

**PUBLIC REVIEW DRAFT**  
**MUNICIPAL SERVICE REVIEW**  
**& SPHERE OF INFLUENCE**



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

***Prepared for: San Joaquin LAFCo***

*November 12, 2018*

Public Review Draft  
Municipal Service Review &  
Sphere of Influence

Byron Bethany Irrigation District  
The West Side Irrigation District

*Prepared for:*

San Joaquin LAFCO

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Stockton, CA 95203

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

*Prepared by:*



November 12, 2018

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# Chapter 1: EXECUTIVE SUMMARY

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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).

| <b>Table: 1-1: Profile of Byron Bethany Irrigation District (Current Configuration)</b>   |   |
|---|---|
| <b>Type of District:</b>  | Irrigation District   |
| <b>Principal Act:</b>   | California Water Code, Division 11, Section 20500 <i>et seq.</i>        |
| <b>Functions/Services:</b>  | Raw untreated water for agricultural irrigation and municipal purposes. |
| <b>Main Office:</b>   | 7995 Bruns Road, Byron, CA 94514  |
| <b>Mailing Address:</b>   | Same as above   |
| <b>Email:</b>   | r.gilmore@bbid.org  |
| <b>Phone No.:</b>   | (209) 835-0375  |
| <b>Fax No.:</b>   | none  |
| <b>Web Site:</b>  | http://bbid.org   |
| <b>General Manager:</b>   | Rick Gilmore  |
| <b>Governing Body of BBID (Current Configuration)</b>   |   |
| <b>Board of Directors</b> (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  |
| <b>Meeting Schedule:</b>  | 3rd Tuesday at 9:00 a.m.  |
| <b>Meeting Location:</b>  | Charles Spatafore Auditorium 7995 Bruns Road, Byron, CA                 |
| <b>Date of Formation:</b>   | December 22, 1919   |
| <b>Principal County:</b>  | San Joaquin County  |
| <b>Other Counties:</b>  | Alameda, Contra Costa   |
| <b>Other:</b>   | None  |

| <b>Table: 1-2: Profile of The West Side Irrigation District) (Current Configuration)</b>   |  |
|--|--|
| <b>Type of District:</b>   | Irrigation District  |
| <b>Principal Act:</b>  | California Water Code, Division 11, Section 20500 <i>et seq.</i>                         |
| <b>Functions/Services:</b>   | Raw untreated water for agricultural irrigation and municipal purposes.                  |
| <b>Main Office:</b>  | 1320 Tracy Boulevard, Tracy, CA  |
| <b>Mailing Address:</b>  | same as above  |
| <b>Email:</b>  | Rick Gilmore - r.gilmore@bbid.org or<br>Carol Petz (TWSID Secretary) - wsid2@comcast.net |
| <b>Phone No.:</b>  | (209) 835-0375   |
| <b>Fax No.:</b>  | (209) 835-2702   |
| <b>Web Site:</b>   | none   |
| <b>General Manager:</b>  | Rick Gilmore   |
| <b>Governing Body of The West Side Irrigation District (current Configuration)</b>   |  |
| 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  |
| <b>Meeting Schedule:</b>   | 2 <sup>nd</sup> Wednesday at 6:00 p.m.   |
| <b>Meeting Location:</b>   | TWSID offices at 1320 Tracy Boulevard, Tracy, CA   |
| <b>Date of Formation:</b>  | October 12, 1915   |
| <b>Principal County:</b>   | San Joaquin County   |
| <b>Other Counties:</b>   | None   |
| <b>Other:</b>  | 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.



| <b>Table 1-3: Governing Body of Consolidated BBID/TWSID</b>   |                                  |
|---|----------------------------------|
| 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 Tuso                     |
| Division 7  | Jeff Brown                       |
| Division 8  | Tom Pereira (from TWSID)         |
| Division 9  | Jack Alvarez (from TWSID)        |

# Chapter 2: INTRODUCTION

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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:

| <b>Regular Members</b>     |                             |
|----------------------------|-----------------------------|
| <b>Member</b>              | <b>Appointing Authority</b> |
| Doug Keuhne                | City Member, Lodi           |
| Miguel Villapudua          | Board of Supervisors Member |
| Peter Johnson (Vice Chair) | Public Member               |
| Tom Patti (Chair)          | Board of Supervisors Member |
| Danny Fox                  | City Member, Escalon        |
| <b>Alternate Member</b>    |                             |
| <b>Member</b>              | <b>Appointing Authority</b> |
| Charles Manne              | Public Member               |
| Chuck Winn                 | Board of Supervisors Member |
| Jesus Andrade              | 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.

There was a paragraph deleted. Was this on purpose?

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 will be provided an opportunity to share their comments on this Draft MSR 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 § 56106<sup>1</sup>. 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

<sup>1</sup>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 is available for public review on BBID's website.

## 2.5 PUBLIC PARTICIPATION

LAFCo will schedule a public workshop on the Public Review Draft MSR/SOI on December 13, 2018. Comments from the public will be solicited. The Commission will hold a public hearing to approve the Final MSR on a date to be decided.

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 acres<sup>1</sup> 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.

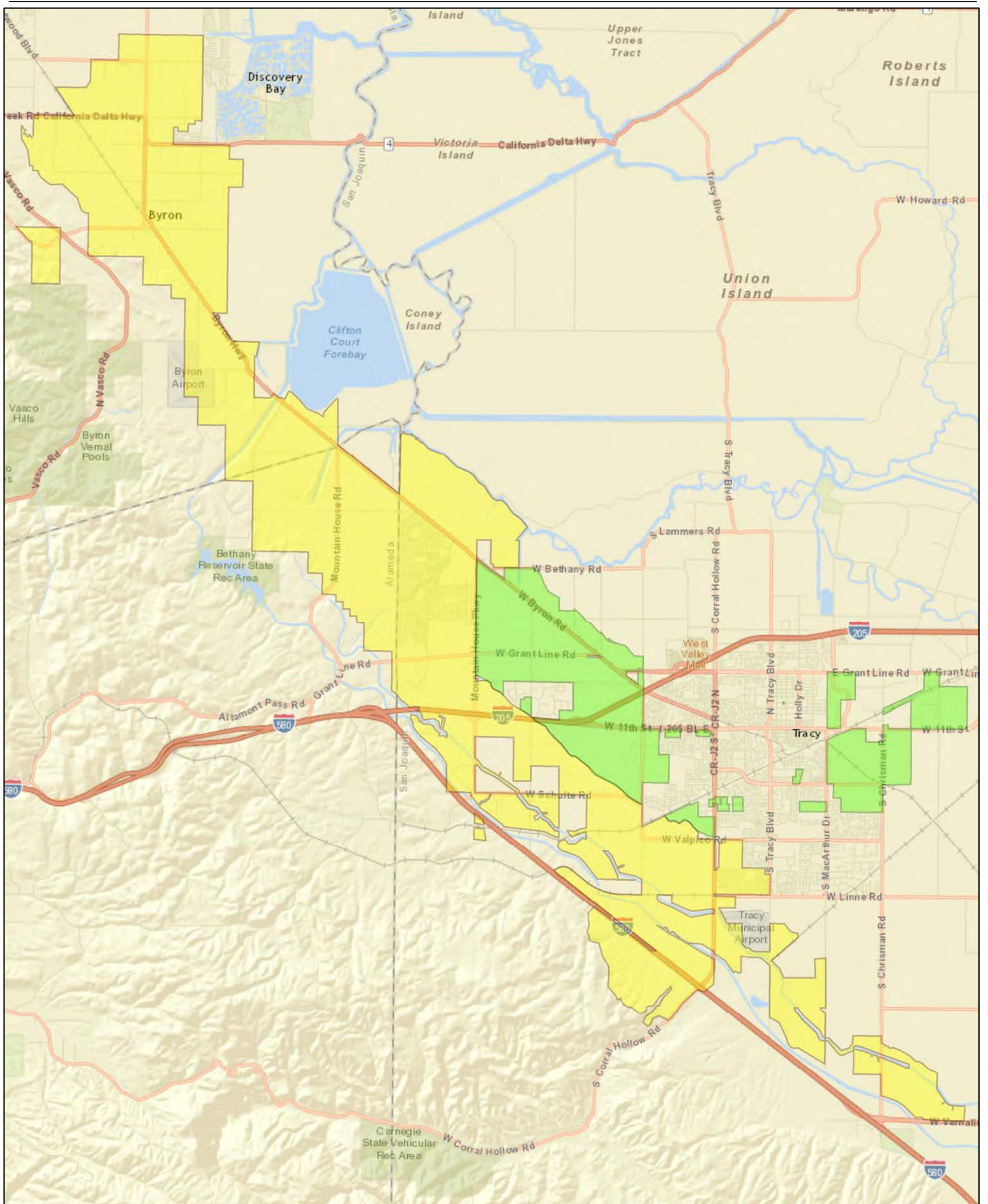
The existing population estimates and other geographic data for BBID and TWSID are shown in Table 3-1, below.

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<sup>1</sup> 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](http://www.goldenstatenewspapers.com/tracy_press/news/water-districts-consider-merger/article_47f3c8a8-d131-11e5-8952-6b774e6c50e8.html?mode=image&photo=0)).

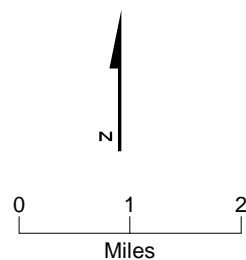
| <b>Table 3-1: Geographic Data</b>  |   |   |                                       |
|--|---|---|---------------------------------------|
|  | <i>BBID</i>   | <i>TWSID</i>  | <i>Consolidated BBID/TWSID</i>        |
| Size of Boundary*  | 29,477 acres [46.9 sq. mi.]   | 6,589 acres [10.3 sq. mi.]  | 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                                |
| <i>Data Sources: *GIS data from CH2MHill. **BBID, 2017b and Personal communication, R. Gilmore, August 2017. ****U.S. Census ***Contra Costa LAFCO</i> |   |   |                                       |

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.

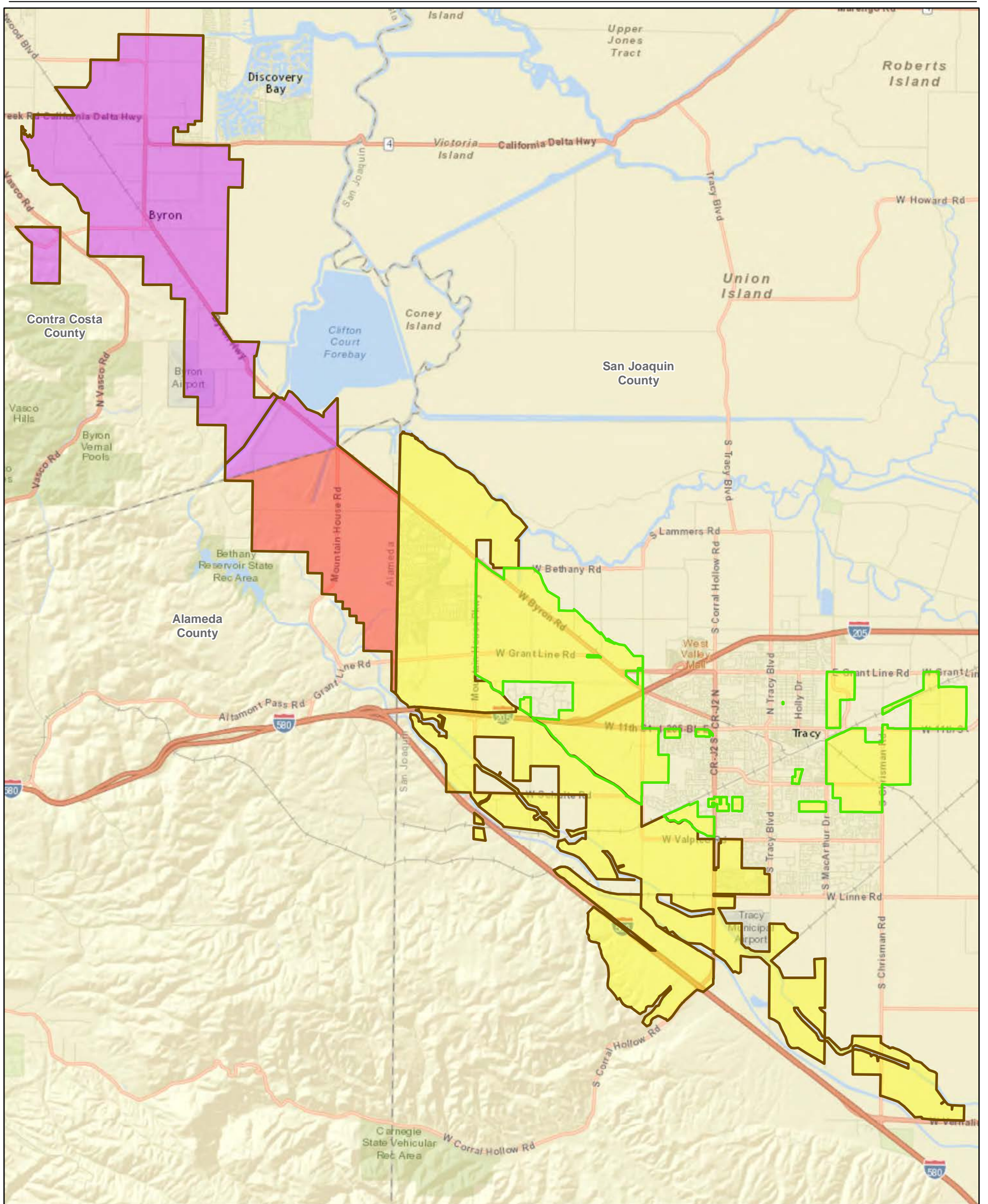


- LEGEND**
- Byron Bethany Irrigation District
  - Westside Irrigation District

**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**



**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*



### 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 district<sup>2</sup> 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).

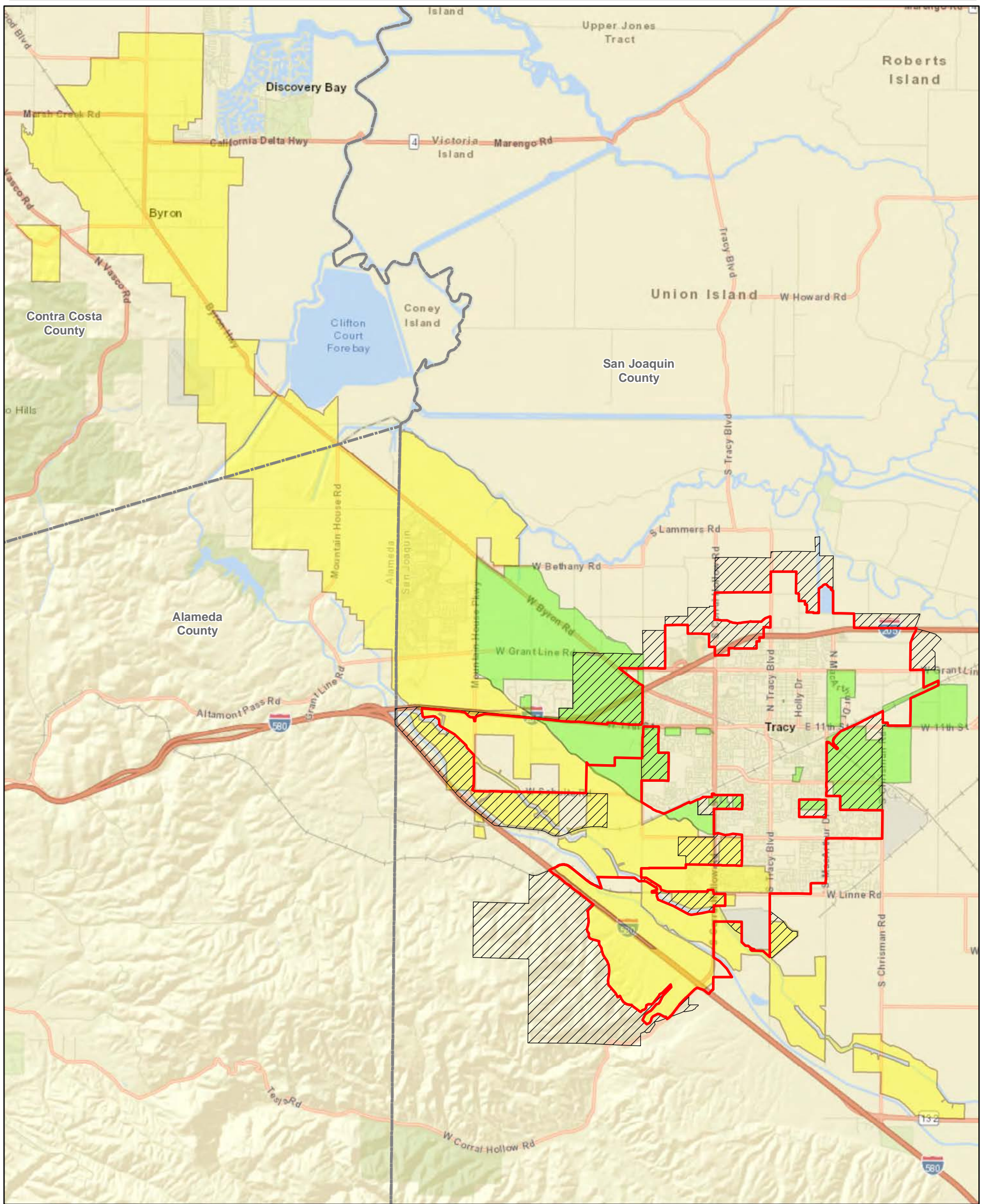
TWSID Raw Water: The West Side Irrigation District provides for the delivery and sale of raw irrigation water. Historically, TWSID provided occasional and incidental raw water to the City of Tracy, but it is not providing water at this time. The consolidated BBID/TWSID will assume responsibility for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

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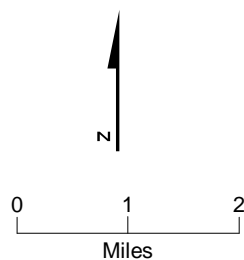
<sup>2</sup> Byron Sanitary District Municipal Service Review was prepared by Contra Costa LAFCO in May 2006. This MSR is available at [http://www.contracostalafco.org/municipal\\_service\\_reviews.htm](http://www.contracostalafco.org/municipal_service_reviews.htm)



**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 County<sup>3</sup>. 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

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<sup>3</sup> 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 Tracy<sup>4</sup>, 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

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<sup>4</sup> 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](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.

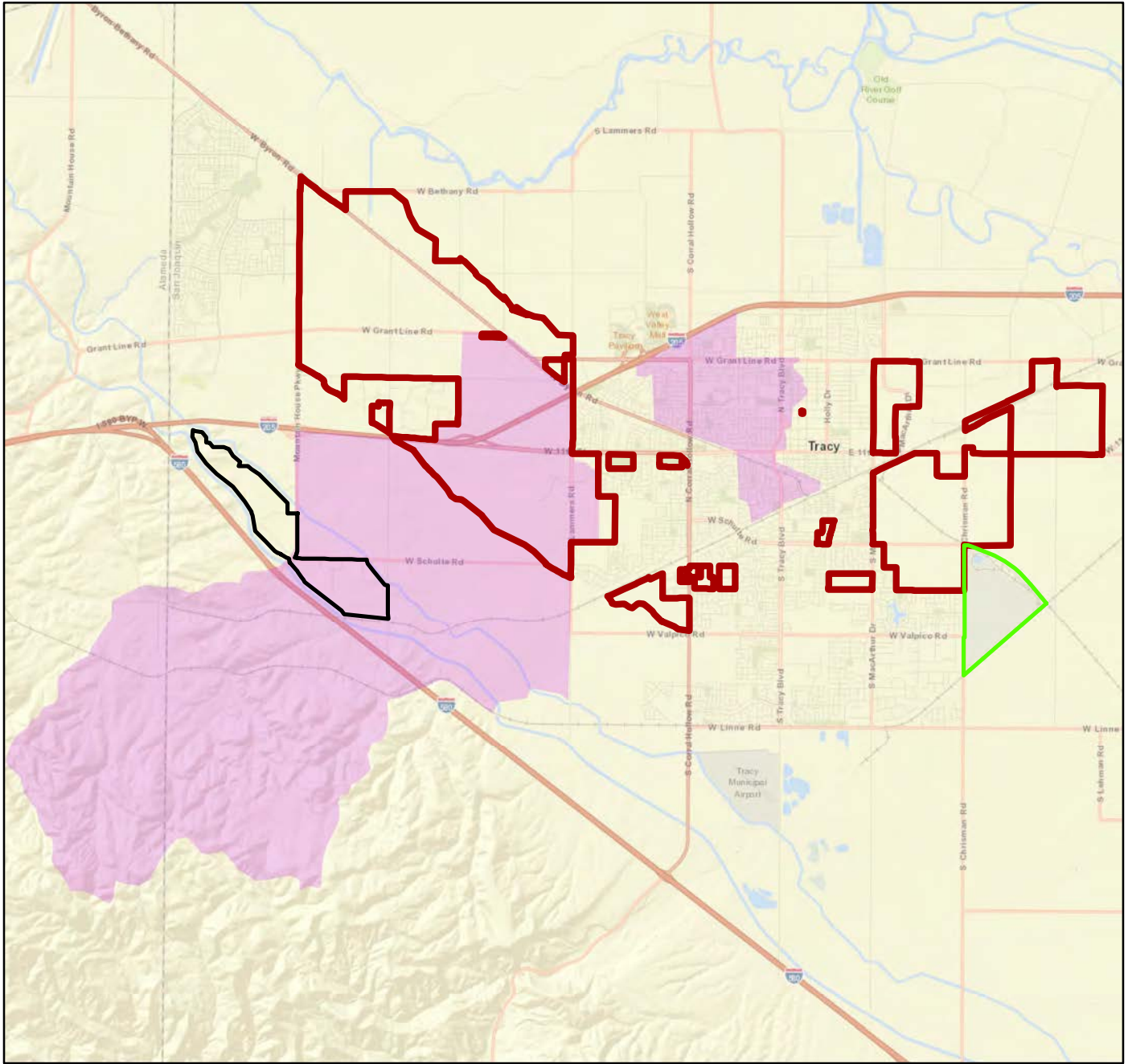
TWSID Drainage Services: TWSID provides direct storm water collection, conveyance, and discharge services for two parcels located adjacent to but outside the District boundaries. These two parcels are APN 246-150-02 and APN 209-460-21. These two parcels are considered for addition to the SOI as described 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 practices<sup>5</sup>. 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.





