	11,988	1.24	546.8	2,627	\$25.2	\$80.5	\$55,941	2.7	43.2	15.6	8.7
2013	1,574,688	11,673	1.28	549.5	3,362	\$26.6	\$85.2	\$57,073	2.3	44.3	16.4	7.3
2014	1,598,779	13,900	1.31	552.3	3,141	\$28.2	\$90.6	\$58,160	2.8	47.5	17.1	5.9
2015	1,619,244	10,086	1.36	555.1	5,022	\$29.2	\$96.6	\$59,634	2.6	48.2	17.9	4.7
2016	1,638,556	8,824	1.38	561.0	5,113	\$30.7	\$102.8	\$61,179	2.5	48.2	18.2	4.1
2017	1,656,154	7,036	1.39	566.6	5,192	\$32.2	\$109.4	\$62,202	3.6	48.3	18.6	4.1
2018	1,672,595	5,859	1.41	571.0	5,256	\$33.9	\$116.1	\$63,084	3.5	48.4	19.1	4.1
2019	1,688,275	5,066	1.42	575.4	4,873	\$35.2	\$121.4	\$63,927	2.3	48.4	19.5	4.0
2020	1,703,318	4,439	1.43	579.7	4,558	\$36.5	\$126.8	\$64,646	2.3	48.5	19.9	4.1
2021	1,718,121	4,219	1.44	583.8	4,367	\$37.8	\$132.5	\$65,456	2.3	48.5	20.4	4.1
2022	1,732,632	3,892	1.45	587.5	3,915	\$39.1	\$138.3	\$66,234	2.3	48.5	20.8	4.0
2023	1,746,733	3,479	1.46	591.0	3,547	\$40.4	\$144.1	\$66,919	2.3	48.6	21.3	4.0
2024	1,760,370	3,011	1.47	594.3	3,131	\$41.8	\$150.3	\$67,529	2.6	48.6	21.7	4.1
2025	1,773,709	2,733	1.48	597.2	2,982	\$43.3	\$157.1	\$68,130	2.8	48.6	22.1	4.0
2026	1,786,899	2,538	1.49	600.1	2,868	\$44.8	\$164.0	\$68,638	2.9	48.7	22.6	4.0
2027	1,800,018	2,416	1.49	602.9	2,777	\$46.4	\$171.1	\$69,085	2.9	48.7	23.1	4.0
2028	1,813,105	2,359	1.50	605.7	2,710	\$48.1	\$178.2	\$69,585	2.7	48.7	23.6	4.0
2029	1,826,187	2,283	1.51	608.4	2,360	\$49.9	\$185.3	\$70,103	2.5	48.7	24.2	4.0
2030	1,839,209	2,207	1.52	610.8	2,060	\$51.8	\$192.7	\$70,670	2.4	48.8	24.7	4.0
2031	1,852,385	2,290	1.53	613.0	1,882	\$53.9	\$200.3	\$71,292	2.3	48.8	25.3	4.0
2032	1,865,639	2,324	1.54	615.1	1,871	\$56.2	\$208.4	\$71,869	2.5	48.8	25.8	4.0
2033	1,879,005	2,385	1.55	617.3	1,949	\$58.5	\$216.5	\$72,572	2.1	48.8	26.4	4.0
2034	1,892,470	2,465	1.56	619.6	2,082	\$60.9	\$225.2	\$73,286	2.3	48.8	27.0	4.0
2035	1,905,836	2,415	1.57	622.0	2,245	\$63.3	\$234.6	\$74,010	2.4	48.8	27.5	4.0
2036	1,919,288	2,466	1.59	624.5	2,422	\$65.8	\$244.8	\$74,619	2.8	48.9	28.1	3.9
2037	1,932,851	2,484	1.60	627.1	2,609	\$68.3	\$255.5	\$75,173	2.9	48.9	28.8	3.9
2038	1,946,568	2,474	1.61	629.8	2,803	\$70.8	\$266.3	\$75,779	2.7	48.9	29.4	3.9
2039	1,960,466	2,474	1.62	632.7	3,001	\$73.3	\$278.0	\$76,337	2.9	48.9	30.1	3.9
2040	1,974,470	2,420	1.64	635.7	3,201	\$75.9	\$289.8	\$76,896	2.8	48.9	30.7	3.9
2041	1,988,547	2,349	1.65	638.8	3,303	\$78.4	\$301.9	\$77,510	2.6	48.9	31.5	3.9
2042	2,002,659	2,244	1.66	641.9	3,351	\$80.9	\$314.2	\$78,152	2.5	48.9	32.3	3.9
2043	2,016,860	2,169	1.67	645.1	3,368	\$83.5	\$326.8	\$78,836	2.4	48.9	33.1	3.9
2044	2,031,097	2,089	1.69	648.2	3,367	\$86.1	\$339.7	\$79,594	2.2	48.9	33.9	3.9
2045	2,045,410	2,036	1.70	651.4	3,357	\$88.7	\$353.4	\$80,301	2.4	48.9	34.8	3.9
2046	2,059,731	1,986	1.71	654.6	3,341	\$91.4	\$367.2	\$80,992	2.3	48.9	35.7	3.9
2047	2,074,086	1,949	1.72	657.7	3,322	\$94.3	\$382.5	\$81,674	2.6	48.9	36.6	3.9
2048	2,088,484	1,934	1.73	660.8	3,303	\$97.4	\$398.5	\$82,374	2.6	48.9	37.5	3.9
2049	2,102,886	1,907	1.75	663.9	3,281	\$100.7	\$415.6	\$83,092	2.7	48.9	38.5	3.9
2050	2,117,320	1,910	1.76	667.0	3,261	\$104.2	\$434.4	\$83,850	2.9	48.9	39.5	3.9

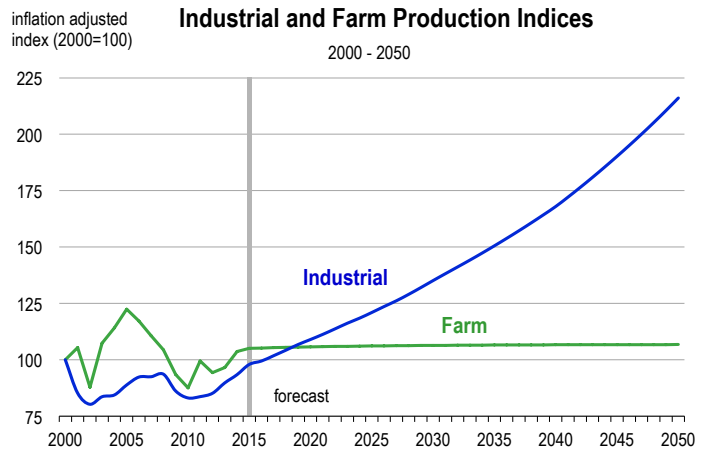
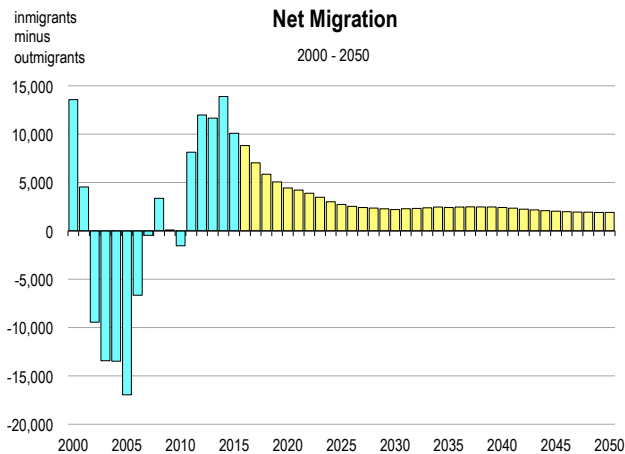
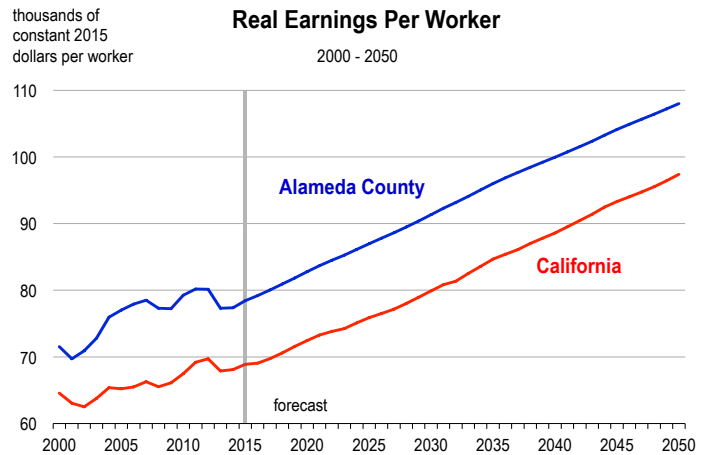
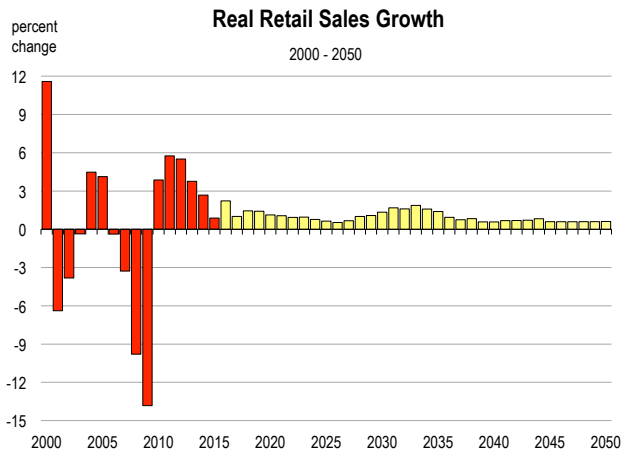


Alameda County Employment Forecast

2010-2015 History, 2016-2050 Forecast

	Total Wage & Salary	Farm	Construction	Manufac- turing	Transportation & Utilities	Wholesale & Retail Trade	Financial Activities	Professional Services	Information	Health & Education	Leisure	Government
	employment (thousands of jobs)											
2010	650.8	0.73	30.4	59.1	23.5	94.2	22.9	108.3	14.0	103.9	54.5	116.2
2011	658.2	0.70	31.0	60.9	24.1	94.8	23.0	111.4	13.6	103.4	56.0	116.0
2012	677.7	0.66	33.4	60.9	24.8	98.2	23.5	118.1	13.6	107.3	58.4	114.9
2013	698.3	0.48	35.7	62.8	25.1	102.5	24.2	121.0	13.0	111.6	61.8	115.3
2014	716.4	0.45	37.1	64.9	26.6	104.7	24.1	124.8	12.8	113.3	64.8	117.5
2015	738.7	0.40	39.5	68.0	28.6	107.8	24.2	127.7	13.5	116.8	67.5	119.1
2016	758.6	0.40	42.1	68.1	29.3	109.5	24.4	133.3	14.2	120.7	69.3	121.1
2017	770.1	0.40	41.9	69.1	29.7	110.6	24.7	136.7	14.6	122.7	70.6	122.4
2018	779.8	0.40	42.2	70.0	30.2	111.5	24.8	139.0	14.9	124.8	71.5	123.5
2019	788.0	0.40	42.1	70.6	30.6	112.2	24.9	141.1	15.1	126.8	72.0	124.6
2020	793.9	0.40	40.6	70.9	31.1	112.7	24.9	143.1	15.4	128.9	72.3	125.6
2021	801.1	0.40	40.2	71.2	31.7	113.2	24.9	145.5	15.6	131.1	72.5	126.6
2022	808.8	0.40	39.9	71.5	32.2	113.7	25.0	148.1	15.7	133.4	72.6	127.6
2023	815.4	0.40	38.5	71.7	32.8	114.1	25.0	150.7	15.9	135.9	72.6	128.5
2024	820.9	0.41	36.9	72.0	33.4	114.6	25.0	153.2	16.0	137.4	72.7	129.5
2025	826.9	0.41	36.0	72.4	34.0	115.0	25.0	155.8	16.1	139.0	72.8	130.2
2026	833.4	0.41	35.4	72.8	34.6	115.4	25.0	158.4	16.3	140.5	72.9	130.9
2027	839.7	0.41	35.0	72.8	35.2	115.9	25.1	161.0	16.4	142.1	73.1	131.6
2028	846.1	0.41	34.6	72.8	35.8	116.4	25.1	163.6	16.5	143.5	73.3	132.3
2029	851.7	0.41	33.2	72.9	36.5	116.9	25.0	166.0	16.7	145.0	73.6	133.3
2030	857.4	0.41	31.7	72.9	37.2	117.5	25.1	168.4	16.8	146.5	74.0	134.1
2031	863.4	0.41	30.7	72.8	37.9	118.1	25.1	170.8	16.9	148.2	74.4	134.9
2032	870.4	0.41	30.3	72.5	38.6	118.8	25.1	173.1	17.1	150.0	74.9	135.7
2033	877.5	0.41	30.6	72.2	39.3	119.5	25.1	175.4	17.2	151.5	75.3	136.6
2034	885.2	0.41	31.3	72.0	40.0	120.1	25.1	177.6	17.4	153.1	75.7	137.5
2035	893.2	0.41	32.3	71.7	40.8	120.7	25.1	179.7	17.6	154.7	76.2	138.4
2036	901.5	0.41	33.4	71.4	41.6	121.3	25.0	181.9	17.7	156.6	76.6	139.5
2037	910.1	0.41	34.7	71.1	42.4	121.7	25.0	184.0	17.9	158.4	77.1	140.6
2038	918.7	0.41	36.0	70.8	43.2	122.2	24.9	186.2	18.1	160.2	77.5	141.6
2039	927.6	0.41	37.3	70.6	44.1	122.7	24.9	188.5	18.3	162.1	78.0	142.8
2040	936.2	0.41	38.4	70.3	44.9	123.1	24.9	190.7	18.5	164.0	78.5	144.0
2041	944.8	0.41	39.1	70.3	45.8	123.6	24.8	192.9	18.7	165.8	78.9	145.1
2042	953.1	0.41	39.3	70.4	46.7	124.0	24.8	195.1	18.9	167.7	79.4	146.3
2043	961.4	0.41	39.5	70.4	47.7	124.5	24.8	197.4	19.1	169.7	79.9	147.4
2044	969.5	0.41	39.5	70.5	48.6	125.0	24.8	199.6	19.4	171.6	80.3	148.5
2045	977.8	0.41	39.4	70.6	49.6	125.5	24.8	201.9	19.6	173.7	80.8	149.7
2046	986.1	0.41	39.2	70.6	50.6	125.9	24.8	204.2	19.8	175.9	81.3	150.8
2047	994.4	0.41	38.9	70.7	51.6	126.4	24.8	206.5	20.1	178.1	81.8	152.0
2048	1,003.0	0.41	38.7	70.8	52.6	126.8	24.7	208.8	20.3	180.3	82.3	153.1
2049	1,011.5	0.41	38.4	70.9	53.7	127.3	24.7	211.2	20.5	182.5	82.8	154.3
2050	1,020.3	0.41	38.2	71.0	54.8	127.7	24.7	213.6	20.8	184.7	83.3	155.4





County Economic and Demographic Indicators

Projected Economic Growth (2016-2021)

Expected retail sales growth:	6.2%
Expected job growth:	5.6%
Fastest growing jobs sector:	Information
Expected personal income growth:	12.2%

Expected population growth:	4.9%
Net migration to account for:	33.5%
Expected growth in number of vehicles:	4.5%

Demographics (2016)

Unemployment rate (April 2016):	4.1%
County rank* in California (58 counties):	9th
Percent of population working age:(16-64)	67.6%

Population with B.A. or higher:	42.4%
Median home selling price (2015):	\$630,000
Median household income:	\$76,643

Quality of Life

Violent crime rate (2014):	628 per 100,000 persons
County rank* in California (58 counties):	54th
Average commute time to work (2016):	33.0 minutes

High School drop out rate (2015):	10.3%
Households at/below poverty line (2016):	8.8%

* The county ranked 1st corresponds to the lowest rate in California

CONTRA COSTA COUNTY ECONOMIC FORECAST

Contra Costa County is located on the eastern edge of the San Francisco Bay. It has a population of 1.1 million people and a total of 353,800 wage and salary jobs. The per capita income is \$68,126, and the average salary per worker is \$75,274.

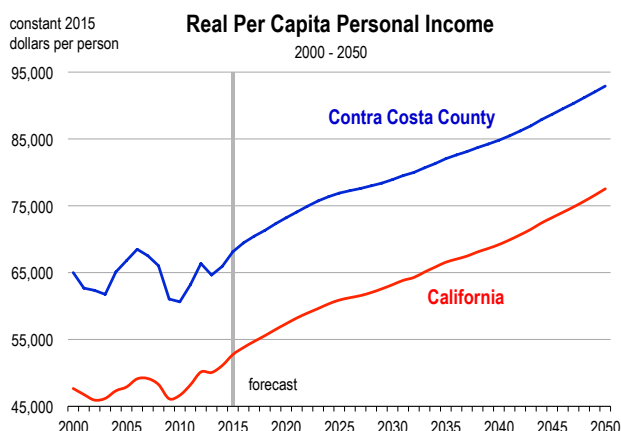
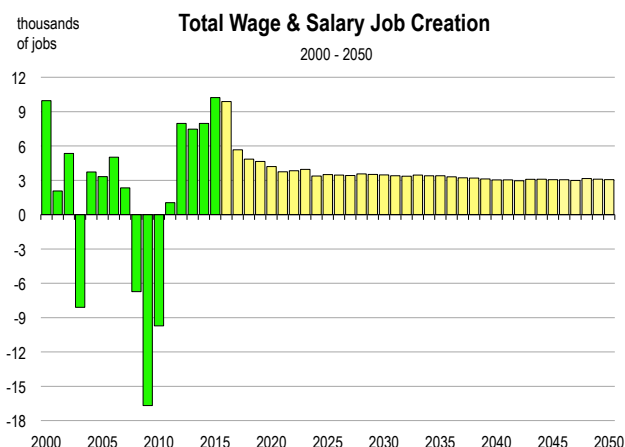
In 2015, employment in Northern California increased by 3.3 percent, whereas employment in the greater Bay Area grew by 3.8 percent. In Contra Costa County, 10,200 jobs were created, representing an increase of 3.0 percent. The unemployment rate improved substantially, falling from 6.2 percent in 2014 to 5.0 percent in 2015.

During 2015, the largest employment increases were observed in education and healthcare (+1,800 jobs), leisure and hospitality (+1,500 jobs), wholesale and retail trade (+1,500 jobs), construction (+1,500 jobs), and professional and business services (+1,200 jobs). Meaningful employment losses were not observed in any major sector.

Between 2010 and 2015, the population increased at an annual average rate of 1.2 percent. More than half of this growth was the result of net migration, as an average of 7,000 net migrants entered the county each year. Some of these individuals moved to Contra Costa County to escape the comparatively higher housing prices of San Francisco and Silicon Valley, while others relocated to the Bay Area for its robust job market and high wages.

FORECAST HIGHLIGHTS

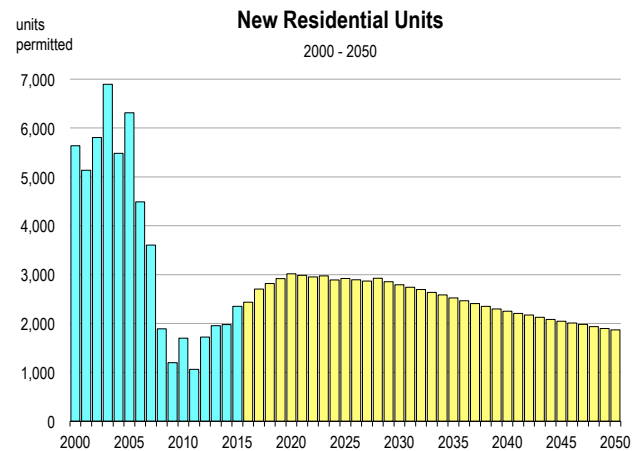
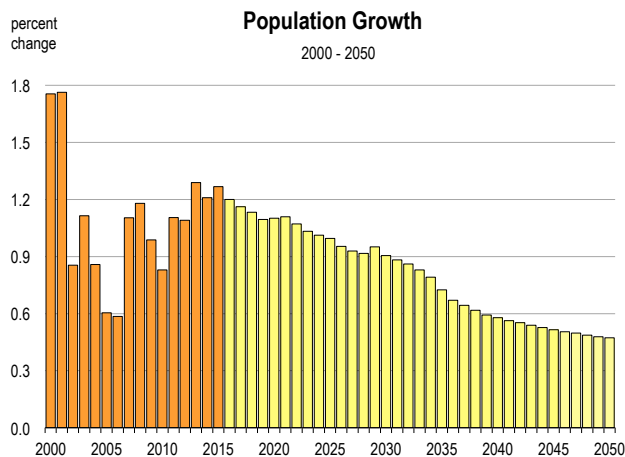
- In 2016, total employment will expand by 2.8 percent. From 2016 to 2021, employment growth is expected to average 1.2 percent per year.
- Average salaries are currently above the California State average, and will remain so for the foreseeable future. In Contra Costa County, inflation-adjusted salaries are forecasted to rise by an average of 1.3 percent per year between 2016 and 2021.
- The largest job gains will be observed in leisure and hospitality, education and healthcare, professional and business services, and wholesale and retail trade. Together, these industries will account for 77 percent of net job creation between 2016 and 2021.
- The population of Contra Costa County is projected to grow at an annual average rate of 1.1 percent from 2016 to 2021.
- From 2016 to 2021, an average of 8,100 net migrants will enter the county each year, accounting for more than 60 percent of total population growth.
- Between 2016 and 2021, an average of 2,800 housing permits will be issued each year. The largest development project in the county will be located near the North Concord/Martinez Bart station. The project will contain up to 12,250 new homes. Construction may begin within the next few years, but will continue well beyond the year 2021.
- Real per capita income will increase by 2.0 percent in 2016. Between 2016 and 2021, real per capita income is expected to grow by 1.3 percent per year.
- Total taxable sales, adjusted for inflation, are expected to increase by an average of 1.2 percent per year from 2016 to 2021.
- Industrial production is expected to rise by 2.8 percent in 2016. Between 2016 and 2021, the growth rate of industrial production will average 2.4 percent per year.



Contra Costa County Economic Forecast

2010-2015 History, 2016-2050 Forecast

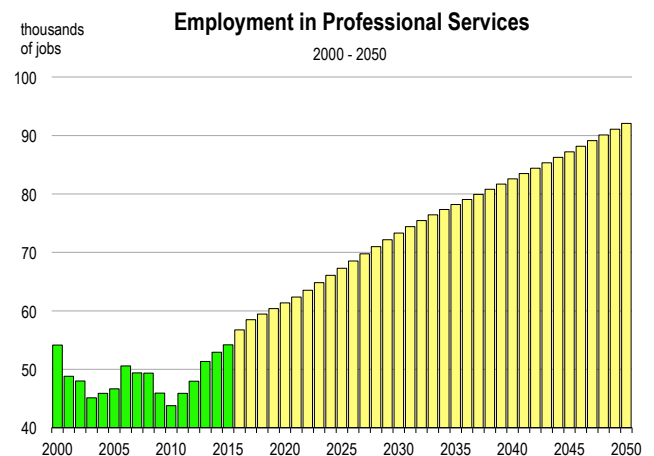
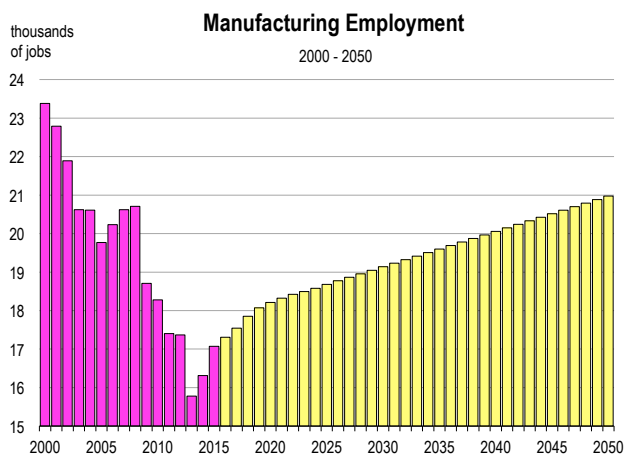
	Population (people)	Net Migration (people)	Registered Vehicles (millions)	Households (thousands)	New Homes Permitted (homes)	Total Taxable Sales (billions)	Personal Income (billions)	Real Per Capita Income (dollars)	Inflation Rate (% change in CPI)	Real Farm Crop Value (millions)	Real Industrial Production (billions)	Unemploy- ment Rate (percent)
2010	1,052,157	3,008	0.92	375.4	1,699	\$12.0	\$56.1	\$60,640	1.3	90.5	5.2	11.0
2011	1,063,780	6,528	0.91	377.9	1,063	\$12.8	\$60.7	\$63,209	2.7	102.9	4.8	10.3
2012	1,075,384	6,635	0.92	379.2	1,722	\$14.0	\$66.2	\$66,374	2.7	98.2	4.9	9.0
2013	1,089,243	8,883	0.95	378.9	1,955	\$14.5	\$66.7	\$64,641	2.3	102.2	4.7	7.5
2014	1,102,416	8,125	0.97	381.1	1,979	\$15.0	\$70.8	\$65,936	2.8	122.9	4.9	6.2
2015	1,116,385	8,547	1.00	382.9	2,354	\$15.7	\$76.1	\$68,126	2.6	124.6	5.1	5.0
2016	1,129,783	8,486	1.03	387.4	2,436	\$16.6	\$80.5	\$69,476	2.5	124.3	5.3	4.2
2017	1,142,910	8,216	1.05	390.9	2,705	\$17.3	\$85.5	\$70,455	3.6	122.9	5.4	3.9
2018	1,155,857	8,019	1.07	393.5	2,818	\$18.2	\$90.7	\$71,337	3.5	122.2	5.5	3.8
2019	1,168,513	7,690	1.08	396.3	2,918	\$18.9	\$95.1	\$72,332	2.3	122.0	5.7	3.7
2020	1,181,384	7,881	1.10	399.4	3,017	\$19.5	\$99.6	\$73,228	2.3	122.0	5.8	3.7
2021	1,194,486	8,106	1.11	402.5	2,986	\$20.2	\$104.2	\$74,095	2.3	121.7	5.9	3.7
2022	1,207,284	7,773	1.12	405.4	2,953	\$20.8	\$109.0	\$74,933	2.3	121.7	6.1	3.7
2023	1,219,752	7,425	1.13	408.4	2,975	\$21.5	\$113.9	\$75,744	2.3	121.6	6.2	3.7
2024	1,232,099	7,303	1.14	411.4	2,891	\$22.2	\$119.0	\$76,373	2.6	121.6	6.3	3.7
2025	1,244,362	7,234	1.14	414.2	2,921	\$23.0	\$124.4	\$76,897	2.8	121.5	6.5	3.7
2026	1,256,226	6,848	1.15	417.1	2,895	\$23.8	\$129.8	\$77,286	2.9	121.5	6.6	3.7
2027	1,267,897	6,671	1.15	420.0	2,869	\$24.6	\$135.4	\$77,608	2.9	121.5	6.8	3.7
2028	1,279,518	6,666	1.16	422.7	2,926	\$25.6	\$141.0	\$78,000	2.7	121.5	6.9	3.7
2029	1,291,685	7,225	1.16	425.6	2,855	\$26.5	\$146.6	\$78,408	2.5	121.5	7.1	3.6
2030	1,303,375	6,789	1.17	428.4	2,793	\$27.6	\$152.5	\$78,944	2.4	121.5	7.3	3.6
2031	1,314,876	6,605	1.18	431.1	2,742	\$28.8	\$158.6	\$79,520	2.3	121.6	7.5	3.6
2032	1,326,195	6,427	1.18	433.8	2,696	\$30.0	\$164.9	\$80,005	2.5	121.6	7.7	3.6
2033	1,337,198	6,110	1.19	436.4	2,637	\$31.4	\$171.3	\$80,681	2.1	121.7	7.9	3.6
2034	1,347,782	5,712	1.19	439.0	2,585	\$32.7	\$178.0	\$81,337	2.3	121.8	8.1	3.6
2035	1,357,552	4,959	1.20	441.5	2,523	\$34.0	\$185.2	\$82,047	2.4	121.9	8.3	3.6
2036	1,366,650	4,329	1.21	443.9	2,466	\$35.3	\$193.0	\$82,616	2.8	122.0	8.6	3.6
2037	1,375,445	4,106	1.21	446.3	2,408	\$36.6	\$201.0	\$83,121	2.9	122.1	8.8	3.6
2038	1,383,939	3,884	1.22	448.5	2,351	\$37.8	\$209.2	\$83,724	2.7	122.2	9.0	3.6
2039	1,392,141	3,669	1.22	450.7	2,298	\$39.1	\$217.9	\$84,261	2.9	122.3	9.3	3.6
2040	1,400,195	3,592	1.23	452.9	2,252	\$40.4	\$226.7	\$84,827	2.8	122.4	9.5	3.6
2041	1,408,077	3,500	1.24	454.9	2,207	\$41.7	\$235.8	\$85,490	2.6	122.6	9.8	3.6
2042	1,415,855	3,457	1.25	457.0	2,174	\$43.0	\$245.0	\$86,201	2.5	122.7	10.0	3.6
2043	1,423,485	3,366	1.25	459.0	2,128	\$44.4	\$254.5	\$86,990	2.4	122.8	10.3	3.6
2044	1,430,982	3,286	1.26	461.0	2,084	\$45.7	\$264.2	\$87,888	2.2	123.0	10.6	3.6
2045	1,438,355	3,218	1.27	462.9	2,047	\$47.0	\$274.5	\$88,711	2.4	123.1	10.9	3.6
2046	1,445,613	3,154	1.28	464.8	2,010	\$48.3	\$284.9	\$89,532	2.3	123.3	11.2	3.6
2047	1,452,808	3,135	1.29	466.7	1,983	\$49.8	\$296.4	\$90,342	2.6	123.5	11.5	3.6
2048	1,459,880	3,040	1.30	468.6	1,937	\$51.4	\$308.4	\$91,186	2.6	123.6	11.8	3.6
2049	1,466,863	2,990	1.31	470.4	1,898	\$53.0	\$321.2	\$92,045	2.7	123.8	12.1	3.6
2050	1,473,799	2,966	1.32	472.1	1,870	\$54.8	\$335.1	\$92,922	2.9	123.9	12.4	3.6

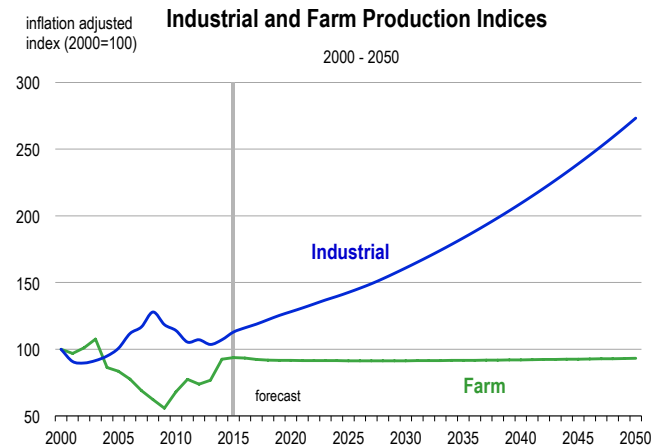
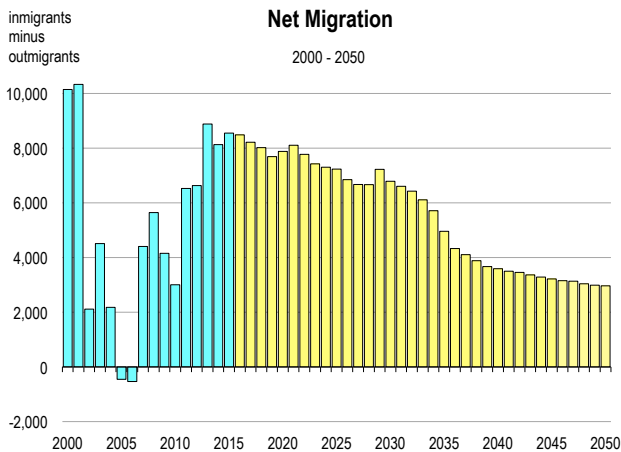
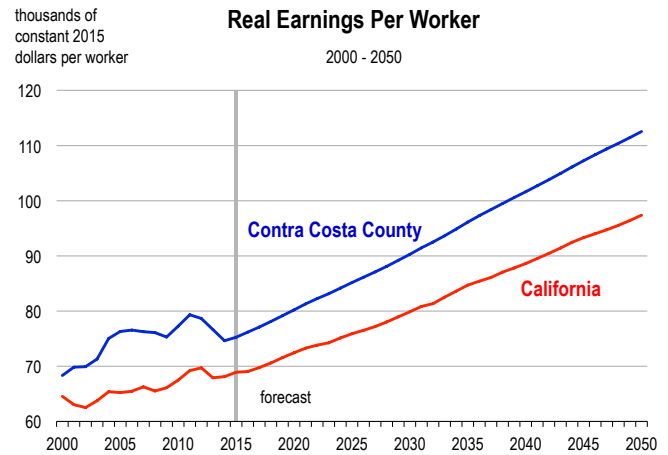
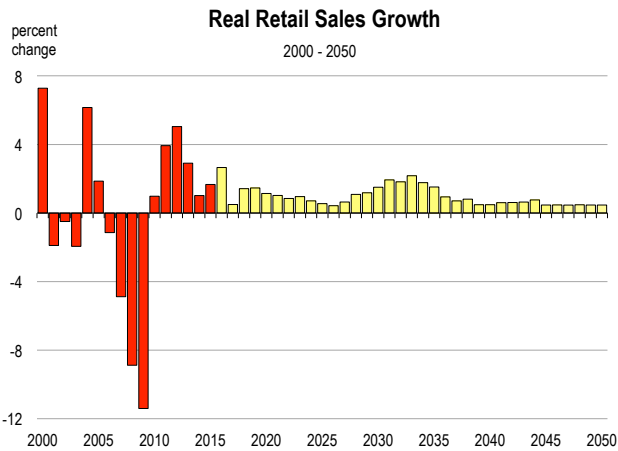


Contra Costa County Employment Forecast

2010-2015 History, 2016-2050 Forecast

	Total Wage & Salary	Farm	Construction	Manufac- turing	Transportation & Utilities	Wholesale & Retail Trade	Financial Activities	Professional Services	Information	Health & Education	Leisure	Government
	employment (thousands of jobs)											
2010	319.1	0.71	18.3	18.3	8.0	48.0	25.3	43.8	9.6	54.9	31.3	49.2
2011	320.1	0.83	17.8	17.4	8.1	48.5	24.8	45.9	9.0	55.5	32.3	47.8
2012	328.1	0.79	19.7	17.4	8.1	49.4	25.3	48.0	8.4	57.3	33.4	48.0
2013	335.6	0.90	21.6	15.8	8.5	49.8	25.3	51.3	8.5	58.4	35.4	48.1
2014	343.6	0.84	22.4	16.3	9.0	50.8	25.1	52.9	8.4	59.3	37.1	49.1
2015	353.8	0.76	23.9	17.1	9.7	52.3	25.2	54.2	8.8	61.1	38.6	49.7
2016	363.7	0.76	25.4	17.3	9.8	53.1	25.8	56.7	9.2	63.1	39.9	49.8
2017	369.4	0.75	25.4	17.5	9.9	53.6	26.1	58.5	9.5	64.1	41.1	50.0
2018	374.2	0.74	25.2	17.9	10.0	54.1	26.5	59.4	9.7	65.3	42.1	50.2
2019	378.9	0.74	25.3	18.1	10.1	54.5	26.7	60.4	9.9	66.5	43.0	50.4
2020	383.1	0.74	25.4	18.2	10.2	54.8	26.8	61.4	10.1	67.8	43.7	50.6
2021	386.8	0.74	25.2	18.3	10.3	55.1	26.8	62.4	10.2	69.0	44.4	50.8
2022	390.7	0.74	25.1	18.4	10.4	55.4	26.9	63.5	10.4	70.3	44.9	50.9
2023	394.6	0.74	25.1	18.5	10.5	55.6	27.0	64.8	10.5	71.6	45.3	51.1
2024	398.0	0.73	24.7	18.6	10.6	55.8	27.1	66.1	10.6	72.8	45.7	51.3
2025	401.5	0.73	24.7	18.7	10.7	56.0	27.2	67.3	10.8	73.9	46.0	51.5
2026	405.0	0.73	24.7	18.8	10.9	56.2	27.2	68.5	10.9	74.9	46.3	51.7
2027	408.4	0.73	24.8	18.9	11.0	56.4	27.3	69.8	11.0	75.9	46.5	51.8
2028	412.0	0.73	24.9	19.0	11.1	56.6	27.4	71.0	11.1	76.9	46.8	52.0
2029	415.5	0.73	24.9	19.0	11.2	56.9	27.5	72.2	11.2	78.0	47.0	52.3
2030	419.0	0.73	24.8	19.1	11.4	57.2	27.6	73.3	11.4	79.1	47.2	52.5
2031	422.4	0.73	24.6	19.2	11.5	57.6	27.7	74.4	11.5	80.2	47.4	52.7
2032	425.7	0.74	24.5	19.3	11.6	58.0	27.8	75.4	11.6	81.2	47.6	52.9
2033	429.2	0.74	24.4	19.4	11.8	58.5	27.9	76.4	11.8	82.3	47.8	53.1
2034	432.6	0.74	24.3	19.5	11.9	59.0	28.0	77.3	11.9	83.4	48.1	53.3
2035	436.0	0.74	24.3	19.6	12.0	59.4	28.1	78.2	12.0	84.4	48.3	53.6
2036	439.3	0.74	24.4	19.7	12.2	59.8	28.1	79.1	12.2	85.5	48.5	53.8
2037	442.5	0.74	24.4	19.8	12.3	60.1	28.2	79.9	12.3	86.6	48.7	54.0
2038	445.7	0.74	24.4	19.9	12.5	60.4	28.2	80.8	12.4	87.7	48.9	54.3
2039	448.8	0.74	24.4	20.0	12.6	60.6	28.1	81.7	12.6	88.8	49.1	54.5
2040	451.9	0.74	24.4	20.1	12.8	60.8	28.1	82.6	12.7	89.9	49.3	54.8
2041	454.9	0.74	24.3	20.1	12.9	61.0	28.0	83.5	12.8	91.0	49.5	55.0
2042	457.9	0.74	24.2	20.2	13.1	61.2	27.9	84.4	13.0	92.1	49.8	55.3
2043	461.0	0.75	24.2	20.3	13.3	61.4	27.8	85.3	13.1	93.2	50.0	55.5
2044	464.1	0.75	24.2	20.4	13.4	61.7	27.7	86.3	13.3	94.3	50.2	55.8
2045	467.1	0.75	24.2	20.5	13.6	61.9	27.5	87.2	13.4	95.4	50.4	56.0
2046	470.2	0.75	24.1	20.6	13.8	62.0	27.4	88.2	13.5	96.5	50.6	56.3
2047	473.2	0.75	24.0	20.7	13.9	62.2	27.2	89.1	13.7	97.6	50.8	56.6
2048	476.3	0.75	24.0	20.8	14.1	62.4	27.0	90.1	13.8	98.8	51.0	56.8
2049	479.4	0.75	24.0	20.9	14.3	62.6	26.8	91.1	14.0	99.9	51.2	57.1
2050	482.5	0.75	23.9	21.0	14.5	62.8	26.6	92.1	14.1	101.1	51.4	57.4





County Economic and Demographic Indicators

Projected Economic Growth (2016-2021)

Expected retail sales growth:	5.7%
Expected job growth:	6.4%
Fastest growing jobs sector:	Information
Expected personal income growth:	12.8%

Expected population growth:	5.7%
Net migration to account for:	61.7%
Expected growth in number of vehicles:	8.1%

Demographics (2016)

Unemployment rate (April 2016):	4.3%
County rank* in California (58 counties):	10th
Working age (16-64) population:	64.9%

Population with B.A. or higher:	39.0%
Median home selling price (2015):	\$475,000
Median household income:	\$83,007

Quality of Life

Violent crime rate (2014):	310 per 100,000 persons
County rank* in California (58 counties):	20th
Average commute time to work (2016):	38.0 minutes

High School drop out rate (2015):	5.4%
Households at/below poverty line (2016):	8.0%

* The county ranked 1st corresponds to the lowest rate in California

SAN JOAQUIN COUNTY ECONOMIC FORECAST

San Joaquin County is the northernmost county in the San Joaquin Valley. San Joaquin County has a population of 728,500 people and approximately 234,800 wage and salary jobs. The income per capita is \$37,375 and the average salary per worker is \$50,153.

Much like the other counties in the San Joaquin Valley, San Joaquin County is heavily agricultural. However, the San Joaquin County economy is more diverse, primarily as a result of its proximity to Sacramento and the Bay Area. Compared to the rest of the San Joaquin Valley, San Joaquin County has a lower concentration of farm and government jobs, and a higher concentration of transportation and warehousing jobs.

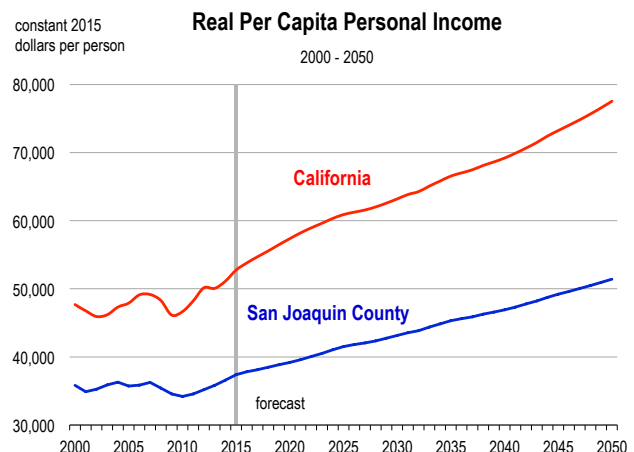
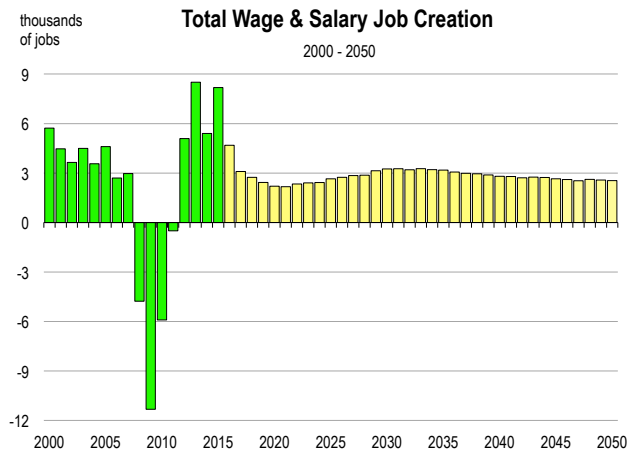
In 2015, employment across Northern California increased by 3.3 percent, whereas employment in the San Joaquin Valley (Fresno, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare counties) grew by 3.1 percent. In San Joaquin County, 8,200 total jobs were gained, representing a growth rate of 3.6 percent. Although still high, the unemployment rate improved substantially, falling from 10.7 percent in 2014 to 8.9 percent in 2015.

During 2015, most major sectors were characterized by positive job growth. The largest gains were observed in transportation and utilities (+1,700 jobs), professional and business services (+1,400 jobs), construction (+1,200 jobs), and government (+970 jobs). The largest losses were observed in financial activities (-150 jobs).

Between 2010 and 2015, the population of San Joaquin County grew at an annual average rate of 1.2 percent. Growth was heavily influenced by in-migration, as more than 6,000 net migrants entered the county in each of the last two years.

FORECAST HIGHLIGHTS

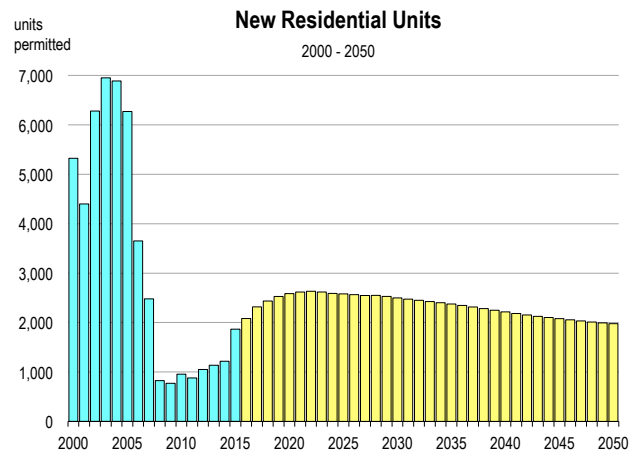
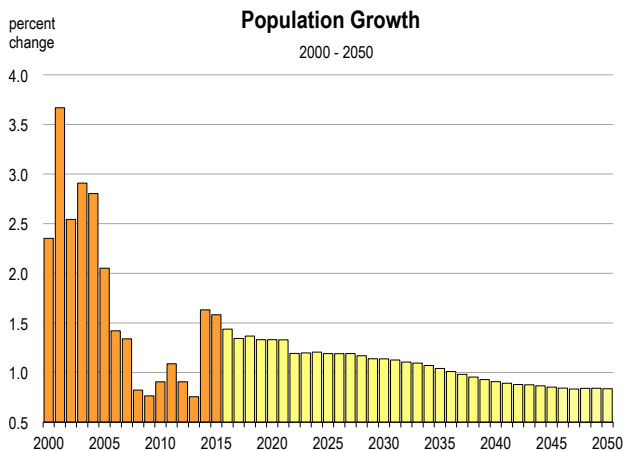
- In 2016, total wage and salary employment is expected to increase by 2.0 percent. From 2016 to 2021, growth will average 1.0 percent per year.
- The average salary is currently well below the California state average, and will remain so over the forecast period. In San Joaquin County, inflation-adjusted salaries are expected to rise by 1.0 percent per year between 2016 and 2021.
- Between 2016 and 2021, the strongest employment growth will be observed in wholesale and retail trade, professional and business services, government, and transportation and utilities. Together, these sectors will account for 74 percent of net job creation in the county.
- Annual population growth in the 2016-2021 period will average 1.3 percent per year.
- Net migration will be high over the next 5 years. From 2016 to 2021, an average of 5,400 net migrants will enter the county each year, accounting for more than half of all population growth.
- Real income per capita is expected to rise by 1.2 percent in 2016. Over the entire 2016-2021 period, real income per capita will increase by an average of 0.9 percent per year.
- Total taxable sales, adjusted for inflation, are expected to increase by an average of 1.5 percent per year between 2016 and 2021.
- Industrial production is expected to increase by 3.6 percent in 2016. From 2016 to 2021, the growth rate of industrial production will average 2.8 percent per year.
- Farm production is forecasted to be virtually flat between 2016 and 2021, neither increasing nor decreasing by a substantial amount. The principal commodities are milk, grapes, and walnuts.



San Joaquin County Economic Forecast

2010-2015 History, 2016-2050 Forecast

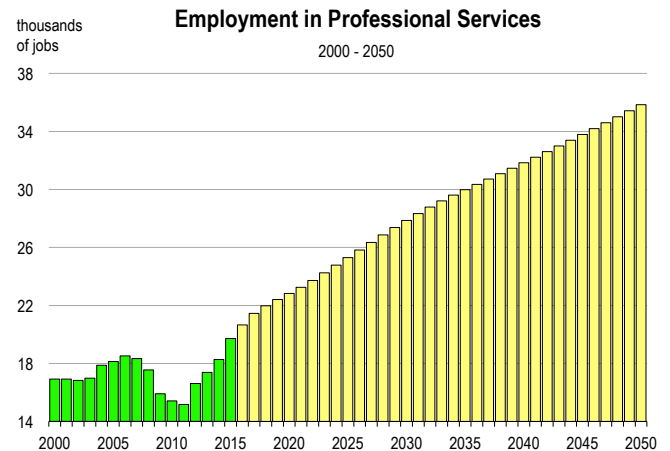
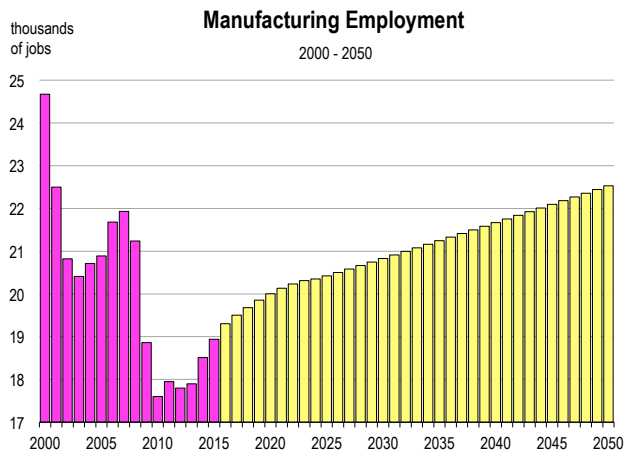
	Population (people)	Net Migration (people)	Registered Vehicles (thousands)	Households (thousands)	New Homes Permitted (homes)	Total Taxable Sales (billions)	Personal Income (billions)	Real Per Capita Income (dollars)	Inflation Rate (% change in CPI)	Real Farm Crop Value (billions)	Real Industrial Production (billions)	Unemploy- ment Rate (percent)
2010	686,585	-96	574	215.0	958	\$7.6	\$21.3	\$34,195	1.3	2.16	6.1	16.5
2011	694,060	1,649	573	215.5	880	\$8.4	\$22.4	\$34,545	2.7	2.40	6.1	16.2
2012	700,346	1,162	573	216.1	1,052	\$9.0	\$23.5	\$35,190	2.7	3.01	6.3	14.4
2013	705,640	204	592	216.9	1,136	\$9.5	\$24.5	\$35,826	2.3	3.08	6.6	12.4
2014	717,155	6,915	608	217.8	1,216	\$10.0	\$25.9	\$36,575	2.8	3.28	6.9	10.7
2015	728,509	6,600	632	220.3	1,866	\$10.5	\$27.2	\$37,375	2.6	3.36	7.2	8.9
2016	738,982	5,776	640	222.5	2,082	\$11.1	\$28.8	\$37,817	2.5	3.34	7.4	8.1
2017	748,913	5,170	646	224.1	2,318	\$11.7	\$30.4	\$38,118	3.6	3.34	7.7	7.8
2018	759,158	5,452	650	226.2	2,436	\$12.1	\$31.8	\$38,486	3.5	3.33	7.9	7.6
2019	769,264	5,288	655	228.6	2,529	\$12.6	\$33.2	\$38,870	2.3	3.34	8.1	7.5
2020	779,507	5,420	658	231.0	2,586	\$13.0	\$34.6	\$39,193	2.3	3.38	8.3	7.4
2021	789,873	5,539	662	233.6	2,618	\$13.5	\$36.2	\$39,585	2.3	3.37	8.6	7.4
2022	799,296	4,613	666	236.2	2,634	\$13.9	\$37.8	\$40,060	2.3	3.39	8.8	7.3
2023	808,872	4,765	670	238.8	2,619	\$14.3	\$39.5	\$40,522	2.3	3.40	9.0	7.3
2024	818,628	4,923	674	241.4	2,590	\$14.7	\$41.5	\$41,056	2.6	3.42	9.2	7.2
2025	828,379	4,919	678	244.0	2,581	\$15.2	\$43.6	\$41,531	2.8	3.43	9.5	7.1
2026	838,238	5,001	683	246.5	2,565	\$15.7	\$45.6	\$41,825	2.9	3.45	9.7	7.1
2027	848,225	5,080	687	249.1	2,548	\$16.2	\$47.7	\$42,061	2.9	3.47	10.0	7.0
2028	858,142	4,962	692	251.6	2,550	\$16.8	\$49.8	\$42,359	2.7	3.49	10.2	6.9
2029	867,918	4,773	697	254.2	2,530	\$17.3	\$52.0	\$42,737	2.5	3.51	10.5	6.9
2030	877,797	4,855	702	256.7	2,499	\$18.0	\$54.3	\$43,141	2.4	3.54	10.8	6.8
2031	887,687	4,861	707	259.2	2,474	\$18.6	\$56.6	\$43,568	2.3	3.56	11.1	6.7
2032	897,504	4,779	712	261.6	2,451	\$19.4	\$58.9	\$43,867	2.5	3.58	11.5	6.7
2033	907,336	4,797	717	264.1	2,425	\$20.2	\$61.4	\$44,377	2.1	3.61	11.8	6.6
2034	917,056	4,738	721	266.5	2,402	\$20.9	\$64.0	\$44,847	2.3	3.63	12.1	6.6
2035	926,608	4,649	726	268.8	2,376	\$21.7	\$66.8	\$45,305	2.4	3.65	12.4	6.6
2036	935,970	4,541	730	271.2	2,347	\$22.5	\$69.7	\$45,607	2.8	3.68	12.8	6.5
2037	945,161	4,444	735	273.5	2,316	\$23.3	\$72.7	\$45,889	2.9	3.70	13.1	6.5
2038	954,186	4,359	739	275.8	2,283	\$24.0	\$75.9	\$46,269	2.7	3.73	13.5	6.5
2039	963,056	4,274	743	278.0	2,250	\$24.8	\$79.2	\$46,584	2.9	3.76	13.9	6.5
2040	971,804	4,186	747	280.3	2,217	\$25.5	\$82.6	\$46,925	2.8	3.78	14.3	6.4
2041	980,477	4,105	751	282.5	2,184	\$26.3	\$86.1	\$47,332	2.6	3.81	14.6	6.4
2042	989,101	4,022	754	284.6	2,154	\$27.0	\$89.6	\$47,771	2.5	3.83	15.0	6.4
2043	997,772	4,024	758	286.7	2,126	\$27.8	\$93.3	\$48,233	2.4	3.86	15.4	6.4
2044	1,006,418	3,962	762	288.9	2,103	\$28.5	\$97.1	\$48,765	2.2	3.89	15.9	6.3
2045	1,015,009	3,879	765	290.9	2,080	\$29.3	\$100.9	\$49,205	2.4	3.92	16.3	6.3
2046	1,023,570	3,811	769	293.0	2,056	\$30.1	\$104.9	\$49,627	2.3	3.95	16.7	6.3
2047	1,032,112	3,717	772	295.0	2,033	\$30.9	\$109.0	\$50,048	2.6	3.97	17.1	6.3
2048	1,040,794	3,753	776	297.0	2,011	\$31.7	\$113.4	\$50,487	2.6	4.00	17.6	6.2
2049	1,049,557	3,719	779	299.0	1,994	\$32.5	\$117.9	\$50,947	2.7	4.03	18.1	6.2
2050	1,058,344	3,656	782	301.0	1,978	\$33.4	\$122.7	\$51,431	2.9	4.06	18.5	6.2

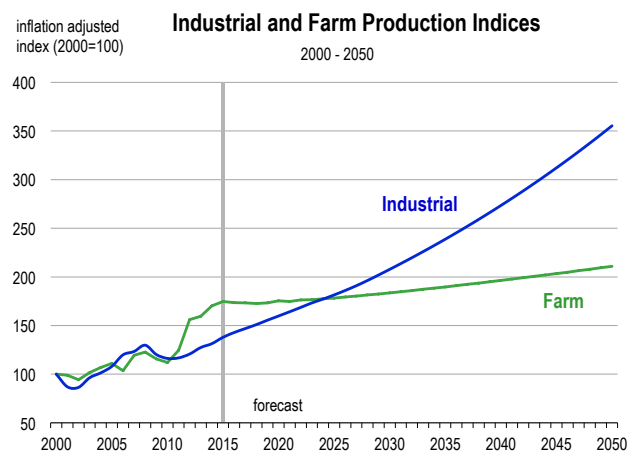
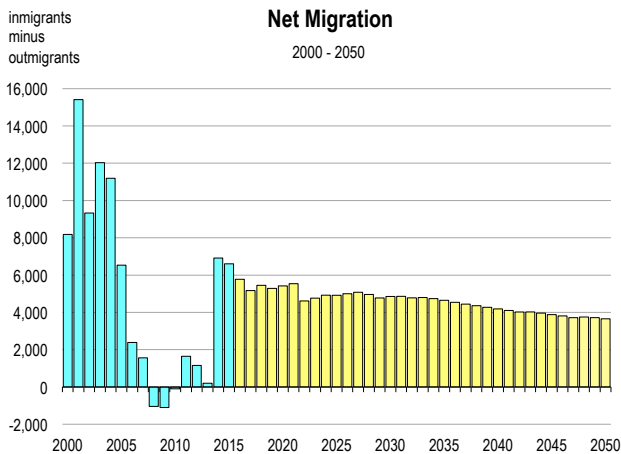
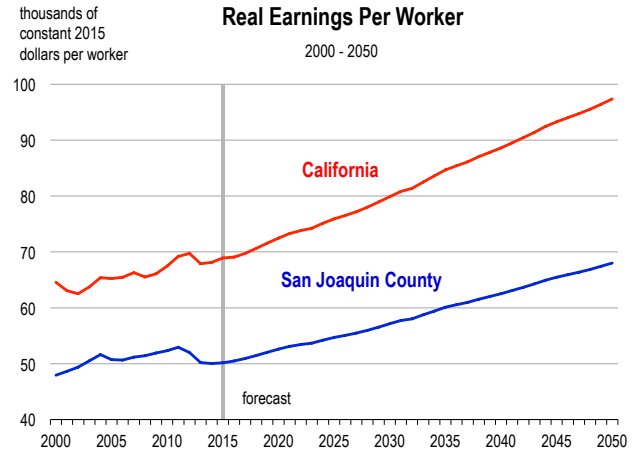
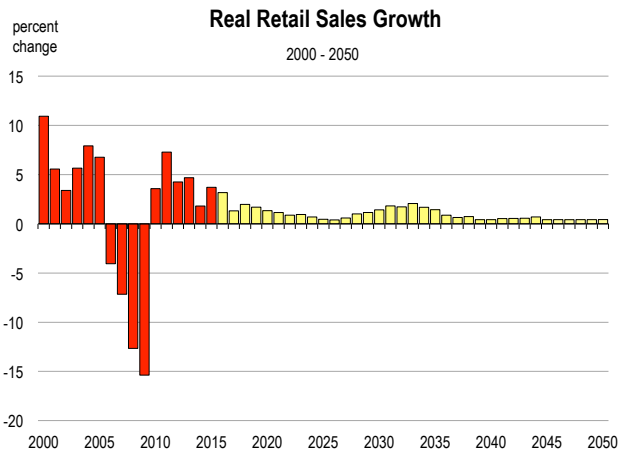