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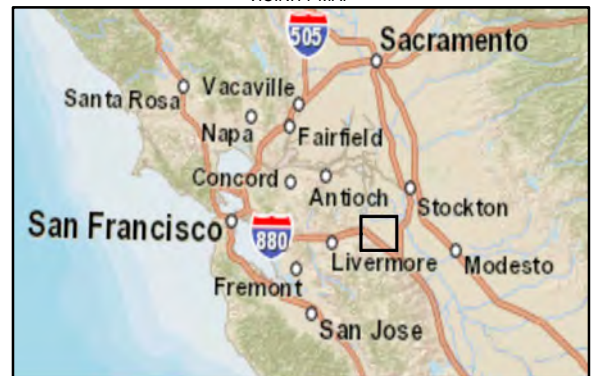
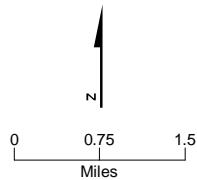
<sup>5</sup> This 2010 Agreement is consistent with LAFCo rules (Government Code section 56133 because it is a contract between two public agencies).



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](http://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).

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 2<sup>nd</sup> Wednesday of each month at 6:00 p.m. The meeting location is TWSID offices at 1320 Tracy Boulevard in Tracy.

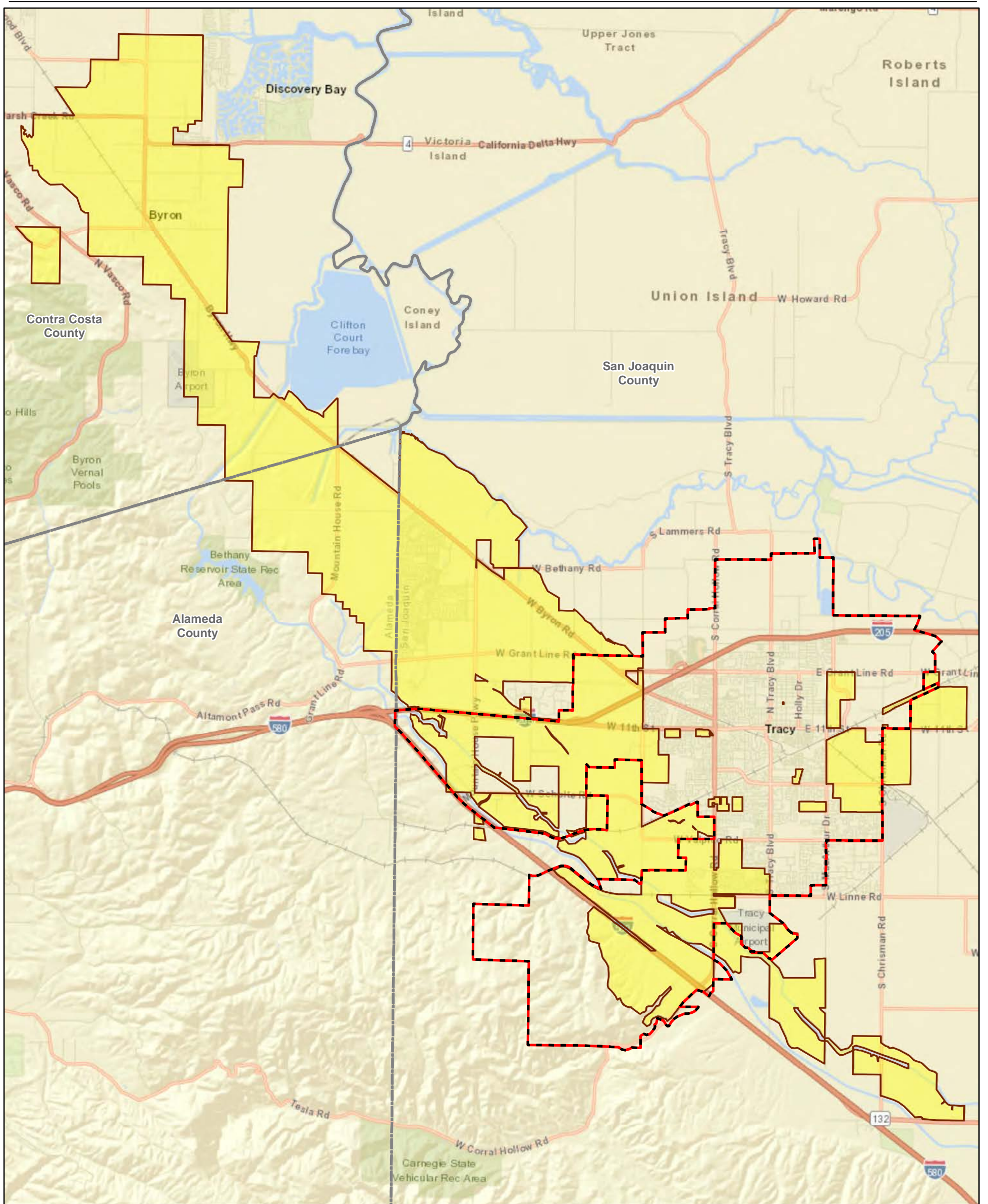
**Consolidation:** The Boards of Directors of Byron Bethany Irrigation and The West Side Irrigation District approved a concurrent resolution for the consolidation of the two Districts. The Districts propose to accomplish the consolidation by dissolving TWSID as a separate entity, combining the

territory of TWSID with the territory of BBID, and creating BBID as the single successor district. 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 Directors<sup>6</sup> (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).

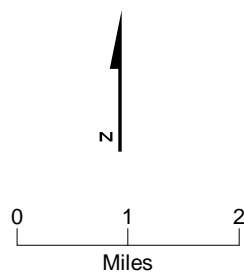
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<sup>6</sup> It should be noted that in June 2010, voters approved Measure B, which reduced the number of members on the BBID Board of Directors from nine (9) down to seven (7). Measure B passed in each of the three counties (San Joaquin, Alameda, 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**

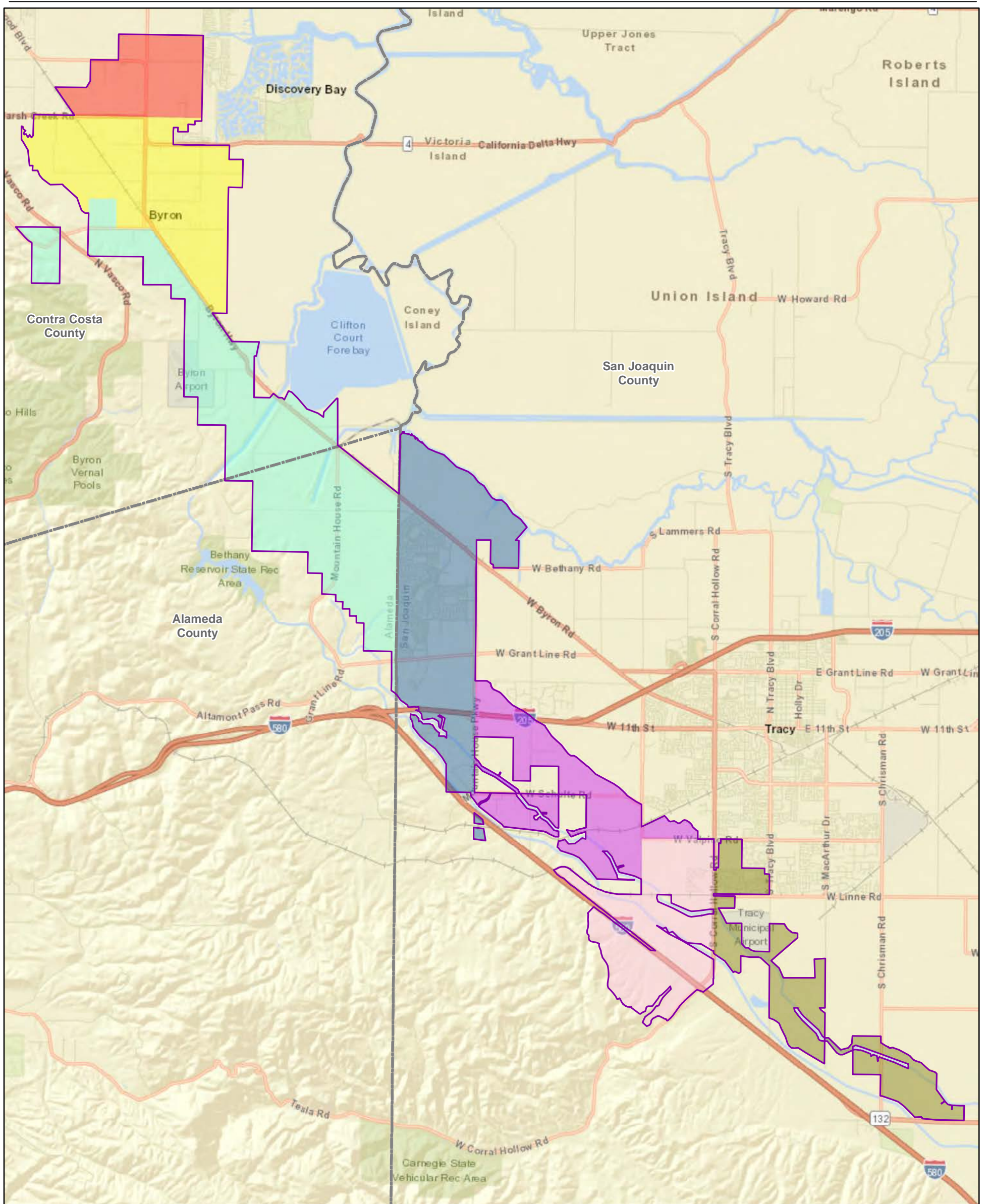


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 Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

**Figure 3-5: Proposed Consolidated District**

*Byron Bethany Irrigation District, California*

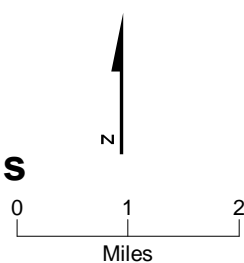




**LEGEND**

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

**Figure 3-6: Proposed Consolidated 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



## 3.5: MANAGEMENT EFFICIENCIES AND STAFFING

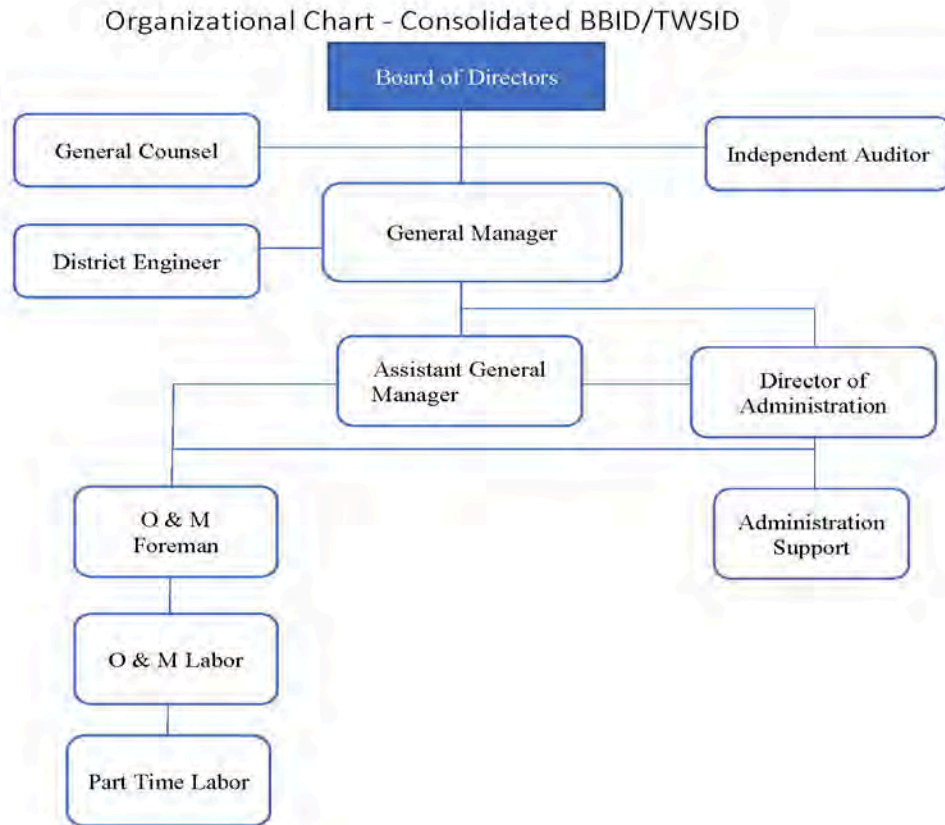
Byron Bethany Irrigation District operates under the direction of the elected Board of Directors. The District Manager reports to the Board and is responsible for directing District operations. The District Manager's job is to plan, organize, direct, and review the overall activities and operations of 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](http://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: Consolidated BBID/TWSID Organizational Chart



**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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Table of Contents

4.1 Growth and Population.....4-1  
 4.2: Present and Planned Land Uses.....4-5  
 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.

| <b>Table 4-1 - Existing Population by County</b>     |             |             |
|--|-------------|-------------|
|  | <b>2010</b> | <b>2018</b> |
| <b>Alameda</b>                                       | 1,510,271   | 1,660,202   |
| <b>Contra Costa</b>                                  | 1,049,025   | 1,149,363   |
| <b>San Joaquin</b>                                   | 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.

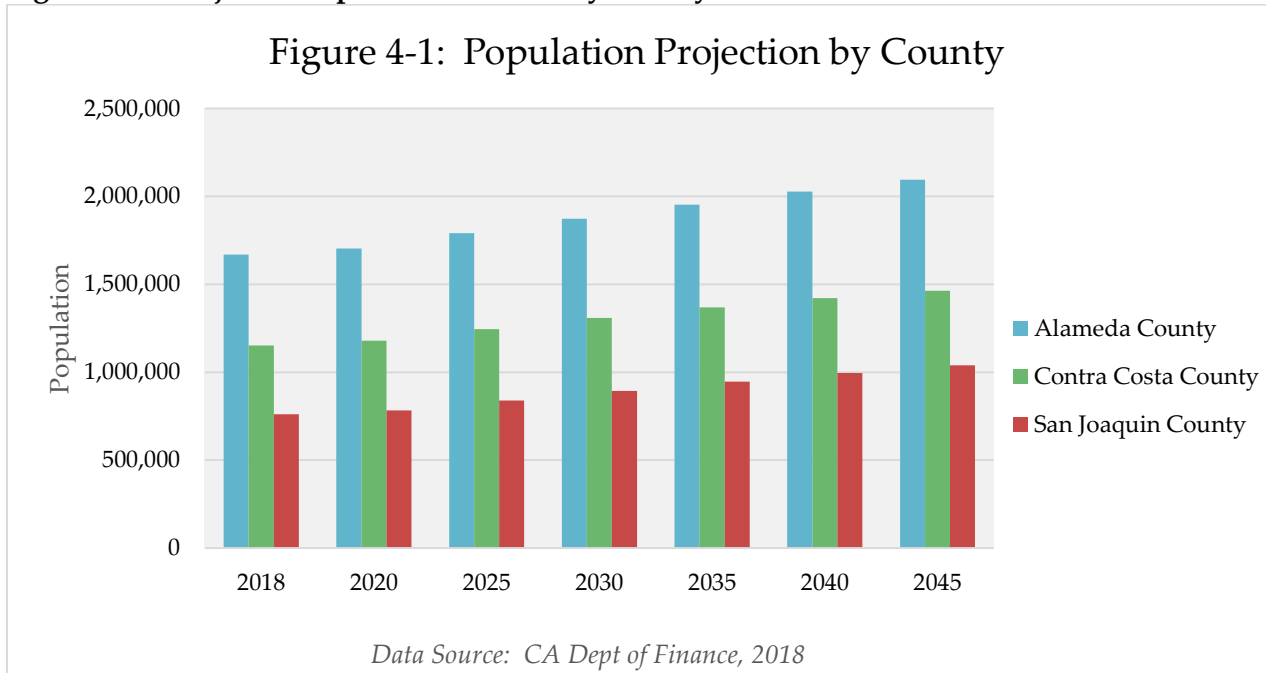
Between census years 2010 and 2015, the population grew in all three counties by a total of 141,739 people. Alameda saw a 1.15 percent annual growth rate; Contra Costa a 0.86 percent annual growth rate; and San Joaquin a 1.23 percent annual growth rate, which equates to an average 1.08 annual growth 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.

| <b>Table 4-2 - Existing Population</b> |                         |                              |  |
|--|-------------------------|------------------------------|--|
|  | <b>Total population</b> | <b>Land area (sq. miles)</b> | <b>Average population per sq. mile</b> |
| <b>BBID</b>                            |                         |                              |  |
| 2016                                   | 16,800                  | 46.9                         | 358                                    |
| <b>TWSID</b>                           |                         |                              |  |
| 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.

| <b>Table 4-4: Projected Population Growth (2015–2040)</b>   |         |        |        |        |        |         |
|---|---------|--------|--------|--------|--------|---------|
|   | 2015    | 2020   | 2025   | 2030   | 2035   | 2040    |
| BBID – Mtn House <sup>1</sup>   | ~15,000 | 18,500 | 26,600 | 32,400 | 38,200 | ~44,000 |
| BBID – Tracy Hills <sup>2</sup>   | 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 <sup>3</sup>   | 16,800  | 24,350 | 46,150 | 52,000 | 57,850 | 63,700  |
| <b>TWSID</b>  |         |        |        |        |        |         |
| Moderate Growth <sup>3</sup>  | 3,000   | 3,055  | 3,110  | 3,170  | 3,225  | 3,285   |
| Fast Growth <sup>4</sup>  | 3,000   | 3,110  | 3,225  | 3,350  | 3,470  | 3,600   |
| <p><sup>1</sup>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.</p> <p><sup>2</sup> 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.</p> <p><sup>3</sup> See also references for Contra Costa LAFCO 2016 and Contra Costa County, 2016.</p> <p><sup>4</sup> 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</p> |         |        |        |        |        |         |

based on data from San Joaquin Council of Governments, Jurisdiction Fact Sheets, 2016. The standard formula for average annual growth rate of  $CAGR = (EV / SV)^{(1/n)} - 1$  was utilized. Numbers shown are rounded. The moderate growth rate assumes a 0.367 percent rate which is half of 0.733.

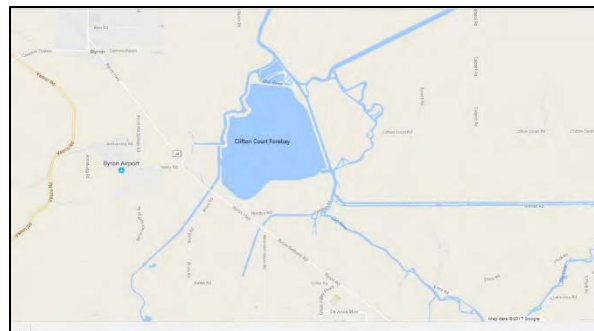
The City of Tracy General Plan identifies ten growth areas within the City's sphere of influence and city limits with an Urban Reserve designation. The purpose of this designation is to provide guidance regarding the vision and types of land uses allowed in these areas, each requiring comprehensive planning 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

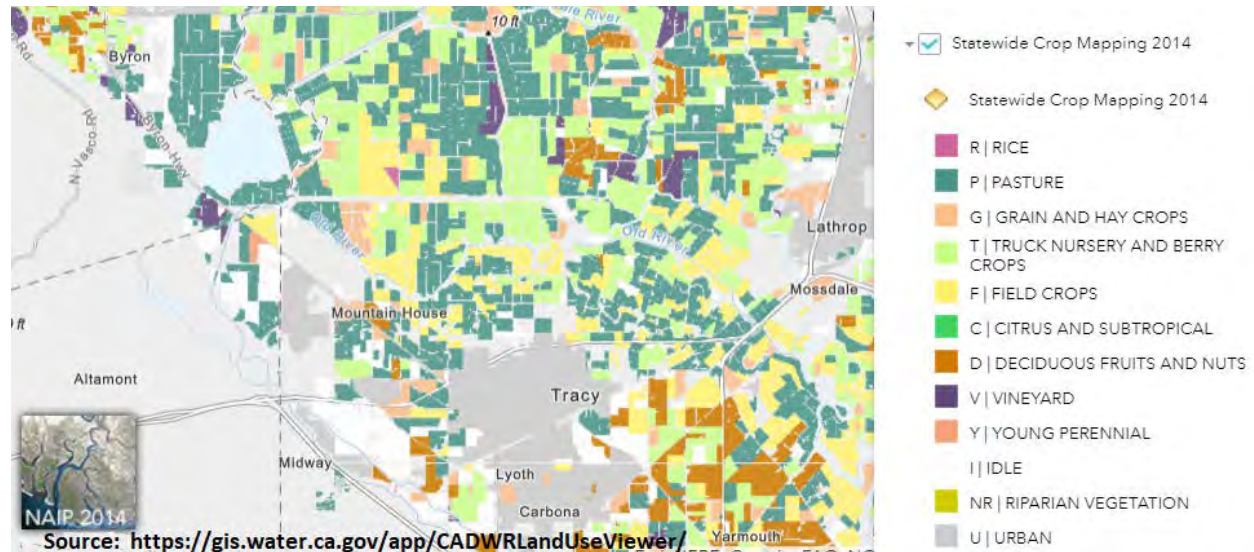
### *Existing land use*

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 Enterprises<sup>1</sup>, 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

<sup>1</sup> 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.

| <b>Table 4-5: Relationship of the Consolidated District to County Boundaries</b>              |                                |
|---|--------------------------------|
| <b>County</b>   | <b>Acres within BBID/TWSID</b> |
| 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 House<sup>2</sup> 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 (MHCS D) 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 MHCS D 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 MHCS D 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.

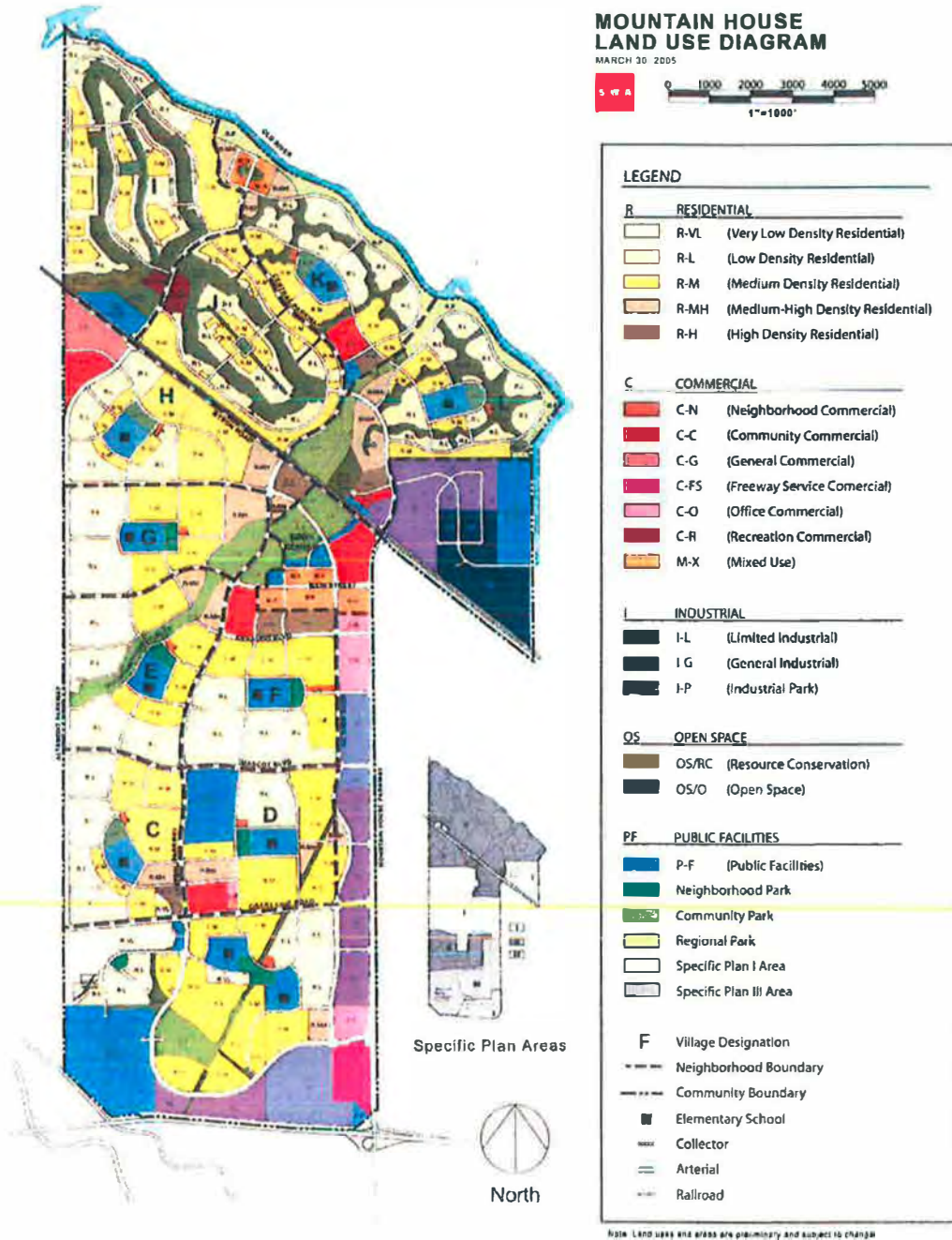
| Table 4-6: Timeline Summary of County and LAFCO Actions Regarding the Mountain House Community |   |
|--|---|
| Time Period  | Status  |
| Pre-1994   | Most of the area (now called “Mountain House”) was part of BBID’s boundaries, with one exception. Lands located north of Byron Rd. along Old River are not within BBID’s boundaries.  |
| 1994   | <ul style="list-style-type: none"> <li>▪ 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.</li> </ul> |

<sup>2</sup> 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](https://en.wikipedia.org/wiki/Mountain_House,_Alameda_County,_California)

|   |  |
|---|--|
|   | <ul style="list-style-type: none"> <li>▪ Water supply reliability for the Mountain House community was addressed in the Environmental Impact Report certified by the San Joaquin County Board of Supervisors</li> <li>▪ The 1994 adopted Master Plan for Mountain House recommended a Sphere of Influence boundary to coincide with the ultimate MHCSO community "build-out" boundaries.</li> </ul>  |
| Feb 23, 1996  | During a Commission meeting, San Joaquin LAFCO approved the Mountain House Reorganization (LAFCO 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.  |
| <p><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 (LAFCO 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></p> |  |

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. One recently approved tentative map allows a total of 1,100 residential units. 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 Ordinance<sup>3</sup> 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

---

<sup>3</sup> 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. 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 District<sup>4</sup> 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.

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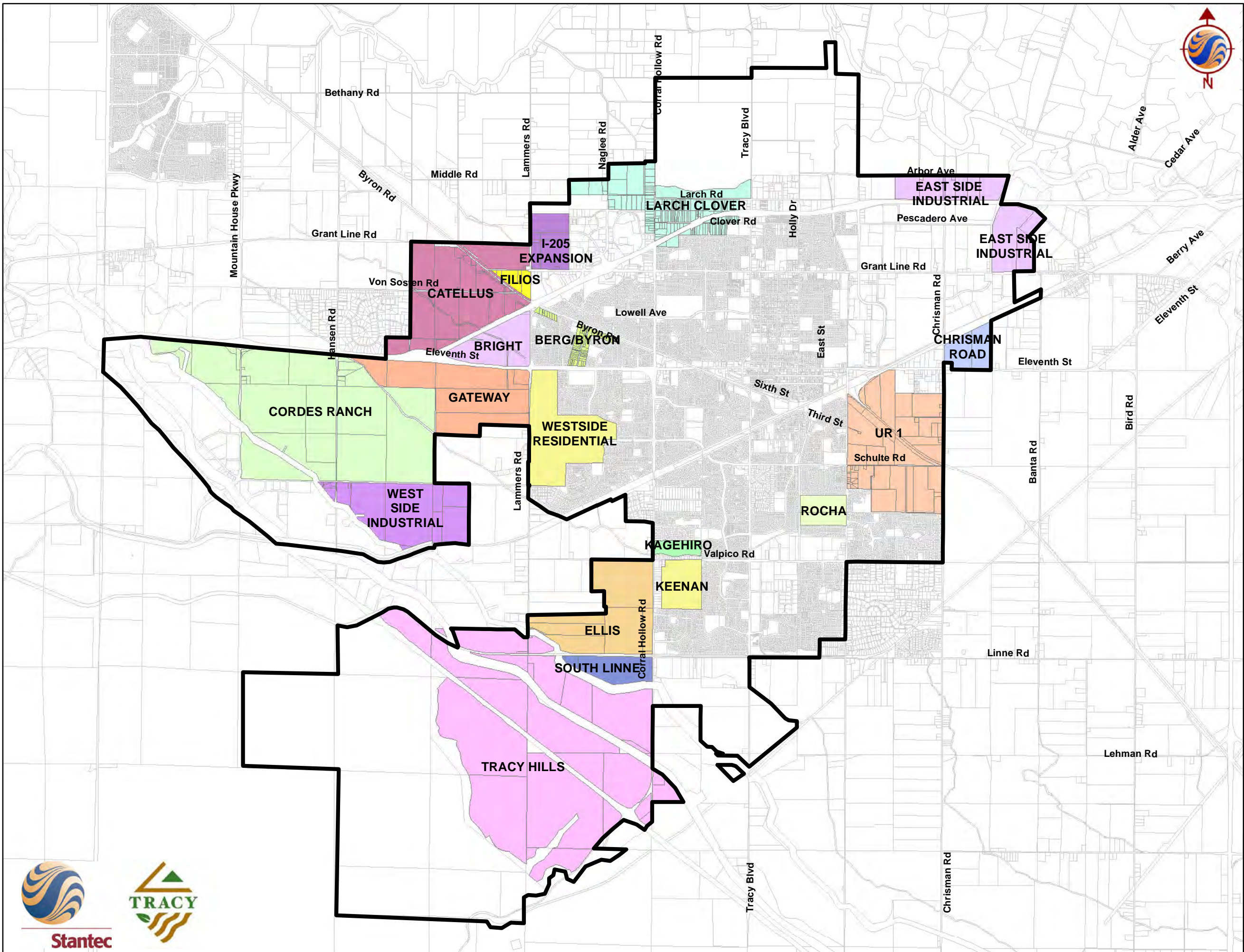
<sup>4</sup> The Semitropic Water Storage District is located in Kern County as described on its website at: <http://www.semitropic.com/>.

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


| <b>CITY OF TRACY RESIDENTIAL DEVELOPMENT PIPELINE REPORT</b> |                                       |              |               |              |  |                                    |
|--|---------------------------------------|--------------|---------------|--------------|--|------------------------------------|
| Status as of October 2018                                    |                                       |              |               |              |  |                                    |
| <b>APPROVED AND UNDER CONSTRUCTION</b>                       |                                       |              |               |              |  |                                    |
| 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<br>PUD14-0002              | PUD          | 10.15         | 51           | NWC Barcelona Dr. & Tennis Lane                    | TVC Tracy Holdco LLC               |
| Ellis Phase 1  | TSM11-0002                            | ESP          | 150           | 299          | 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.                 |                                    |
| <b>Total</b>   |                                       |              | <b>688.06</b> | <b>2,598</b> |  |                                    |
| <b>APPROVED AND NOT YET UNDER CONSTRUCTION</b>               |                                       |              |               |              |  |                                    |
| Name   | Application #                         | Zoning       | Acres         | # of Units   | Location   | Developer/Builder                  |
| Elissagaray Infill   | TSM12-0002<br>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<br>TSM14-0003                | MDC          | 10            | 71           | 2774, 2850, 12920 W. Byron Rd.                     | Mana Investments                   |
| Grant Line Apartments  | D16-0012<br>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<br>TSM18-0001                | LDR          | 5.6           | 22           | 4005 S. Tracy Blvd.                                | Brookview Properties LLC           |
| <b>Total</b>   |                                       |              | <b>330.78</b> | <b>1,613</b> |  |                                    |
| <b>UNDER CITY REVIEW (NOT YET APPROVED)</b>                  |                                       |              |               |              |  |                                    |
| 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<br>D16-0036<br>CUP16-0011   | CBD          | 0.23          | 5            | 21, 25, & 29 E. 8th Street                         | F. Adm Architect                   |
| Valpico Residential  | D18-0019<br>PUD18-0002<br>TSM 18-0003 | HDR          | 11.27         | 90           | 501 E. Valpico Road                                | Eric Taylor and Peter MacDonald    |
| Rod-Singh Apartments   | D18-0028<br>CUP18-0004                | GHC          | 73.48         | 24           | 508 & 522 W. Grant Line Road                       |                                    |
| Southgate High Density                                       | D18-0029<br>TSM18-0004                | PUD          | 3.43          | 42           | 2483 W. Schulte Road                               | Bright Homes                       |
| <b>Total</b>   |                                       |              | <b>184.21</b> | <b>614</b>   |  |                                    |

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  
 184010207  
 SCALE 1" = 5000'



## 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, including<sup>5</sup>:

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.

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<sup>5</sup> 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

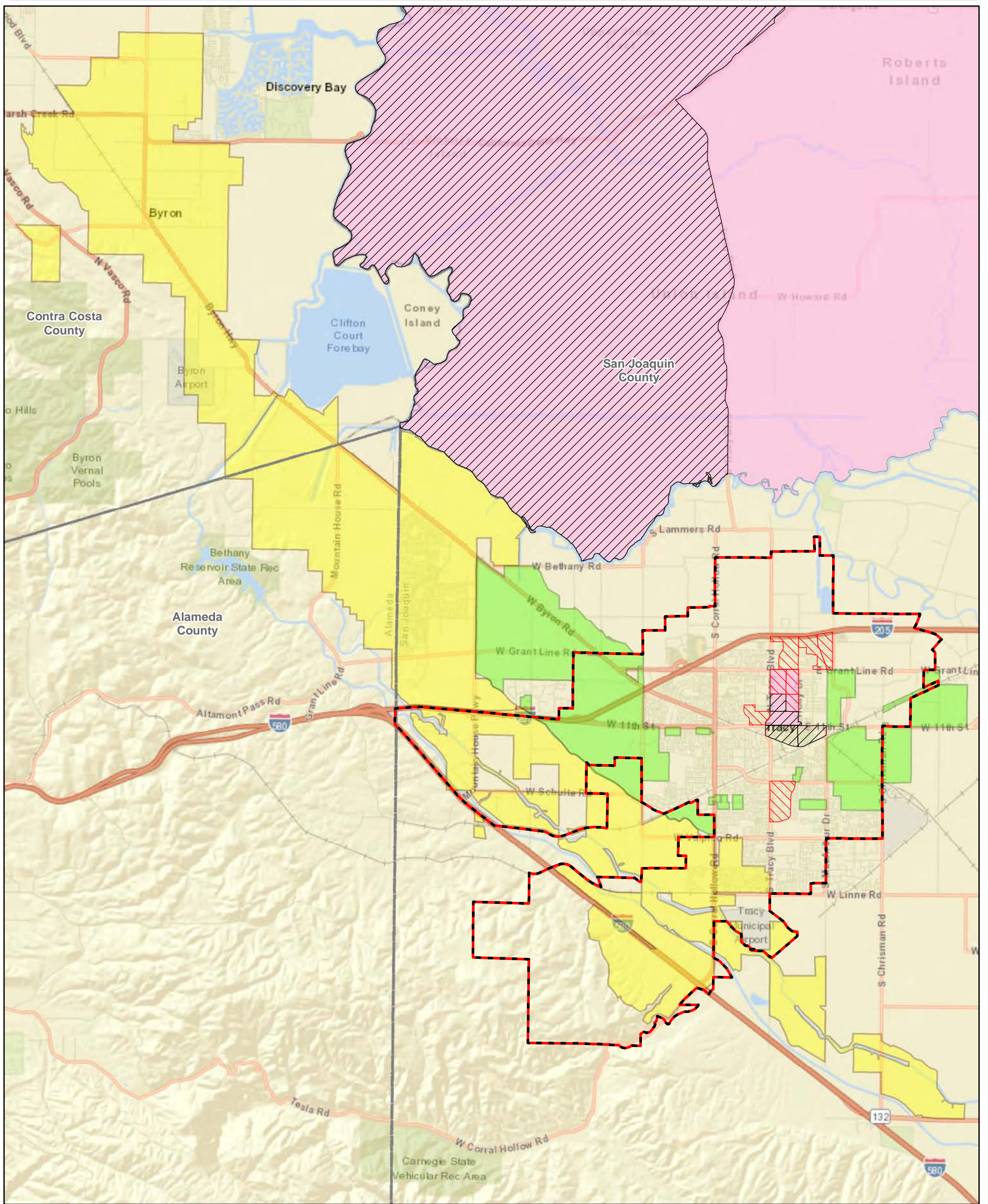
The Alameda County Community Development Agency conducted a review of DUCs based on requirements outlined in Senate Bill (SB) 244 and found no DUCs within the County (Alameda County, 2016; Correspondence with Alameda County LAFCo, 2017).

Contra Costa LAFCO's August 10, 2016 MSR entitled "2nd Round EMS/Fire Services Municipal Service Review/Sphere of Influence Updates" identified one DUC<sup>6</sup> 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.

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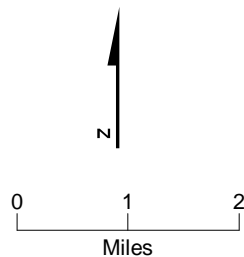
<sup>6</sup> A map of DUC's in Contra Costa is available in the EMS/Fire Service MSR on LAFCO's website at: <http://contracostalafco.org/agencies/municipal-service-reviews/>



**LEGEND**

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

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



**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

**Figure 4-5: Disadantaged Areas**

Byron Bethany Irrigation District, California



# 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 district<sup>1</sup> 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.

---

<sup>1</sup> Byron Sanitary District Municipal Service Review is available at:  
[http://www.contracostalafco.org/municipal\\_service\\_reviews.htm](http://www.contracostalafco.org/municipal_service_reviews.htm)

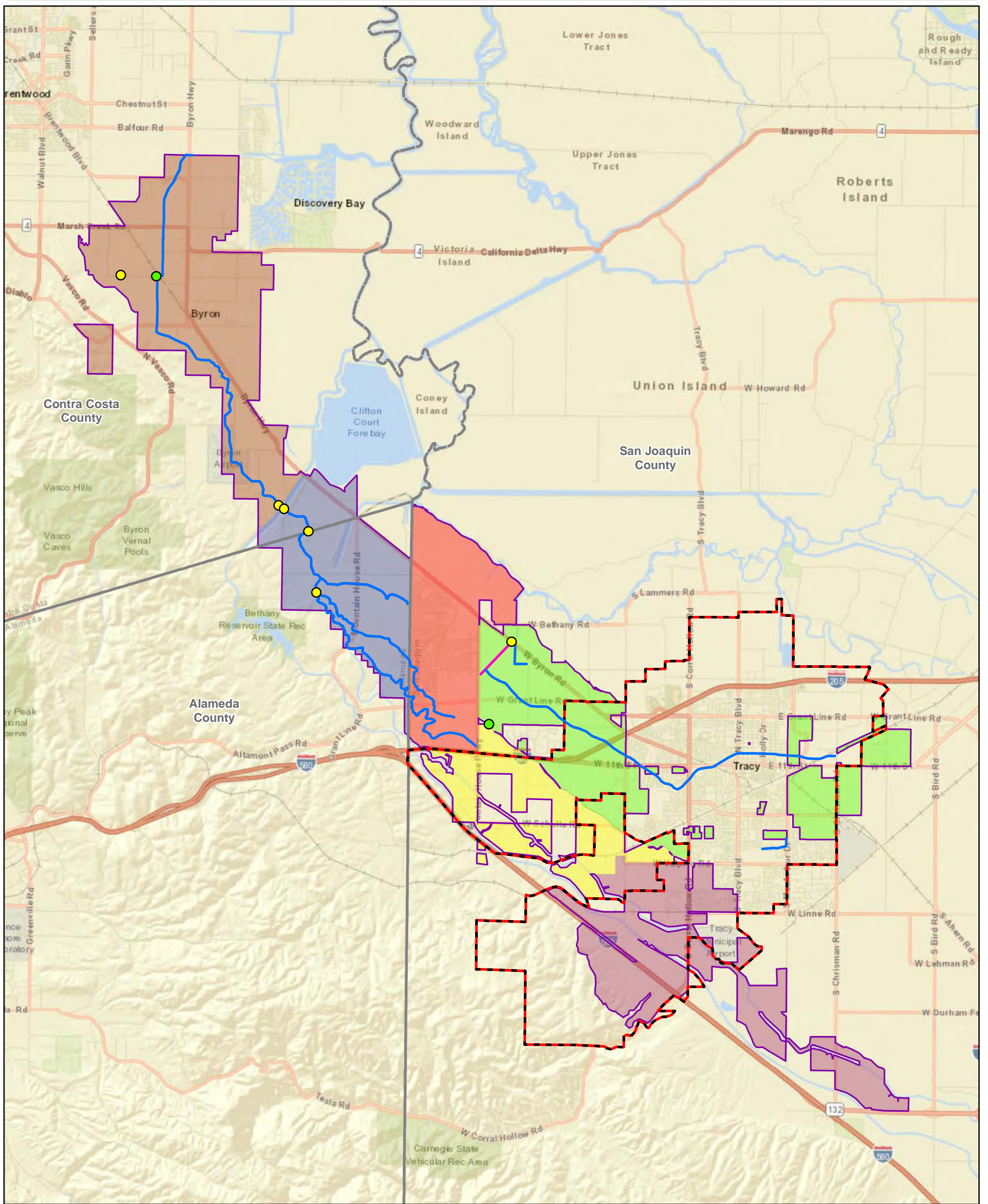
| Table 5-1: BBID Service Areas             |                       |   |
|---|-----------------------|---|
| Name of Service Areas                     | Land Acreage          | Water Entitlement                         |
| Byron Ag Service Division                 | 11,384 acres          | pre-1914 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)    |
| <b>(Total)</b>                            | <b>(29,477 acres)</b> |   |
| <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 District<sup>2</sup> 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.

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<sup>2</sup> 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**



**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



## 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 River<sup>3</sup> located within the San Joaquin River watershed<sup>4</sup>. 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.

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

<sup>4</sup> 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/S1>

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                           |
| <i>**For example, in 2015 BBID made a one-time purchase from Contra Costa Water District via the Los Vaqueros Reservoir in response to curtailment</i> |   |  |                     |                                |
| <i>Data Source: *Table 5-13 in BBID, 2017 **Table 4-1 in BBID, 2017 and*** personal conversation, R. Gilmore 1/18/18.</i>                              |   |  |                     |                                |

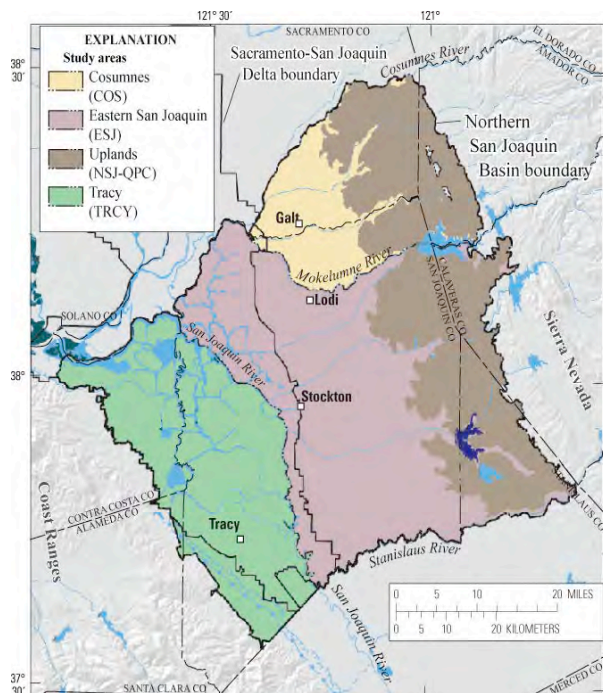
the Mariposa Energy Center, which operates a 200-megawatt natural-gas-fired power plant located in unincorporated Alameda County. The power plant depends on delivery of water under BBID's pre-1914 water rights for its daily operations (Cal EPA, 2015).

### 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>



| <b>Table 5-3: TWSID Water Supplies</b>                        |   |   |                                |  |
|---|---|---|--------------------------------|--|
| <b>Source</b>   | <b>Average Quantity of Water Average in Acre Feet, Annually (AFA)</b> | <b>Full Allocation Allowed in Very Wet Water Years in Acre Feet, Annually (AFA)</b> | <b>Contract or License</b>     | <b>Contract Restrictions</b>                   |
| Federal Central Valley Project                                | 0   | 2,500   | Contract # 7-07-20-W0045 LT-1  | Shortage Provisions and Regulatory Constraints |
| Local surface water   | 17,000  | 24,957 (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> |   |   |                                |  |



### Recycled Water

Currently, neither BBID nor TWSID use recycled water<sup>5</sup>. 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>          |                                  |                       |

<sup>5</sup> 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.