San Joaquin County Employment Forecast

2010-2015 History, 2016-2050 Forecast

	Total Wage & Salary	Farm	Construction	Manufac- turing	Transportation & Utilities	Wholesale & Retail Trade	Financial Activities	Professional Services	Information	Health & Education	Leisure	Government
	-----employment (thousands of jobs)-----											
2010	208.2	15.7	7.6	17.6	13.8	33.7	7.7	15.4	2.1	33.5	16.1	38.2
2011	207.7	15.5	7.4	18.0	14.7	34.4	7.5	15.2	2.1	33.7	16.3	36.5
2012	212.8	15.7	7.6	17.8	16.0	35.7	7.5	16.6	2.1	34.0	17.0	36.1
2013	221.3	16.1	8.8	17.9	17.2	36.7	7.6	17.4	2.1	35.5	18.2	37.1
2014	226.7	15.7	8.9	18.5	18.3	36.9	7.5	18.3	2.1	35.9	19.1	38.6
2015	234.8	16.5	10.1	18.9	20.0	37.5	7.3	19.7	2.0	36.5	19.6	39.5
2016	239.5	16.8	10.4	19.3	20.7	38.0	7.4	20.7	2.1	36.7	20.2	40.0
2017	242.6	17.0	10.3	19.5	21.3	38.5	7.5	21.5	2.1	36.6	20.6	40.3
2018	245.4	17.1	10.4	19.7	21.9	38.9	7.5	22.0	2.1	36.5	20.9	40.7
2019	247.8	17.1	10.5	19.9	22.5	39.4	7.6	22.4	2.1	36.4	21.1	41.0
2020	250.0	17.2	10.6	20.0	23.1	39.7	7.7	22.8	2.2	36.3	21.1	41.3
2021	252.2	17.2	10.7	20.1	23.7	40.1	7.7	23.3	2.2	36.4	21.2	41.5
2022	254.5	17.2	10.8	20.2	24.4	40.5	7.8	23.7	2.2	36.7	21.2	41.6
2023	256.9	17.2	10.9	20.3	25.0	40.8	7.8	24.3	2.2	37.0	21.2	41.8
2024	259.3	17.2	10.9	20.4	25.6	41.2	7.9	24.8	2.2	37.5	21.2	41.9
2025	262.0	17.2	11.0	20.4	26.3	41.5	7.9	25.3	2.2	38.2	21.3	42.0
2026	264.7	17.3	11.0	20.5	26.9	41.8	8.0	25.8	2.3	39.1	21.3	42.0
2027	267.6	17.3	11.1	20.6	27.5	42.1	8.0	26.3	2.3	40.1	21.4	41.9
2028	270.4	17.3	11.2	20.7	28.2	42.4	8.1	26.9	2.3	41.0	21.5	41.9
2029	273.6	17.3	11.3	20.7	28.8	42.8	8.1	27.4	2.3	42.2	21.7	41.9
2030	276.8	17.3	11.3	20.8	29.4	43.2	8.2	27.9	2.3	43.5	21.8	41.8
2031	280.1	17.3	11.2	20.9	30.0	43.6	8.2	28.3	2.4	44.8	22.0	41.8
2032	283.3	17.3	11.2	21.0	30.7	44.0	8.3	28.8	2.4	46.1	22.2	41.7
2033	286.6	17.3	11.2	21.1	31.3	44.5	8.3	29.2	2.4	47.4	22.4	41.6
2034	289.8	17.4	11.2	21.2	31.9	45.0	8.4	29.6	2.4	48.6	22.6	41.6
2035	292.9	17.4	11.3	21.2	32.6	45.5	8.4	30.0	2.4	49.8	22.7	41.6
2036	296.0	17.4	11.3	21.3	33.2	45.9	8.5	30.4	2.5	51.0	22.9	41.5
2037	299.0	17.4	11.4	21.4	33.8	46.2	8.5	30.7	2.5	52.1	23.1	41.5
2038	301.9	17.4	11.4	21.5	34.4	46.5	8.6	31.1	2.5	53.2	23.3	41.5
2039	304.8	17.4	11.4	21.6	35.1	46.8	8.6	31.5	2.5	54.2	23.5	41.6
2040	307.6	17.4	11.4	21.7	35.7	47.1	8.6	31.8	2.5	55.2	23.6	41.6
2041	310.4	17.5	11.5	21.8	36.3	47.4	8.7	32.2	2.6	56.2	23.8	41.6
2042	313.1	17.5	11.4	21.8	37.0	47.8	8.7	32.6	2.6	57.0	24.0	41.7
2043	315.9	17.5	11.5	21.9	37.6	48.1	8.8	33.0	2.6	57.9	24.2	41.7
2044	318.6	17.5	11.5	22.0	38.2	48.4	8.8	33.4	2.6	58.6	24.4	41.8
2045	321.3	17.5	11.5	22.1	38.8	48.8	8.8	33.8	2.6	59.4	24.5	41.8
2046	323.9	17.5	11.5	22.2	39.5	49.1	8.9	34.2	2.7	60.1	24.7	41.9
2047	326.4	17.5	11.5	22.3	40.1	49.4	8.9	34.6	2.7	60.8	24.9	42.0
2048	329.0	17.6	11.5	22.4	40.7	49.7	9.0	35.0	2.7	61.4	25.1	42.0
2049	331.6	17.6	11.5	22.4	41.4	50.0	9.0	35.4	2.7	62.1	25.3	42.1
2050	334.1	17.6	11.5	22.5	42.0	50.3	9.0	35.8	2.7	62.7	25.4	42.1





County Economic and Demographic Indicators

Projected Economic Growth (2016-2021)

Expected retail sales growth:	7.7%
Expected job growth:	5.3%
Fastest growing jobs sector:	Transportation & Utilities
Expected personal income growth:	11.9%

Expected population growth:	6.9%
Net migration to account for:	52.8%
Expected growth in number of vehicles:	3.4%

Demographics (2016)

Unemployment rate (April 2016):	8.1%
County rank* in California (58 counties):	43rd
Working age (16-64) population:	63.4%

Population with B.A. or higher:	17.6%
Median home selling price (2015):	\$280,000
Median household income:	\$52,247

Quality of Life

Violent crime rate (2014):	738 per 100,000 persons
County rank* in California (58 counties):	57th
Average commute time to work (2016):	32.0 minutes

High school drop out rate (2015):	9.9%
Households at/below poverty line (2016):	15.4%

* The county ranked 1st corresponds to the lowest rate in California

Appendix B: Demographic Reports for Alameda, Contra Costa, and San Joaquin Counties

DEMOGRAPHICS STARTER REPORT

Alameda County

CALIFORNIA



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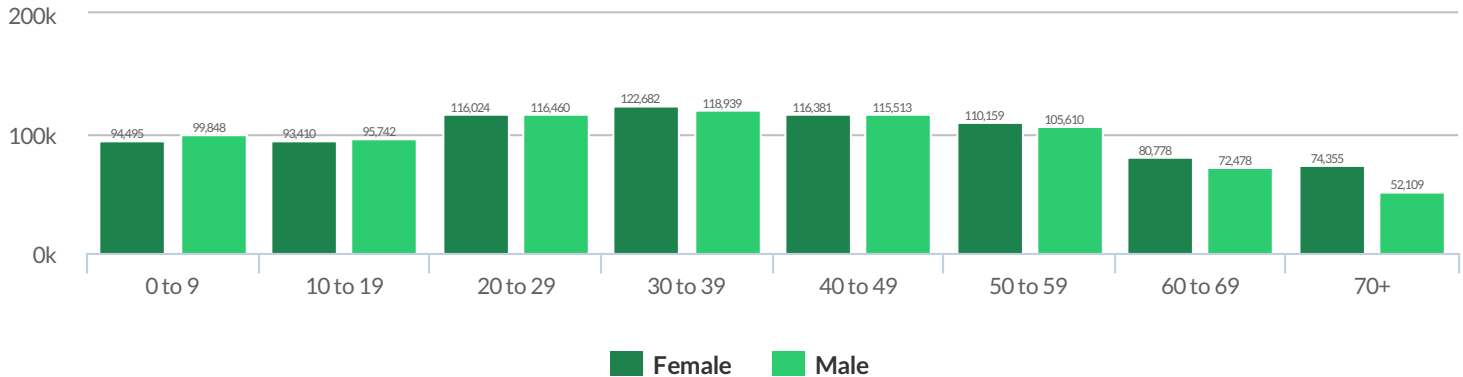


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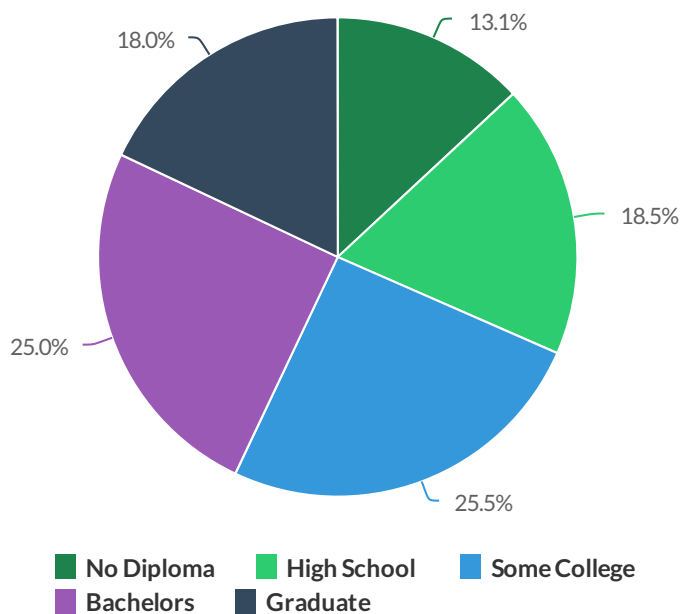
2015 POPULATION
1,638,215

MEDIAN HOUSEHOLD INCOME
\$75,619

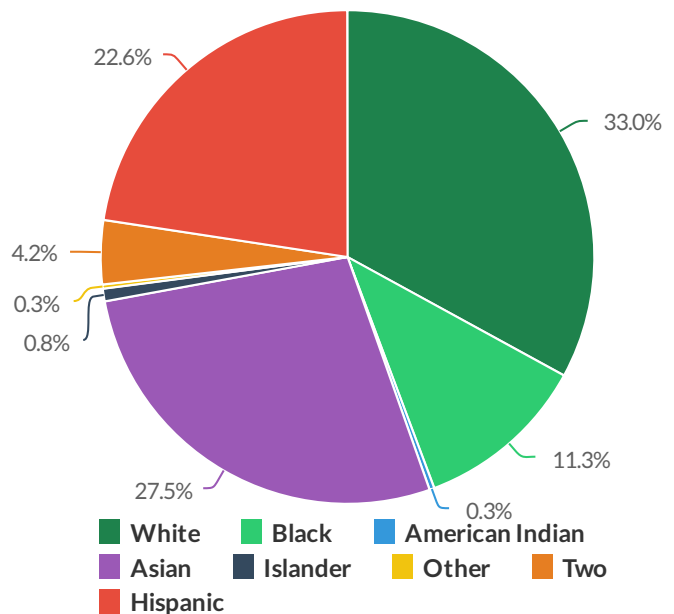
SEX BY AGE



EDUCATIONAL ATTAINMENT



RACE & ORIGIN



POVERTY

8.5%

for all families whose income in the past 12 months is below the poverty level

UNEMPLOYMENT

5.5%

for the population 16 years & over in the labor force

HOUSING UNITS

589,858

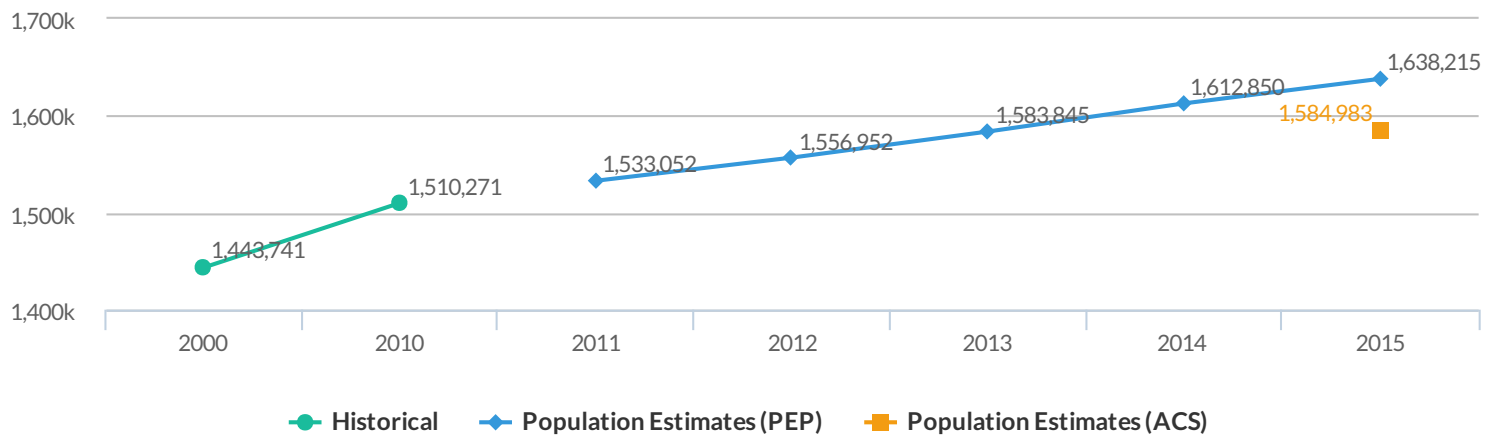
houses, apartments, mobile homes, group of rooms or single rooms that serve as separate living quarters

HOUSEHOLDS

558,907

all the people who occupy a housing unit

POPULATION



Population Estimates (ACS)

	#	% Change
2015 5-yr estimate	1,584,983	-

Source: American Community Survey 2015

Population Estimates (PEP)

	#	% Change
2011	1,533,052	-
2012	1,556,952	1.6%
2013	1,583,845	1.7%
2014	1,612,850	1.8%
2015	1,638,215	1.6%

Source: Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2015

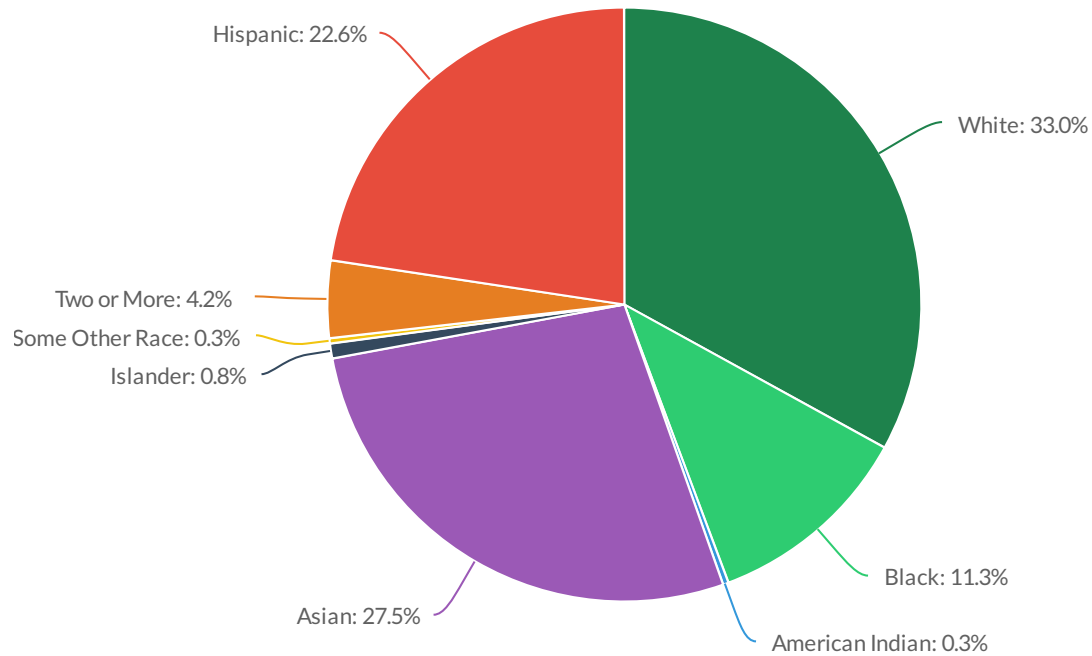
Historical Population Counts

	#	% Change
2000	1,443,741	-
2010	1,510,271	4.6%

Source: Decennial Census 2010, 2000

RACE

Race & Origin (Hispanic)



	#	%
Non-Hispanic	1,226,815	77.4%
White	522,707	33.0%
Black	179,400	11.3%
American Indian	4,851	0.3%
Asian	436,207	27.5%
Islander	13,243	0.8%
Other	4,178	0.3%
Two or More	66,229	4.2%
Hispanic	358,168	22.6%
Total Population	1,584,983	-

The complete Census race descriptions are as follows: White alone; Black or African American alone; American Indian and Alaska Native alone; Asian alone; Native Hawaiian and Other Pacific Islander alone; Some Other Race alone; and Two or More Races. Hispanics may be of any race. For more information, visit the American Community Survey Data & Documentation page: http://www.census.gov/acs/www/data_documentation/documentation_main/.

Source: American Community Survey 2015

Detailed Race

	#	%
One race	1,487,408	93.8%
White	708,558	44.7%
Black or African American	184,883	11.7%
American Indian and Alaska Native	9,813	0.6%
Cherokee tribal grouping	736	0.0%
Chippewa tribal grouping	93	0.0%
Navajo tribal grouping	289	0.0%
Sioux tribal grouping	259	0.0%
Asian	439,055	27.7%
Asian Indian	93,212	5.9%
Chinese	154,771	9.8%
Filipino	88,349	5.6%
Japanese	13,100	0.8%
Korean	18,428	1.2%
Vietnamese	33,949	2.1%
Other Asian	37,246	2.3%
Native Hawaiian and Other Pacific Islander	13,760	0.9%
Native Hawaiian	2,326	0.1%
Guamanian or Chamorro	1,500	0.1%
Samoan	2,846	0.2%
Other Pacific Islander	7,088	0.4%
Some other race	131,339	8.3%
Two or more races	97,575	6.2%
White and Black or African American	13,151	0.8%
White and American Indian and Alaska Native	6,917	0.4%
White and Asian	34,253	2.2%
Black or African American and American Indian and Alaska Native	2,772	0.2%
Total Population	1,584,983	-

Source: American Community Survey 2015

Hispanic or Latino

	#	%
Non-Hispanic	1,226,815	77.4%
Hispanic or Latino (of any race)	358,168	22.6%
Mexican	268,703	17.0%
Puerto Rican	11,040	0.7%
Cuban	2,219	0.1%
Other	76,206	4.8%
Total Population	1,584,983	-

Source: American Community Survey 2015

SEX

	#	%
Male	776,699	49.0%
Female	808,284	51.0%
Total Population	1,584,983	-

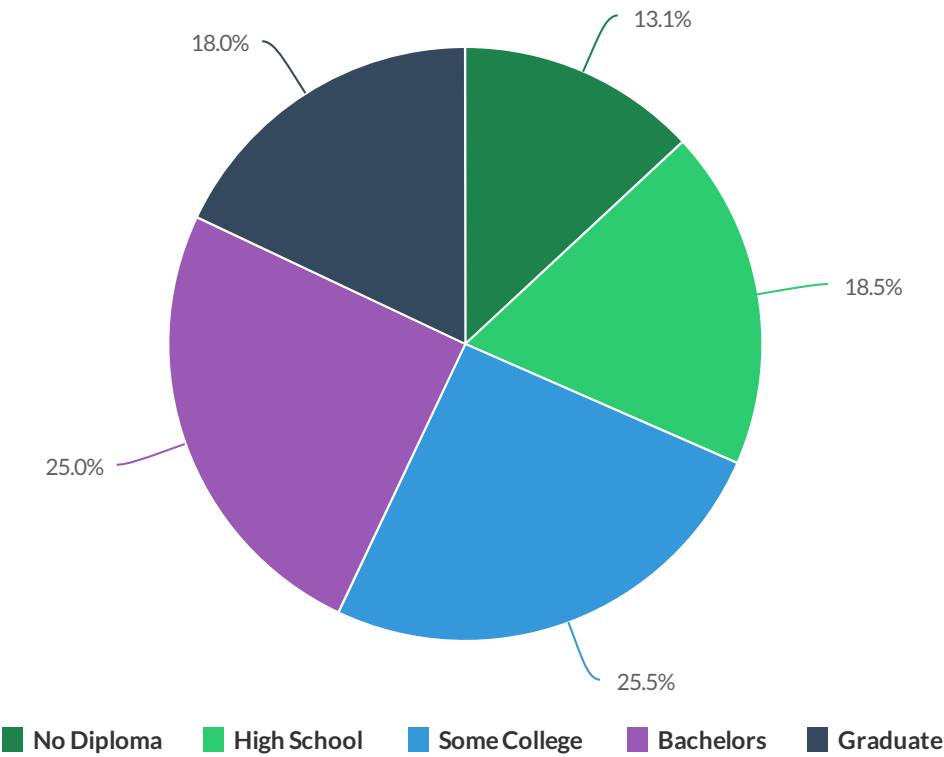
Source: American Community Survey 2015

AGE BREAKDOWN

	#	%
0 to 9 years	194,343	12.3%
10 to 19 years	189,152	11.9%
20 to 29 years	232,484	14.7%
30 to 39 years	241,621	15.2%
40 to 49 years	231,894	14.6%
50 to 59 years	215,769	13.6%
60 to 69 years	153,256	9.7%
70+ years	126,464	8.0%
Total Population	1,584,983	-

Source: American Community Survey 2015

EDUCATIONAL ATTAINMENT



	#	%
No diploma	142,589	13.1%
High school graduate & equivalency	201,781	18.5%
Associate degree & some college, no degree	278,676	25.5%
Bachelor's degree	272,700	25.0%
Graduate or Professional degree	196,443	18.0%
Population 25 Years and Over	1,092,189	-

Source: American Community Survey 2015

HOUSEHOLDS

Average Household Size	2.78 persons
Average Family Size	3.37 persons

A household includes all the people who occupy a housing unit. (People not living in households are classified as living in group quarters.) A family household consists of a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption. For more information, visit the American Community Survey Data & Documentation page: http://www.census.gov/acs/www/data_documentation/documentation_main/.

Source: American Community Survey 2015

Household Types

	#	%
Family households (families)	368,905	66.0%
With own children under 18 years	174,479	31.2%
Married-couple family	270,195	48.3%
With own children under 18 years	128,593	23.0%
Male householder, no wife present	29,626	5.3%
With own children under 18 years	13,005	2.3%
Female householder, no husband present	69,084	12.4%
With own children under 18 years	32,881	5.9%
Nonfamily households	190,002	34.0%
Householder living alone	143,058	25.6%
65 years and over	46,969	8.4%
Total households	558,907	-

A family household consists of a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption. A nonfamily household is a householder living alone or with nonrelatives only. Same-sex couple households with no relatives of the householder present are tabulated in nonfamily households. For more information, visit the American Community Survey Data & Documentation page: http://www.census.gov/acs/www/data_documentation/documentation_main/.

Source: American Community Survey 2015

INCOME

Median Household Income

Census 2000 in 1999 dollars	\$55,946
American Community Survey (ACS) 2015 in 2015 inflation adjusted dollars	\$75,619

Source: Decennial Census 2000, American Community Survey 2015

Household Income Distribution

The 2016 Federal Poverty Guideline for a family of 4 in California is \$24,300.

Income in thousands.	#	%
Less than \$10	29,499	5.3%
\$10 to \$14.9	25,422	4.5%
\$15 to \$24.9	42,847	7.7%
\$25 to \$34.9	39,018	7.0%
\$35 to \$49.9	55,156	9.9%
\$50 to \$74.9	85,433	15.3%
\$75 to \$99.9	66,736	11.9%
\$100 to \$149.9	97,773	17.5%
\$150 to \$199.9	52,801	9.4%
\$200K+	64,222	11.5%
Total Households	558,907	-

Source: American Community Survey 2015, Federal Register

POVERTY

	#	%
Families with Income in the past 12 months below poverty level	(X)	8.5%
Population with Income in the past 12 months below poverty level	(X)	12.5%

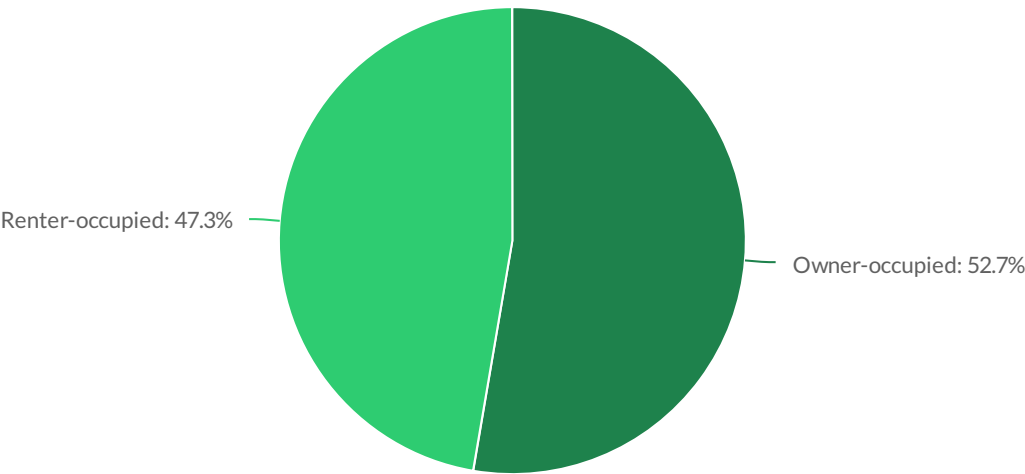
Source: American Community Survey 2015

HOUSING

Occupancy

	#	%
Occupied Housing Units	558,907	94.8%
Owner-occupied Housing Units	294,644	52.7%
Renter-occupied Housing Units	264,263	47.3%
Vacant Housing Units	30,951	5.2%
Total Housing Units	589,858	-

Source: American Community Survey 2015



Value

	#	%
Median Value of Owner-occupied Housing Units	\$543,100	-

Source: American Community Survey 2015

CITATIONS & NOTES

Citations

United States Census Bureau / American FactFinder. "Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2015". *2015 Population Estimates Program*. Web. March 2016. <http://factfinder2.census.gov>

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Annual Update of the HHS Poverty Guidelines, 81 *Federal Register*, pp.4036-4037, January 25, 2016.

Notes

American Community Survey data are estimates, not counts.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities and towns and estimates of housing units for states and counties.

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Data and Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

The ACS questions on Hispanic origin and race were revised in 2008 to make them consistent with the Census 2010 question wording. Any changes in estimates for 2008 and beyond may be due to demographic changes, as well as factors including questionnaire changes, differences in ACS population controls, and methodological differences in the population estimates, and therefore should be used with caution. For a summary of questionnaire changes see http://www.census.gov/acs/www/methodology/questionnaire_changes/. For more information about changes in the estimates see <http://www.census.gov/population/www/socdemo/hispanic/reports.html>.

For more information on understanding race and Hispanic origin data, please see the Census 2010 Brief entitled, Overview of Race and Hispanic Origin: 2010, issued March 2011. (pdf format)

DEMOGRAPHICS STARTER REPORT

Contra Costa County

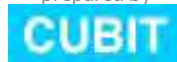
CALIFORNIA



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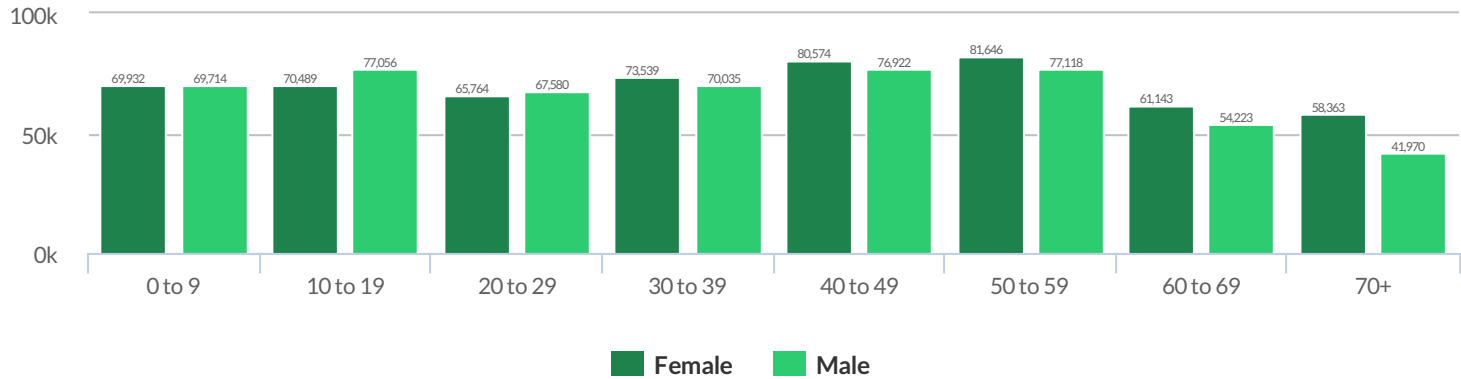


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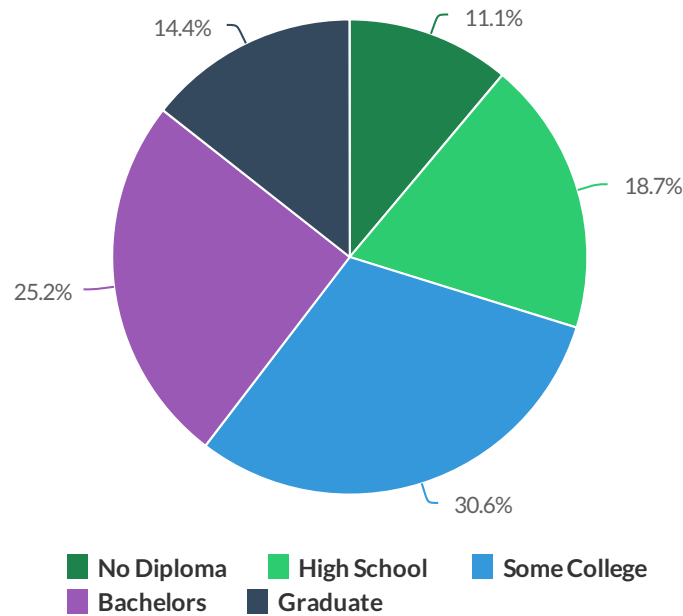
2015 POPULATION
1,126,745

MEDIAN HOUSEHOLD INCOME
\$80,185

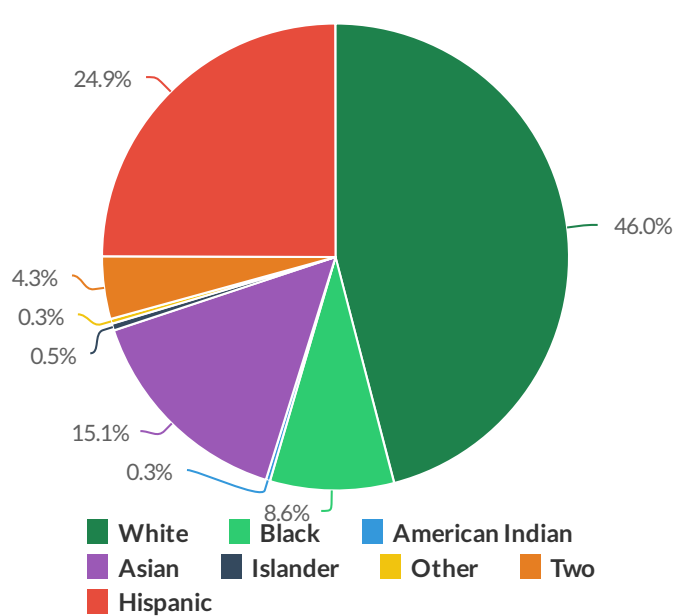
SEX BY AGE



EDUCATIONAL ATTAINMENT



RACE & ORIGIN



POVERTY

7.8%

for all families whose income in the past 12 months is below the poverty level

UNEMPLOYMENT

5.7%

for the population 16 years & over in the labor force

HOUSING UNITS

405,001

houses, apartments, mobile homes, group of rooms or single rooms that serve as separate living quarters

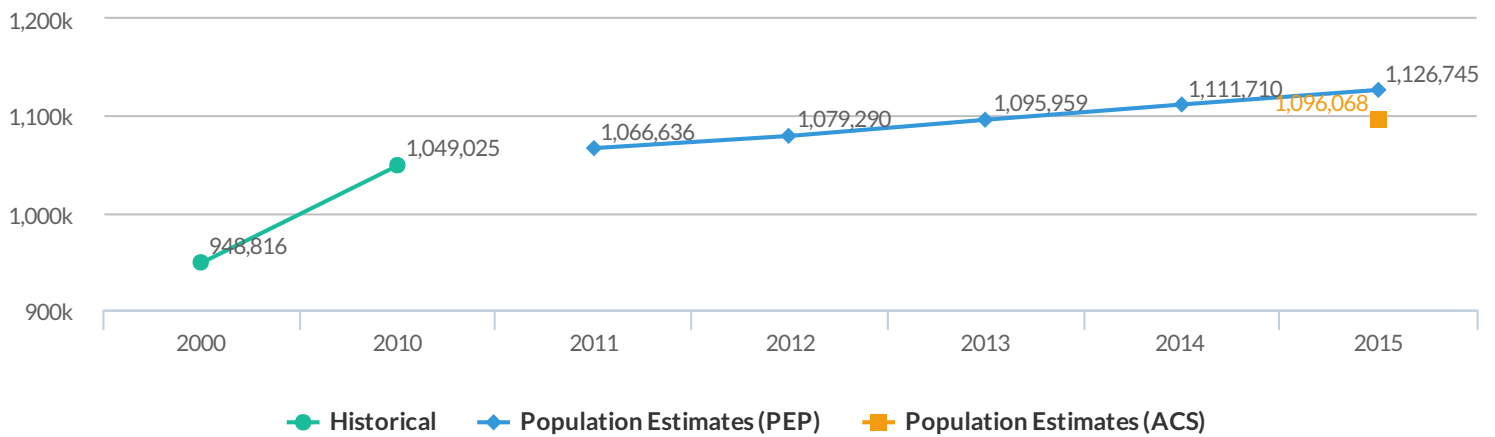
HOUSEHOLDS

384,646

all the people who occupy a housing unit

Source: United States Census Bureau. The US Census Bureau's 2015 Population Estimates dataset has the most current population estimate data. The US Census Bureau's 2015 American Community Survey dataset has the most current demographic data (i.e. race).

POPULATION



Population Estimates (ACS)

	#	% Change
2015 5-yr estimate	1,096,068	-

Source: American Community Survey 2015

Population Estimates (PEP)

	#	% Change
2011	1,066,636	-
2012	1,079,290	1.2%
2013	1,095,959	1.5%
2014	1,111,710	1.4%
2015	1,126,745	1.4%

Source: Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2015

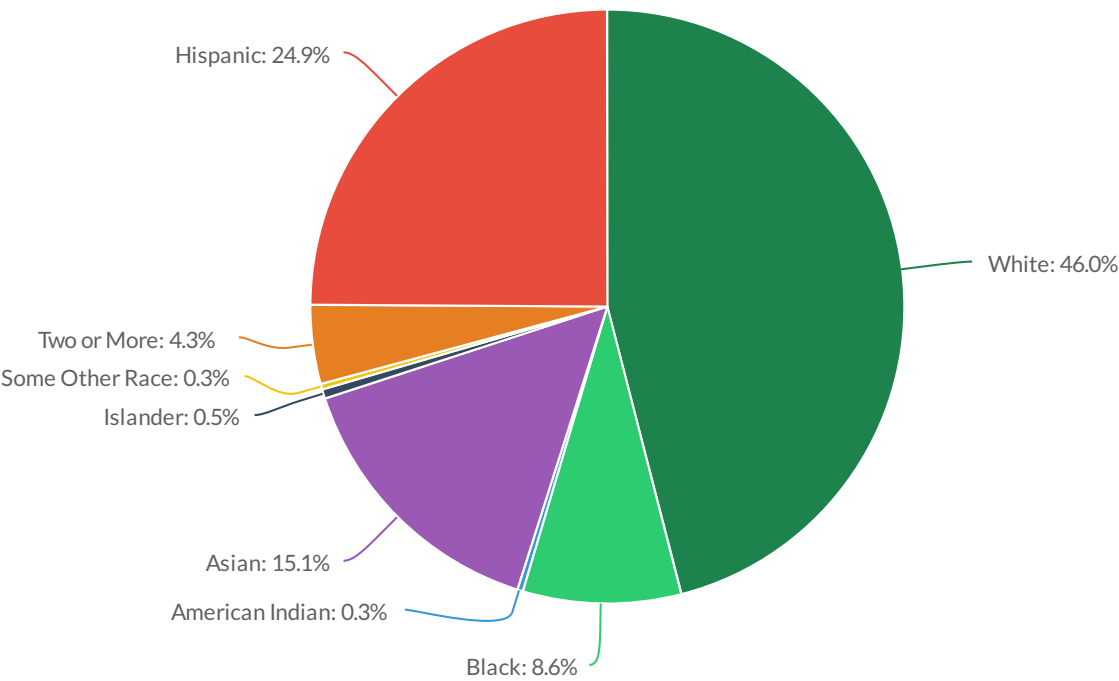
Historical Population Counts

	#	% Change
2000	948,816	-
2010	1,049,025	10.6%

Source: Decennial Census 2010, 2000

RACE

Race & Origin (Hispanic)



	#	%
Non-Hispanic	822,718	75.1%
White	503,815	46.0%
Black	94,046	8.6%
American Indian	3,071	0.3%
Asian	165,336	15.1%
Islander	5,200	0.5%
Other	3,660	0.3%
Two or More	47,590	4.3%
Hispanic	273,350	24.9%
Total Population	1,096,068	-

The complete Census race descriptions are as follows: White alone; Black or African American alone; American Indian and Alaska Native alone; Asian alone; Native Hawaiian and Other Pacific Islander alone; Some Other Race alone; and Two or More Races. Hispanics may be of any race. For more information, visit the American Community Survey Data & Documentation page: http://www.census.gov/acs/www/data_documentation/documentation_main/.

Source: American Community Survey 2015

Detailed Race

	#	%
One race	1,028,751	93.9%
White	663,406	60.5%
Black or African American	97,338	8.9%
American Indian and Alaska Native	6,059	0.6%
Cherokee tribal grouping	832	0.1%
Chippewa tribal grouping	24	0.0%
Navajo tribal grouping	440	0.0%
Sioux tribal grouping	189	0.0%
Asian	167,215	15.3%
Asian Indian	27,963	2.6%
Chinese	45,207	4.1%
Filipino	51,067	4.7%
Japanese	7,625	0.7%
Korean	9,033	0.8%
Vietnamese	8,071	0.7%
Other Asian	18,249	1.7%
Native Hawaiian and Other Pacific Islander	5,548	0.5%
Native Hawaiian	817	0.1%
Guamanian or Chamorro	484	0.0%
Samoan	923	0.1%
Other Pacific Islander	3,324	0.3%
Some other race	89,185	8.1%
Two or more races	67,317	6.1%
White and Black or African American	8,039	0.7%
White and American Indian and Alaska Native	7,640	0.7%
White and Asian	23,786	2.2%
Black or African American and American Indian and Alaska Native	2,884	0.3%
Total Population	1,096,068	-

Source: American Community Survey 2015

Hispanic or Latino

	#	%
Non-Hispanic	822,718	75.1%
Hispanic or Latino (of any race)	273,350	24.9%
Mexican	188,934	17.2%
Puerto Rican	8,517	0.8%
Cuban	1,905	0.2%
Other	73,994	6.8%
Total Population	1,096,068	-

Source: American Community Survey 2015

SEX

	#	%
Male	534,618	48.8%
Female	561,450	51.2%
Total Population	1,096,068	-

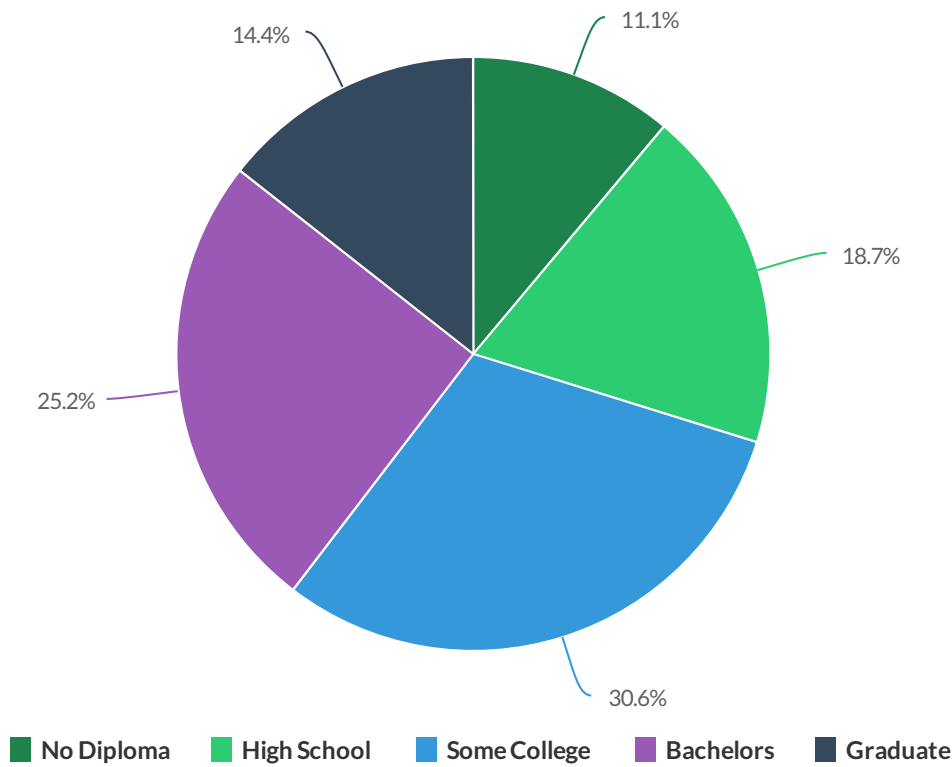
Source: American Community Survey 2015

AGE BREAKDOWN

	#	%
0 to 9 years	139,646	12.7%
10 to 19 years	147,545	13.5%
20 to 29 years	133,344	12.2%
30 to 39 years	143,574	13.1%
40 to 49 years	157,496	14.4%
50 to 59 years	158,764	14.5%
60 to 69 years	115,366	10.5%
70+ years	100,333	9.2%
Total Population	1,096,068	-

Source: American Community Survey 2015

EDUCATIONAL ATTAINMENT



	#	%
No diploma	82,164	11.1%
High school graduate & equivalency	138,642	18.7%
Associate degree & some college, no degree	227,318	30.6%
Bachelor's degree	187,160	25.2%
Graduate or Professional degree	106,759	14.4%
Population 25 Years and Over	742,043	-

Source: American Community Survey 2015

HOUSEHOLDS

Average Household Size	2.82 persons
Average Family Size	3.34 persons

A household includes all the people who occupy a housing unit. (People not living in households are classified as living in group quarters.) A family household consists of a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption. For more information, visit the American Community Survey Data & Documentation page: http://www.census.gov/acs/www/data_documentation/documentation_main/.

Source: American Community Survey 2015

Household Types

	#	%
Family households (families)	273,149	71.0%
With own children under 18 years	127,960	33.3%
Married-couple family	207,058	53.8%
With own children under 18 years	96,100	25.0%
Male householder, no wife present	18,868	4.9%
With own children under 18 years	8,475	2.2%
Female householder, no husband present	47,223	12.3%
With own children under 18 years	23,385	6.1%
Nonfamily households	111,497	29.0%
Householder living alone	88,204	22.9%
65 years and over	34,735	9.0%
Total households	384,646	-

A family household consists of a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption. A nonfamily household is a householder living alone or with nonrelatives only. Same-sex couple households with no relatives of the householder present are tabulated in nonfamily households. For more information, visit the American Community Survey Data & Documentation page: http://www.census.gov/acs/www/data_documentation/documentation_main/.

Source: American Community Survey 2015

INCOME

Median Household Income

Census 2000 in 1999 dollars	\$63,675
American Community Survey (ACS) 2015 in 2015 inflation adjusted dollars	\$80,185

Source: Decennial Census 2000, American Community Survey 2015

Household Income Distribution

The 2016 Federal Poverty Guideline for a family of 4 in California is \$24,300.

Income in thousands.	#	%
Less than \$10	15,461	4.0%
\$10 to \$14.9	14,085	3.7%
\$15 to \$24.9	27,368	7.1%
\$25 to \$34.9	25,844	6.7%
\$35 to \$49.9	38,352	10.0%
\$50 to \$74.9	59,960	15.6%
\$75 to \$99.9	47,311	12.3%
\$100 to \$149.9	70,538	18.3%
\$150 to \$199.9	37,915	9.9%
\$200K+	47,812	12.4%
Total Households	384,646	-

Source: American Community Survey 2015, Federal Register

POVERTY

	#	%
Families with Income in the past 12 months below poverty level	(X)	7.8%
Population with Income in the past 12 months below poverty level	(X)	10.9%

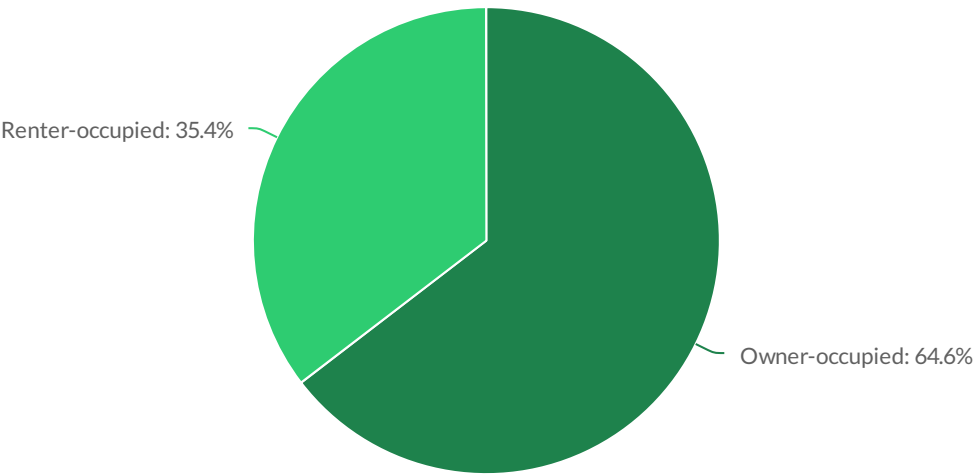
Source: American Community Survey 2015

HOUSING

Occupancy

	#	%
Occupied Housing Units	384,646	95.0%
Owner-occupied Housing Units	248,668	64.6%
Renter-occupied Housing Units	135,978	35.4%
Vacant Housing Units	20,355	5.0%
Total Housing Units	405,001	-

Source: American Community Survey 2015



Value

	#	%
Median Value of Owner-occupied Housing Units	\$439,900	-

Source: American Community Survey 2015

CITATIONS & NOTES

Citations

United States Census Bureau / American FactFinder. "Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2015". *2015 Population Estimates Program*. Web. March 2016. <http://factfinder2.census.gov>

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United States Census Bureau / American FactFinder. "DP03: SELECTED ECONOMIC CHARACTERISTICS". *2011 - 2015 American Community Survey*. U.S. Census Bureau's American Community Survey Office. Web. 8 December 2016 <http://factfinder2.census.gov>.

United States Census Bureau / American FactFinder. "DP04: SELECTED HOUSING CHARACTERISTICS". *2011 - 2015 American Community Survey*. U.S. Census Bureau's American Community Survey Office. Web. 8 December 2016 <http://factfinder2.census.gov>.

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United States Census Bureau. *2010 Census*. U.S. Census Bureau, 2012. Web. 17 October 2012 ftp://ftp.census.gov/census_2010/.

Annual Update of the HHS Poverty Guidelines, 81 *Federal Register*, pp.4036-4037, January 25, 2016.

Notes

American Community Survey data are estimates, not counts.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities and towns and estimates of housing units for states and counties.

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Data and Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

The ACS questions on Hispanic origin and race were revised in 2008 to make them consistent with the Census 2010 question wording. Any changes in estimates for 2008 and beyond may be due to demographic changes, as well as factors including questionnaire changes, differences in ACS population controls, and methodological differences in the population estimates, and therefore should be used with caution. For a summary of questionnaire changes see http://www.census.gov/acs/www/methodology/questionnaire_changes/. For more information about changes in the estimates see <http://www.census.gov/population/www/socdemo/hispanic/reports.html>.

For more information on understanding race and Hispanic origin data, please see the Census 2010 Brief entitled, Overview of Race and Hispanic Origin: 2010, issued March 2011. (pdf format)

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DEMOGRAPHICS STARTER REPORT

San Joaquin County

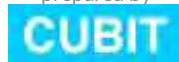
CALIFORNIA



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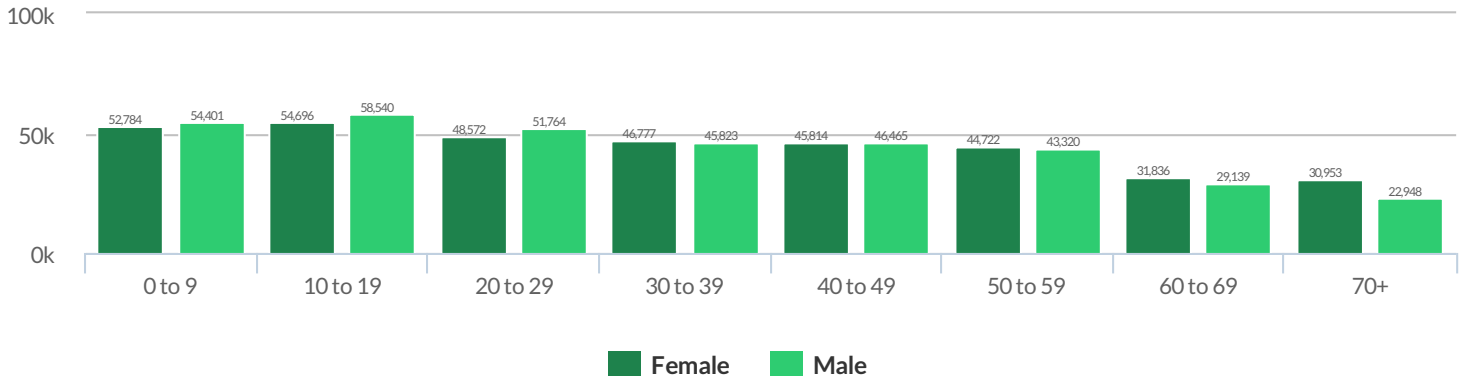


www.cubitplanning.com

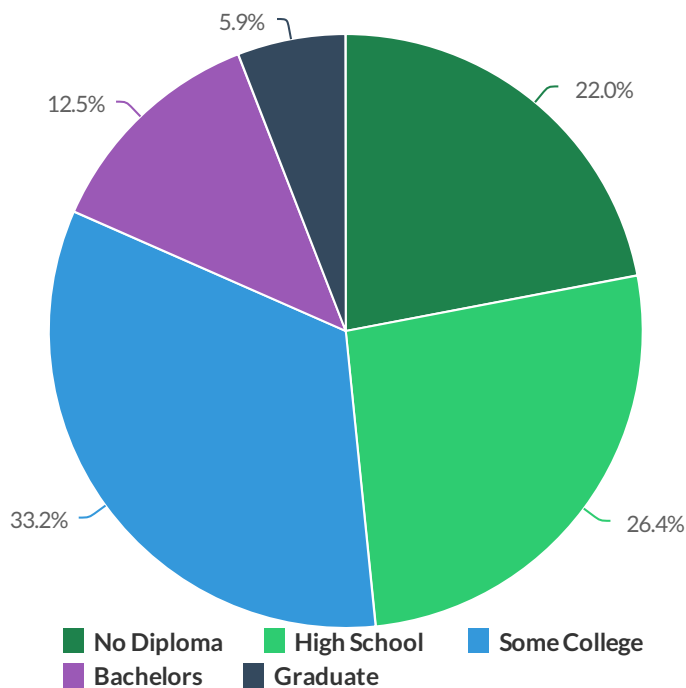
2015 POPULATION
726,106

MEDIAN HOUSEHOLD INCOME
\$53,274

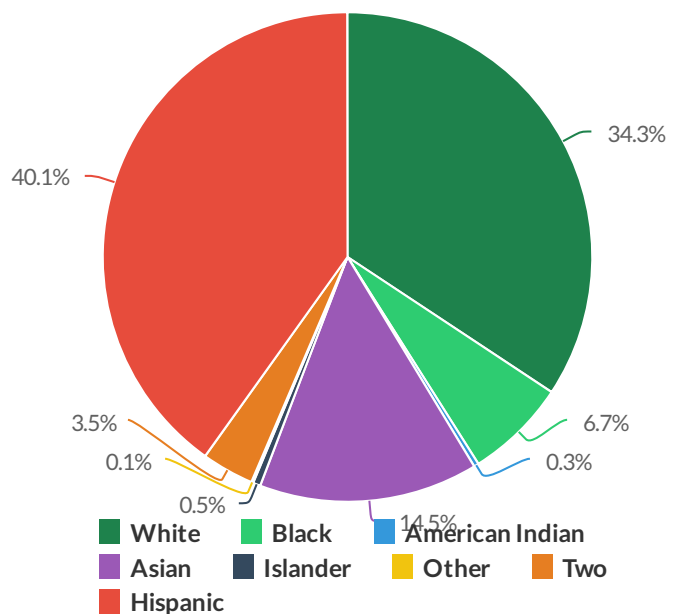
SEX BY AGE



EDUCATIONAL ATTAINMENT



RACE & ORIGIN



POVERTY

15.0%

for all families whose income in the past 12 months is below the poverty level

UNEMPLOYMENT

8.4%

for the population 16 years & over in the labor force

HOUSING UNITS

236,562

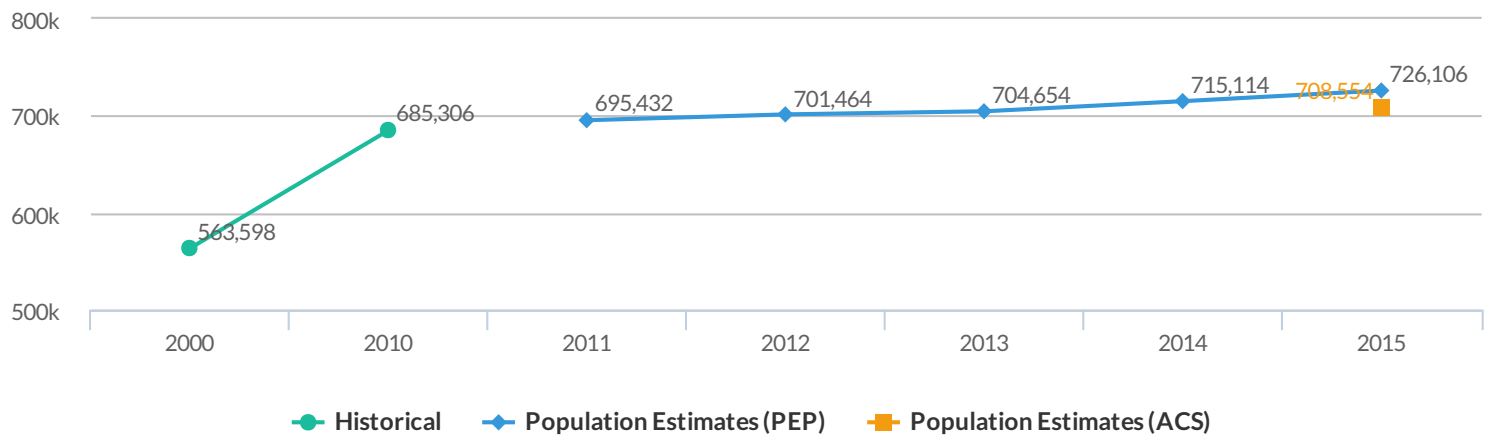
houses, apartments, mobile homes, group of rooms or single rooms that serve as separate living quarters

HOUSEHOLDS

219,073

all the people who occupy a housing unit

POPULATION



Population Estimates (ACS)

	#	% Change
2015 5-yr estimate	708,554	-

Source: American Community Survey 2015

Population Estimates (PEP)

	#	% Change
2011	695,432	-
2012	701,464	0.9%
2013	704,654	0.5%
2014	715,114	1.5%
2015	726,106	1.5%

Source: Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2015

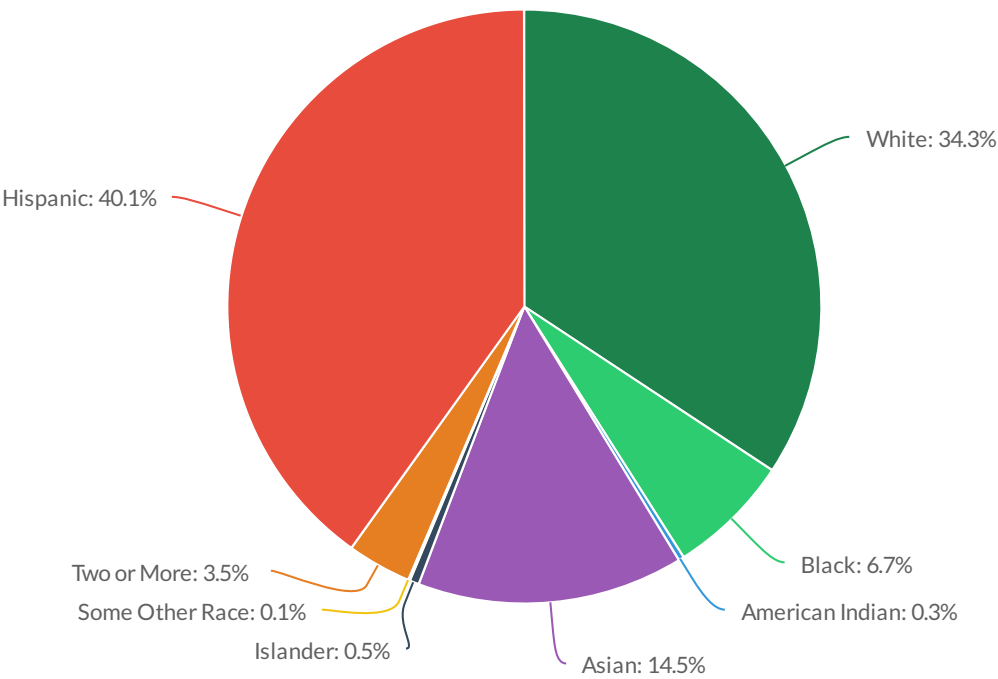
Historical Population Counts

	#	% Change
2000	563,598	-
2010	685,306	21.6%

Source: Decennial Census 2010, 2000

RACE

Race & Origin (Hispanic)



	#	%
Non-Hispanic	424,386	59.9%
White	243,086	34.3%
Black	47,598	6.7%
American Indian	2,295	0.3%
Asian	102,426	14.5%
Islander	3,520	0.5%
Other	979	0.1%
Two or More	24,482	3.5%
Hispanic	284,168	40.1%
Total Population	708,554	-

The complete Census race descriptions are as follows: White alone; Black or African American alone; American Indian and Alaska Native alone; Asian alone; Native Hawaiian and Other Pacific Islander alone; Some Other Race alone; and Two or More Races. Hispanics may be of any race. For more information, visit the American Community Survey Data & Documentation page: http://www.census.gov/acs/www/data_documentation/documentation_main/.