The District'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.

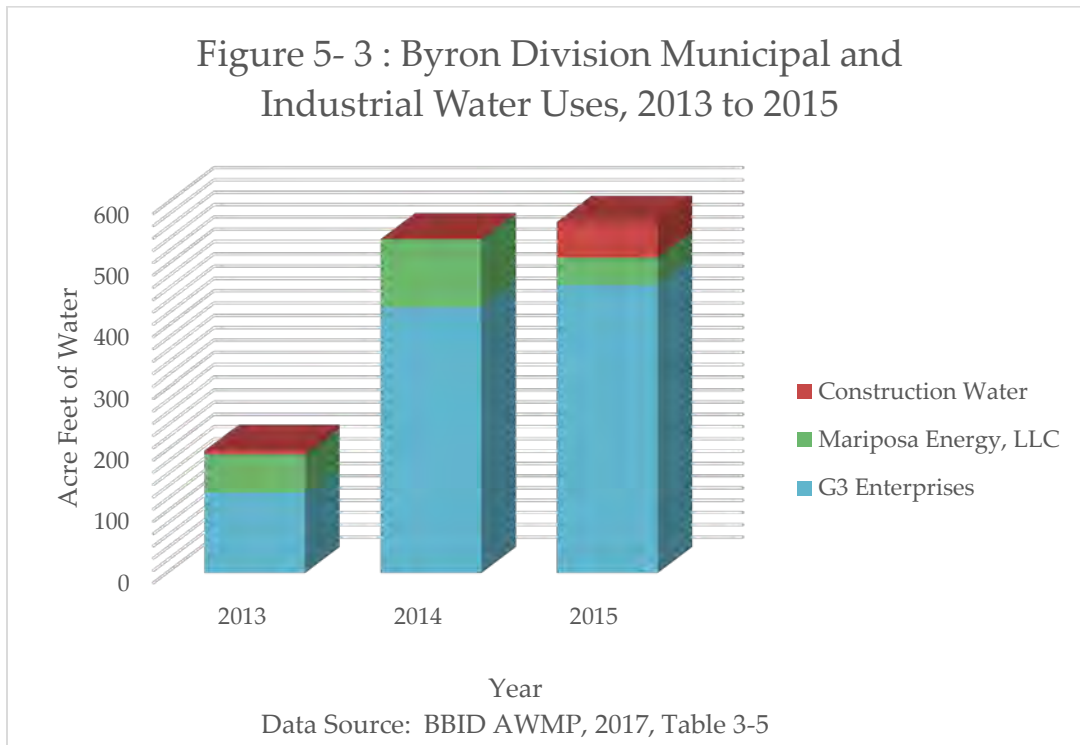
| Name of Service Areas   | 2013 Use (AF) | 2014 Use (AF) | 2015 Use (AF) |
|---|---------------|---------------|---------------|
| Byron & Bethany Ag Service Divisions (Agriculture)  | 22,974        | 25,326        | 18,070        |
| Byron & Bethany Ag Service Divisions (Misc. M&I)  | 477           | 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             |
| <b>(Total)</b>  | <b>29,186</b> | <b>31,889</b> | <b>21,684</b> |
| <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.

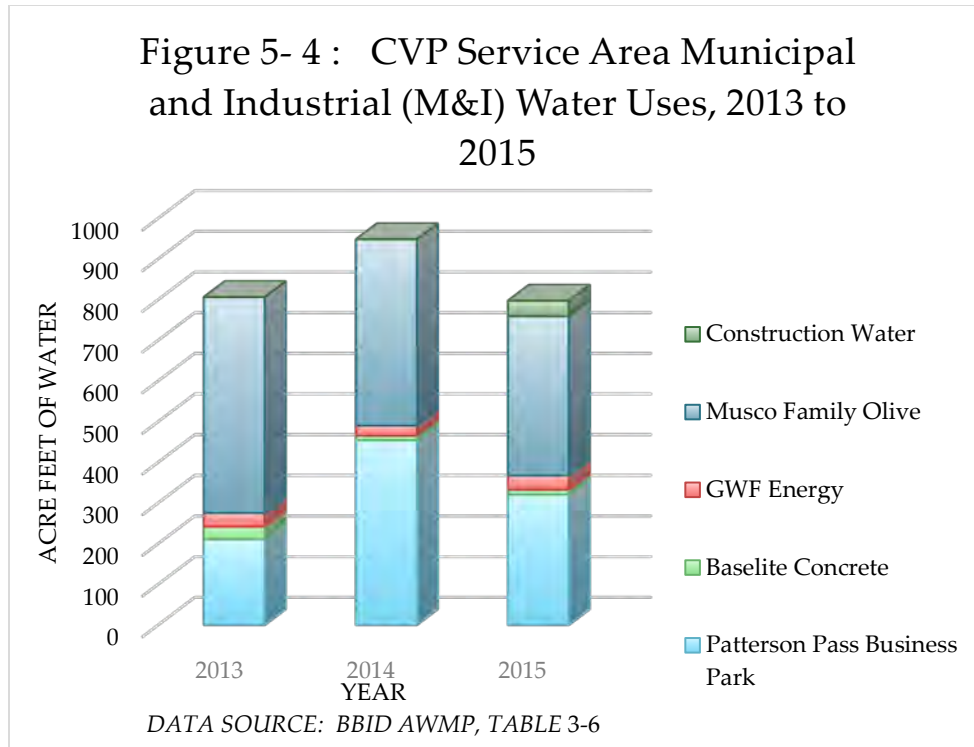
BBID is located west of the City of Tracy (City) and portions of the District overlap with City boundaries and its sphere of influence. Through agreements with the City of Tracy, BBID provides raw water for treatment and retail delivery to a portion of BBID's M&I customers located within the area of 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 Tracy<sup>6</sup> 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.

<sup>6</sup> 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           |
| <b>Total</b>   | <b>4,217</b> |
| <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

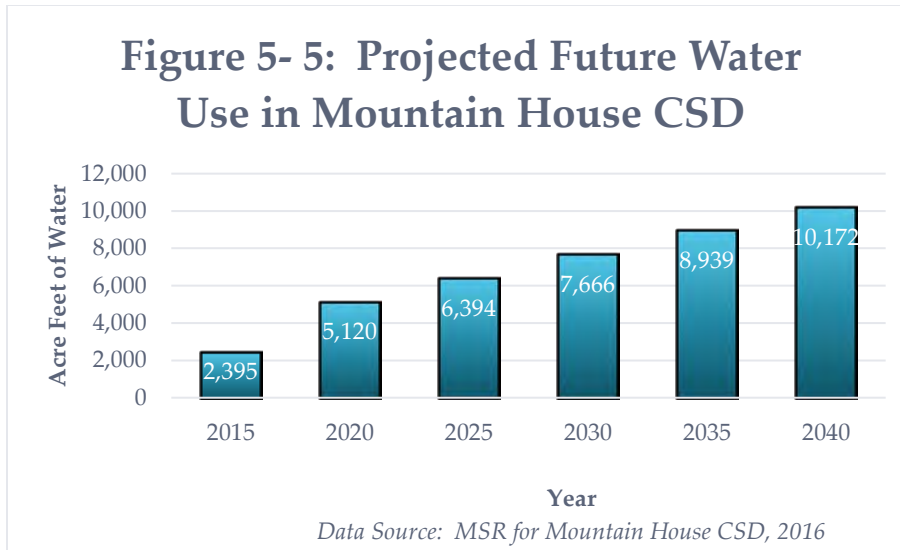
BBID serves as the raw water supplier to two of its sister agencies: Mountain House CSD and the City of Tracy. The proposed consolidation is not expected to affect either of these agencies. As described in Chapter 4 of this MSR, BBID does not have any land-use authority and that authority resides with 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 (MHCS D). MHCS D 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 MHCS D community "build-out" boundaries. The MHCS D 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 MHCS D 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 MHCS D" (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

**Table 17. Quantity of Historical Water Deliveries and Existing and Additional Planned Future Water Supplies in Normal Years**

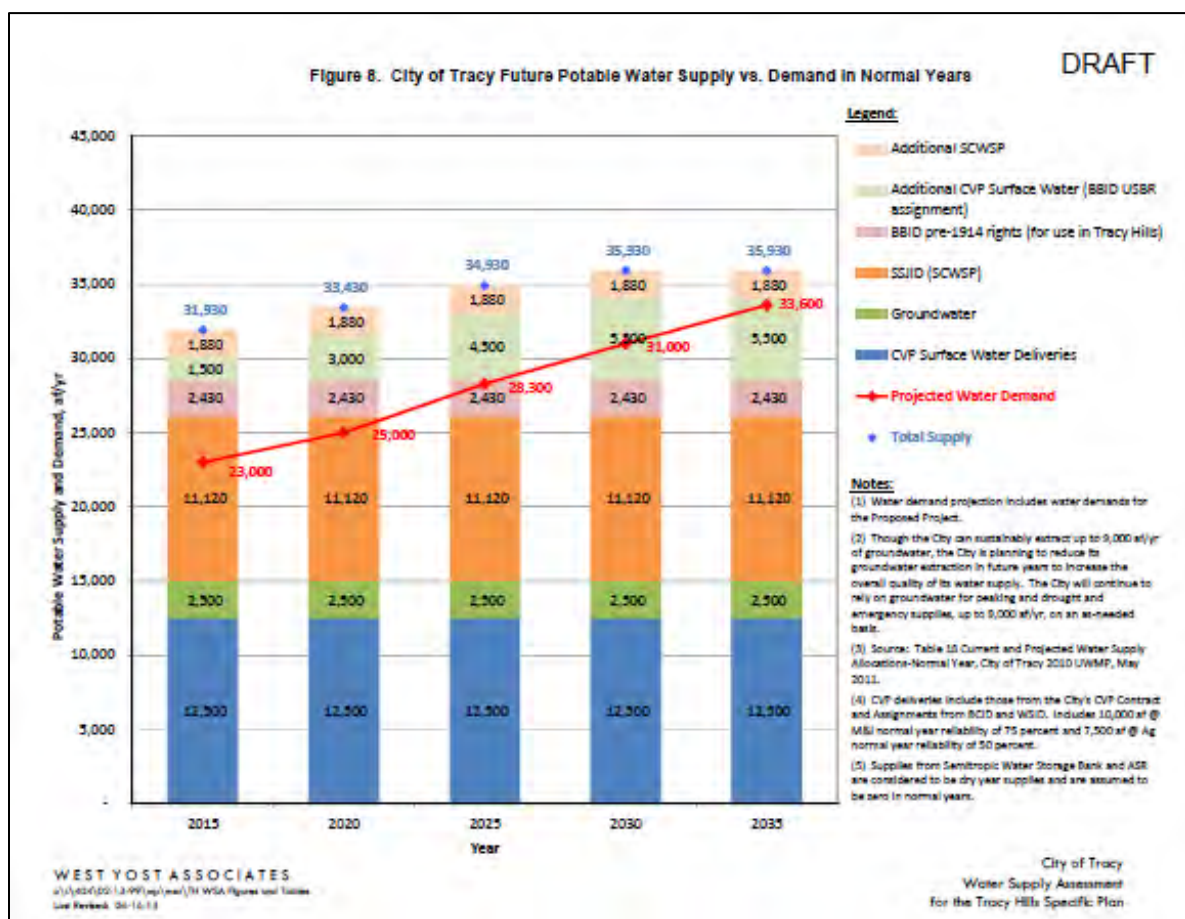
| Supply  | Historical Water Deliveries, af/yr |              |               |               |               |               | Projected Future Available Supplies, af/yr |               |               |               |               |               |
|---|------------------------------------|--------------|---------------|---------------|---------------|---------------|--|---------------|---------------|---------------|---------------|---------------|
|   | 1980                               | 1985         | 1990          | 1995          | 2000          | 2005          | 2010                                       | 2015          | 2020          | 2025          | 2030          | 2035          |
| <b>Existing Water Supplies<sup>(a,b)</sup></b>                |                                    |              |               |               |               |               |  |               |               |               |               |               |
| 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         |
| <b>Total CVP Supplies</b>                                     | <b>5,676</b>                       | <b>5,734</b> | <b>4,968</b>  | <b>8,387</b>  | <b>7,785</b>  | <b>8,920</b>  | <b>5,304</b>                               | <b>12,500</b> | <b>12,500</b> | <b>12,500</b> | <b>12,500</b> | <b>12,500</b> |
| 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 <sup>(c)</sup>                                    | 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) <sup>(d)</sup>                                |                                    |              |               |               |               |               |  | 2,430         | 2,430         | 2,430         | 2,430         | 2,430         |
| Semitropic Water Storage Bank <sup>(e)</sup>                  | 0                                  | 0            | 0             | 0             | 0             | 0             | 0  | 0             | 0             | 0             | 0             | 0             |
| <b>Total Existing Potable Supplies</b>                        | <b>7,656</b>                       | <b>8,590</b> | <b>10,806</b> | <b>12,697</b> | <b>14,333</b> | <b>17,892</b> | <b>16,652</b>                              | <b>28,550</b> | <b>28,550</b> | <b>28,550</b> | <b>28,550</b> | <b>28,550</b> |
| <b>Additional Planned Future Water Supplies<sup>(b)</sup></b> |                                    |              |               |               |               |               |  |               |               |               |               |               |
| 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 <sup>(e)</sup>       |                                    |              |               |               |               |               |  | 0             | 0             | 0             | 0             | 0             |
| Aquifer Storage and Recovery <sup>(f)</sup>                   |                                    |              |               |               |               |               |  | 0             | 0             | 0             | 0             | 0             |
| Recycled Water (non-potable) <sup>(g)</sup>                   |                                    |              |               |               |               |               |  | 12,400        | 14,900        | 17,500        | 19,900        | 22,500        |
| <b>Total Additional Planned Future Potable Supplies</b>       |                                    |              |               |               |               |               |  | <b>3,380</b>  | <b>4,880</b>  | <b>6,380</b>  | <b>7,380</b>  | <b>7,380</b>  |
| <b>Total Potable Supplies</b>                                 | <b>7,656</b>                       | <b>8,590</b> | <b>10,806</b> | <b>12,697</b> | <b>14,333</b> | <b>17,892</b> | <b>16,652</b>                              | <b>31,930</b> | <b>33,430</b> | <b>34,930</b> | <b>35,930</b> | <b>35,930</b> |
| <b>Total Additional Planned Future Non-Potable Supplies</b>   |                                    |              |               |               |               |               |  | <b>12,400</b> | <b>14,900</b> | <b>17,500</b> | <b>19,900</b> | <b>22,500</b> |

(a) Historical supply data based on production data.  
 (b) 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.  
 (c) 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.  
 (d) 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.  
 (e) 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.  
 (f) In normal years, supply from the ASR Project is assumed to be 0 af/yr, as this is considered a dry year supply.  
 (g) Table 15, City of Tracy 2010 Urban Water Management Plan, prepared by Eler & Kalinowski, 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.

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 AF<sup>7</sup> 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

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<sup>7</sup> 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.

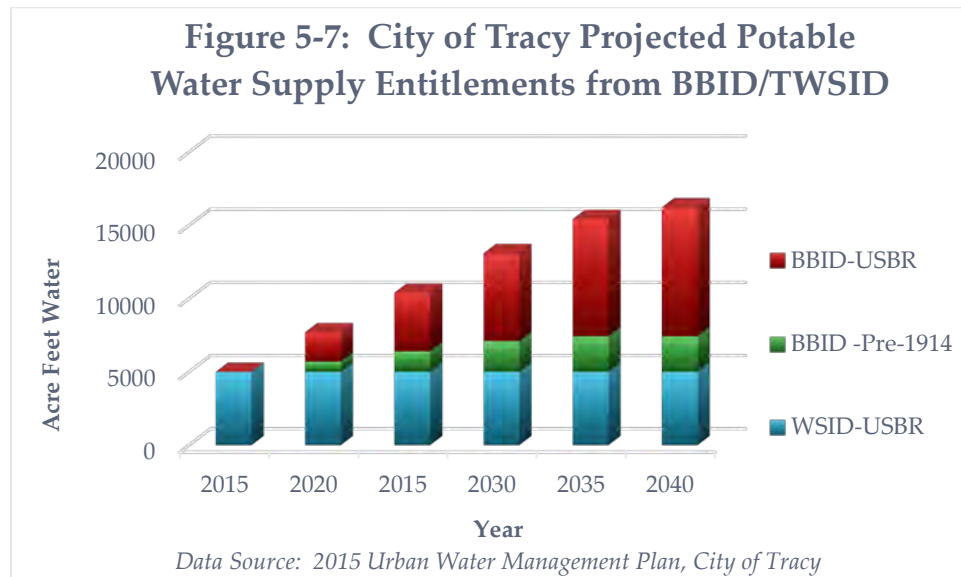




Table 5-10, below, summarizes the anticipated future water demand from existing plus new sources of demand for the consolidated BBID/TWSID

| 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 &amp; 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. |

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 rights<sup>8</sup> 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.

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<sup>8</sup> 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.<br>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 Mendota Canal | 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<br><br>ORDER WR 2010-0012-EXEC clarified 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<br><br>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 allowed<sup>9</sup> 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

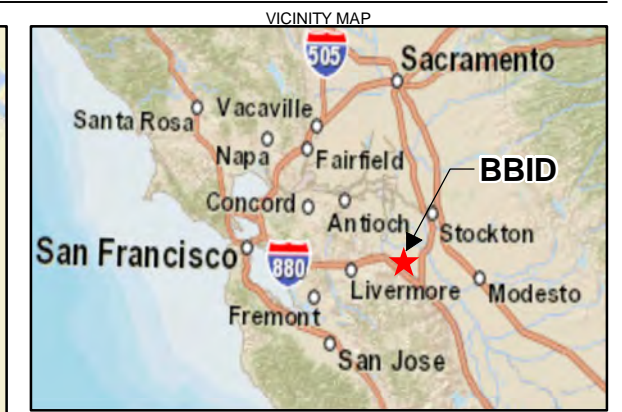
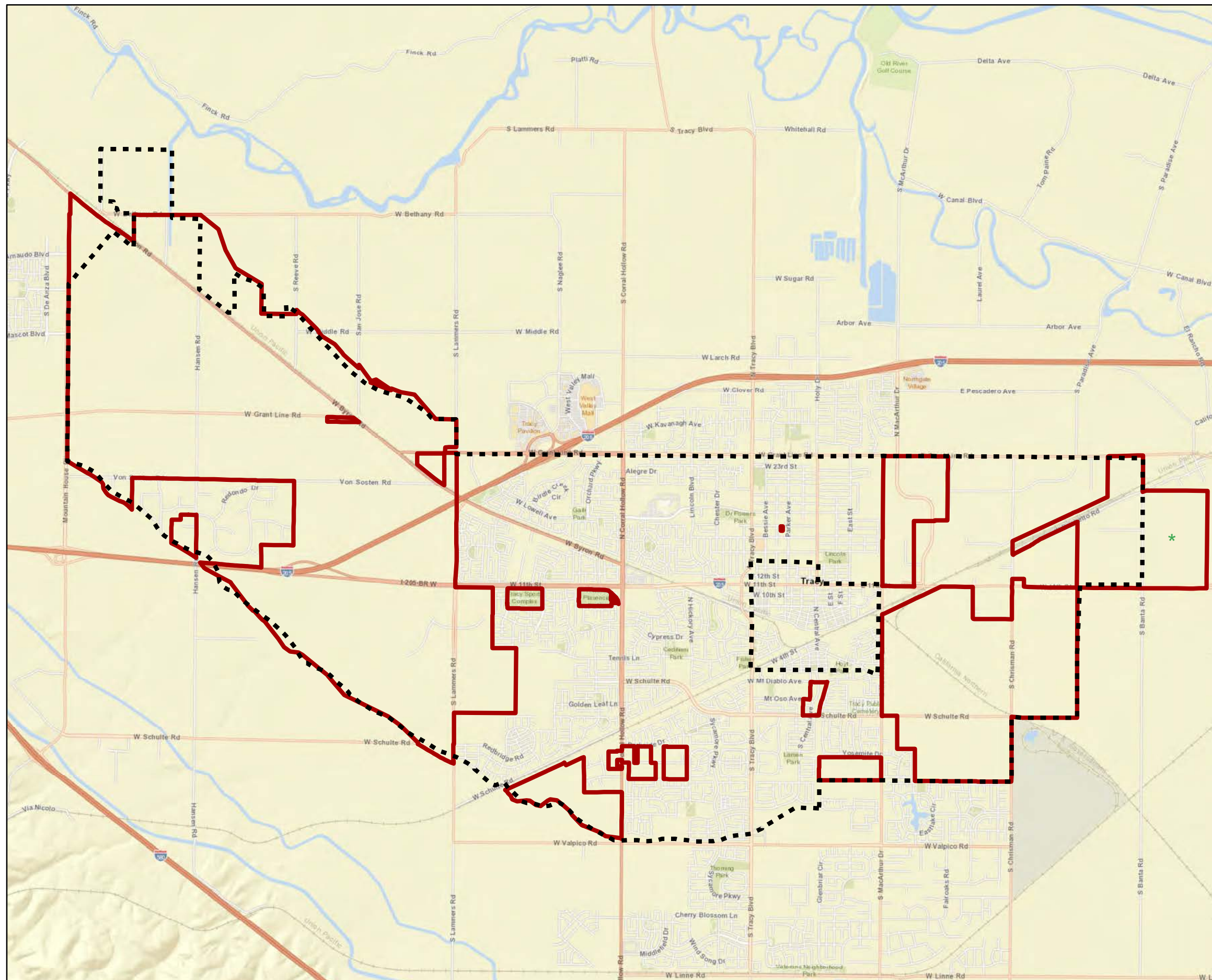
During the past several years, water cutbacks prompted by the recent drought have resulted in disagreements between BBID and TWSID and the State Water Resources Control Board. This litigation involved both water supply and water rights. The State Water Resources Control Board considered two Enforcement 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.

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



- LEGEND
- 2008 WSID Service Area
  - Water Right License 1381 Boundary
  - (Place of Use)

\* Edwards Annexation

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,

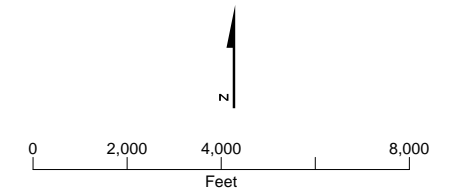


Figure 5-8: TWSID Place of Use

## 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 Sub-basin. BBID has signed MOUs and is working with numerous local government agencies to develop a groundwater management plan for this area.