Source: American Community Survey 2015

Detailed Race

	#	%
One race	650,281	91.8%
White	403,891	57.0%
Black or African American	50,263	7.1%
American Indian and Alaska Native	4,652	0.7%
Cherokee tribal grouping	432	0.1%
Chippewa tribal grouping	42	0.0%
Navajo tribal grouping	339	0.0%
Sioux tribal grouping	100	0.0%
Asian	104,763	14.8%
Asian Indian	17,582	2.5%
Chinese	9,115	1.3%
Filipino	33,255	4.7%
Japanese	2,881	0.4%
Korean	1,227	0.2%
Vietnamese	7,617	1.1%
Other Asian	33,086	4.7%
Native Hawaiian and Other Pacific Islander	3,867	0.5%
Native Hawaiian	506	0.1%
Guamanian or Chamorro	609	0.1%
Samoan	546	0.1%
Other Pacific Islander	2,206	0.3%
Some other race	82,845	11.7%
Two or more races	58,273	8.2%
White and Black or African American	6,284	0.9%
White and American Indian and Alaska Native	20,338	2.9%
White and Asian	10,095	1.4%
Black or African American and American Indian and Alaska Native	1,385	0.2%
Total Population	708,554	-

Source: American Community Survey 2015

Hispanic or Latino

	#	%
Non-Hispanic	424,386	59.9%
Hispanic or Latino (of any race)	284,168	40.1%
Mexican	253,087	35.7%
Puerto Rican	4,945	0.7%
Cuban	546	0.1%
Other	25,590	3.6%
Total Population	708,554	-

Source: American Community Survey 2015

SEX

	#	%
Male	352,400	49.7%
Female	356,154	50.3%
Total Population	708,554	-

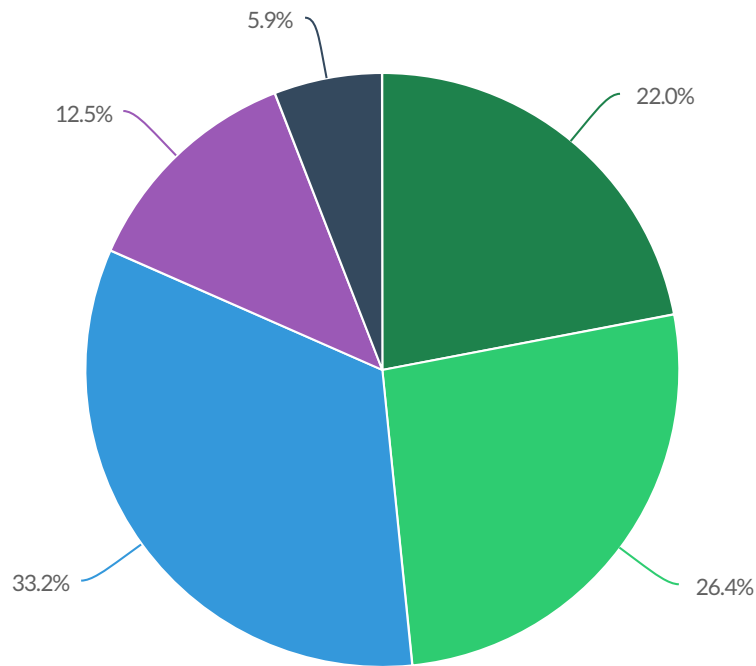
Source: American Community Survey 2015

AGE BREAKDOWN

	#	%
0 to 9 years	107,185	15.1%
10 to 19 years	113,236	16.0%
20 to 29 years	100,336	14.2%
30 to 39 years	92,600	13.1%
40 to 49 years	92,279	13.0%
50 to 59 years	88,042	12.4%
60 to 69 years	60,975	8.6%
70+ years	53,901	7.6%
Total Population	708,554	-

Source: American Community Survey 2015

EDUCATIONAL ATTAINMENT



■ No Diploma
 ■ High School
 ■ Some College
 ■ Bachelors
 ■ Graduate

	#	%
No diploma	95,848	22.0%
High school graduate & equivalency	115,214	26.4%
Associate degree & some college, no degree	144,619	33.2%
Bachelor's degree	54,524	12.5%
Graduate or Professional degree	25,497	5.9%
Population 25 Years and Over	435,702	-

Source: American Community Survey 2015

HOUSEHOLDS

Average Household Size	3.16 persons
Average Family Size	3.65 persons

A household includes all the people who occupy a housing unit. (People not living in households are classified as living in group quarters.) A family household consists of a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption. For more information, visit the American Community Survey Data & Documentation page: http://www.census.gov/acs/www/data_documentation/documentation_main/.

Source: American Community Survey 2015

Household Types

	#	%
Family households (families)	163,845	74.8%
With own children under 18 years	83,206	38.0%
Married-couple family	113,594	51.9%
With own children under 18 years	55,504	25.3%
Male householder, no wife present	15,509	7.1%
With own children under 18 years	7,645	3.5%
Female householder, no husband present	34,742	15.9%
With own children under 18 years	20,057	9.2%
Nonfamily households	55,228	25.2%
Householder living alone	43,549	19.9%
65 years and over	17,458	8.0%
Total households	219,073	-

A family household consists of a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption. A nonfamily household is a householder living alone or with nonrelatives only. Same-sex couple households with no relatives of the householder present are tabulated in nonfamily households. For more information, visit the American Community Survey Data & Documentation page: http://www.census.gov/acs/www/data_documentation/documentation_main/.

Source: American Community Survey 2015

INCOME

Median Household Income

Census 2000 in 1999 dollars	\$41,282
American Community Survey (ACS) 2015 in 2015 inflation adjusted dollars	\$53,274

Source: Decennial Census 2000, American Community Survey 2015

Household Income Distribution

The 2016 Federal Poverty Guideline for a family of 4 in California is \$24,300.

Income in thousands.	#	%
Less than \$10	13,557	6.2%
\$10 to \$14.9	12,790	5.8%
\$15 to \$24.9	25,275	11.5%
\$25 to \$34.9	21,674	9.9%
\$35 to \$49.9	29,438	13.4%
\$50 to \$74.9	39,924	18.2%
\$75 to \$99.9	26,232	12.0%
\$100 to \$149.9	30,559	13.9%
\$150 to \$199.9	11,947	5.5%
\$200K+	7,677	3.5%
Total Households	219,073	-

Source: American Community Survey 2015, Federal Register

POVERTY

	#	%
Families with Income in the past 12 months below poverty level	(X)	15.0%
Population with Income in the past 12 months below poverty level	(X)	18.6%

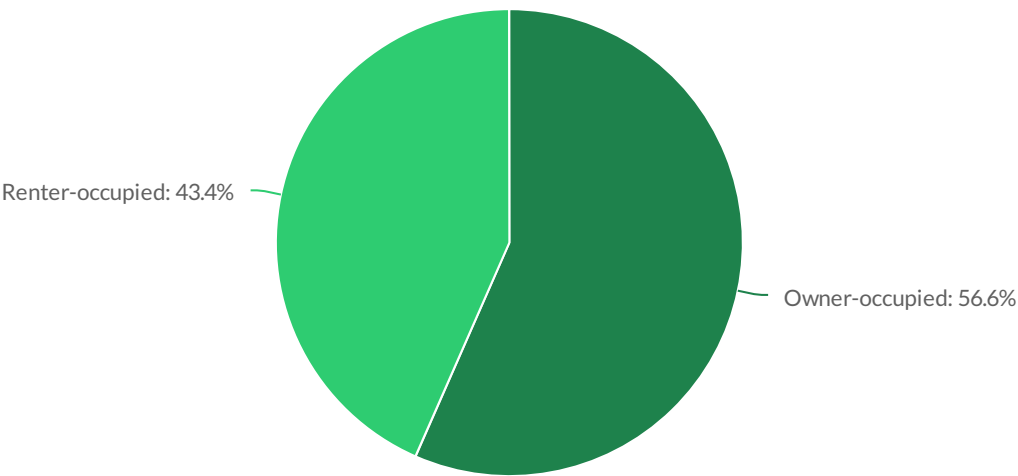
Source: American Community Survey 2015

HOUSING

Occupancy

	#	%
Occupied Housing Units	219,073	92.6%
Owner-occupied Housing Units	124,087	56.6%
Renter-occupied Housing Units	94,986	43.4%
Vacant Housing Units	17,489	7.4%
Total Housing Units	236,562	-

Source: American Community Survey 2015



Value

	#	%
Median Value of Owner-occupied Housing Units	\$223,000	-

Source: American Community Survey 2015

CITATIONS & NOTES

Citations

United States Census Bureau / American FactFinder. "Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2015". *2015 Population Estimates Program*. Web. March 2016. <http://factfinder2.census.gov>

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Annual Update of the HHS Poverty Guidelines, 81 *Federal Register*, pp.4036-4037, January 25, 2016.

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For more information on understanding race and Hispanic origin data, please see the Census 2010 Brief entitled, Overview of Race and Hispanic Origin: 2010, issued March 2011. (pdf format)

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Appendix C: TWSID List of Interim Drainage Agreements

Appendix C

TWSID LIST OF INTERIM DRAINAGE AGREEMENTS

DATE	DOCUMENT TITLE
12/15/1997	Agreement Regarding Interim Drainage for the Southland Corporation
3/1999	Extension of Agreement Regarding Interim Drainage for Belconte North Subdivision (Not Executed)
3/1999	Agreement Regarding Interim Drainage for King & Lyons (Not Executed)
7/7/1999	Agreement Regarding Interim Drainage for Award Homes
7/28/1999	Agreement Regarding Interim Drainage for William Lyon Homes
8/16/1999	Agreement Regarding Interim Drainage for the Pulte Home Corporation
1/6/2000	Agreement Regarding Interim Drainage for the Standard Pacific Corporation
2/2000	Agreement Regarding Interim Drainage for Patterson Pass Business Park (NOT Fully Executed)
6/8/2000	Agreement Regarding Interim Drainage for Patterson Pass Business Park (Fully Executed)
8/15/2000	Agreement Regarding Interim Drainage for the California Sun-Tracy, LLC
10/16/2000	Agreement Regarding Option for Interim Drainage Tracy Gateway Business Park
2002	Addendum to Agreement Regarding Interim Drainage for King & Lyons (NOT Fully Executed)
3/29/2002	Right of Entry and Interim Drainage Right Agreement (Dividend Liquidation Trusts/Furtado)
7/16/2002	Integrated Amended 1972 Drainage Agreement Between the City of Tracy and The West Side Irrigation District
8/19/2002	Addendum to Agreement Regarding Interim Drainage for Patterson Pass Business Park
3/19/2003	Agreement Regarding Interim Drainage for Standard Pacific Corporation – Westgate Subdivision
11/12/2003	Agreement Regarding Storm Water Drainage for Crossroads Business Center (also attached: Amendment No. 1 to Agreement Regarding Storm Water Drainage for Crossroads Business Center – dated 1/25/2006); Amendment No. 2 to Agreement Regarding Storm Water Drainage for Crossroads Business Center – dated 10/10/2007
6/2007	Amended and Restated Agreement Regarding Option for Interim Drainage Tracy Gateway Business Park (Not Executed)
5/9/2010	Modification and Restatement of Agreement Regarding Storm Water Drainage for Crossroads Business Center
10/2010	Amended and Restated Agreement Regarding Interim Drainage for Patterson Pass Business Park (Not Executed)
3/9/2011	Amended and Restated Agreement Regarding Option for Interim Drainage Tracy Gateway Business Park

**Appendix D: State Water Resources Control Board, License 1381 (Application 301) Of West
Side Irrigation District, Old River in San Joaquin County**



State Water Resources Control Board



Division of Water Rights

1001 I Street, 14th Floor ♦ Sacramento, California 95814 ♦ 916.341.5300
P.O. Box 2000 ♦ Sacramento, California 95812-2000
Fax: 916.341.5400 ♦ www.waterboards.ca.gov/waterrights

Linda S. Adams
Secretary for
Environmental Protection

Arnold Schwarzenegger
Governor

AUG 19 2010

In Reply Refer To:
Kdm:301

Karna Harrigfeld
Herum\Crabtree
2291 West March Lane, Suite B100
Stockton, CA 95207

Dear Ms. Harrigfeld:

LICENSE 1381 (APPLICATION 301) OF WEST SIDE IRRIGATION DISTRICT, OLD RIVER IN
SAN JOAQUIN COUNTY

On April 23, 2010, the Division of Water Rights (Division) issued an Order Approving Change in Purpose of Use (Order) and an amended license to West Side Irrigation District (West Side). The Division received a timely request for reconsideration by email on April 26, 2010. The reconsideration request identified two changes that West Side sought. In accordance with your April 26 and May 20, 2010 emails, one of the issues identified by West Side is resolved by removing the following text from Section 5 of the Order:

The notice provided information on recent water use under the license, indicating that the maximum use in the most recent five years of record is 58.8 cfs, with an annual amount of 24,957 acre-feet (af). Diversion of the full licensed quantity of 82.5 cfs has not occurred since 1977.

The second issue identified by West Side is resolved by changing the diversion season in the amended license. The license originally authorized diversion from "about" April 1 to October 31 of each year for irrigation use. Municipal, domestic and industrial uses were added to the license in the April 23 Order. Since a fixed diversion season is used for all non-irrigation uses, the amended license limited diversion to April 1 to October 31. To rectify this situation, the amended license has been corrected to reflect the original permitted diversion season solely for irrigation, and the fixed diversion season for all other purposes.

With your concurrence, the November 11, 2009 quantification of diversion data prepared by West Yost Associates for the proposed hearing on partial revocation of License 1381 (resolved by settlement) is no longer considered confidential and the information has been placed in the open file. An amended order and amended license are enclosed. No further action will be taken on the request for reconsideration because the issues have been resolved.

Katherine Mrowka is the senior staff person assigned to this matter. If you have questions regarding this matter, please contact Ms. Mrowka at (916) 341-5363.

Sincerely,



Victoria A. Whitney
Deputy Director for Water Rights

California Environmental Protection Agency

STATE OF CALIFORNIA
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
STATE WATER RESOURCES CONTROL BOARD

In the Matter of License 1381 (Application 301)

West Side Irrigation District

**AMENDED ORDER APPROVING CHANGE IN PURPOSE OF USE
AND ISSUING AMENDED LICENSE**

SOURCE: Old River

COUNTY: San Joaquin

WHEREAS:

1. License 1381 was issued pursuant to permitted Application 301 on September 29, 1933, and was recorded with the County Recorder of San Joaquin County on October 7, 1933. Recording of this license, and subsequent orders issued thereto, is prescribed by Water Code section 1650.
2. The Division of Water Rights (Division) record of ownership for License 1381 shows the current holder of the license as West Side Irrigation District (licensee).
3. License 1381 authorizes direct diversion of 82.5 cubic feet per second (cfs) from April 1 to October 31. The authorized purpose of use is Irrigation of 11,993.76 acres.
4. The licensee submitted a Petition for Change dated November 15, 2001 to change the purpose of use to Irrigation, Domestic, Municipal and Industrial.
5. The petition was noticed on April 30, 2004 and no protests to approval of the petition were filed with the Division.
6. On May 28, 2004, the U.S. Bureau of Reclamation (Reclamation) advised the Division that water delivery for new Domestic, Municipal and/or Industrial uses as well as the historic Irrigation uses would be injurious to its water rights. Such increased diversions would require Reclamation and the Department of Water Resources to make increased releases from project reservoirs for the Delta when the Delta is in balance. Reclamation indicated that it had no issues regarding ongoing diversion and use levels.
7. The quantity of water that represents ongoing diversion and use has been the subject of much discussion within the context of this water right. To resolve this issue, the Division issued a Notice of Proposed Partial Revocation (NPR) of License 1381 on January 25, 2009 because licensee had not applied its full licensed amount of water to beneficial use pursuant to License 1381 for at least five consecutive years.
8. In response to the NPR, licensee developed additional information documenting its average monthly diversion rate, peak diversion rate, and annual diversion quantities. The NPR issues were resolved when licensee agreed to limit future diversions under the license to 82.5 cfs, with an annual limit of 27,000 acre-feet (af). The annual limit reflects the amount of water licensee has actually put to beneficial use under this license, based on the licensee's highest beneficial use amount in the five years immediately preceding the Division's NPR.



STATE OF CALIFORNIA
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
STATE WATER RESOURCES CONTROL BOARD

DIVISION OF WATER RIGHTS

Amended License for Diversion and Use of Water

APPLICATION 301
Page 1 of 3

PERMIT 270

LICENSE 1381

THIS IS TO CERTIFY, That

West Side Irrigation District
P.O. Box 177
Tracy, CA 95378-0177

has the right to the use of the waters of Old River in San Joaquin County

tributary to San Joaquin River

for the purpose of Municipal, Domestic, Industrial, and Irrigation uses.

Amended License 1381 supersedes the license originally issued on **September 29, 1933**, which was perfected in accordance with the laws of California, the Regulations of the State Water Resources Control Board (State Water Board), or its predecessor, and the terms of **Permit 270**. The priority of this right dates from **April 17, 1916**. Proof of maximum beneficial use of water under this license was made as of **August 22, 1933** (the date of inspection).

The amount of water to which this right is entitled and hereby confirmed is limited to the amount actually beneficially used for the stated purposes and shall not exceed **eighty-two and five tenths (82.5) cubic-feet per second** from (1) about **April 1 to October 31** of each year for **Irrigation use**, and (2) from **April 1 to October 31** of each year for **Municipal, Domestic, and Industrial uses**. The maximum amount diverted under this license shall not exceed **27,000 acre-feet per year**.

The equivalent of such continuous flow allowance for any 30-day period may be diverted in a shorter time for Irrigation use provided there is no interference with other rights and instream beneficial uses and provided further that all terms of conditions protecting instream beneficial uses are observed.

(0000027)

THE POINT OF DIVERSION OF SUCH WATER IS LOCATED:

By California Coordinate System of 1983, Zone 3, North 2,111,904 feet and East 6,268,367 feet, being within SE¼ of NE¼ of Section 3, T2S, R4E, MDB&M.

A DESCRIPTION OF THE LANDS OR THE PLACE WHERE SUCH WATER IS PUT TO BENEFICIAL USE IS AS FOLLOWS:

11,993.76 acres within the boundaries of the West Side Irrigation District as shown on amended map dated March 21, 1929, filed with the State Water Board.

The right hereby confirmed to the diversion and use of water is restricted to the point or points of diversion herein specified and to the lands or place of use herein described.

Reports shall be filed promptly by the licensee on the appropriate forms which will be provided for the purpose from time to time by the State Water Board.

Licensee shall allow representatives of the State Water Board and other parties, as may be authorized from time to time by the State Water Board, reasonable access to project works to determine compliance with the terms of this license.

Pursuant to Water Code sections 100 and 275 and the common law public trust doctrine, all rights and privileges under this license, including method of diversion, method of use, and quantity of water diverted, are subject to the continuing authority of the State Water Board in accordance with law and in the interest of the public welfare to protect public trust uses and to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of said water.

The continuing authority of the State Water Board may be exercised by imposing specific requirements over and above those contained in this license with a view to eliminating waste of water and to meeting the reasonable water requirements of licensee without unreasonable draft on the source. Licensee may be required to implement a water conservation plan, features of which may include but not necessarily be limited to: (1) reusing or reclaiming the water allocated; (2) using water reclaimed by another entity instead of all or part of the water allocated; (3) restricting diversions so as to eliminate agricultural tailwater or to reduce return flow; (4) suppressing evaporation losses from water surfaces; (5) controlling phreatophytic growth; and (6) installing, maintaining, and operating efficient water measuring devices to assure compliance with the quantity limitations of this license and to determine accurately water use as against reasonable water requirement for the authorized project. No action will be taken pursuant to this paragraph unless the State Water Board determines, after notice to affected parties and opportunity for hearing, that such specific requirements are physically and financially feasible and are appropriate to the particular situation.

The continuing authority of the State Water Board also may be exercised by imposing further limitations on the diversion and use of water by the licensee in order to protect public trust uses. No action will be taken pursuant to this paragraph unless the State Water Board determines, after notice to affected parties and opportunity for hearing, that such action is consistent with California Constitution article X, section 2; is consistent with the public interest and is necessary to preserve or restore the uses protected by the public trust.

The quantity of water diverted under this license is subject to modification by the State Water Board if, after notice to the licensee and an opportunity for hearing, the State Water Board finds that such modification is necessary to meet water quality objectives in water quality control plans which have been or hereafter may be established or modified pursuant to division 7 of the Water Code. No action will be taken pursuant to this paragraph unless the State Water Board finds that: (1) adequate waste discharge requirements have been prescribed and are in effect with respect to all waste discharges which have any substantial effect upon water quality in the area involved, and (2) the water quality objectives cannot be achieved solely through the control of waste discharges.

This license does not authorize any act which results in the taking of a threatened or endangered species or any act which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2089) or the federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). If a "take" will result from any act authorized under this water right, the licensee shall obtain authorization for an incidental take prior to construction or operation of the project. Licensee shall be responsible for meeting all requirements of the applicable Endangered Species Act for the project authorized under this license.

If construction or rehabilitation work is required for the diversion works covered by this license within the bed, channel, or bank of the affected water body, the licensee shall enter into a streambed or lake alteration agreement with the State Department of Fish and Game. Licensee shall submit a copy of the agreement, or waiver thereof, to the Division of Water Rights prior to commencement of work. Compliance with the terms and conditions of the agreement is the responsibility of the licensee.

This license is granted and the licensee accepts all rights herein confirmed subject to the following provisions of the Water Code:

Section 1625. Each license shall be in such form and contain such terms as may be prescribed by the State Water Board.

Section 1626. All licenses shall be under the terms and conditions of this division (of the Water Code).

Section 1627. A license shall be effective for such time as the water actually appropriated under it is used for a useful and beneficial purpose in conformity with this division (of the Water Code) but no longer.

Section 1628. Every license shall include the enumeration of conditions therein which in substance shall include all of the provisions of this article (of the Water Code) and the statement that any appropriator of water to whom a license is issued takes the license subject to the conditions therein expressed.

Section 1629. Every licensee, if he accepts a license, does so under the conditions precedent that no value whatsoever in excess of the actual amount paid to the State therefore shall at any time be assigned to or claimed for any license granted or issued under the provisions of this division (of the Water Code), or for any rights granted or acquired under the provisions of this division (of the Water Code), in respect to the regulation by any competent public authority of the services or the price of the services to be rendered by any licensee or by the holder of any rights granted or acquired under the provisions of this division (of the Water Code) or in respect to any valuation for purposes of sale to or purchase, whether through condemnation proceedings or otherwise, by the State or any city, city and county, municipal water district, irrigation district, lighting district, or any political subdivision of the State, of the rights and property of any licensee, or the possessor of any rights granted, issued, or acquired under the provisions of this division (of the Water Code).

Section 1630. At any time after the expiration of twenty years after the granting of a license, the State or any city, city and county, municipal water district, irrigation district, lighting district, or any political subdivision of the State shall have the right to purchase the works and property occupied and used under the license and the works built or constructed for the enjoyment of the rights granted under the license.

Section 1631. In the event that the State, or any city, city and county, municipal water district, irrigation district, lighting district, or political subdivision of the State so desiring to purchase and the owner of the works and property cannot agree upon the purchase price, the price shall be determined in such manner as is now or may hereafter be provided by law for determining the value of property taken in eminent domain proceedings.

STATE WATER RESOURCES CONTROL BOARD

ORIGINAL SIGNED BY:

James W. Kassel for:

Victoria A. Whitney

Deputy Director for Water Rights

Dated:

AUG 19 2010

**Appendix E: Concurrent Resolution No. 1 - Concurrent Resolution of Application by Byron-
Bethany Irrigation District and The West Side Irrigation District**

CONCURRENT RESOLUTION NO. 1

**CONCURRENT RESOLUTION OF APPLICATION BY
BYRON-BETHANY IRRIGATION DISTRICT AND THE WEST SIDE IRRIGATION DISTRICT**

A CONCURRENT RESOLUTION OF THE BOARDS OF DIRECTORS OF BYRON-BETHANY IRRIGATION DISTRICT AND THE WEST SIDE IRRIGATION DISTRICT CONSTITUTING THE DISTRICTS' RESOLUTION OF APPLICATION TO THE SAN JOAQUIN COUNTY LOCAL AGENCY FORMATION COMMISSION TO INITIATE PROCEEDINGS FOR THE CONSOLIDATION OF BYRON-BETHANY IRRIGATION DISTRICT AND WEST SIDE IRRIGATION DISTRICT

WHEREAS, the Boards of Directors of Byron-Bethany Irrigation District (BBID) and The West Side Irrigation District (WSID) (collectively referred to herein as "Districts") desire to initiate proceedings pursuant to the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (LAFCO Law), Part 3 of Division 3 (commencing with Section 56000) of Title 5 of the Government Code with the San Joaquin County Local Agency Formation Commission (SJ LAFCO) for the consolidation of the Districts (Consolidation) as specified herein; and

WHEREAS, the Districts wish to accomplish the Consolidation by uniting the territory of WSID with the territory of BBID and creating BBID as the single successor district; and

WHEREAS, the Districts have agreed to initiate the Consolidation with SJ LAFCO by adoption of this Concurrent Resolution; and

WHEREAS, pursuant to Government Code section 56853, in the case of a concurrent consolidation, SJ LAFCO shall approve, or conditionally approve, the proposed consolidation; and

WHEREAS, notice of intent to adopt this Concurrent Resolution of Application has not been given to SJ LAFCO, or to any interested agency or subject agency; and

WHEREAS, the proposal is consistent with the Spheres of Influence for BBID and WSID; and

WHEREAS, the territory included in the consolidated district is inhabited, as defined in the LAFCO Law; and

WHEREAS, the boundaries of the territory included in the consolidated district will be the combined territories of BBID and WSID, as described in Exhibit "A," attached hereto and incorporated herein by reference; and

WHEREAS, the Districts desire that the proposed consolidation be subject to the terms and conditions set forth in Exhibit "B," attached hereto and incorporated herein by reference; and

WHEREAS, the reason for the Consolidation is to enhance the services provided to the territories of both BBID and WSID; and

WHEREAS, the Districts hereby consent to the proposed consolidation without an election by voters within the Districts.

NOW, THEREFORE, BE IT RESOLVED by the Boards of Directors of BBID and WSID that:

1. The SJ LAFCO is requested to undertake proceedings for the proposed consolidation pursuant to Part 3 of Division 3 of the LAFCO Law and according to the terms and conditions stated above.
2. The President of the Board or General Manager for each District is authorized and directed to execute this Concurrent Resolution and any other documents as SJ LAFCO may reasonably request to accomplish the consolidation initiated by this Concurrent Resolution.
3. The President of the Board or General Manager for each District is hereby authorized and directed to perform any and all acts required to effectuate the consolidation initiated by this Concurrent Resolution, including but not limited to preparation and coordination of the application to SJ LAFCO, the justification of proposal, and the plan for services.
4. BBID, as the future successor district, will take the lead in preparing the application to SJ LAFCO and any documentation required or requested by SJ LAFCO to accomplish the consolidation initiated by this Concurrent Resolution. BBID will involve and coordinate with WSID in the preparation of the application and any other documentation required or requested by SJ LAFCO.
5. This Concurrent Resolution is effective from the date last shown below.

PASSED AND ADOPTED by the Board of Directors of the Byron-Bethany Irrigation District at a regular Board Meeting held on the 26th day of July 2016 by the following vote:

BYRON-BETHANY IRRIGATION DISTRICT:


AYES: Brown, Enos, Kagehiro, M. Maggiore, T. Maggiore, Tusio


NOES:

ABSENT: Musco

ABSTAIN:

ATTEST:


Rick Gilmore, Secretary


Russell Kagehiro, President

WEST SIDE IRRIGATION DISTRICT:

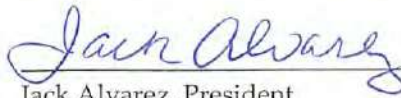
PASSED AND ADOPTED by the Board of Directors of the West Side Irrigation District at a regular Board Meeting held on the 13th day of July 2016 by the following vote:

AYES: Alvarez, Pereira, Pombo

NOES: Serpa

ABSENT: Mattos

ABSTAIN:



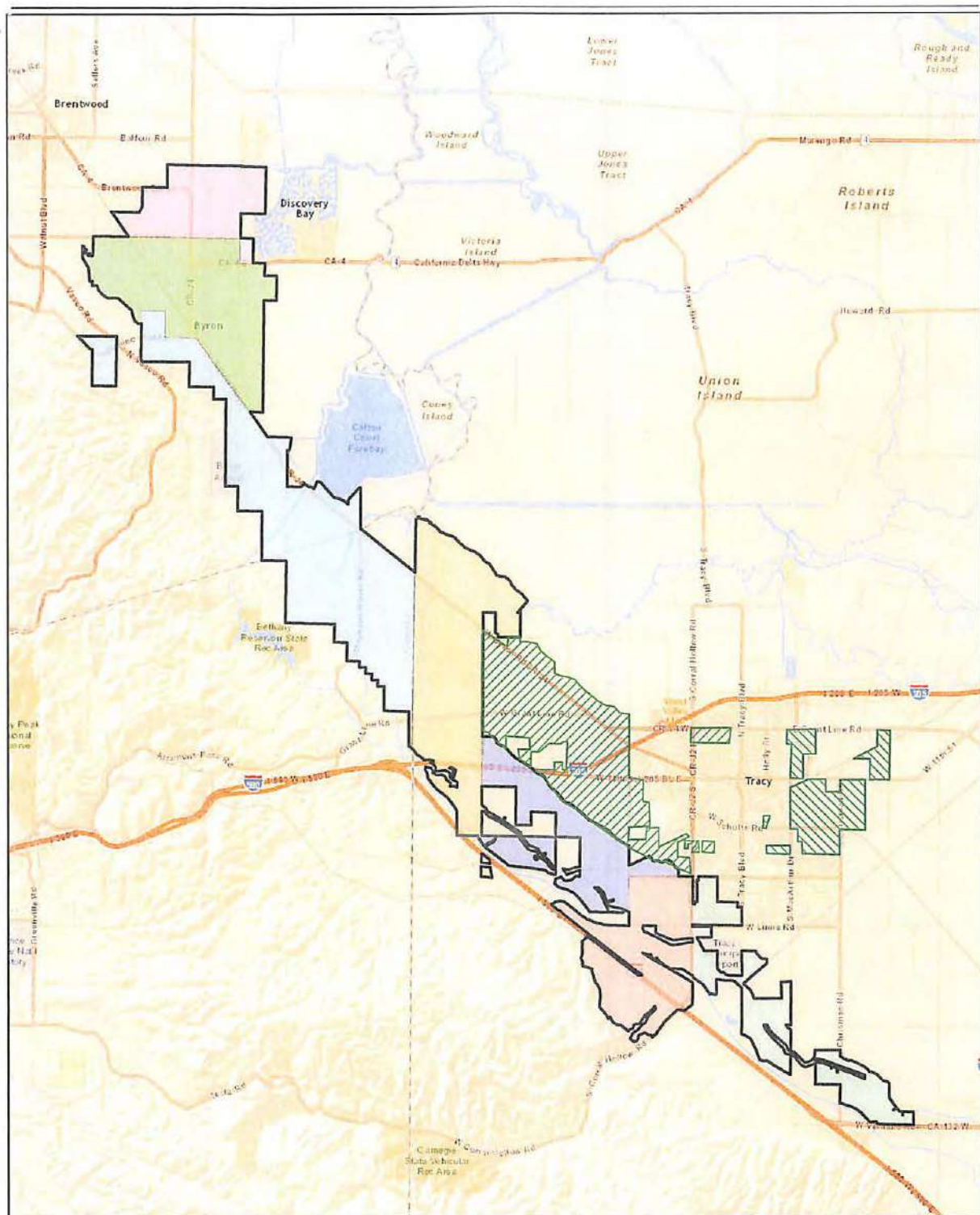
Jack Alvarez, President

ATTEST:



Carol Petz, Secretary

EXHIBIT A



LEGEND

- BBID District Boundary**
- Divisions**
- Division 1
 - Division 2
 - Division 3
 - Division 4
 - Division 5
 - Division 6
 - Division 7
- West Side Irrigation District (approximate boundary)**
- Area west of Tracy Blvd
 - Area east of Tracy Blvd

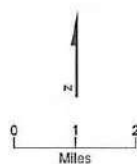


FIGURE 1
District Location Map
Byron Bethany Irrigation District, California

Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong

EXHIBIT B

TERMS AND CONDITIONS FOR THE CONSOLIDATION OF BYRON-BETHANY IRRIGATION DISTRICT AND THE WEST SIDE IRRIGATION DISTRICT

The following terms and conditions shall be imposed as a condition of the consolidation of Byron-Bethany Irrigation District (BBID) and The West Side Irrigation District (WSID):

1. The consolidated district shall operate as a multi-county district operating under Division 11 of the California Water Code.
2. The boundaries of WSID shall be divided into two Divisions and added to BBID's existing seven Divisions. The consolidated district shall have a total of nine Divisions.
3. The boundaries of WSID shall be identified as "West Side Service Area" within BBID.
4. The Board of Directors of the consolidated district shall consist of nine members. Each Director shall be elected by the Division they represent. The current WSID Board of Directors shall appoint the initial Directors for the two divisions within the West Side Service Area.
5. All existing employees of the WSID shall be retained by BBID except for the General Manager.
6. All existing employee and Director benefits of the WSID shall be retained by WSID employees and Directors as specified in Resolution 2016-02, attached hereto as Attachment 1 and incorporated herein by reference.
7. Agricultural water rates within all service areas of BBID other than the "Central Valley Project Service Area" (which is the former district boundary of the Plain View Water District) shall be equal, subject only to reasonable adjustment based on the actual cost of pumping water.
8. BBID shall aggressively pursue the authority to provide pre-1914 water to the West Side Service Area.

9. The West Side Service Area shall have equal access and priority to all water legally available to it served by and through BBID, water transfers, Warren Act water, groundwater well water, and other methods.

10. All existing written agreements of WSID shall be assumed by BBID ("Assumed Agreements"). Assumed Agreements shall also include the applicable drainage agreements for the Cordes Ranch development and the Tracy Gateway development. While these agreements have expired, it is anticipated that each will be renewed.

11. WSID's Central Valley Project Water Service Contract ("Assigned CVP Water") shall be assigned to BBID subject to the approval of the United States Bureau of Reclamation.

12. The West Side Service Area shall have a priority to any and all Assigned CVP Water as follows:

- a. First priority to Assigned CVP Water shall be to Landowners within the West Side Service Area.
- b. Second priority to Assigned CVP Water shall be transferred to third parties, with income generated allocated to the Restricted Reserve Funds.
- c. Third priority to Assigned CVP Water shall be to landowners within BBID outside of the West Side Service Area.

13. The West Side Service Area shall have a priority to water under License 1381 as follows ("License Water"):

- a. First priority to License Water shall be to Landowners within the West Side Service Area.
- b. If the Place of Use for License Water is expanded at any time in the future, second priority to License Water shall be transfer to third parties, with income generated allocated to the Restricted Reserve Funds.
- c. Third priority to License Water shall be to landowners within BBID outside of the West Side Service Area.

14. Funds available to WSID as of the date of consolidation ("Restricted Reserve Funds") shall be set aside in restricted funds established for the benefit of the West Side Service Area as follows:

- a. West Side Service Area Capital Replacement Fund (\$1,000,000)

- b. West Side Service Area Employee and Director Benefits Fund (\$1,500,000)
- c. West Side Service Area Groundwater Well Development Fund (\$1,000,000)

15. West Side Service Area Restricted Reserve Funds shall be supplemented from the proceeds from the sale of any West Side Service Area property rights, payments under Assumed Agreements, and from the sale of any of West Side Service Area Assigned CVP Water or License Water or any other sources of income attributable to the West Side Service Area.

16. Subject to the restrictions outlined above, all assets of WSID shall be transferred to BBID upon the filing of the Certificate of Completion by the San Joaquin County Local Agency Formation Commission.

17. WSID warrants it has no ongoing liabilities that will impact BBID with the exception of long-term debt associated with construction of the Delta-Mendota Canal and the capital costs of the Lodi Energy Center, which are paid through monthly utility bills.

18. BBID warrants that it has no ongoing liability that will impact the West Side Service Area.

BEFORE THE BOARD OF DIRECTORS OF
THE WEST SIDE IRRIGATION DISTRICT

RESOLUTION NO. 2016-02

Resolution Identifying Employee and Director Benefits for Both Existing and Retired
Employees and Existing and Retired Directors

WHEREAS, over the years, the Board of Directors (Board) has adopted and amended health insurance and other related employment benefits for employees and Directors to keep a qualified work force and to keep in conformance with changes in the law.

WHEREAS, over the years, the Board has adopted and amended resolutions related to health insurance for retired employees and Directors to keep in conformance with changes in the law.

WHEREAS, the Board has been considering the potential of consolidating with the Byron-Bethany Irrigation District (BBID) and the Board wants to ensure that the existing benefits for employees, retired employees, existing Directors and retired Directors are identified and continue to be provided with any future consolidation with BBID.

WHEREAS, benefits that accrue to retired employees will apply to existing employees that subsequently retire following consolidation. Benefits that accrue to retired Directors shall apply to any Director's position that is eliminated as a result of the consolidation and said Director shall be classified as a retired Director. Any existing Director that serves on the BBID Board as a result of the consolidation and subsequently retires or is not re-elected or re-appointed shall be considered retired at the end of the Director's then term.

BE IT RESOLVED by the Board of Directors of The West Side Irrigation District as follows:

SECTION A - EXISTING EMPLOYEE BENEFITS

1. Full time employees are entitled to medical, dental and life insurance benefits. The District pays 100% of the cost of medical, dental and life insurance benefits for the employee and their dependents. Currently there are 5 employees receiving full medical, dental, and life insurance on themselves and dependents under their choice of plans.

2. Annually on January 1 of each year, all employees receive 6 days (48 hours) of sick leave.

3. Full time employees receive paid vacation accruing annually on the first day of the month in the employee's anniversary month: 2-15 years get 2 weeks per

year; 16-20 years get 3 weeks per year; after 20 years get 4 weeks per year. Vacation time is not carried over year to year.

4. Full time employees are paid for time missed due to jury duty.
5. Full time employees receive up to 3 days leave of absence with pay for bereavement due to the death of an immediate family member.
6. Employees are paid for the following holidays, New Year's Day, President's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day and the day after, two weeks at Christmas.
7. Full time employees are eligible for the District's defined benefit plan through VALIC. The District will match employee contributions up to 5%. Employee can contribute more, but the District will only match up to 5%.
8. Employees who were hired prior to February 9, 2011 will receive lifetime health benefits with the following provisions:
 - (a) Employees employed prior to June 10, 2009:
 - (1) Must have been employed on or after December 1, 1991.
 - (2) Employee must have been employed by the District continuously for at least 14 years.
 - (3) Employee must be covered by the District's approved health insurance plan at the time of retirement.
 - (4) Employee must have reached the age of 55 prior to retirement.
 - (b) Employees hired between June 10, 2009 & February 8, 2011:
 - (1) Employee must have been employed by the District continuously for at least 25 years.
 - (2) Employee must be covered by the District's approved health insurance plan at the time of retirement.
 - (3) Employee must have reached age 60 prior to retirement.
 - (4) Only the spouse of the qualified employee who was the spouse of the employee at the time that the employee retires is eligible for health insurance benefits upon the requirement of the qualified employee. Should the qualified employee re-marry after retirement any subsequent spouse shall not be entitled to health insurance benefits.

(c) Employees hired on or after February 9, 2011 are not entitled to lifetime health benefits as the policy was terminated.

SECTION B - RETIRED EMPLOYEES HEALTHCARE INSURANCE BENEFITS

1. Retired Employees who were hired prior to February 9, 2011 will receive lifetime health benefits with the following provisions:

(a) Retired Employees employed prior to June 10, 2009:

(1) Must have been employed on or after December 1, 1991.

(2) Employee must have been employed by the District continuously for at least 14 years.

(3) Employee must be covered by the District's approved health insurance plan at the time of retirement.

(4) Employee must have reached the age of 55 prior to retirement.

(b) Retired Employees hired between June 10, 2009 & February 8, 2011:

(1) Employee must have been employed by the District continuously for at least 25 years.

(2) Employee must be covered by the District's approved health insurance plan at the time of retirement.

(3) Employee must have reached age 60 prior to retirement.

(4) Only the spouse of the qualified employee who was the spouse of the employee at the time that the employee retires is eligible for health insurance benefits upon the requirement of the qualified employee. Should the qualified employee re-marry after retirement any subsequent spouse shall not be entitled to health insurance benefits.

(c) Retired Employees hired on or after February 9, 2011 are not entitled to lifetime health benefits as the policy was terminated.

2. Health insurance shall be provided for either the life of the Retired Employee or the life of the Retired Employee's spouse, whichever is longer, subject to the requirements set forth in this Section, and subject to the following:

(a) If a Retired Employee, or his/her spouse, reaches age 65 and becomes eligible for Medicare or Medical or otherwise becomes eligible for governmentally provided or mandated health insurance benefits, the District may replace its then

existing approved health insurance coverage with supplemental health insurance of a type and amount to be determined by the District.

(b) If a Retired Employee, or his/her spouse, reaches age 65 and becomes eligible for Medicare, said Retired Employee, or his/her spouse, is required to obtain at his/her own expense, Medicare Parts A & B to continue to be eligible for District-provided health insurance.

3. The District's health insurance program is purchased through the Association of California Water Agencies and operates pursuant to the rules of that Association. If those rules are changed so as to alter or deny approval of the District's health insurance program for Directors and/or their spouses, then the District's program may be changed to conform to the new rules, or terminated, if required.

SECTION C - EXISTING DIRECTORS HEALTHCARE INSURANCE BENEFITS

1. Directors having served 10 years of consecutive service prior to February 1, 2015 shall qualify for healthcare insurance benefits. The District will pay 100% of the medical plan of the Director's choice for both the Director and their dependents.

2. Directors having served 10 years of consecutive service on or after February 1, 2015 share qualify for healthcare insurance benefits. The District will pay 100% of the least cost medical insurance plan, per available medical plans, for the Director and 50% of the least cost medical insurance plan, per available medical plans for the employee's dependents. The Director and their dependents shall have the option to buy-up to a higher benefit plan at their expense.

SECTION D - QUALIFICATIONS FOR DIRECTORS LIFETIME HEALTH INSURANCE BENEFITS

1. For a Director and his/her spouse to qualify for the health insurance benefits, the Director must meet the following conditions:

(a) The Director must have been duly elected and serving as a Director for the District on or after December 1, 1991.

(b) The Director must have served at least four (4) consecutive four (4) year terms as a director of the District.

(c) The Director must be covered by the District's approved health insurance plan at the time of his/her retirement.

(d) The Director must have reached age 55 prior to retirement.

(e) No lifetime health insurance benefits will be provided to a Director or his/her spouse if the Director is first elected to a term of office that begins on or after January 1, 1995.

2. Health insurance shall be provided for either the life of the Director or the life of the Director's spouse, whichever is longer, subject to the requirements set forth in this Sections, and subject to the following:

(a) If a Director, or his/her spouse, reaches age 65 and becomes eligible for Medicare or Medical or otherwise becomes eligible for governmentally provided or mandated health insurance benefits, the District may replace its then existing approved health insurance coverage with supplemental health insurance of a type and amount to be determined by the District.

(b) If a Director, or his/her spouse, reaches age 65 and becomes eligible for Medicare, said Director, or his/her spouse, is required to obtain at his/her own expense, Medicare Parts A & B to continue to be eligible for District-provided health insurance.

3. The District's health insurance program is purchased through the Association of California Water Agencies and operates pursuant to the rules of that Association. If those rules are changed so as to alter or deny approval of the District's health insurance program for Directors and/or their spouses, then the District's program may be changed to conform to the new rules, or terminated, if required.

Appendix F: California Department of Finance 2017 State Population Projections



FOR IMMEDIATE RELEASE:
March 8, 2017

CONTACT: Ethan Sharygin (916) 323-4086
H.D. Palmer (916) 323-0648

DEPARTMENT OF FINANCE RELEASES NEW STATE POPULATION PROJECTIONS

SACRAMENTO – New projections showing how California’s population is expected to change by growth, generation, and geography through 2060 were released today by the Department of Finance.

Highlights

From 2016 to 2036, California is projected to grow at an annualized rate of 0.76 percent, adding 6.5 million people. During these 20 years, the share of the population age 65 and older is projected to grow from 14 percent to 23 percent. In 2051, California is projected to join the ranks of Japan and many European countries which have more deaths than births, while migration is expected to keep California’s population growth rate positive. Compared to previous projections (2013 baseline series, published Dec. 2014), the statewide population forecast in 2060 is approximately 1 percent lower, due primarily to lower expected birth rates.

The Hispanic population is projected to grow from 39 percent today to 46 percent by 2060. The Millennial generation (born 1981-1997) was the largest in California as of 2016 (9.4 million or 24 percent of the population). “Generation X” (born 1965-1980) is projected to overtake the Baby Boom generation in total population size by 2019, when both become approximately 20 percent of the population. The San Francisco Bay Area, greater Sacramento region, Central Valley, and Inland Empire regions of the state are projected to grow more quickly than the state overall, each increasing their share of the state’s total population (by 1 to 2 percentage points).

Total population growth

California’s population on July 1, 2016 was 39.4 million. The state is poised to reach a population of 40 million by the year 2018, 45 million by 2035, and 50 million during 2055. Between 2016 and 2060, the state is projected to grow by 30 percent: from 39.4 million to 51.1 million (0.6 percent annually), adding over 11.7 million people (more than the 2016 population of Ohio).

Total population is calculated using projected births, deaths, and migration—collectively, the *components of change*. The crude birth rate¹ has been declining in California since the late 2000s, and is projected to decline further from 12.6 births per 1,000 population in 2015 (490,000 births) to 9.4 per 1,000 in 2060 (475,000 births). As the elderly population grows, the projected number of deaths rises more rapidly: from a crude death rate² of 6.8 deaths per 1,000 population in 2015 (265,000 deaths) to approximately 9.9 per 1,000 in 2060 (505,000 deaths). The number of deaths is projected to exceed the number of births starting in 2051.

Net migration refers to the arrival of people (foreign- or native-born) to California. The rate of net migration is projected to steadily grow from approximately 1.8 net migrants per 1,000 population per year in 2015 (70,000 net migrants) to 4 per 1,000 by 2060 (215,000 net migrants). Projected migration cannot be separated by direction (domestic or foreign flows) due to limitations in the historical data sources used to estimate net migrants.

Population aging

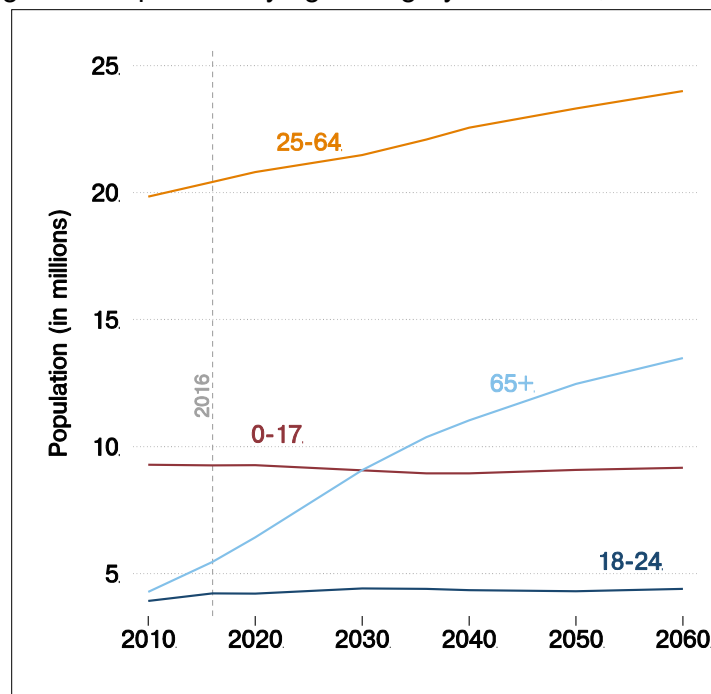
In 2016, 24 percent of the population of California was under age 18 (9.2 million). The working-age population (18-64) was 63 percent of the population (24.6 million), and is projected to decrease modestly as a share of the total population. Growth is expected in the age 65 and over group: it was 14 percent of the population in 2016 (5.5 million), and is projected to grow to 23 percent in 2036 and 26 percent in 2060 (Table 1/Figure 1).

Table 1. Population by age category: California, 2016-2060

	2016		2036		2060	
Total population	39,354,432	100%	45,807,050	100%	51,056,510	100%
Age <18	9,257,380	24%	8,946,985	20%	9,166,821	18%
Age 18-24	4,223,279	11%	4,401,571	10%	4,401,877	9%
Age 25-64	20,413,692	52%	22,087,332	48%	23,999,011	47%
Age 65+	5,460,081	14%	10,371,162	23%	13,488,801	26%
Age 16+	31,171,308	79%	37,951,306	83%	42,995,258	84%

Note: Total of shares may not sum due to rounding.

Figure 1. Population by age category: California, 2010-2060

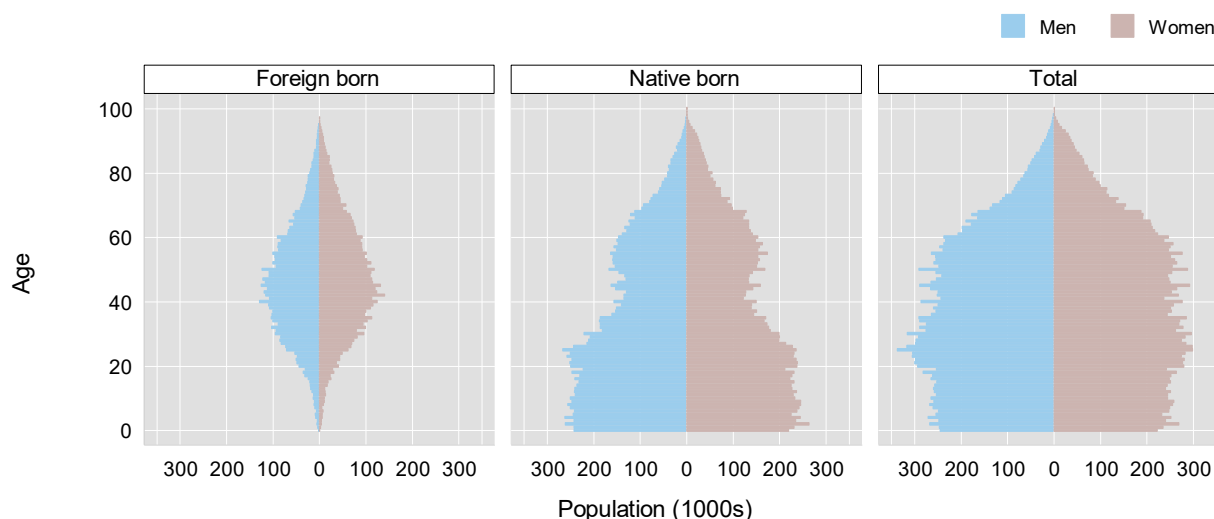


Population aging will be rapid during the next 20 years as a large cohort of Baby Boomers (born 1946-1964) moves into and through retirement. The share of the population age 65 and older is projected to grow rapidly, becoming a larger share of the population in 2030 than children under 18. The median age in California was 36.2 years in 2016, compared to 37.8 years nationwide. By 2036, the state median age is projected to increase to 41 years, and to 45 years in 2060. A large Baby Boom cohort in California kept the state younger than the national average for many years, but the state will see more rapid increases in the elderly population than the rest of the country due to the aging of this cohort over the next decades.

Other important causes of population aging in California are lower fertility rates and greater longevity. The total fertility rate³ has fallen from 2.1 children per woman in 2000 to 1.8 in 2015, and is projected to decrease to 1.6 children per woman by 2060. At the same time, life expectancy at birth has increased from 78 years in 2000 to 81 years in 2015, and is projected to increase to 86 years by 2060.

Migration to California has been a contributor to the youthfulness of the state's population (Figure 2). Foreign-born Californians are concentrated in prime working ages (25-64). Foreign-born Californians have contributed significantly to the state's population growth: over 40 percent of children born in California since 2000 have at least one foreign-born parent.

Figure 2: Age profile of the native and foreign-born populations: California, 2015



Source: American Community Survey, Public Use Microdata Survey (PUMS) 1-year file (2015).

Population change by race/ethnicity

A plurality of California is Hispanic, with 39 percent (15 million) claiming Hispanic ethnicity. The Hispanic proportion of the population is projected to grow to 42 percent by 2036 and 46 percent by 2060. The fastest growth is projected for the multiracial and Hispanic populations (Table 2).

Table 2. Population by race and Hispanic ethnicity: California, 2016-2060

	2016		2036		2060	
Total population	39,354,432	100%	45,807,050	100%	51,056,510	100%
Non-Hispanic						
White	15,147,499	38%	15,863,204	35%	15,792,622	31%
Black	2,260,738	6%	2,628,340	6%	2,847,709	6%
American Indian/Alaska Native	165,633	<1%	176,608	<1%	167,582	<1%
Asian/Pacific Islander/Hawaiian	5,302,598	13%	5,864,385	13%	6,081,859	12%
Multiracial (2+ of the above)	1,065,236	3%	1,778,219	4%	2,862,227	6%
Hispanic	15,412,728	39%	19,496,294	43%	23,304,511	46%

Note: Totals may not sum due to rounding.

Generational change

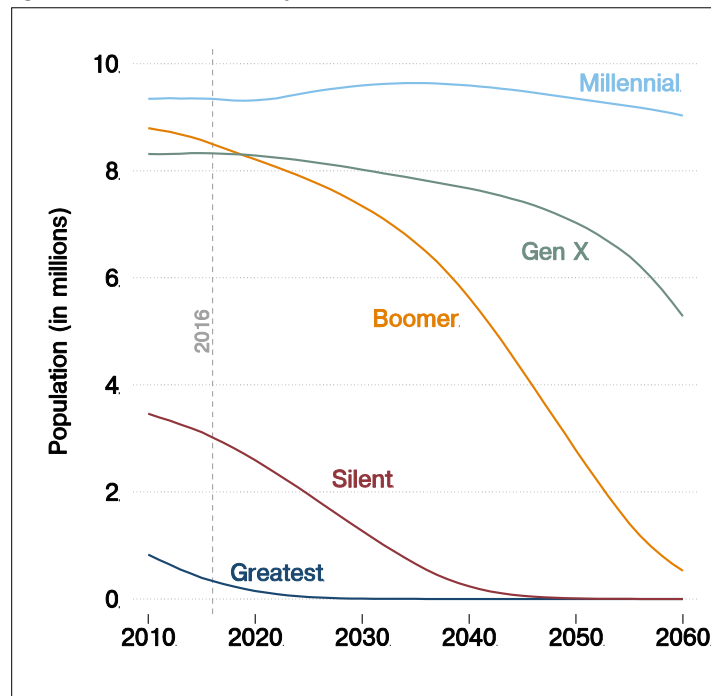
Births through 1997 can be divided into five generations or cohorts (Table 3/Figure 3). The largest cohort in California today is the Millennial (born 1981-1997). The Millennial generation is projected to peak in size at 9.5 million persons during the 2030s, as its ranks continue to grow due to migration. Baby Boomers (born 1946-1964) constitute the second-largest cohort at present, but will rapidly diminish in size due to mortality. In 2019, Generation X (born 1965-1980) is projected to exceed the Baby Boom generation in population size.

Table 3. Population by generation: California, 2016-2060

	2016		2036		2060	
Total population	39,354,432	100%	45,807,050	100%	51,056,510	100%
Born <1928	343,180	1%	181	<1%		
Born 1928-1945	2,973,738	8%	527,399	1%		
Born 1946-1964	8,468,780	22%	6,455,468	14%	510,480	1%
Born 1965-1980	8,274,964	21%	7,891,899	17%	5,210,083	10%
Born 1981-1997	9,460,216	24%	9,431,876	21%	8,918,679	17%

Note: Totals by generation do not sum to total population (births after 1997 not shown).

Figure 3. Population by birth cohort: California, 2010-2060



Regional growth

California's population will go through phases of aging and renewal during the projection period, with varying effects by race, ethnicity, and geography. The patterns are related to the relative size of birth cohorts, decisions on where to move for education, work, family, and retirement, and the size of migration flows to and from California. Some rural counties will see replenishment of population, while others will see rising median ages.

Counties in the greater Los Angeles region will add the most people over the next 45 years. During 2016-2060, Los Angeles, Riverside, and San Bernardino counties are each projected to grow by over 1 million. At present, 45 percent of Californians live in coastal southern counties (Ventura, Los Angeles, Orange, or San Diego). However, this share is projected to decrease in the coming years (declining to 42 percent in 2036 and 39 percent by 2060). The Central Valley, San Francisco Bay Area, Inland Empire, and greater Sacramento region are all expected to grow faster than the statewide average, increasing their share of the state population by 1 to 2 percentage points (Table 4).

Table 4. Population by region: California, 2016-2060

	2016		2036		2060	
Total population	39,354,432	100%	45,807,050	100%	51,056,510	100%
[1] San Francisco Bay Area	7,680,709	20%	9,163,287	20%	10,468,398	21%
[2] Sacramento	2,458,135	6%	3,066,335	7%	3,714,415	7%
[3] Far North	1,055,315	3%	1,143,648	2%	1,229,677	2%
[4] Central Valley	4,208,003	11%	5,310,906	12%	6,494,076	13%
[5] Sierra Nevada	187,901	0%	198,799	0%	205,220	0%
[6] Central Coast	1,502,662	4%	1,709,588	4%	1,825,151	4%
[7] South Coast	17,565,890	45%	19,291,680	42%	19,990,023	39%
[8] Inland Empire	4,695,817	12%	5,922,807	13%	7,129,550	14%

Note: Counties by region: [1]: San Francisco, Marin, Sonoma, Napa, Solano, Contra Costa, Alameda, Santa Clara, San Mateo; [2] Sacramento, Sutter, Yuba, Yolo, Placer, El Dorado; [4] San Joaquin, Stanislaus, Merced, Madera, Fresno Kinds, Tulare, Kern; [5] Alpine, Amador, Calaveras, Tuolumne, Mariposa, Mono, Inyo; [6] Santa Cruz, San Benito, Monterey, San Luis Obispo, Santa Barbara; [7] Ventura, Los Angeles, Orange, San Diego; [8] San Bernardino, Riverside, Imperial; [3] all others.