### 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).

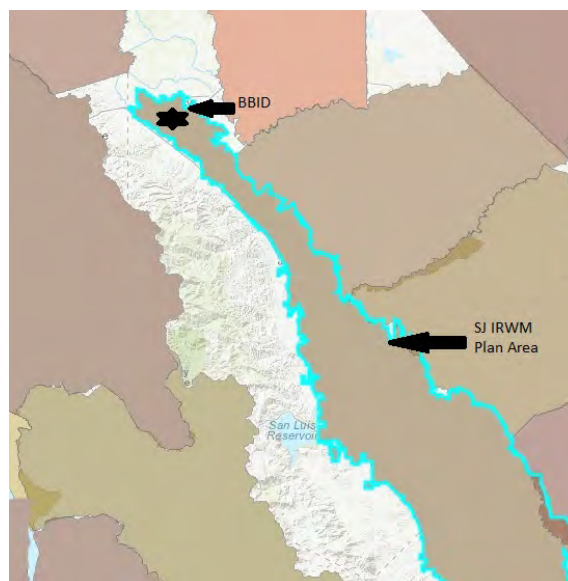
#### Northern Delta-Mendota Canal Groundwater Management Plan

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/appledas/>





## 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 agreement<sup>10</sup> 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 MHCS D'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).

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<sup>10</sup> The "Water Services Agreement Between Byron-Bethany Irrigation District and MHCS D" 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.

| <i>BBID Agricultural Water Management Plan</i>                           |                           |
|--|---------------------------|
| <b>Project</b>   | <b>Status</b>             |
| 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 contact 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 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 (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 taxes<sup>1</sup>. 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 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

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<sup>1</sup>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).

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:<br>√= Above average (compared to similar irrigation districts)<br>Ĩ= Average<br>0= Below average<br>*Indicators are based on recommendations from the Little Hoover Commission |       |   |

### The West Side Irrigation District Financial Policies

TWSID prepares and 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 the following:

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.

Other than the above caveat, 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. 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).

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 (next page).

| 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. | ?     | 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:<br>√= Above average (compared to similar irrigation districts)<br>?= Average<br>0= Below average  |       |   |

## 6.2: REVENUES

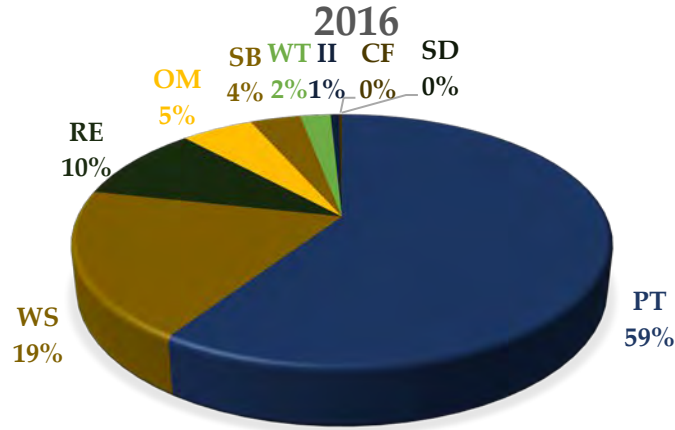
### Byron Bethany Irrigation District Revenue

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,**

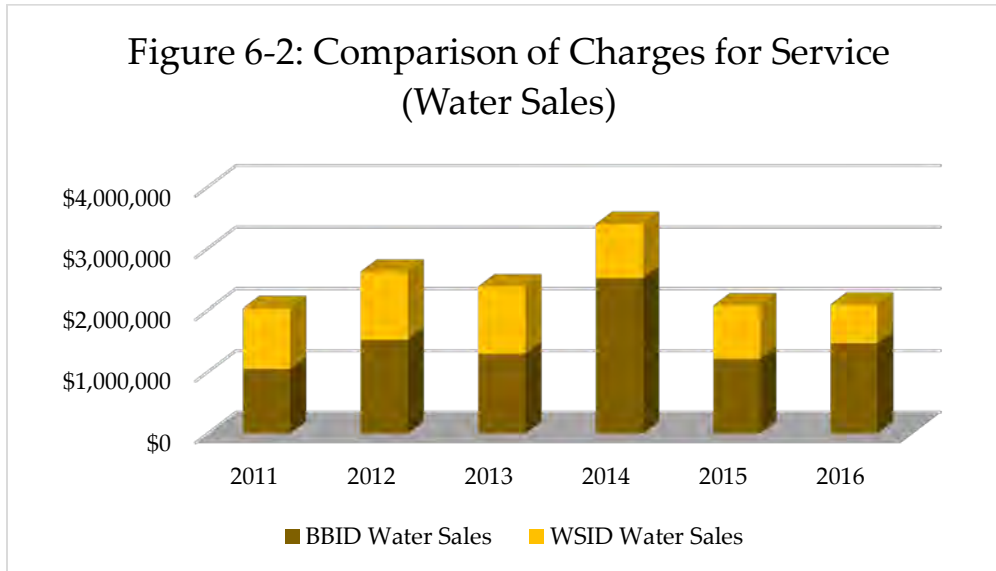


| Table 6-3: BBID Sources of Revenue 2016 |              |                    |
|---|--------------|--------------------|
| Category                                | Abbreviation | 2016 Revenue       |
| Property tax revenue                    | PT           | \$4,170,270        |
| Water sales                             | 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            |
| <b>Total Revenue</b>                    |              | <b>\$6,640,252</b> |

*Data Source: BBID, 2017*

### 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 income<sup>2</sup>. 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.



| <b>Table 6-4: Charges for Service (Business)</b>  |             |             |             |             |             |             |
|---|-------------|-------------|-------------|-------------|-------------|-------------|
|   | <b>2011</b> | <b>2012</b> | <b>2013</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> |
| 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   |
| <i>Data Source: Statement of Activities (TWSID) and Statement of revenues, expenses, and changes in net position, (BBID); CAFR, 2011 - 2015</i> |             |             |             |             |             |             |

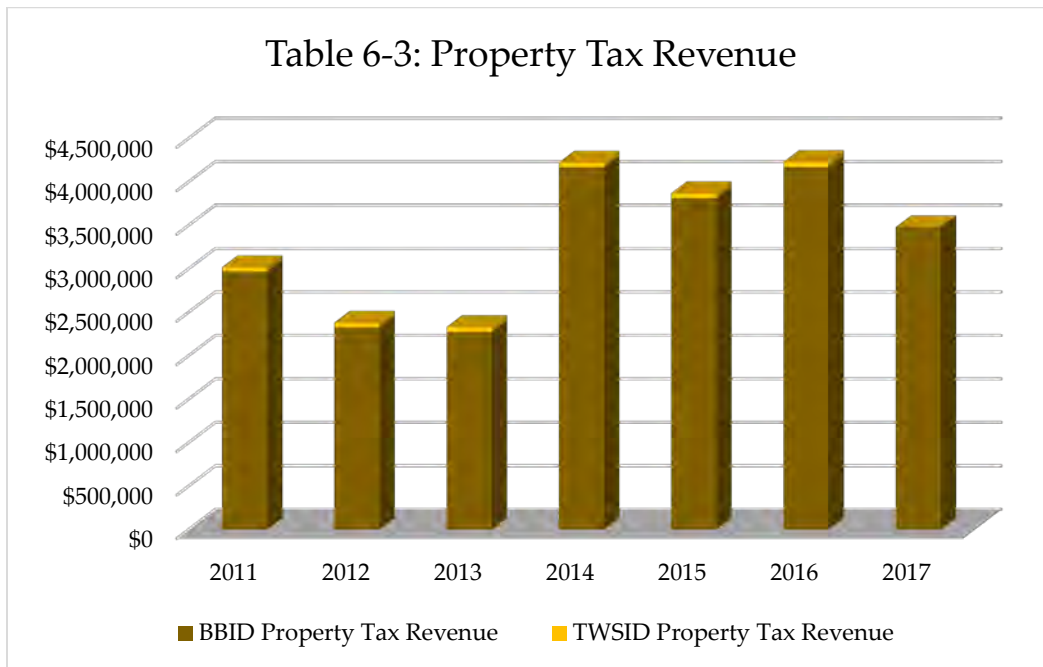
### BBID Property Tax Revenue

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

<sup>2</sup> 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.



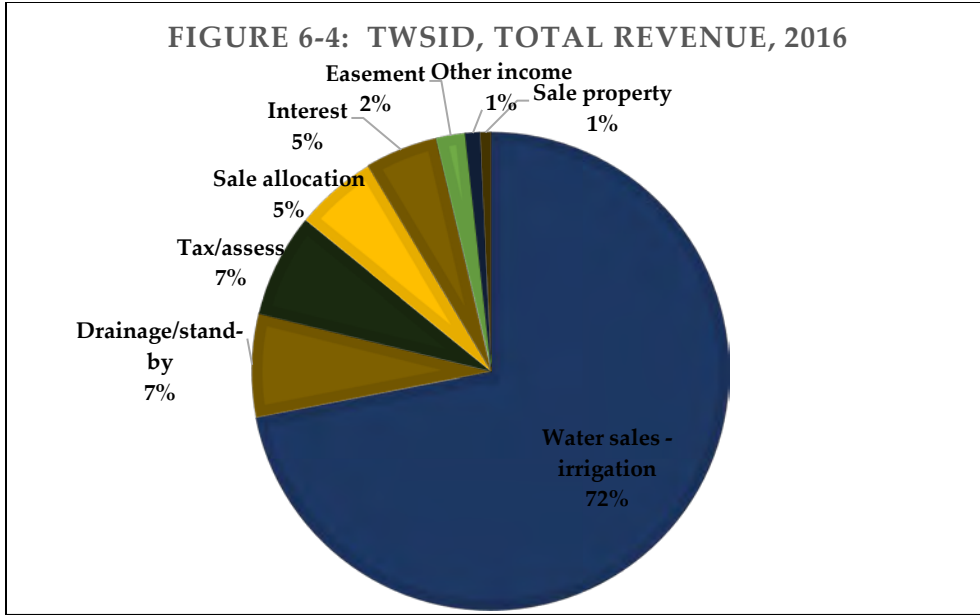
### The West Side Irrigation District Revenue

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.





**Table 6- 5: TWSID Total Revenue, 2016**

| 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          |
| <b>Total Operating Revenue</b>     | <b>\$864,519</b> |

*Data Source: TWSID CAFR, 2017, Statement of Activities*

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

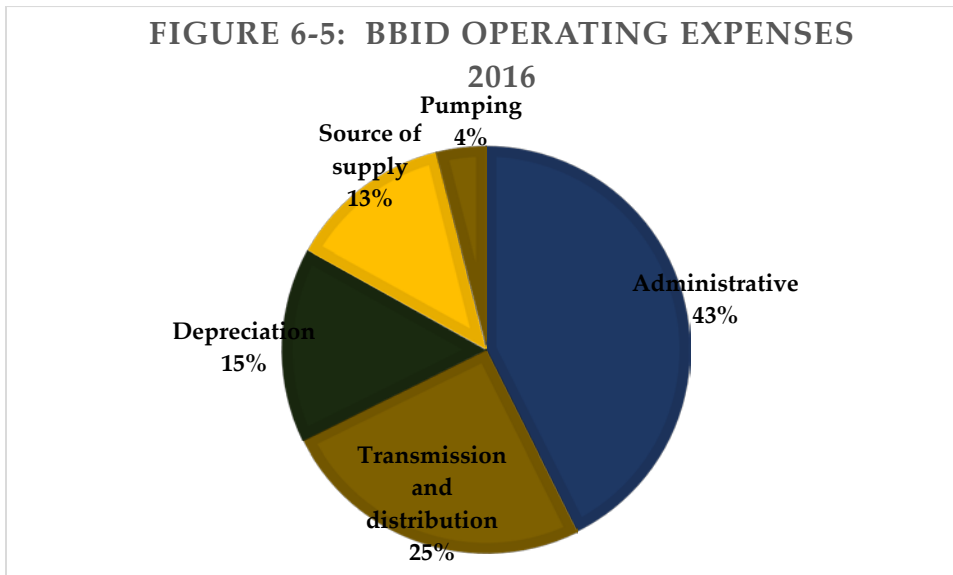
Independent districts such as TWSID have no authority over the property tax base, rate or allocation. TWSID receives an allocation of property tax revenue from San Joaquin County as authorized by the State of California. Although property tax revenue can be relatively stable, it does sometimes lag approximately 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> |          |          |          |          |          |          |

### 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.

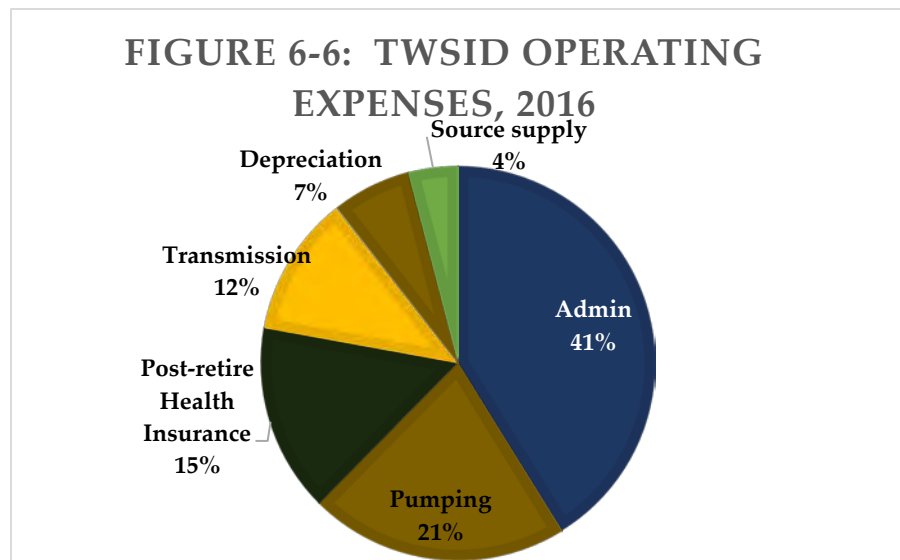


|                                 |                    |
|---------------------------------|--------------------|
| Administrative                  | \$2,883,795        |
| Transmission and distribution   | \$1,696,723        |
| Depreciation                    | \$1,040,228        |
| Source of supply                | \$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, and printing.

#### 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.



| <b>Table 6-8: TWSID Operating Expenses, 2016</b>              |                        |
|---|------------------------|
| <b>Type of Expense</b>  | <b>Cost of Expense</b> |
| Admin   | \$599,216              |
| Pumping   | \$309,302              |
| Post-retire Health 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, 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.

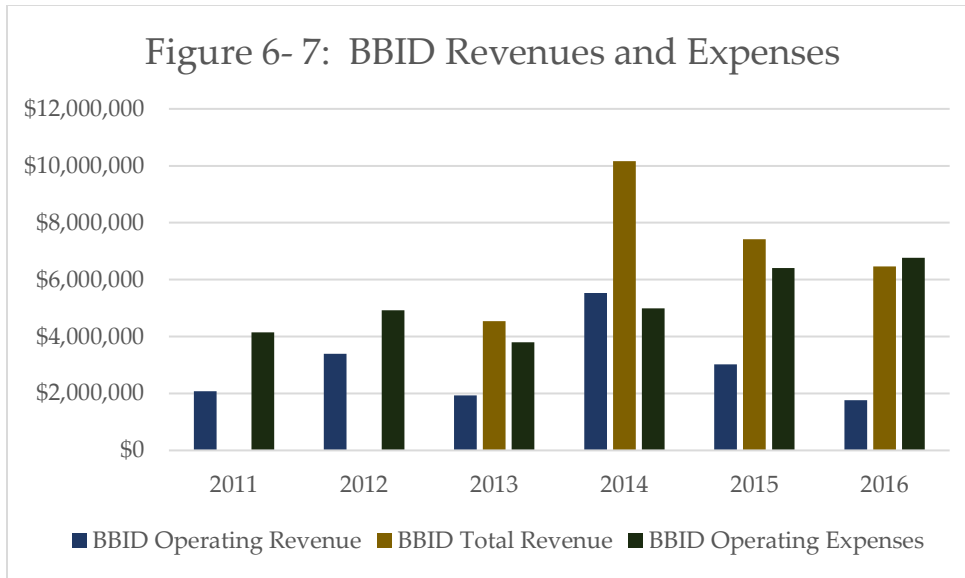


Table 6-9: BBID Revenues and Expenses

| 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.

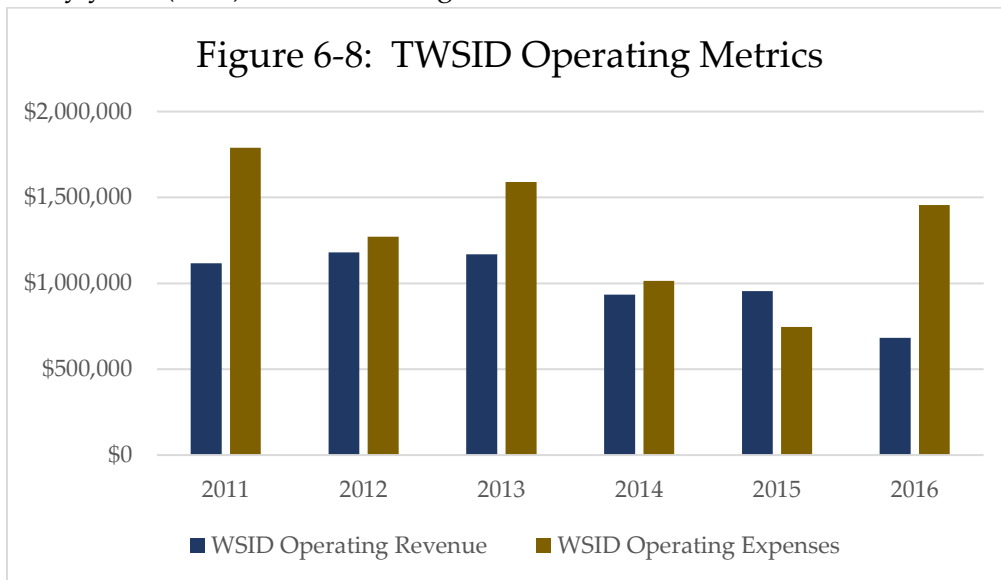


Table 6-10: TWSID Operating Expenditures vs. Revenues

| <b>WSID Comparison Total Revenues and Expenditures</b>   |             |             |             |             |             |             |
|--|-------------|-------------|-------------|-------------|-------------|-------------|
|  | <b>2011</b> | <b>2012</b> | <b>2013</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> |
| 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.

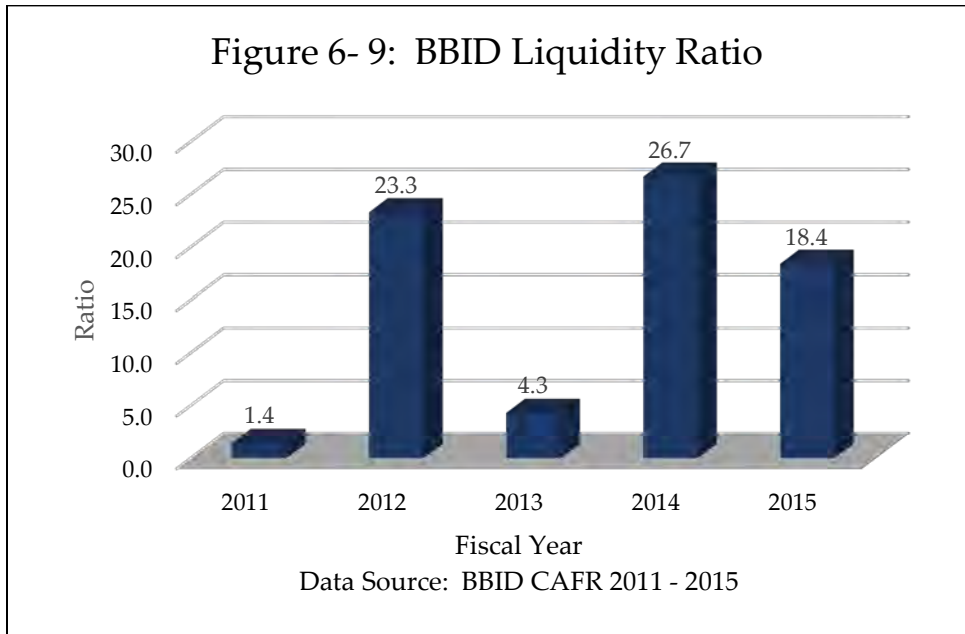


Table 6-11: BBID Liquidity Ratio

| 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.

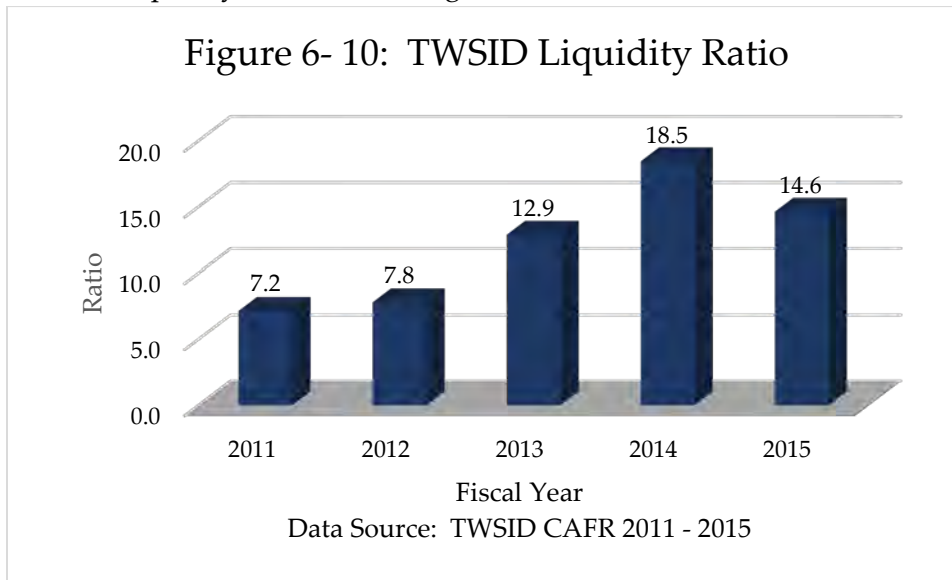


Table 6-12: TWSID Liquidity Data

| 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   |

*Data Source: TWSID, 2017 Annual Financial Report, Statement of Net Position*

### 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.

|       | 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  |

*Data Source: BBID and TWSID CAFR for 2011 through 2016*

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

| 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   | ∩     | Pattern of increase in net position appears to be average.  |
| TWSID Indicator  | Score | Notes   |
| Revenues exceed expenditures in 50% of studied fiscal years  | ∩     | 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   | ∩     | Pattern of increase and decrease in net position is variable. This pattern appears to be average.   |
| Key to score:<br>√= Above average (compared to similar irrigation districts)<br>∩= Average<br>0= Below average |       |   |

## 6.4: TAX RATE AREAS

The Auditor-Controller groups taxable properties<sup>3</sup> 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

<sup>3</sup> 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.