Kern is projected to overtake Fresno County in population size during 2052 (Table 5). During the next 20 years, the highest growth rates (above 1 percent annually) are expected in the Central Valley counties of Yolo, Kern, Madera, Placer, and San Joaquin (Table 6).

Table 5. Largest counties: California, 2016-2060

Rank	10 Largest Counties					
	2016		2036		2060	
1	Los Angeles	10,229,245	Los Angeles	11,070,046	Los Angeles	11,251,434
2	San Diego	3,300,891	San Diego	3,756,811	San Diego	4,136,812
3	Orange	3,181,371	Orange	3,516,426	Orange	3,617,223
4	Riverside	2,360,727	Riverside	3,052,045	Riverside	3,602,352
5	San Bernardino	2,147,933	San Bernardino	2,636,148	San Bernardino	3,237,092
6	Santa Clara	1,930,215	Santa Clara	2,358,693	Santa Clara	2,810,865
7	Alameda	1,637,712	Alameda	1,973,632	Alameda	2,265,671
8	Sacramento	1,506,677	Sacramento	1,871,993	Sacramento	2,262,556
9	Contra Costa	1,129,894	Contra Costa	1,384,877	Contra Costa	1,568,920
10	Fresno	989,183	Fresno	1,212,462	Kern	1,488,228

Table 6. Fastest growing counties: California, 2015-2060

Rank	10 Fastest Growing Counties					
	2015-2016		2016-2036		2016-2060	
1	Yolo	1.9%	Yolo	1.3%	Yolo	1.2%
2	San Joaquin	1.5%	Kern	1.3%	Madera	1.2%
3	Placer	1.4%	Madera	1.3%	Kern	1.2%
4	Riverside	1.3%	Placer	1.3%	Merced	1.2%
5	Stanislaus	1.2%	San Joaquin	1.3%	Placer	1.0%
6	Contra Costa	1.2%	Riverside	1.3%	San Joaquin	1.0%
7	Solano	1.1%	Merced	1.3%	Imperial	1.0%
8	Sacramento	1.1%	Imperial	1.1%	Riverside	1.0%
9	Monterey	1.1%	Sacramento	1.1%	San Bernardino	0.9%
10	Alameda	1.1%	Stanislaus	1.1%	Sacramento	0.9%

These 2016 baseline population projections are used by state and local government agencies to anticipate and plan for future population needs and resource demands, as well as to measure incidence rates and program effectiveness. The Department of Finance uses a cohort-component method to project population by age, gender, and race/ethnicity. A cohort-component method traces people born in a given year through their lives: with each passing year, new cohorts are formed by applying fertility assumptions, and the population at each age grows or shrinks due to aging, mortality, and migration assumptions.

The baseline assumptions of the projections are the continuation of changing demographic dynamics within the norm of historical experience. The projections assume that the trends described in the projections will continue irrespective of recent or anticipated legislation or policy changes. The projections are developed in consultation with local and regional authorities, who may make different assumptions in their analysis that are partly reflected in the final migration, fertility, and mortality forecasts when their input is taken into consideration.

County tables and maps are appended. Additional datasets and methodological notes are available from the Department of Finance website:

<http://www.dof.ca.gov/Forecasting/Demographics/Projections/>

¹ Crude birth rate: number of births per 1,000 population.

² Crude death rate: number of deaths per 1,000 population.

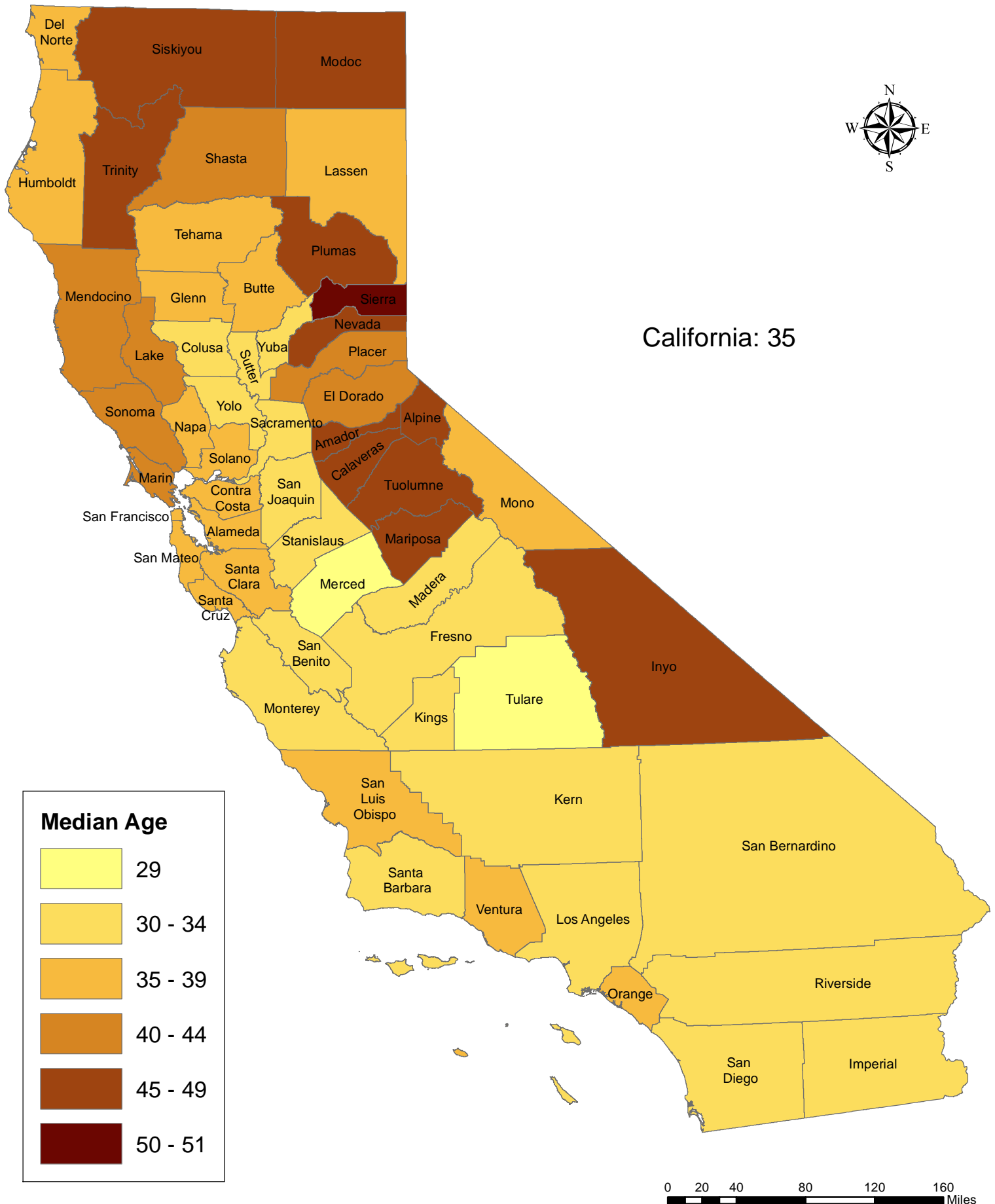
³ Total fertility rate: a synthetic measure of fertility representing the hypothetical number of children born to a woman during her lifetime, if she experienced the age-specific rates for the period in question throughout her reproductive life.

Total Estimated and Projected Population for California and Counties: July 1, 2010 to July 1, 2060 in 5-year Increments

	Estimates		Projections							
	2010	2015	2025	2030	2035	2040	2045	2050	2055	2060
California	37,333,583	39,059,809	42,407,005	44,019,846	45,521,334	46,884,801	48,088,425	49,158,401	50,124,768	51,056,510
Alameda County	1,515,338	1,619,679	1,795,390	1,878,556	1,958,389	2,032,262	2,099,569	2,159,782	2,213,971	2,265,671
Alpine County	1,175	1,157	1,134	1,150	1,169	1,164	1,141	1,105	1,078	1,057
Amador County	38,069	37,314	38,977	40,134	41,083	41,719	42,197	42,711	43,391	44,245
Butte County	220,157	224,363	238,546	247,339	256,042	263,642	270,612	277,512	285,290	292,892
Calaveras County	45,535	44,899	46,143	47,129	47,851	48,242	48,465	48,775	49,397	50,468
Colusa County	21,465	22,271	24,085	24,980	25,765	26,451	26,989	27,482	28,013	28,626
Contra Costa County	1,051,525	1,116,882	1,250,935	1,314,573	1,373,950	1,426,050	1,469,258	1,505,996	1,537,429	1,568,920
Del Norte County	28,387	27,119	27,467	27,775	28,062	28,309	28,553	28,773	29,082	29,550
El Dorado County	180,975	183,140	196,057	204,977	214,008	221,939	228,335	234,290	241,185	249,924
Fresno County	932,628	979,357	1,088,963	1,145,646	1,201,416	1,256,572	1,309,006	1,358,963	1,407,602	1,457,705
Glenn County	28,182	28,960	30,605	31,594	32,502	33,261	33,856	34,357	34,841	35,389
Humboldt County	134,929	135,090	140,298	141,501	142,085	141,958	141,625	141,193	140,651	140,489
Imperial County	175,107	185,328	208,364	220,459	232,298	243,975	255,677	267,419	278,720	290,106
Inyo County	18,539	18,640	19,048	19,219	19,339	19,360	19,307	19,176	18,993	18,864
Kern County	841,887	883,327	995,408	1,067,631	1,141,109	1,213,558	1,283,154	1,350,705	1,419,039	1,488,228
Kings County	152,175	149,702	162,049	170,105	178,505	187,048	195,106	202,760	209,804	217,058
Lake County	64,905	65,180	66,476	67,718	69,030	70,275	71,574	73,015	74,769	76,877
Lassen County	34,869	30,969	30,478	30,157	29,668	29,117	28,521	27,941	27,408	26,999
Los Angeles County	9,837,011	10,185,487	10,688,523	10,885,337	11,042,709	11,161,569	11,238,210	11,274,596	11,275,452	11,251,434
Madera County	150,193	154,956	174,156	186,761	199,556	212,229	224,744	237,116	249,271	262,065
Marin County	252,185	262,105	270,747	274,243	277,316	278,955	278,811	277,335	275,223	273,469
Mariposa County	18,245	18,088	18,243	18,481	18,698	18,823	18,967	19,112	19,323	19,655
Mendocino County	87,661	88,429	92,145	93,657	94,782	95,329	95,500	95,608	95,847	96,369
Merced County	256,803	269,729	305,794	326,574	348,150	369,193	389,832	410,095	430,832	452,519
Modoc County	9,689	9,507	9,228	9,177	9,105	8,971	8,808	8,656	8,543	8,497
Mono County	14,017	13,818	14,389	14,692	14,928	15,020	14,974	14,778	14,473	14,179
Monterey County	414,915	436,242	475,105	491,601	507,123	521,041	532,661	541,508	548,649	554,839
Napa County	136,237	141,546	149,471	154,107	158,238	161,795	164,541	166,634	168,466	170,408
Nevada County	98,517	98,190	102,549	105,732	108,910	111,421	113,423	115,821	119,222	123,679
Orange County	3,014,962	3,161,218	3,351,315	3,434,157	3,504,411	3,558,718	3,595,775	3,616,582	3,621,879	3,617,223
Placer County	350,052	370,738	424,858	454,102	482,171	507,740	530,743	551,660	572,485	594,279
Plumas County	19,982	19,586	19,194	19,022	18,760	18,366	17,947	17,605	17,473	17,538
Riverside County	2,196,137	2,329,256	2,692,006	2,863,260	3,021,572	3,165,363	3,292,187	3,406,136	3,507,769	3,602,352
Sacramento County	1,421,628	1,489,952	1,669,830	1,762,759	1,854,128	1,942,004	2,025,927	2,105,299	2,183,173	2,262,556
San Benito County	55,401	57,584	63,368	66,796	70,220	73,535	76,499	79,210	81,812	84,473
San Bernardino County	2,044,228	2,129,851	2,357,002	2,483,568	2,610,720	2,735,646	2,857,883	2,981,484	3,105,723	3,237,092
San Diego County	3,100,529	3,275,084	3,529,054	3,638,609	3,737,507	3,830,210	3,916,308	3,997,108	4,069,577	4,136,812
San Francisco County	809,174	863,108	945,660	981,738	1,015,352	1,047,902	1,081,493	1,117,661	1,156,570	1,196,108
San Joaquin County	687,827	727,547	839,665	895,240	947,929	996,379	1,040,015	1,079,902	1,116,089	1,150,034
San Luis Obispo County	269,013	276,844	295,019	302,323	307,467	310,367	310,573	309,424	308,155	307,681
San Mateo County	720,496	764,379	822,392	846,852	867,540	886,272	902,065	915,205	927,366	938,228
Santa Barbara County	423,552	444,900	477,699	492,495	505,338	516,163	524,590	531,252	536,043	540,508
Santa Clara County	1,790,301	1,915,102	2,124,780	2,230,564	2,337,470	2,443,718	2,545,513	2,640,473	2,726,922	2,810,865
Santa Cruz County	262,341	274,697	294,233	303,377	311,059	317,542	322,998	327,682	332,459	337,650
Shasta County	177,062	178,777	184,384	188,847	193,030	196,656	199,830	202,817	206,244	210,014
Sierra County	3,233	3,147	3,126	3,092	3,042	2,985	2,931	2,899	2,890	2,910
Siskiyou County	44,862	44,500	44,352	44,492	44,522	44,339	44,095	44,024	44,290	44,954
Solano County	412,573	429,267	482,723	509,230	534,008	556,679	576,963	595,865	614,246	633,039
Sonoma County	483,844	501,182	538,701	558,134	574,747	586,957	595,413	601,189	606,178	611,690
Stanislaus County	515,888	538,372	605,618	638,995	670,443	699,177	724,772	747,343	768,026	787,300
Sutter County	94,859	97,618	106,589	111,423	116,316	120,845	125,529	129,929	134,607	139,449
Tehama County	63,505	63,970	66,956	69,004	71,036	72,859	74,607	76,483	78,493	80,751
Trinity County	13,779	13,562	13,324	13,314	13,271	13,224	13,200	13,311	13,623	14,143
Tulare County	442,551	463,291	514,101	541,140	568,186	594,348	617,916	639,477	659,482	679,167
Tuolumne County	55,350	54,525	54,470	54,958	55,369	55,557	55,588	55,691	56,063	56,752
Ventura County	824,467	852,013	896,731	922,001	944,298	961,828	973,476	979,739	982,270	984,554
Yolo County	202,352	212,686	245,902	262,418	279,236	296,657	313,962	331,183	348,267	365,773
Yuba County	72,315	75,579	83,180	86,931	90,400	93,517	96,211	98,554	100,630	102,434

Projections Prepared by Demographic Research Unit, California Department of Finance, February 2017

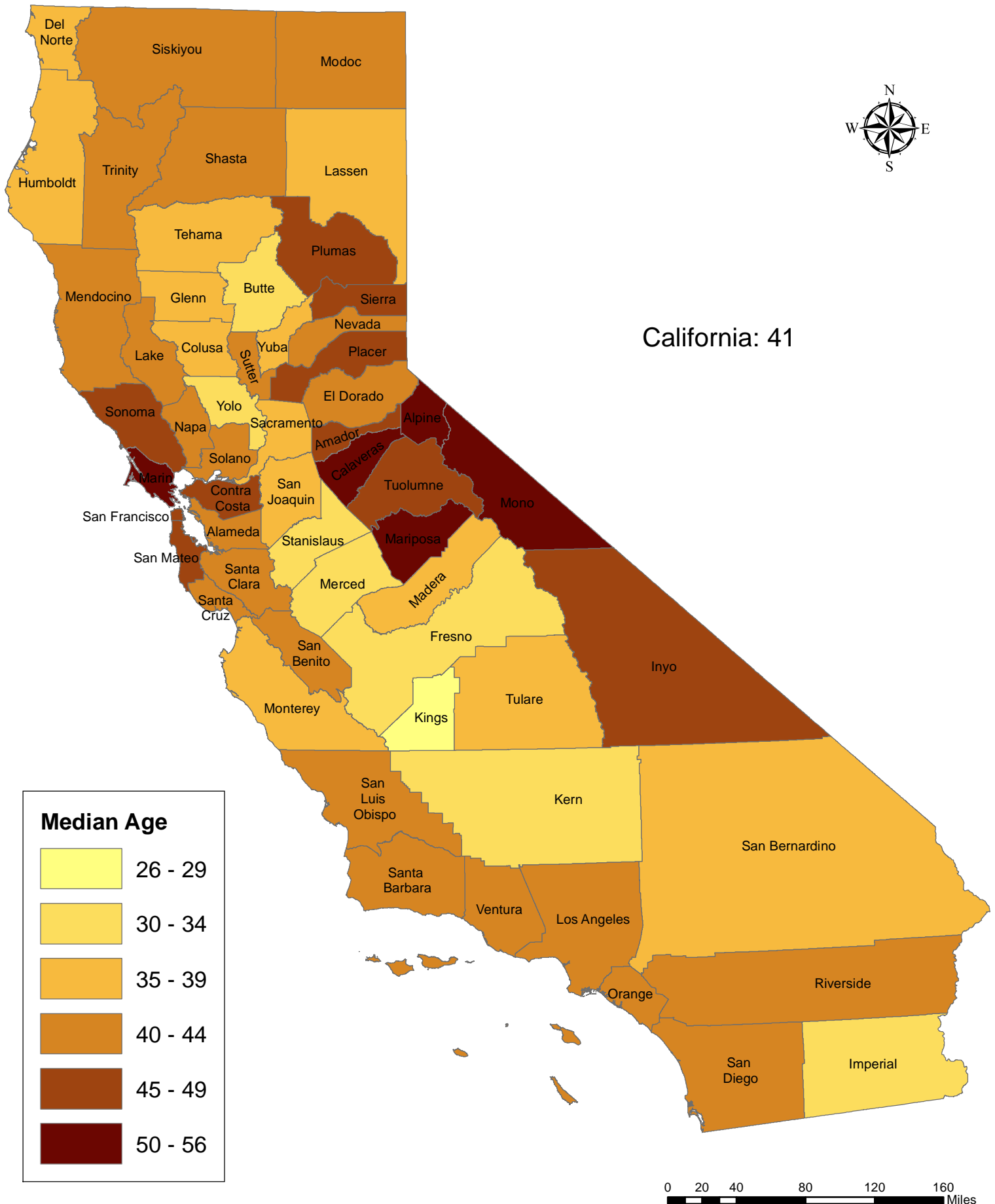
California 2010 Median Age



Source: U.S. Census Bureau, 2010 Census.

Map prepared by: California Department of Finance, Demographic Research Unit, February 2017.

California Projected 2035 Median Age



Source: California Department of Finance, Population Projections for California and its Counties, 2016 Baseline Series.
Map prepared by: California Department of Finance, Demographic Research Unit, February 2017.

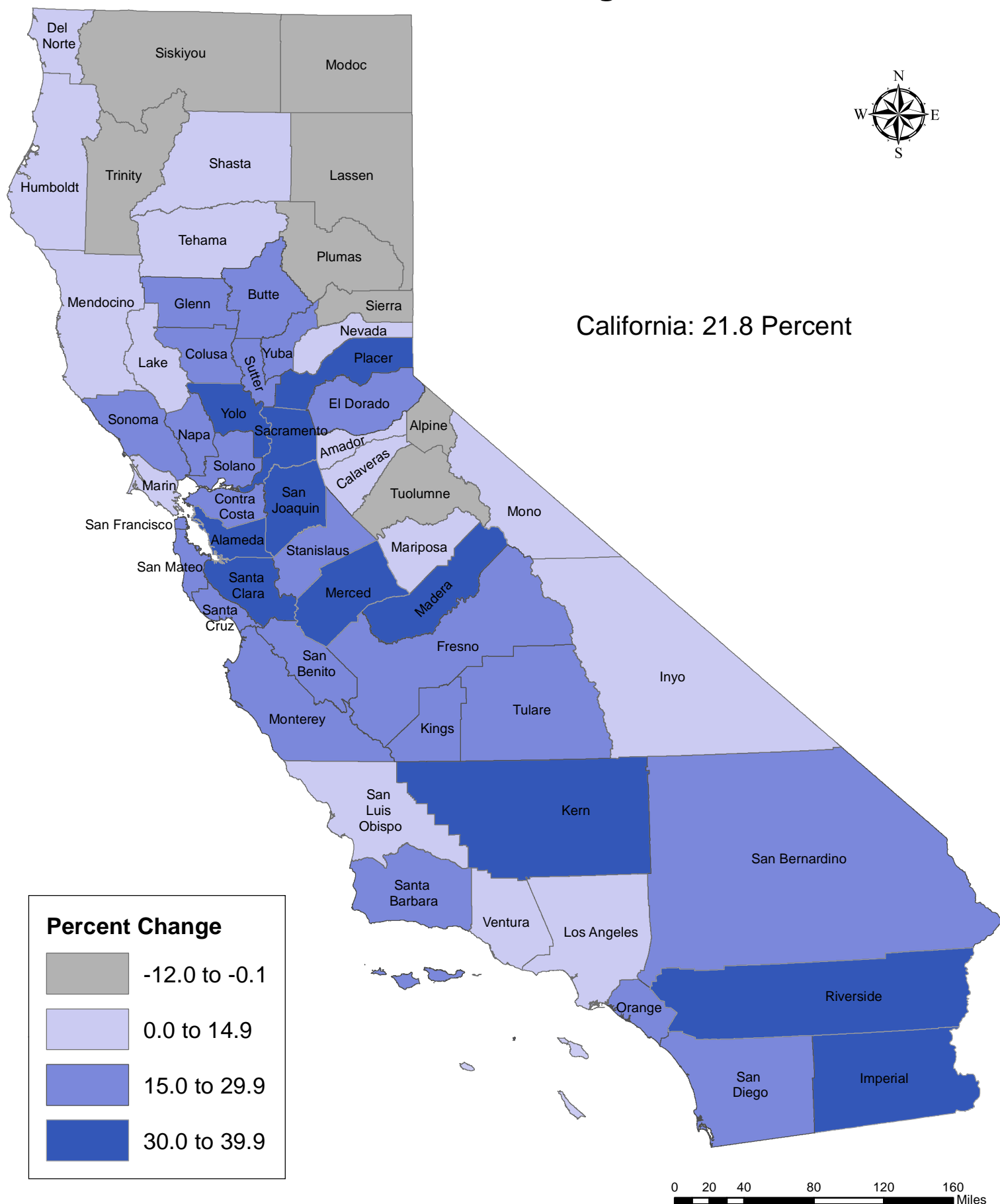
California Projected Population Growth 2010 to 2035

Numeric Change



California Projected Population Growth 2010 to 2035

Percent Change



Source: California Department of Finance, Population Projections for California and its Counties, 2016 Baseline Series.
 Map prepared by: California Department of Finance, Demographic Research Unit, February 2017.

Appendix G



BYRON BETHANY IRRIGATION DISTRICT

APPROVED ETHICS GUIDELINES

June 13, 2011

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BYRON BETHANY IRRIGATION DISTRICT ETHICS GUIDELINES

I. Purpose and Scope

The policy of the Byron-Bethany Irrigation District (District) is to maintain the highest ethical standards for its Directors. The proper operation of the District requires that decisions and policy be made within the proper channels of governmental structure, that public office not be used for personal gain, and that Directors remain objective and responsive to the needs of the public they serve. Accordingly, it is the policy of the District that Directors and District employees maintain the highest standard of personal honesty and fairness in carrying out their duties. This policy sets forth the basic ethical standards to be followed by the Board of Directors and employees of the Byron-Bethany Irrigation District. The objectives of this policy are to (1) provide guidance for dealing with ethical issues, (2) heighten awareness of ethics and values as critical elements in Directors' conduct, (3) improve ethical decision-making and values-based management, and (4) identify the responsibilities of the Board of Directors.

II. Responsibilities of Directors

Directors are obligated to uphold the Constitution of the United States and the Constitution of the State of California. Directors will comply with applicable laws regulating their conduct, including conflict of interest, financial disclosure and open government laws. Directors have a fiduciary duty to exercise his or her power for the benefit of the public. Directors will make decisions in a fair and impartial manner and will not engage in outside activities that will subject them to conflicting loyalties. Directors will at all times treat other members of the Board of Directors, employees of the District and the public with civility and respect. Directors will strive to work in cooperation with other public officials unless prohibited from so doing by law or officially recognized confidentiality of their work.

- A. The Board of Directors is the governing body of the District and acts in a legislative capacity by establishing policy, adopting regulations, setting the budget and authorizing the officers and employees of the District to execute contracts, and to perform acts necessary to carry out the affairs of the District in accordance with the law. The Board does not act in an administrative capacity. The Board of Director acts as a whole and not as a group of individuals.
- B. The Board can act by adopting resolutions, and passing motions by the affirmative vote of four directors.

- C. The Board appoints the General Manager, Auditor and other officers prescribed by law. The Board may prescribe the authorities and duties of the officers and employees of the District.
- D. Outside of Board meetings, an individual director has only such duties as may be expressly or impliedly authorized by the Board.

III. Fair and Equal Treatment

Directors, in the performance of their official duties and responsibilities, will not discriminate against or harass any person on the basis of race, religion, color, creed, age, marital status, national origin, ancestry, gender, sexual orientation, medical condition or disability. A Director will not grant any special consideration, treatment or advantage to any person or group beyond that which is available to every other person or group in similar circumstances.

IV. Proceedings of the Board

- A. Meetings—Regular and Special. Regular meetings of the Board of Directors shall be held at the District Headquarters on the third Tuesday of each month commencing at 9:00 a.m. Special meetings shall be held on the call of the president or any four directors.
- B. Meetings—Notice. All meetings and hearings of the Board of Directors shall be noticed and held, and may be adjourned or continued in accordance with the Ralph M. Brown Act (Brown Act) and as that Act may from time to time be amended and supplemented.
- C. Meetings—Conduct. The latest edition of Robert's Rules of Order shall govern the conduct of all meetings and hearings of the Board of Directors.
- D. Officers of the Board—Election—Term. The officers of the Board of Directors shall be a president and a vice president who shall be elected by the directors within the first thirty days after the newly elected members take office in each odd numbered year. The President of the Board of Directors has the duty to enforce the rules applicable to the District. Officers of the Board shall hold office for two years and until their successors are elected, unless sooner removed from office by vote of a majority of the entire Board.
- E. Committees. The Board may from time to time establish committees of the Board. No committee shall have more than four directors among its members. The members of each committee shall be appointed, and may be removed, by the President, subject to confirmation by the Board.

- F. The Board of Directors will operate in accordance with Board Norms and Procedures, attached hereto as Attachment 1.

V. Directors' Compensation and Expense Reimbursement

A. Attendance at Meetings

1. Directors shall be compensated at the rate of eighty dollars per day for attending meetings of the Board. Directors are required to provide the District with a signed quarterly per diem report documenting their service to the District prior to payment being made.
2. "A meeting of the Board" includes regular and special meetings, study sessions/workshops, hearings conducted by the Board and any other gathering of a quorum of the directors that meets all of the following requirements:
 - a. The purpose of the meeting is to transact or deliberate on the business of the District;
 - b. Notice is given to each director of the place, date and time of the meeting;
 - c. The meeting is open and public except to the extent that a closed session is permissible under the Brown Act.
3. "A meeting of the Board" also includes meetings of any standing or ad hoc Board or District committee consisting of less than a quorum of the directors, if:
 - a. The committee has been created by, or District participation approved, by the Board of Directors;
 - b. The directors who participate are nominated by the President of the Board and appointed by the Board of Directors;
 - c. Notice is given to each director of the place, date and time of the meetings; and
 - d. The meeting is open and public except as provided by law.

B. Service of Directors

1. Directors shall be compensated for each day of service rendered as a director at the request of the Board at the rate of eighty dollars per day. Requests for a director's service shall be recorded in the minutes of the meetings of the Board.
2. Directors shall be compensated for attendance at conferences and organized educational activities (such as the semiannual ACWA conference); meetings with local government agencies; meetings of joint power authorities of which the District is a member; meetings with state or federal elected officials to discuss legislation sought by the District; or meetings of local agency formation commission if:
 - a. Their attendance is in performance of their official duties;
 - b. The Board approves their participation in advance.
3. Directors shall be compensated for attendance at meetings requested by the General Manager, the General Manager's designee or the Auditor, regarding specific matters of District business.
4. At the regular meeting of the Board following any meeting, conference, educational activity or other authorized event, the Director attending the event shall give a brief report of the meeting or event. If more than one Director of the District attended the same meeting or event, a joint report may be made. Reports may be written or oral, but in the event a written report is submitted, the Director shall give a brief oral summary of the report at the meeting following the event.

C. Limitations.

1. The compensation paid to a director for attending meetings and performing services on any day shall not exceed a total of eighty dollars, and shall not exceed a total of eight days (a total of six hundred forty dollars) in any calendar month.
2. Attendance by a director whose term expires within thirty days of any conference or organized educational activity shall not be considered in the performance of the director's official duties and thus, shall not be eligible for compensation; nor shall the District be responsible for any actual or necessary expenses associated with the director's attendance.