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 county<sup>4</sup>. 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).

Byron Bethany Irrigation District has 24 TRAs<sup>5</sup> within the District boundary: eleven in Contra Costa County; one in Alameda County; and twelve 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 twelve TRAs in San Joaquin County, BBID is allocated approximately 2 to 4% of the 1%, except for the Mountain House TRA<sup>6</sup>, for which BBID is allocated approximately 10% of the 1%. Non-Mountain House TRAs generate approximately \$482,826 per year, while the Mountain House TRA generates approximately \$2,198,709. Total

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<sup>4</sup> 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.

<sup>5</sup> 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. It is possible that properties within a Special District that do not receive services have a portion of their property taxes allocated to that Special District. Individual properties that are within a Special District, but do not receive services, may petition to be detached from the District.

<sup>6</sup> The Mountain House Community 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 and Tracy Hills developments 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).

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<sup>7</sup> 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 6-15, 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.

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<sup>7</sup> With the Mountain House and Tracy Hills developments 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).

Table 6-15: BBID Seepage Reduction Projects

| <b>Project</b>  | <b>Status</b>       |
|---|---------------------|
| 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. The District'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 plan for retiree healthcare 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 health insurance. Specifically, “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” (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 6-16, below.

|                         | Balance<br>1/1/16 | Increase | Debt<br>Retired | Balance<br>12/31/16 | Current<br>Portion |
|-------------------------|-------------------|----------|-----------------|---------------------|--------------------|
| Revenue 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                  |
| Totals                  | \$6,115,202       | \$31,709 | \$199,307       | \$5,947,604         | \$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.

**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. The rates are consistent with requirements of the State Water Resources Control Board.

**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 6-18.

| <b>Table 6-18: BBID Rates</b> |                            |  |                                 |
|-------------------------------|----------------------------|--|---------------------------------|
| <b>Service Area/ Type</b>     |                            | <b>Description</b>   | <b>Rate</b>                     |
| 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 6-19, below.

| <b>Table 6- 19: TWSID 2017 Schedule of Rates &amp; Tolls</b> |   |
|--|---|
| 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<br>As available per General Manager            |
| Dewatering Schedule  | \$2,000/month – 0-5 acres<br>\$3,000/month – 6-40 acres<br>\$4,000/month – 41-80 acres<br>\$5,000/month – over 80 acres<br>As available per General Manager |

Indicators about rates for BBID and TWSID are summarized below in Table 6-20.

| Table 6- 20: 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: <a href="http://bbid.org/governance/your-water-rates/">http://bbid.org/governance/your-water-rates/</a> |
| 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  | !     | 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:<br>√= Above average (compared to similar irrigation districts)<br>!= Average<br>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 district<sup>8</sup> 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.

### 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 6-21.

| Table 6- 21: Joint Power Authorities  |   |
|---|---|
| BBID  | TWSID   |
| San Luis Delta Mendota Water Authority <sup>9</sup>   | 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 <sup>10</sup>   | 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  |   |

<sup>8</sup> 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](http://www.contracostalafco.org/municipal_service_reviews.htm)

<sup>9</sup> 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 (SJCFWCDC, 2001).

<sup>10</sup> 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 serves 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 healthcare 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 healthcare for a few of the current Directors (once they retire) and a few past employees. TTWSID has set aside \$1 million in reserve funds to pay for this expense as detailed in the WSID 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). After consolidation, BBID may consider bringing TWSID retirees into this CalPERS trust to cover the retiree benefit.

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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## Chapter Table of Contents

7.1: Byron Bethany Irrigation District Determinations .....7-1

7.2: The West Side Irrigation District Determinations .....7-5

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 review<sup>1</sup>. 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).

---

<sup>1</sup> 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. 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 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 2<sup>nd</sup> 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.

| <b>Type of Approach</b>               | <b>Description of Standard Approach</b>   |
|---------------------------------------|---|
| 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.

| <b>Table 8-2: Geographic Data</b>                      |  |   |                                |
|--|--|---|--------------------------------|
|  | <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>          |  |   |                                |

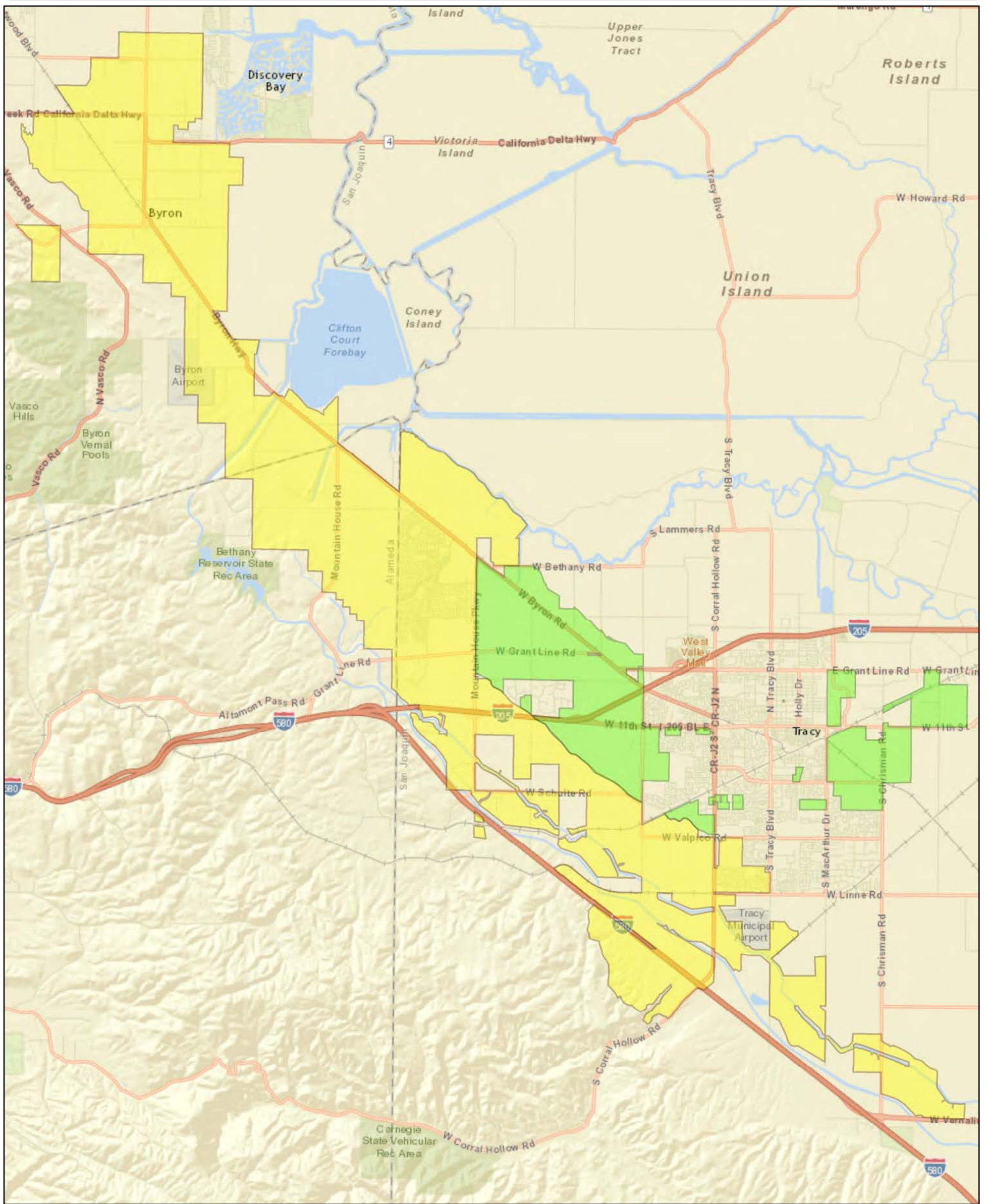
BBID's Existing SOI: BBID's sphere of influence was adopted by San Joaquin LAFCo (the District's principal LAFCo) on December 17, 1993 via Resolution No. 896. BBID's adopted SOI was coterminous with District boundaries of 29,477 acres as it existed in 1993 (see February 2016 boundary change for Discovery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

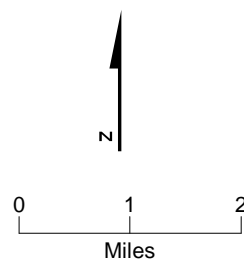
- All territory currently within the district;
- Excluding any territory which is annexed to the City of Tracy for urban development;
- Excluding any territory developed in the unincorporated area for urban or suburban, having no need for irrigation services."

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**



**VICINITY MAP**



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 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: Expand 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 three 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. Merging 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. Merging 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 tax<sup>1</sup> revenue for BBID would increase an average 5% 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 a budget showing shared services.

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<sup>1</sup> Please note that BBID won't receive any property tax revenue from the Tracy Hills development which was annexed in 1999 (except for a small portion that was in the Plainview Water District). BBID did not enter into a property tax agreement for this project because it is a fee for service arrangement.

Option #3: Expand 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.

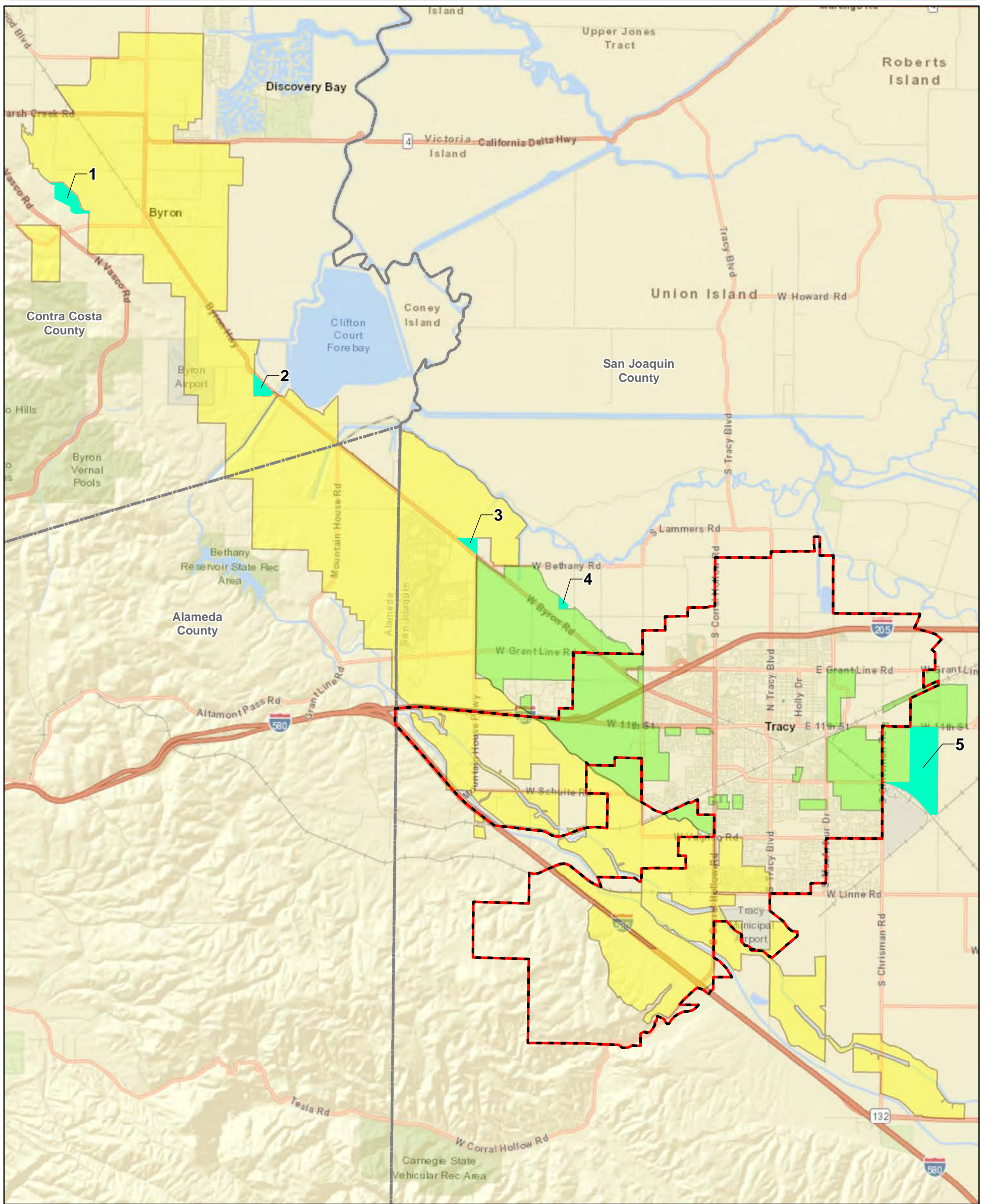
Area #1: Area #1 is a 92.8-acre area located in Contra Costa County. This Area is commonly referred to as the Lawrence property. The Area is located off of Hoffman Road, north of Vascoe Road, in Contra Costa County with Assessor Parcel Numbers 003-070-015, 003-070-017, 003-070-019, and 003-070-021. In December 2013, Contra Costa LAFCo staff<sup>2</sup> 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.

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

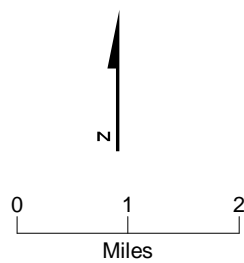


**LEGEND**

- Byron Bethany Irrigation District
- The West Side Irrigation District
- Area of Interest
- Spheres of Influence**
- Tracy

**Figure 8-2: Study Areas**

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



**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

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 three 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 area<sup>3</sup>. Figure 8-2 shows two SOI Study Areas for TWSID, Area #4 and Area #5.

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.

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<sup>3</sup> 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 being proposed to be included in the 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

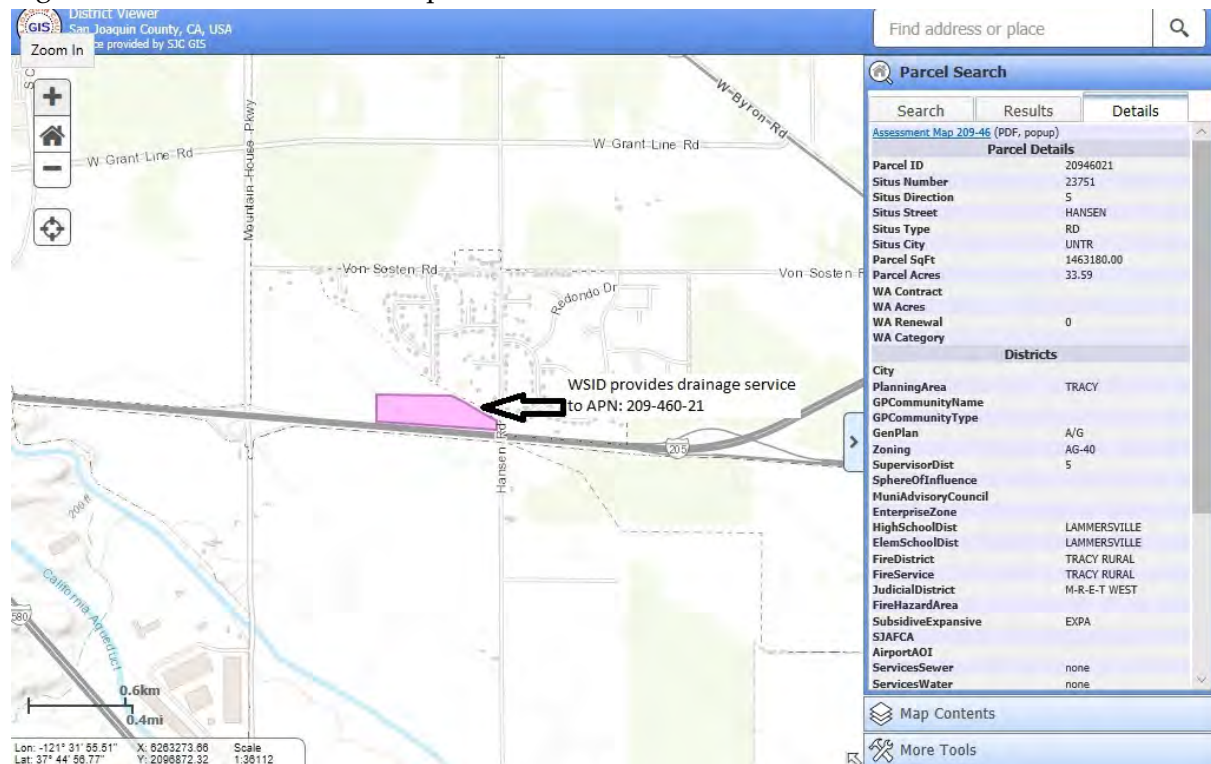
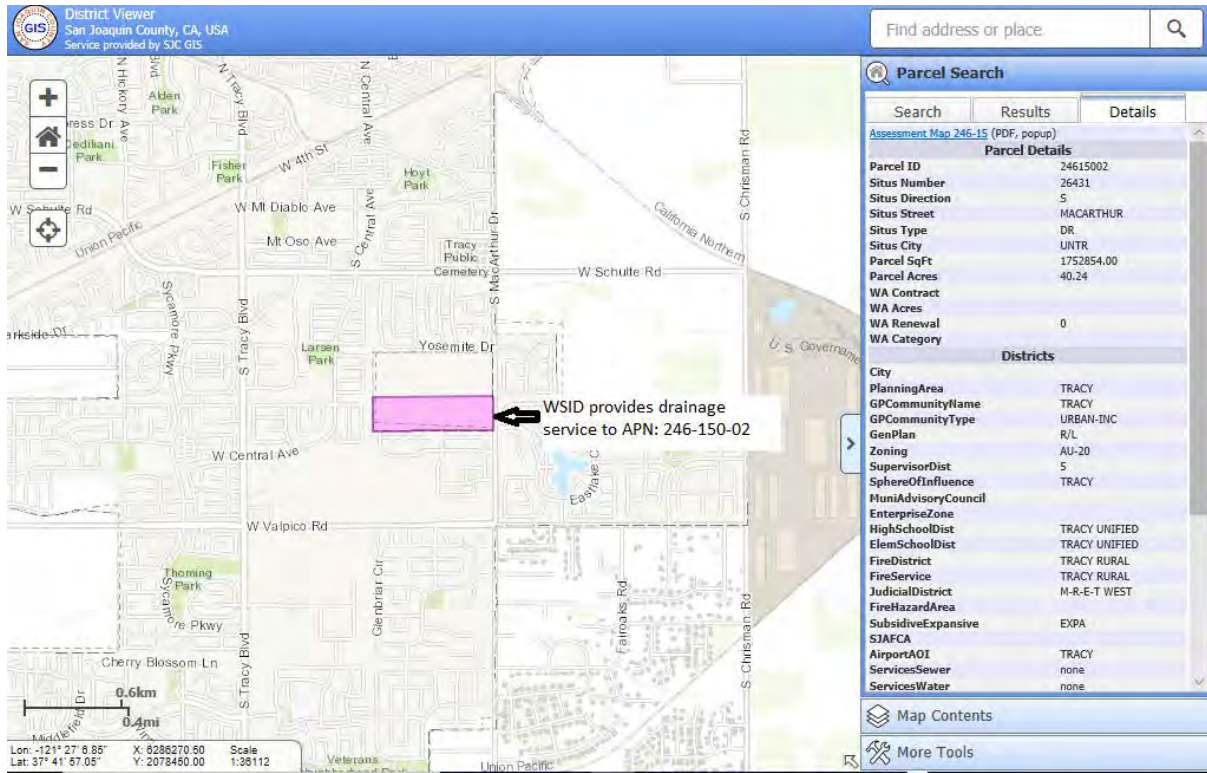


Figure 8-4: APN 246-150-02 Proposed for TWSID SOI



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.

|                | 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) | <b>29,167.66 acres</b> |

|                                       |             |                             |                       |
|---------------------------------------|-------------|-----------------------------|-----------------------|
| 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   | <b>7,600.43 acres</b> |
| <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 three 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"> <li>▪ 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.</li> <li>▪ Presently land use within Study Areas #1-#5 consist of agricultural uses.</li> </ul>   |
| Potential effects on agricultural and open-space lands                       | <ul style="list-style-type: none"> <li>▪ The County’s General Plan includes goals, policies and implementing programs aimed at managing growth and protecting agricultural land uses.</li> <li>▪ 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.</li> <li>▪ There are no existing Williamson Act Contracts associated with the five Study Areas.</li> </ul> |
| Are there any present or planned land uses in the area that would create the | <ul style="list-style-type: none"> <li>▪ Yes. Within the five Study Areas, the existing agricultural land-uses would benefit from receiving the agricultural water supply that BBID and TWSID provide.</li> </ul>  |



| Indicator                          | Determination   |
|------------------------------------|---|
| need for an expanded service area? |   |
| Potential environmental impacts    | <ul style="list-style-type: none"> <li>▪ 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.</li> <li>▪ LAFCo is a Responsible Agency under CEQA with respect to a Sphere of Influence.</li> </ul> |

## 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"> <li>▪ Services provided by the BBID/TWSID directly include raw water for agricultural and municipal use, as described in Chapter 5.</li> <li>▪ 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.</li> <li>▪ TWSID provides storm drainage services within its boundary and within portions of the City of Tracy.</li> </ul> |
| Would the amended sphere expand services that could be better provided by a city or another agency? | <ul style="list-style-type: none"> <li>▪ 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.</li> </ul>   |

| Indicator   | Determination   |
|---|---|
|   | <ul style="list-style-type: none"> <li>▪ 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.</li> </ul>   |
| <p>Would the amended sphere represent premature inducement of growth or facilitate conversion of agriculture or open space lands?</p> | <ul style="list-style-type: none"> <li>▪ 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.</li> </ul>   |
| <p>Location of facilities, infrastructure and natural features</p>  | <ul style="list-style-type: none"> <li>▪ 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.</li> <li>▪ 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, Merging 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.</li> </ul> |