- D. Changes in Compensation. Increases in the compensation payable to Directors under this policy shall be made by resolution adopted after a noticed public hearing held pursuant to Water Code section 20203. Such resolution shall be effective no earlier than 60 days following adoption. Changes in the maximum rates for reimbursement of expenses shall be made at a public meeting of the Board of Directors.
- E. Reportable Income. The District is required to report compensation as taxable income to the Internal Revenue Service. Directors will provide the District with a completed IRS W-4 form so that the District is able to withhold the correct federal tax from income received as compensation for services to the District.
- F. Waiver of Benefits. A Director may decide to decline compensation from the District. A Director who decides to waive compensation and/or benefits must provide the District with a written waiver expressly specifying the compensation and/or benefits being relinquished. The written waiver must be provided to the District two weeks prior to the time in which the District would normally make payment to the Director waiving compensation.
- G. Reimbursement of Expenses. In addition to compensation, Directors shall be reimbursed for their reasonable expenses necessarily incurred in performing service as authorized under Paragraphs IV.A and B of this policy and in accordance with the following limitations:
1. All expenses must be actually incurred and necessary for the performance of the Directors' duties, and Directors shall exercise prudence in all expenditures.
 2. This policy is intended to result in no personal gain or loss to a Director.
 3. If a Director expects to spend over three hundred dollars in travel expenses in the performance of official District business, it must be approved by the Board of Directors in advance.
 4. Travel must be authorized in advance by the President of the Board of Directors in the case of the General Manager and by the General Manager in the case of a District employee.
- H. Allowable Business Expenses
1. Transportation. The means of transportation shall be determined by time and distance factors. Coach airfare and airport transportation service will normally be considered adequate. Taxicabs and rental automobiles will be approved if the

circumstances justify their use. If rental automobiles become necessary for ground transportation, midsize cars, when available and suitable, should be used. Use of long-term parking is encouraged.

2. Mileage Reimbursement. Travel by private automobile will be reimbursed at the rate provided by IRS regulations, but not more than the most economical commercial airfare.
3. Lodging. Medium priced single rooms will generally be the maximum allowance for reimbursement at District expense. Government, corporate or special lodging rates should be utilized to reduce lodging expenses whenever possible. When attending a conference or training session out of town, employees and Directors may stay at the hotel where the event is being held even if the costs exceeds the medium-priced guideline.
4. Meals. Expenses shall be limited to menu items in the mid-price range. Working breakfasts, lunches or dinners will not be paid for unless proper documentation is submitted.
5. Miscellaneous.
 - a. Tips for taxis, meals, baggage handling, etc. shall be limited to the amount customary in general public travel.
 - b. Expenses due to travel necessary in advance of and/or after official business meetings shall be reimbursable for one day before and/or one day after the meeting depending on actual circumstances, but such travel does not necessarily have to occur contiguous to the meeting date(s). Interim expenses incurred, however, will not be reimbursed unless it is more economical to the District to extend the period of travel.
 - c. Any other business-related costs not covered in this section must be approved and properly receipted.
- I. Non-Allowable Expenses. Non-business-related expenses will not be paid for with District funds. These include, but are not limited to: laundry; dry cleaning or pressing of personal items; entertainment; magazines; newspapers; alcoholic beverages. Employee luncheons or other meals for non-business purposes and birthday, anniversary, get-well or other recognition type expenses will be paid for by the District only if approved by the Board of Directors.

J. Approval of Expenses

1. Within ten working days after return from travel, or within ten days of the end of the month in which non-travel business expenses are incurred, all expenses must be approved by the General Manager (President of the Board of Directors in the case of the General Manager).
2. If a Director expects to spend over three hundred dollars in travel expenses on District business, it must be approved by the Board of Directors in advance. All business expenses incurred by Directors will be reviewed by the Board of Directors at the time their compensation is approved.
3. Requests for reimbursement shall be accompanied by evidence of payment of such expenses or receipts for all amounts and shall clearly document that the expenses were incurred in connection with an authorized meeting, conference, or in the performance of official duties.

K. Use of District Credit Cards

1. Only the President of the Board of Directors shall be issued a District credit card for payment of business expenses reimbursable by the District.
2. Any business expense incurred by the President of the Board of Directors, that is properly reimbursable by the District shall be charged to a District credit card.
3. Monthly expenditure reports shall accompany the credit card statement and shall be approved by the General Manager and shall be made available for inspection by the Board.

L. Penalties for Violation of Reimbursement Policies. A Director who falsifies an expense report, or claims reimbursement in violation of the expense reimbursement policy, will be subject to one or more of the following penalties:

1. The loss of reimbursement privileges,
2. Restitution to the local agency,
3. Civil penalties for misuse of public resources pursuant to Government Code section 8314,

4. Prosecution for misuse of public resources pursuant to Penal Code section 424.

VI. Health Benefits for Directors

- A. Medical. A District sponsored medical plan is offered to all Directors after sixty days of assuming office, with the District paying the premium on behalf of the Director. Directors may include their spouse and dependents in the medical plan; the District shall pay fifty percent of the premium for the Director's dependents. The Director shall pay the other fifty percent of the premium thirty days prior to the date in which the monthly premium is due.
- B. Dental. A District sponsored dental plan is offered to all Directors after sixty days of assuming office, with the District paying the premium on behalf of the Director. Inclusion of dependents in this plan is at the option of the Director and to be paid by the Director. The Director shall pay the premium due thirty days prior to the date in which the monthly premium is due.
- C. Vision. A District sponsored vision care plan is available to all Directors, their spouse and dependents, sixty days after the Director has assumed office. The District shall pay one hundred percent of the premium.
- D. Life. A District sponsored Basic Life and AD&D Benefit Plan (\$10,000 Flat Amount) is available to all Directors with the District paying one hundred percent of the premium.
- E. Employee Assistance Program (EAP). Directors are afforded access to the District sponsored EAP who may be affected with personal problems at no cost to the Director.
- F. Failure to Repay. The failure on the part of any director to pay monthly premiums for spouse or dependent's medical and/or dental coverage shall be considered a gift of public resources. Violations will be subject to one or more of the following penalties:
 1. The loss of coverage for spouse or dependent,
 - a. Coverage for spouse or dependents will automatically terminate for any director who fails to make the required monthly premiums within sixty days of the date due. Such director agrees to immediately provide the District with a written waiver of medical coverage pursuant to Section V.F. above.

2. Restitution to the local agency,
3. Civil penalties for misuse of public resources pursuant to Government Code section 8314,
4. Prosecution for misuse of public resources pursuant to Penal Code section 424.

VII. Ethics Training

- A. Directors shall receive at least two hours of training in general ethics principles and ethics law relevant to public service at least once every two years.
- B. Directors are required to provide the District with proof of participation in ethics training. The District will maintain records evidencing compliance with the ethics training requirement for a period of five years. The records will include the respective dates on which each Director satisfied the training requirements and the entity or organization that provided the training.

VIII. Proper Use and Safeguarding of District Property and Resources

Except as specifically authorized, the California Constitution prohibits a Director from making a “gift of public funds” by utilizing or permitting the use of District-owned vehicles, equipment, telephones, materials or property for his or her personal benefit or profit of third parties. A Director will not ask or require a District employee to perform services for the personal benefit or profit of a Director. Each Director must protect and properly use any District asset within his or her control, including information recorded on paper or in electronic form. Directors will safeguard District property, equipment, moneys, and assets against unauthorized use or removal, as well as from loss due to criminal act or breach of trust.

IX. Use of Confidential Information

- A. A Director is not authorized, without approval of the Board of Directors, to disclose information that qualifies as confidential information to a person not authorized to receive it. Under applicable provisions of law, information qualifies as confidential if it (1) has been received for, or during, a closed session meeting of the Board, (2) is protected from disclosure under the attorney/client or other evidentiary privilege, or (3) is not required to be disclosed under the California Public Records Act.
- B. This section does not prohibit a Director from taking any of the following actions: (1) making a confidential inquiry or complaint to a district attorney or grand jury concerning a perceived violation of law, including disclosing facts to a district attorney or grand jury that are necessary to establish the alleged illegality of an action taken by the District, an elected official or employee, (2) expressing an opinion concerning the propriety or legality of actions taken by the District in closed session, including disclosure of

- the nature and extent of the allegedly illegal action, or (3) disclosing information acquired during a closed session that is not confidential information. Prior to disclosing confidential information pursuant to (1) or (2), above, however, a Director will first bring the matter to the attention of either the President of the Board or the full Board, to provide the Board an opportunity to cure an alleged violation.
- C. A Director who willfully and knowingly discloses for monetary gain confidential information received in the course of his or her official duties may be guilty of a misdemeanor under Government Code section 1098.
 - D. The General Manager is responsible for dissemination of non-confidential public information. Except as provided by the laws of the State of California, no employee of the District shall disclose to the public matters or information affecting the internal operations of the District, nor disclose or discuss draft proposals and policies under consideration of the Board until such time as the Board has duly considered, adopted and approved such policies, programs and information. Release of information regarding internal activities and operations of the District which is inaccurate, misleading, contrary to the policies of the Board, or is intended to interfere with the District's relationship to its customer and the public which it serves may subject an employee to appropriate disciplinary action.

X. Conflict of Interest

- A. A Director will not have a financial interest in a contract with the District, or be a purchaser at a sale by the District or a vendor at a purchase made by the District, unless the Director's participation was authorized under Government Code sections 1091 or 1091.5, or other provisions of law. A Director will not participate in the discussion, deliberation or vote on a matter before the Board of Directors, or in any way attempt to use his or her official position to influence a decision of the Board, if he or she has a prohibited interest with respect to the matter, as defined in the Political Reform Act, Government Code sections 81000 et seq., relating to conflicts of interest. Generally, a Director has a financial interest in a matter if it is reasonably foreseeable that the Board decision would have a material financial effect (as defined by Fair Political Practices Commission (FPPC) regulations found at Cal. Code Regs., tit. 2, §§ 18100 et seq.) that is distinguishable from the effect on the public generally on (a) a business entity in which the Director has a direct or indirect investment in the amount specified in FPPC regulations; (b) real property in which the Director has a direct or indirect investment interest, with a value in the amount specified in FPPC regulations; (c) a source of income for the Director in the amount specified in FPPC regulations, within 12 months before the Board decision; (d) a source of gifts to the Director in an amount specified in FPPC regulations within 12 months before the Board

decision; or (e) a business entity in which the Director holds a position as a director, trustee, officer, partner, manager or employee. An “indirect interest” means any investment or interest owned by the spouse or dependent child of the Director, by an agent on behalf of the Director, or by a business entity or trust in which the Director, or the Director’s spouse, dependent child or agent, owns directly, indirectly or beneficially a 10% interest or greater.

- B. An elected official will not accept honoraria or gifts that exceed the limitations specified in the Fair Political Practices Act or FPPC regulations. Directors will report all gifts, campaign contributions, income and financial information as required under the District’s Conflict of Interest Code and the provisions of the Fair Political Practices Act and FPPC regulations.
- C.
 - 1. A payment that is otherwise a gift to an elected official shall be considered a gift to the District and not a gift to an elected official provided the following requirements are met: (a) the General Manager determines and controls the District’s use of the payment; and (b) the payment must be used for official District business. The General Manager may not select himself or herself to use the payment.
 - 2. A payment includes a monetary payment to the District, a loan, or other transfer and the payment for or provision of goods or services to the District.
 - 3. Within thirty days after use of the payment, the District shall report the payment on California FPPC Form 801 that includes: (a) a description of the payment, the date received, the intended purpose and the amount of the payment; (b) the name and address of the donor; (c) the use of the payment and the name, title and department of the District for whom the payment was used; and (d) the form signed by the General Manager and maintained as a public record. The filing shall be posted on the District’s website if it is maintained or a copy of the form shall be provided to the FPPC for posting on its website.
 - 4. This exception to the rules on gifts to an individual public official does not apply to the following: (a) payment for travel for an elected officer; (b) payment for travel to the extent it exceeds the District’s reimbursement rate; and (c) payment for travel that has not been pre-approved in writing in advance of the trip.
- D. If a member of the Board believes that he or she may be disqualified from participation in the discussion, deliberations or vote on a particular matter due to a conflict of interest, the following procedure will be followed: (a) if

the Director becomes aware of the potential conflict of interest before the Board meeting at which the matter will be discussed or acted on, the Director will notify the District's General Manager and the District's legal counsel of the potential conflict of interest, so that a determination can be made whether it is a disqualifying conflict of interest; (b) if it is not possible for the Director to discuss the potential conflict with the General Manager and the District's legal counsel before the meeting, or if the Director does not become aware of the potential conflict until during the meeting, the Director will immediately disclose the potential conflict during the Board meeting, so that there can be a determination whether it is a disqualifying conflict of interest; and (c) upon a determination that there is a disqualifying conflict of interest, the Director (1) will not participate in the discussion, deliberation or vote on the matter for which a conflict of interest exists, which will be so noted in the Board minutes, and (2) will leave the room until after the discussion, vote and any other disposition of the matter is concluded, unless the matter has been placed on the portion of the agenda reserved for uncontested matters or the Director has been advised that specific FPPC exemption applies.

- E. A Director will not recommend the employment of a relative by the District. A Director will not recommend the employment of a relative to any person known by the Director to be bidding for or negotiating a contract with the District.
- F. A Director who knowingly asks for, accepts or agrees to receive any gift, reward or promise thereof for doing an official act, except as may be authorized by law, may be guilty of a misdemeanor under Penal Code section 70.
- G. Effective July 1, 2006, no Director who leaves office with the District may represent another person or entity before the District for one year after leaving office. This prohibition is very broad and covers any appearance before the District or one of its committees or any written or oral communication with the District for the purpose of influencing any type of decision. This prohibition is the same as that for certain state officers. The limited exceptions are for the former Director to represent him or herself; represent another person or entity without compensation, or where the former Director is an employee, officer or Director of another public agency, and represents that other public agency.

XI. Soliciting Political Contributions

Directors are prohibited from soliciting political funds or contributions at District facilities, or from District employees. A Director will not accept, solicit or direct a political contribution from (a) District employees, officers, consultants or

contractors, or (b) vendors or consultants who have a material financial interest in a contract or other matter while that contract or other matter is pending before the District. A Director will not use the District's seal, trademark, stationery or other indicia of the District's identity, or facsimile thereof, in any solicitation for political contributions contrary to state or federal law.

XII. Incompatible Offices

Another aspect of prohibited conflicts of interest is simultaneous holding of two incompatible public offices, unless simultaneous holding of the offices is compelled or expressly authorized by law. When public offices are incompatible, the public officer forfeits the first office upon taking the second.

In 2005, the Legislature added Government Code section 1099, codifying the common law rule against holding incompatible public offices. (Sen. Bill 274 (2005-2006 reg. Sess.)) Under section 1099, offices are incompatible under any of the following circumstances unless the simultaneous holding of the office is compelled or expressly authorized by law:

- Either office may audit, overrule, remove members of, dismiss employees, or supervise the other office or body;
- Based on the powers and jurisdictions of the offices, there is possibility of a significant clash of duties or loyalties between the offices;
- Public policy considerations make it improper for one person to hold both offices.

XIII. Director-General Manager Relationship

- A. The Board sets the policy for the District. The District's General Manager and employees of the District are responsible to operate the District by executing regulations, resolutions and motions of the Board, and by performing such duties as may be lawfully imposed upon them by the Board of Directors.

In addition to such duties as may be imposed by the Board, the General Manager shall be responsible for administration of District activities and: (1) has full charge and control of the construction, maintenance and operation of the waterworks system of the District, (2) has full power and authority to employ, prescribe the duties of and discharge all employees in the manner provided by law, (3) fix the compensation of employees in the manner provided by law subject to approval of the Board and (4) make reports to the Board on the activities and concerns of the District.

- B. The District's General Manager serves at the pleasure of the Board. The Board will provide policy direction and instructions to the General Manager on matters within the authority of the Board by majority vote of the Board during duly convened Board and Board committee meetings. Members of the Board will deal with matters within the authority of the General Manager through the General Manager, and not through other District employees. Members of the Board will refrain from making requests directly to District employees (rather than to the General Manager) to undertake analyses, perform other work assignments or change the priority of work assignments. Members of the Board may request non-confidential, factual information regarding District operations from District employees.

XIV. Improper Activities and the Reporting of Such Activities; Protection of "Whistle Blowers"

- A. The General Manager has primary responsibility for (1) ensuring compliance with the District's Personnel Manual, and ensuring that District employees do not engage in improper activities, (2) investigating allegations of improper activities, and (3) taking appropriate corrective and disciplinary actions. The Board has a duty to ensure that the General Manager is operating the District according to law and the policies approved by the Board. Directors are encouraged to fulfill their obligation to the public and the District by disclosing to the General Manager, to the extent not expressly prohibited by law, improper activities within their knowledge. Directors will not interfere with the General Manager's responsibilities in identifying, investigating and correcting improper activities, unless the Board determines that the General Manager is not properly carrying out these responsibilities.
- B. A Director will not directly or indirectly use or attempt to use the authority or influence of his or her position for the purpose of intimidating, threatening, coercing, commanding or influencing any other person for the purpose of preventing such person from acting in good faith to report or otherwise bring to the attention of the General Manager or the Board any information that, if true, would constitute: a work-related violation by a Director or District employee of any law or regulation; gross waste of District funds; gross abuse of authority; a specified and substantial danger to public health or safety due to an act or omission of a District official or employee; use of an District office or position or of District resources for personal gain; or a conflict of interest of a District Director or District employee.
- C. A Director will not use or threaten to use any official authority or influence to effect any action as a reprisal against a District Director or District

employee who reports or otherwise brings to the attention of the General Manager any information regarding the subjects described in this section.

XV. Candidate's Statement

- A. A Director will not include false or misleading information in a candidate's statement for a general District election filed pursuant to Section 13307 of the Elections Code.
- B. Content—Costs. Candidate's statements for inclusion in the voter's pamphlet shall not exceed two hundred words. Each candidate who files a statement shall be charged the actual prorated cost of printing, handling, translating and mailing of the statement. The candidate shall be required to pay the estimated amount of said cost at the time the statement is filed.
- C. Additional Materials Prohibited. No materials on behalf of a candidate other than the candidate's statement shall be mailed with the sample ballot.

XVI. Liability to District

The District may be required to defend and indemnify a Director for death or injury to a person or property caused by negligent or wrongful act or omission in the operation of a motor vehicle while acting within the course and scope of his or her duty as a Director. Vehicle Code § 17001. The District therefore requires that each Director annually provide to the District proof of a valid California driver's license and proof of insurance in order to fulfill the District's duty to indemnify.

XVII. Violation of Ethics Policy

An actual or perceived violation of this policy by a Director should be referred to the President of the Board or the full Board of Directors for investigation and consideration of any appropriate action warranted. In addition to any penalty provided in law, violations for any provision of the Ethics Policy shall be the basis for disciplinary actions by the Board of Directors. Appropriate action depends on the circumstances of the actual or perceived violation. Depending on the type of violation, the Board may determine a specific remedy, including censorship by the Board, or decide to report the violation to an appropriate authority, or pursue any other remedy permitted by law. In all cases, the Board will pursue a course consistent with the public interest and the best interests of the Board and the District.

ATTACHMENT 1

BOARD NORMS AND PROCEDURES

I. VALUES AND STANDARDS OF THE BOARD OF DIRECTORS

- A. The Board of Directors and General Manager will collaborate as a team for the benefit of the District.
- B. Board of Directors values high energy, open mindedness, and is achievement-oriented.
- C. Board of Directors will care and have respect for each other.
- D. Board of Directors will be straightforward, with no hidden agendas.
- E. Board of Directors values humor.
- F. The traditions of the District are respected.

II. GENERAL OPERATING PROCEDURES FOR MEMBERS OF THE BOARD

- A. Board Members will take action when necessary to keep Byron Bethany Irrigation District a progressive, well-managed, innovative District.
- B. Board Members will work to be well informed regarding federal, state and local issues affecting the District and will provide leadership by participating in regional, state and national programs and meetings.
- C. Board Members will seek a broad-range of independent advice from constituents, other elected officials and community leaders on matters affecting the District.
- D. Board Members will encourage citizen participation in the development of District programs.
- E. Board Members are committed to attending regular Board of Directors meetings, Committee meetings and all other meetings as may be requested by the General Manager or President of the Board.

- F. Board Members will participate annually in training relevant to their roles as Directors.
- G. As early as possible, Board Members will inform the District Secretary when they will be out of town and it will be put on the Board Calendar.
- H. Each Board Member will determine specific routine District information he or she wants to receive and will inform the District Secretary.
- I. Board Members will return unwanted reports and documents to the District Secretary for distributing to the public or for recycling.
- J. Board Members may ask the General Manager for information, provided such information requests can be reasonably accommodated without significant interruption in staff workload. The General Manager shall prioritize work in order to respond to a Director's request. The General Manager shall not be required to copy all Board Members with specific information requested by an individual Board Member.
- K. All project assignments requested by Board Members shall be directed through the General Manager. The General Manager may place project items on the agenda if the project requires Board policy direction or approval to be implemented.
- L. Project assignments requested by a Board Member involving significant expenditures of time/energy or financial resources require approval of the Board of Directors.
- M. Any Board Member can request an item be placed on the agenda of an upcoming Board meeting. The General Manager will coordinate with the Board President in determining the appropriateness of placing requested item on the agenda.
- N. Board Members will do their homework (i.e., read Board packets, complete committee work, and will read Committee Minutes in order to find out what is being worked on).
- O. If a Board Member has a question on an agenda item, that member will make every effort to contact the General Manager prior to the meeting.

- P. Direction from the entire Board of Directors is required before the District moves in a new direction.
- Q. Directors (minority side on vote) cannot bring item back for one year; majority can bring it back at will.

III. BOARD OF DIRECTORS INTERACTION AND COMMUNICATION

- A. Individual Board Members are responsible for bringing problems regarding the District to the attention of the General Manager A.S.A.P. for resolution, not let the problems fester.
- B. Board Members will not direct personal attacks at each other during public meetings, in the press, or any other place/time.
- C. Relationships are informal, but not casual in public. Casual business attire at Board meetings is appropriate.
- D. Board Members will be cooperative in assisting each other.
- E. Board of Directors acts as a whole, not as a group of individuals.

IV. BOARD INTERACTION AND COMMUNICATION WITH STAFF

A. General Manager

- 1. Board of Directors will set annual goals to provide direction to the General Manager.
- 2. The General Manager receives formal work direction from the Board of Directors at public meetings or in closed session. Individual Board Members may not delegate formal work direction to the General Manager absent approval of the Board of Directors.
- 3. Board Members should always feel free to speak to the General Manager and vice versa.
- 4. When a Board Member is unhappy about a department, he/she should *always* talk it over with the General Manager, *not* the department head.

5. Board Member concerns about a department head must be taken to the General Manager or General Counsel only.
6. Critical information necessary to the Board's decision making will be passed on to all Board Members by the General Manager or General Counsel.
7. General Manager will provide ongoing feedback, information, and observations to the Board of Directors, including a response to any written communications requesting feedback.
8. General Manager is responsible for dealing with issues that cross department boundaries.
9. General Manager sets the Agenda for regular Board of Directors meetings in accordance with state law requirements.
10. General Manager will discuss significant future Agenda topics with Board Members.
11. General Manager will meet regularly with the President on Agenda Preparation.
12. General Manager will routinely update Board Members on the activities of the District.
13. The General Manager will at his or her discretion determine whether staff attendance at Board meetings is required.
14. In the event the General Manager is absent from the District, the General Manager will specifically delegate certain responsibilities for overseeing the District on an interim basis to the Assistant General Manager.
15. Board of Directors will provide the General Manager with a written evaluation annually (August) and provide General Manager some specific goals.

B. Staff in General

1. The Board of Directors and staff will treat each other with respect and will not blind side the other in public. Consideration for each other is the District's practice.
2. Board Members will encourage training for District staff to ensure a high-level of performance.

C. General Counsel

1. General Counsel shall partner with Board of Directors, General Manager and Staff when and where appropriate.
2. General Counsel works with the General Manager on matters pertaining to the District.
3. General Counsel should consult directly with General Manager as needed.
4. General Manager will keep General Counsel advised of the Committee's actions, and agendas of Board of Directors in order that General Counsel is able to provide needed input.
5. General Counsel will work with specialist attorneys, as appropriate.
6. General Counsel to pro-actively inform and protect the Board of Directors from potential violations and conflicts.
7. Annual Board of Directors evaluation of the General Counsel's contract will be conducted and annual goals established or discussed.

V. PRESIDENT'S ROLE

- A. State law governs the President's succession. The President serves at the pleasure of the Board of Directors. (Water Code § 21376.)
- B. The President remains as one member of the Board and has no rights or authority different from any other member of the Board.

- C. In the event of an early vacancy in the position of President, the Vice President shall become President for the remaining portion of the outgoing President's term as President.
- D. Each President is unique; the role of President will be defined by the person, based on that person's individual style.
- E. The President acts as the ceremonial head or representative of the District at various civic affairs.
- F. The President is the spokesperson for the Board of Directors when appropriate media or external organization requests are made.
- G. The President acts as signatory to all documents requiring Board's execution.
- H. The President makes appointments to Ad Hoc and special advisory Committees that do not have official advisory capacity.
- I. The President makes declarations, extends official recognition of groups or events.
- J. The President regularly communicates with the General Manager and keeps the Vice President and the other members of the Board fully informed (i.e., Director's reports).
- K. The President communicates with all Committees.

VI. INTERACTION WITH THE PUBLIC INCLUDING CITIZEN COMPLAINTS

- A. Board of Directors will always be informed by General Manager or his/her designee when an unusual event occurs that the public would be concerned about, i.e., Health Department notice, big water breaks, etc., in a timely manner (if press or media is involved).
- B. Extreme emergencies (i.e., fatalities) are immediately communicated to Board Members by General Manager or his/her designee.

- C. Information relevant to the operation and management of the District, i.e., citizen complaints, letters, background information, will be provided to each of the Board Member in a timely fashion.
- D. When sending copies to the Board of Directors, the General Manager will attach the District's response to any copy of any letter received.
- E. Board of Directors will be informed of significant, urgent and repetitive telephone complaints. The District staff will respond immediately to citizen complaints.
- F. As directed by the General Manager, staff will draft a copy of responses (letters) to citizen complaints.
- G. Board Members should not attempt to fix Citizens' problems; complaints will be referred to the General Manager.
- H. Each Citizen complaint should be treated individually; and responses to Citizen's complaints will be customized to the unique circumstances of each matter.

VII. PUBLIC MEETINGS

A. Public Comment Section of the Agenda

- 1. Public must be given an opportunity to speak to the Board of Directors on general matters that may not be on the agenda. Public comment shall also be received on all action items.
- 2. Public comments shall be limited to 3 minutes per speaker.
- 3. Each speaker will be thanked. Board members will treat everyone with courtesy.
- 4. Generally, Board Members will not respond to Public Comments except for the President who may refer matters to the General Manager for follow up. Occasionally, a quick informational response is appropriate when an obvious answer is available. The Board of Directors will not debate or make decisions in response to public comments, as they are not on the agenda for consideration.

B. Consent Calendar

1. There is judicious use of the Consent Calendar. It will include such items as minutes, routine District business, some appeals, and matters already approved in the budget.
2. If a Board Member has a question on a Consent Calendar item for their information only, they are to ask the General Manager ahead of time, rather than having it pulled off for discussion during the meeting.
3. Corrections to minutes are passed to the District Secretary as soon as possible prior to Board meetings, if possible.
4. Assigned Staff will be prepared to report on every agenda item.

C. Public Input on Individual Agenda Items

1. The procedure to be followed at Board meetings on an individual item is as follows: Staff Report, questions from Board of Directors, public hearing, if appropriate, public input, any staff response, and then the item will be brought back to Board Members for discussion.
2. Citizen's and invited guests' comments will be limited to a reasonable time (3 minutes).
3. Once public input is closed, further public input will not be allowed unless re-opened by President.
4. President will allow other Board Members to speak first and then give his/her views and summarizes.

D. Voting

1. Any Board Member may speak before a motion.
2. Attempts will be made to get consensus on significant policy issues.
3. There will be roll call votes on any action item at the request of the President.

4. Each Board member will be given an opportunity to share his/her views about the issue and the reasons for his/her vote.
5. Board Member discussions will not be redundant if they concur with what has already been said.

E. Closed Session

1. Closed Session materials and conversations are confidential. Board Members will get written reports for Closed Session items at the time of Closed Session. These reports are to be turned in at the end of the meeting.
2. There will be no violation of Closed Session confidentiality; Board Members will not talk to affected, opposing parties or anyone else (press, etc.) regarding discussions held in Closed Session.
3. Confidentiality relates to any non-public discussion items.
4. Any action taken by the Board of Directors in a Closed Session will be reported out in Open Session immediately following adjournment of the Closed Session.

F. Special Meetings

1. Special meetings may be called by the President in accordance to the Brown Act.

VIII. COMMITTEES

- A. Committee areas belong to the whole Board; they are not to be seen as territorial.
- B. The President will recommend Committee assignments and have them ratified by the Board of Directors.
- C. Board of Directors will give clear and focused direction to all Committees regarding their assignments.
- D. Committees will make recommendations to the Board of Directors. Recommendations of the Committees may not be consistent with

recommendations made by staff. The Board of Directors will authorize any action taken on the basis of all recommendations received.

E. All Committees of Board of Directors should know Board's needs:

- Know Board's vision/mission.
- Encouraged to participate in Board-sponsored events.
- Understanding of their roles/authority/"no-no's".
- Know annual priorities/goals.
- Process/parameters within which to work, i.e., citizen involvement.
- Board of Directors reserves the right to make its own decisions.

F. Individuals appointed to serve on a Standing Committee will serve a two-year term on the Committee. With regard to matters that may fall within the jurisdiction of one or more Committee, conflicts between the Committees will be resolved to the extent possible by the Chairs of the respective committees.

G. Committee members are responsible for keeping the rest of the Board of Directors informed through Committee Reports given during regularly scheduled meetings. Committee Reports will be agendaized under Board Reports, when appropriate. Other Board members are responsible for letting the Committee know if they want more information or to give input.

H. Committee Reports given to update other Board Members will include:

- Issues being discussed
- Options being considered
- Progress