## 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.

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

|  |  |
|--|--|
| <p>water services and storm drainage services</p>        | <p>storm drainage customers. However, TWSID does have financial constraints which may impede its ability to maintain its infrastructure over the long-term.</p> <ul style="list-style-type: none"> <li>▪ 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 CIP gives the District the ability to plan for future critical needs.</li> <li>▪ 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.</li> <li>▪ 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.</li> </ul> |
| <p>Effects on other agencies</p>                         | <p>Effects on other agencies is expected to be limited and to be within the scope estimated by the County’s General Plan at buildout.</p>  |
| <p>Willingness to serve</p>                              | <p>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. Merging BBID and TWSID will help the District(s) achieve economies of scale to improve efficiency and maintain ratepayer costs over the long-term.</p>  |
| <p>Geographic proximity to existing public services.</p> | <p>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.</p>  |

## 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.

| Indicator   | Determination   |
|---|---|
| The existence of any social or economic communities of interest in the area   | <ul style="list-style-type: none"> <li>▪ Disadvantaged Unincorporated Communities (DUCs) were analyzed in Chapter 4 of this MSR/SOI document.</li> <li>▪ The proposed expansion of the SOI is not anticipated to adversely affect any adjacent social and economic communities of interest.</li> </ul>  |
| 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"> <li>▪ Chapter 3 describes extra-territorial services where TWSID provides public services to parcels located outside its proper boundary.</li> <li>▪ 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).</li> </ul>                                      |
| 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"> <li>▪ 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.</li> <li>▪ 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</li> </ul> |
| Potential for consolidations or other reorganizations when boundaries divide communities  | <ul style="list-style-type: none"> <li>▪ 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.</li> <li>▪ The proposed expansion of BBID/TWSID’s SOI will align the properties more closely with the District and will not divide any existing communities.</li> <li>▪ The proposed consolidation and expansion of the SOI(s) will not divide a community of interest.</li> </ul>   |

## 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.

| 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"> <li>▪ DUCs were analyzed in Chapter 4 of this MSR/SOI document.</li> <li>▪ There are no disadvantaged communities within or adjacent to the BBID/TWSID Sphere of Influence.</li> <li>▪ The proposed expansion of the SOI is not anticipated to adversely affect any nearby DUC.</li> </ul> |

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|--|--|
| San Joaquin LAFCO  | James E. Glaser, Executive Officer<br>Elizabeth Contreras, LAFCo Analyst   |
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| <i>BBID and TWSID provided detailed information regarding its operations, governance, and finances. Additionally, BBID staff participated in an extensive interview and several meetings and telephone calls with the consulting team.</i> |  |

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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

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|       |  |
|-------|--|
| 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 appropriate 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: California Department of Finance 2017 State Population Projections

## **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.

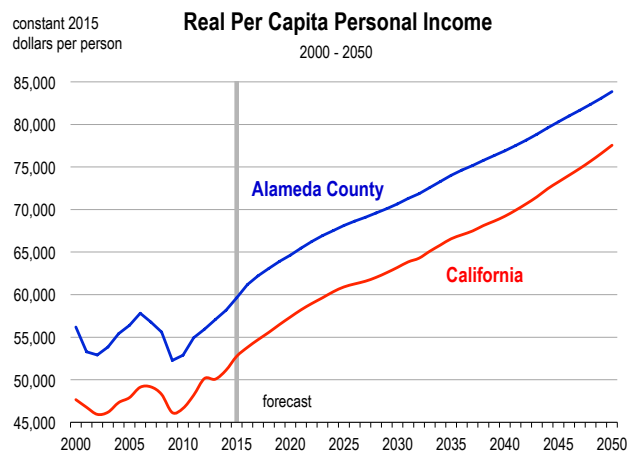
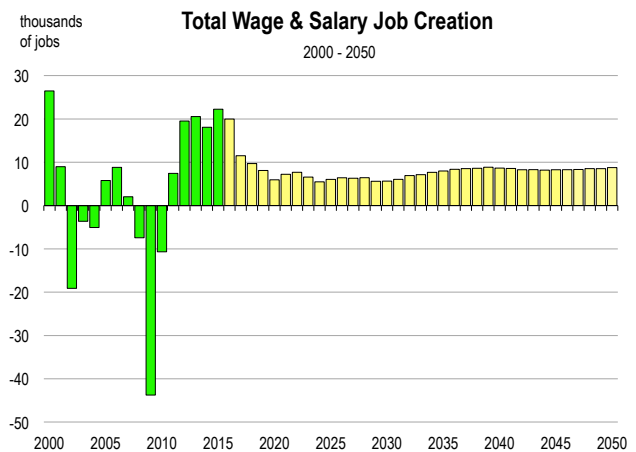
In 2015, employment in Northern California increased by 3.3 percent, whereas employment in the Bay Area grew by 3.8 percent. In Alameda County, a total of 22,300 jobs were gained, representing an increase of 3.1 percent. The unemployment rate improved substantially, falling from 5.9 percent in 2014 to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

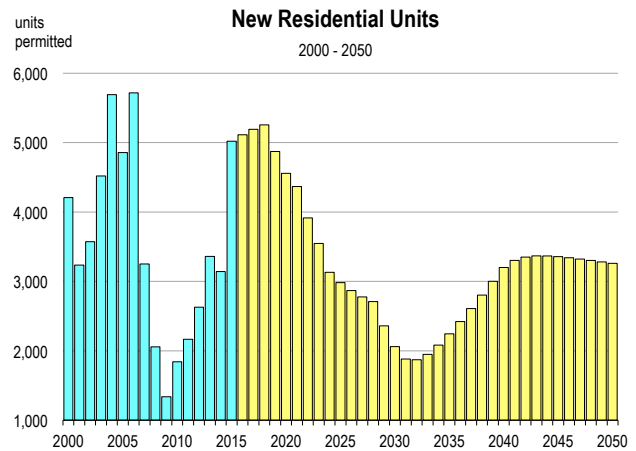
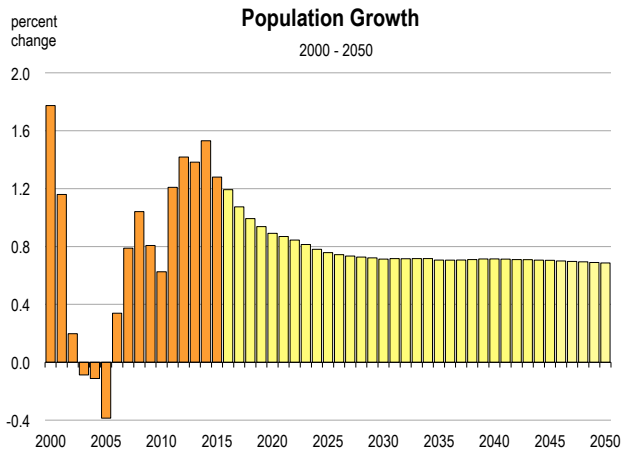


- Over the forecast period, net migration is expected to be more moderate than recent years. Between 2016 and 2021, an average of 6,000 net migrants will enter the county each year.
- Real per capita income will rise by 2.6 percent in 2016. From 2016 to 2021, real per capita income is expected to increase 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

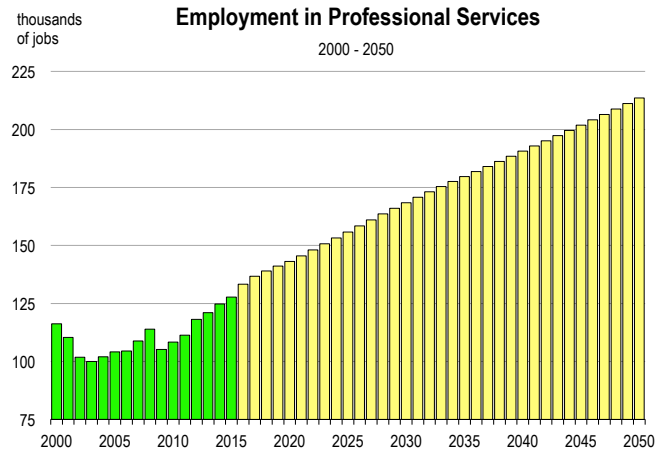
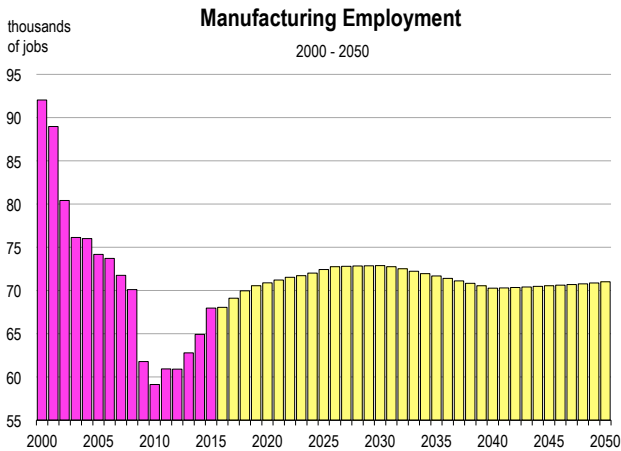
|      | Population<br>(people) | Net<br>Migration<br>(people) | Registered<br>Vehicles<br>(millions) | Households<br>(thousands) | New Homes<br>Permitted<br>(homes) | Total Taxable<br>Sales<br>(billions) | Personal<br>Income<br>(billions) | Real Per<br>Capita Income<br>(dollars) | Inflation Rate<br>(% change<br>in CPI) | Real Farm<br>Crop Value<br>(millions) | Real Industrial<br>Production<br>(billions) | Unemploy-<br>ment Rate<br>(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                                 |



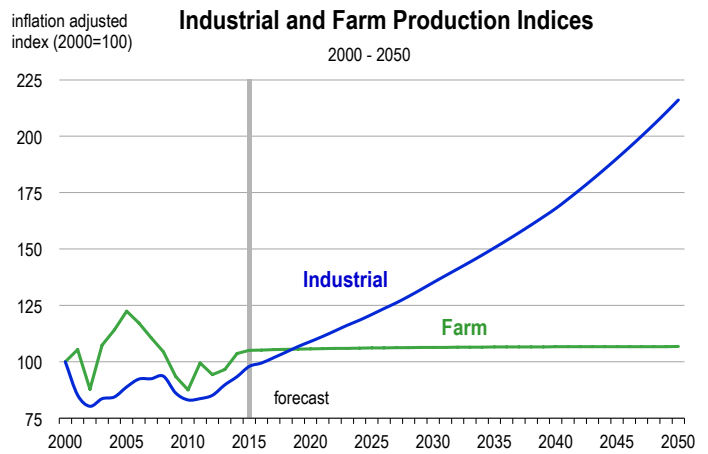
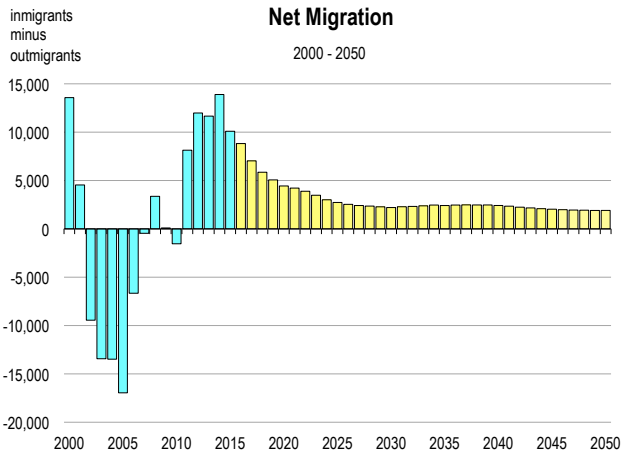
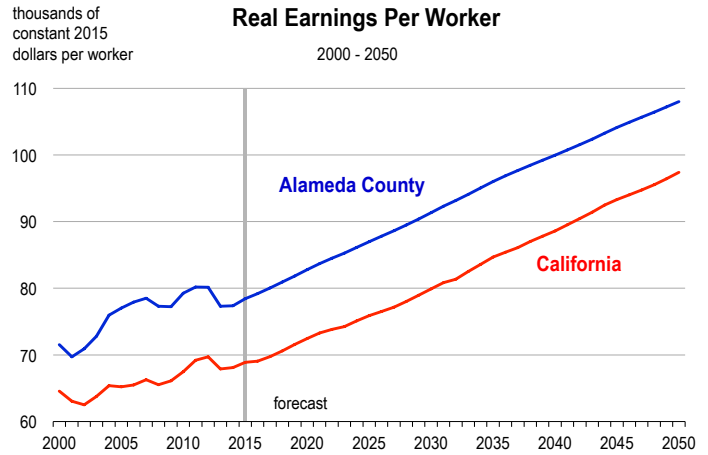
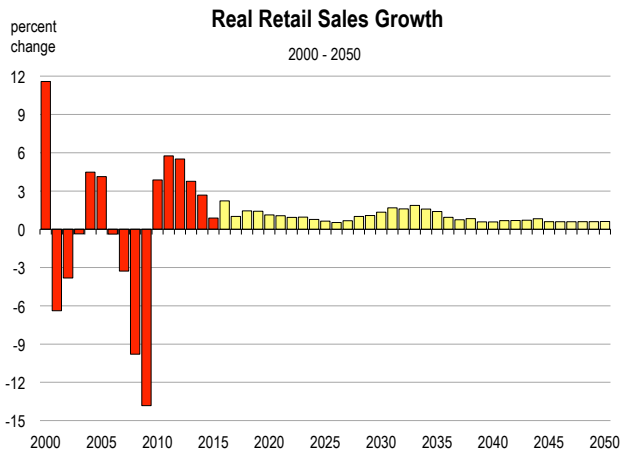
# Alameda County Employment Forecast

## 2010-2015 History, 2016-2050 Forecast

|  | Total Wage & Salary | Farm | Construction | Manufacturing | 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.

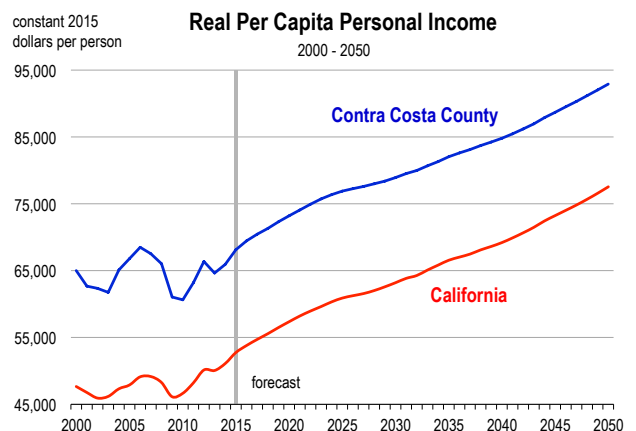
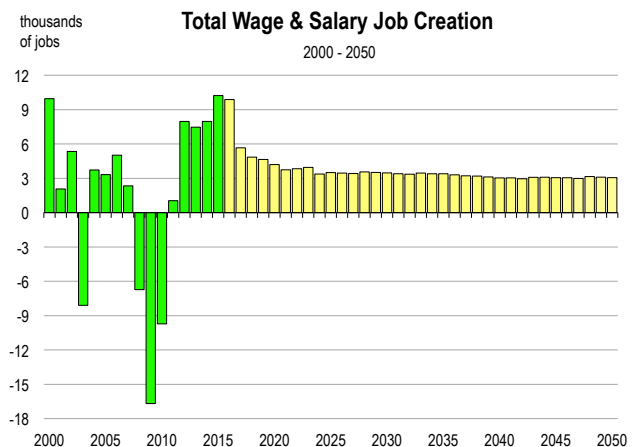
In 2015, employment in Northern California increased by 3.3 percent, whereas employment in the greater Bay Area grew by 3.8 percent. In Contra Costa County, 10,200 jobs were created, representing an increase of 3.0 percent. The unemployment rate improved substantially, falling from 6.2 percent in 2014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

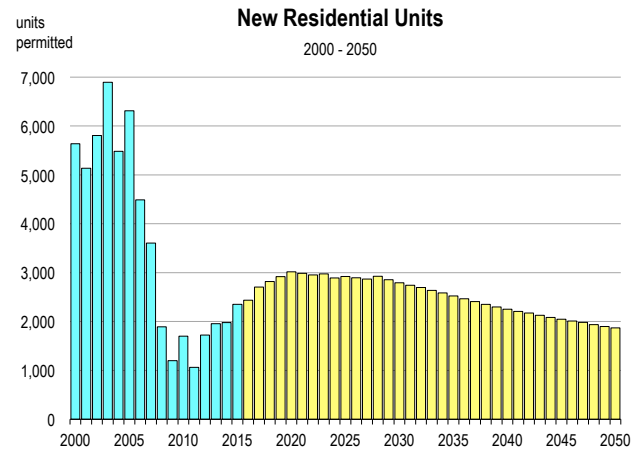
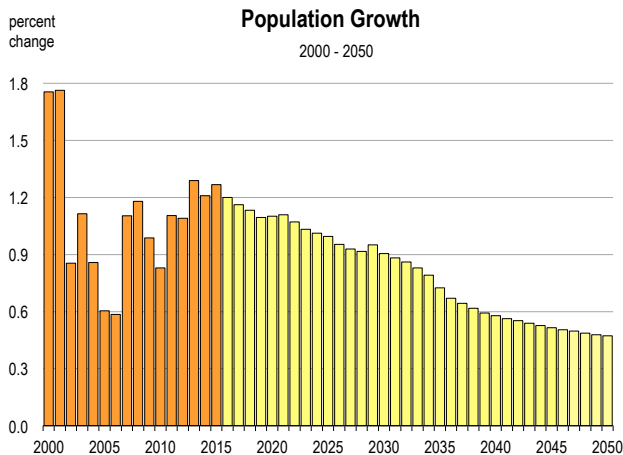


- Between 2016 and 2021, an average of 2,800 housing permits will be issued each year. The largest development project in the county will be located near the North Concord/Martinez Bart station. The project will contain up to 12,250 new homes. Construction may begin within the next few years, but will 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

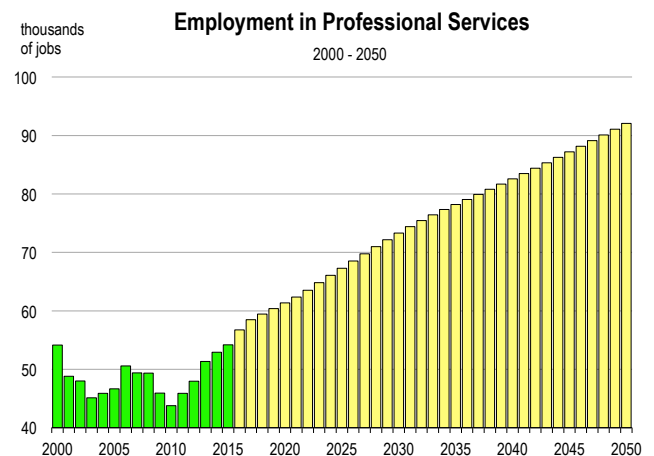
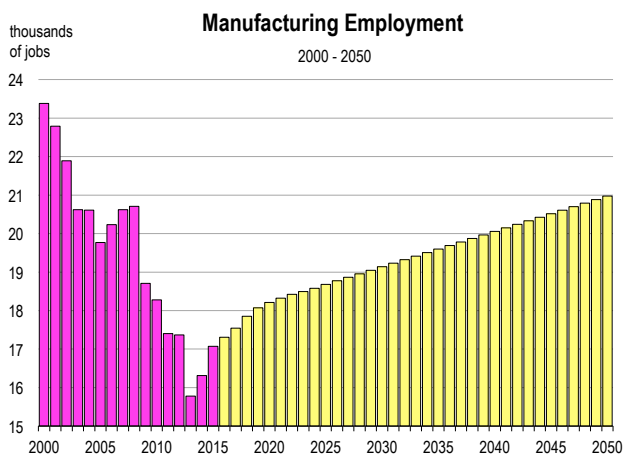
|      | Population<br>(people) | Net<br>Migration<br>(people) | Registered<br>Vehicles<br>(millions) | Households<br>(thousands) | New Homes<br>Permitted<br>(homes) | Total Taxable<br>Sales<br>(billions) | Personal<br>Income<br>(billions) | Real Per<br>Capita Income<br>(dollars) | Inflation Rate<br>(% change<br>in CPI) | Real Farm<br>Crop Value<br>(millions) | Real Industrial<br>Production<br>(billions) | Unemploy-<br>ment Rate<br>(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                                 |

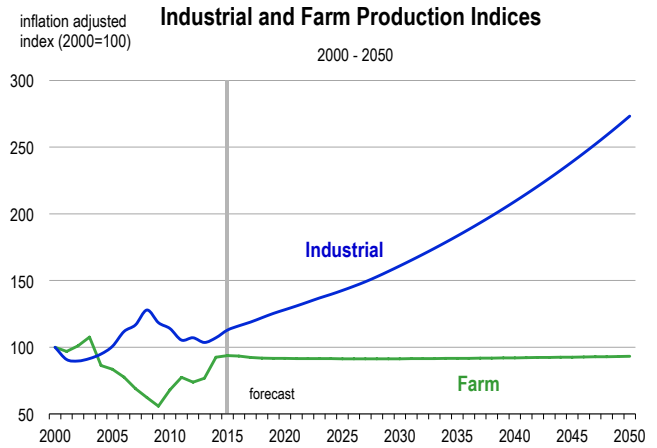
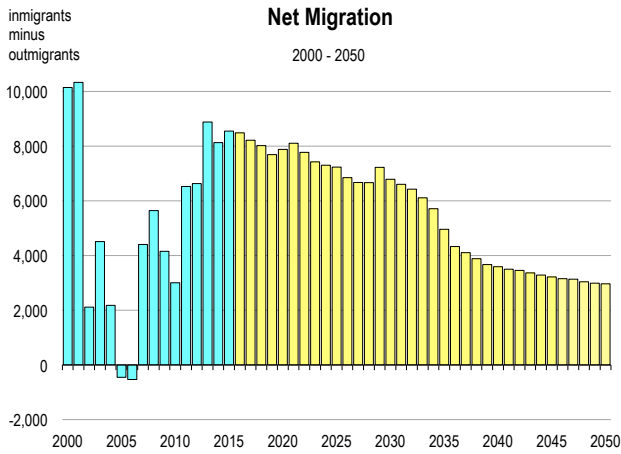
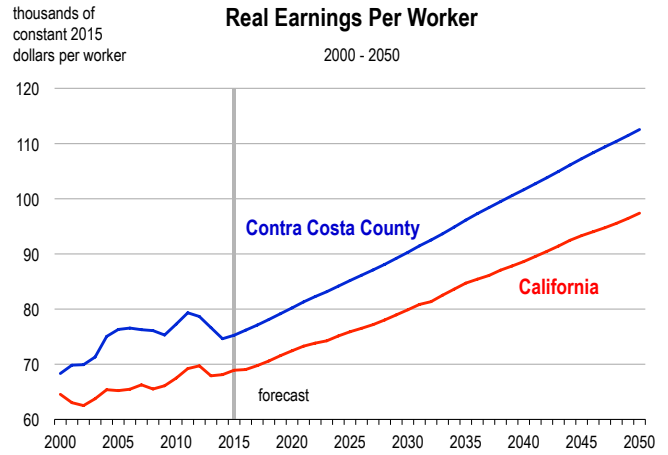
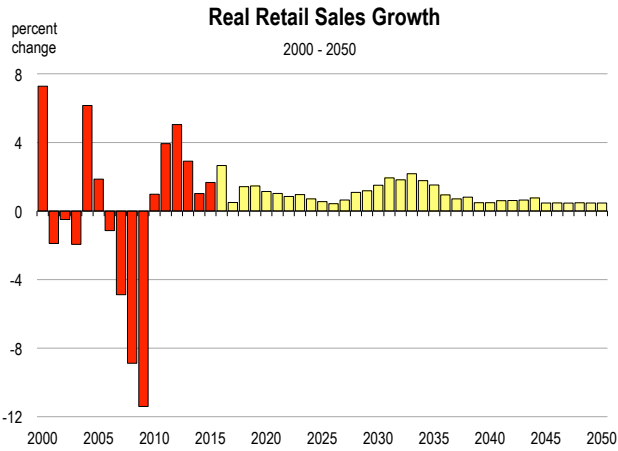


# Contra Costa County Employment Forecast

## 2010-2015 History, 2016-2050 Forecast

|  | Total Wage & Salary | Farm | Construction | Manufacturing | 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.

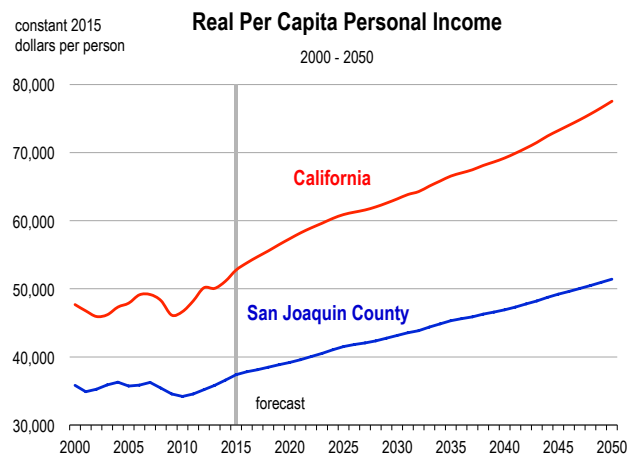
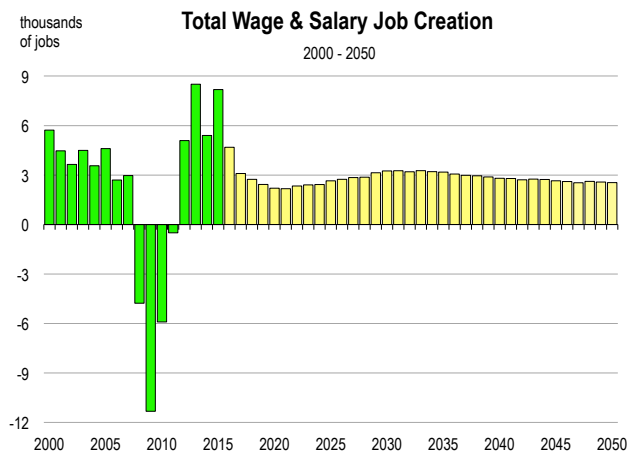
In 2015, employment across Northern California increased by 3.3 percent, whereas employment in the San Joaquin Valley (Fresno, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare counties) grew by 3.1 percent. In San Joaquin County, 8,200 total jobs were gained, representing a growth rate of 3.6 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

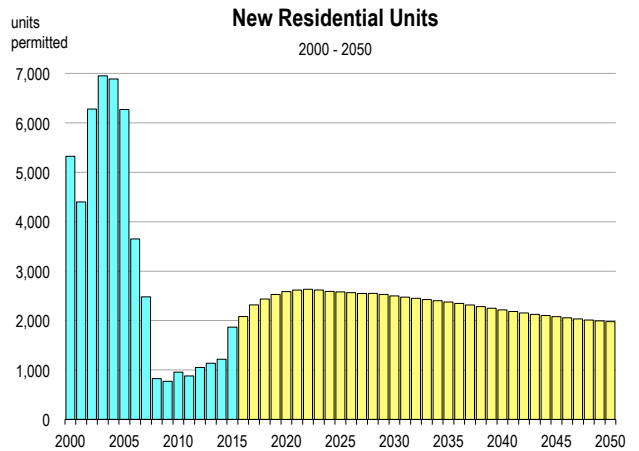
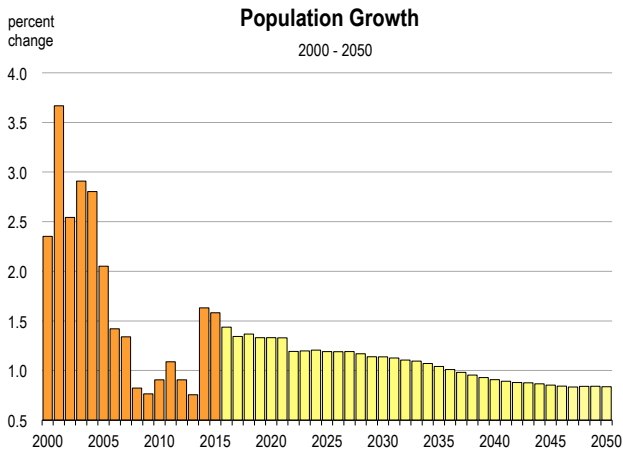
- In 2016, total wage and salary employment is expected to increase by 2.0 percent. From 2016 to 2021, growth will average 1.0 percent per year.
- The average salary is currently well below the California state average, and will remain so over the forecast period. In San Joaquin County, inflation-adjusted 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

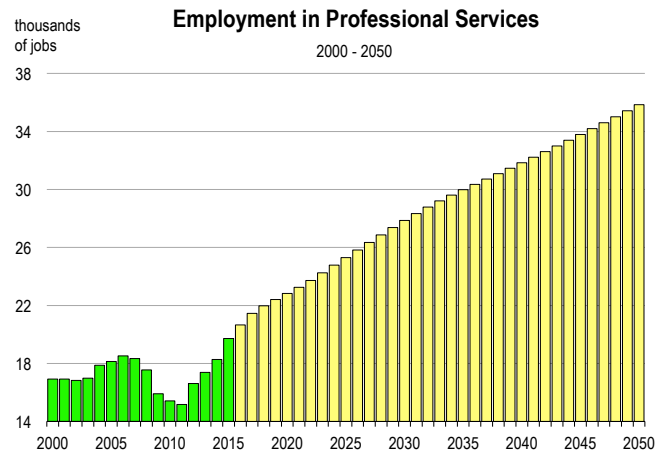
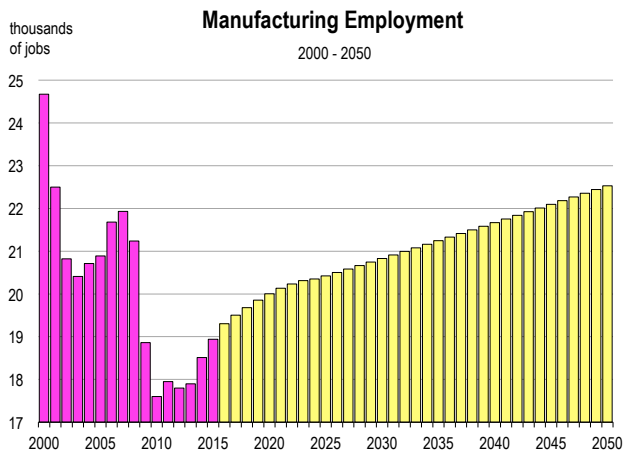
|      | Population<br>(people) | Net<br>Migration<br>(people) | Registered<br>Vehicles<br>(thousands) | Households<br>(thousands) | New Homes<br>Permitted<br>(homes) | Total Taxable<br>Sales<br>(billions) | Personal<br>Income<br>(billions) | Real Per<br>Capita Income<br>(dollars) | Inflation Rate<br>(% change<br>in CPI) | Real Farm<br>Crop Value<br>(billions) | Real Industrial<br>Production<br>(billions) | Unemploy-<br>ment Rate<br>(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                                 |



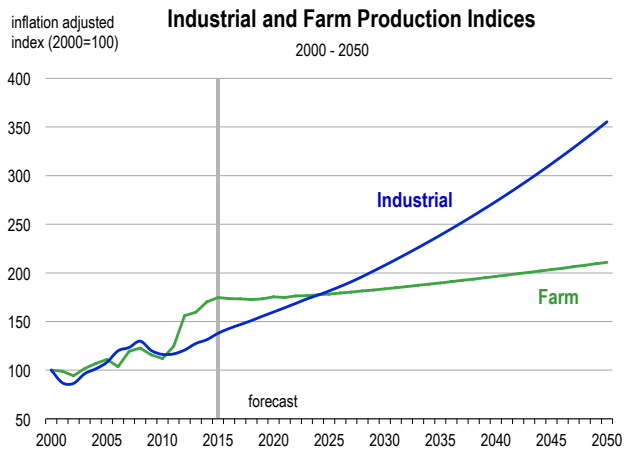
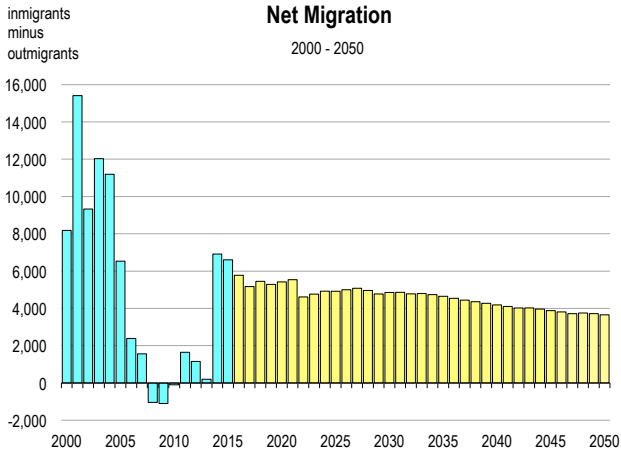
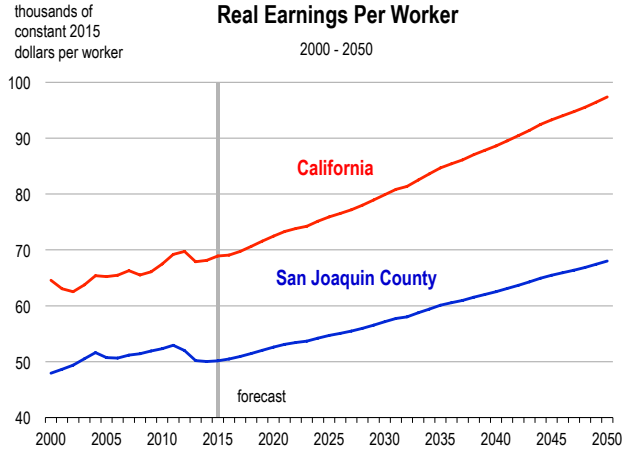
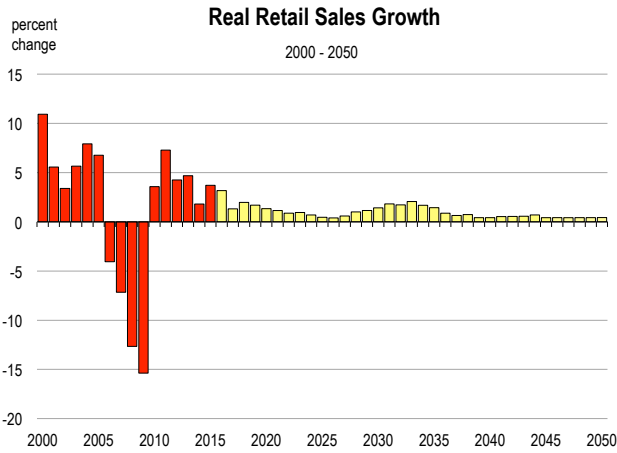
# San Joaquin County Employment Forecast

## 2010-2015 History, 2016-2050 Forecast

|  | Total Wage & Salary | Farm | Construction | Manufacturing | 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

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# Alameda County

CALIFORNIA



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prepared by

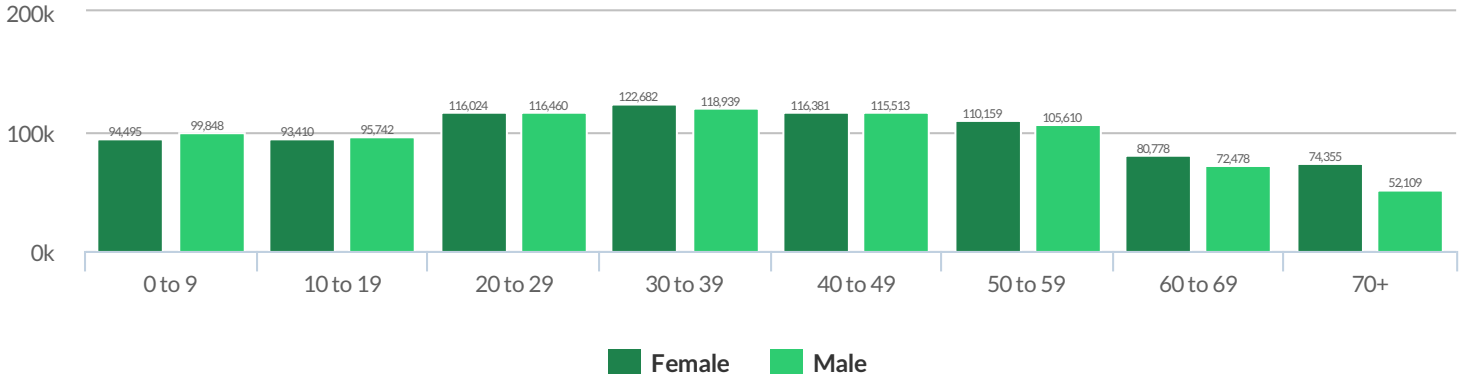


[www.cubitplanning.com](http://www.cubitplanning.com)

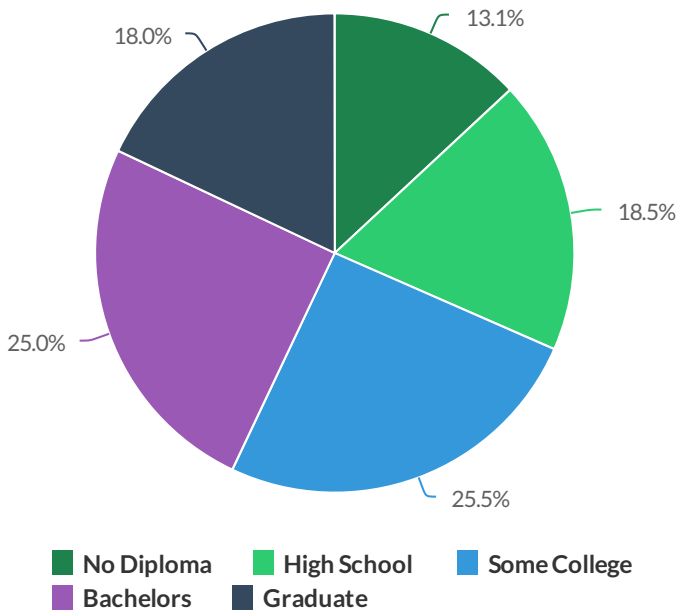
2015 POPULATION  
**1,638,215**

MEDIAN HOUSEHOLD INCOME  
**\$75,619**

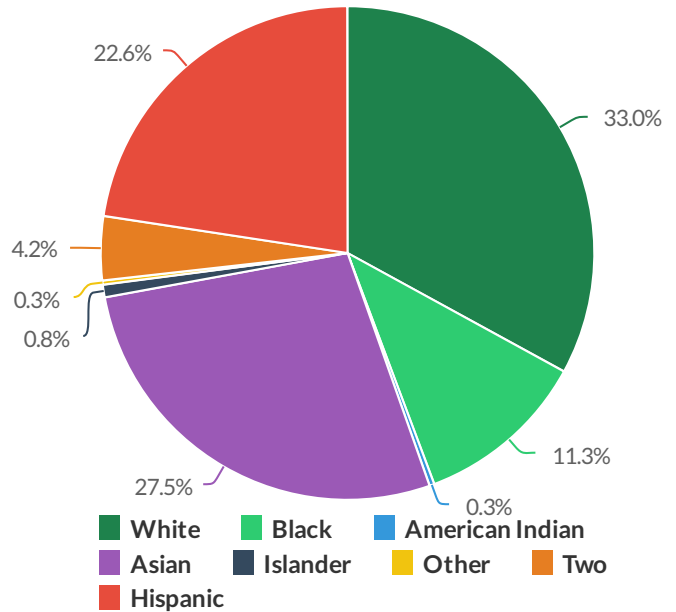
SEX BY AGE



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**

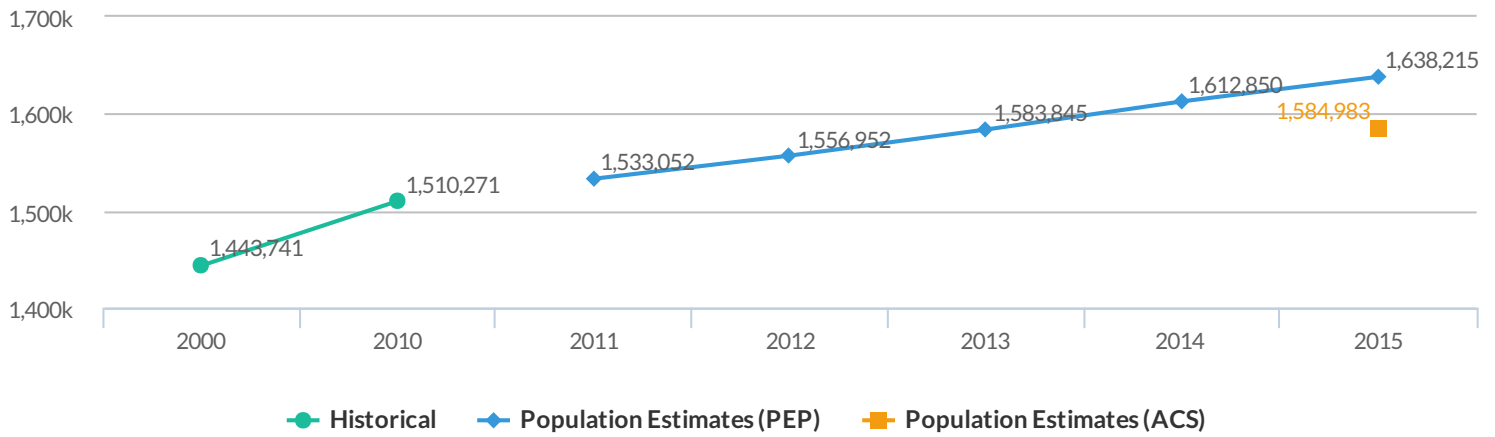
houses, apartments, mobile homes, group of rooms or single rooms that serve as separate living quarters

HOUSEHOLDS  
**558,907**

all the people who occupy a housing unit

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 | 1,584,983 | -        |

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

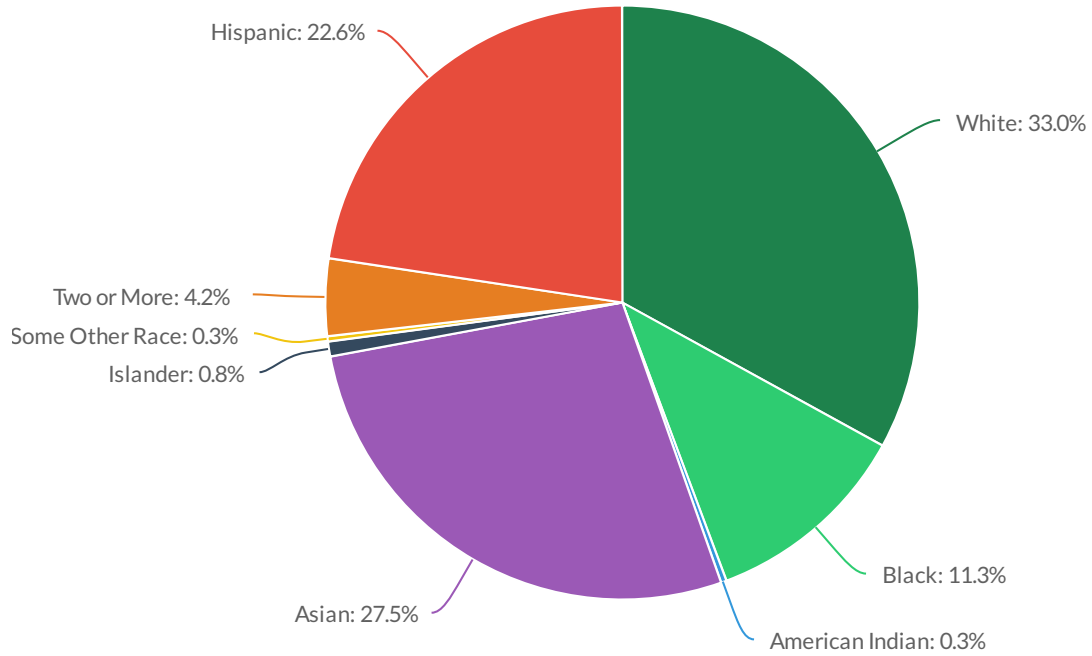
## Historical Population Counts

|      | #         | % 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%    |
| <b>Total Population</b> | <b>1,584,983</b> | <b>-</b> |

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/](http://www.census.gov/acs/www/data_documentation/documentation_main/).

Source: American Community Survey 2015

## Detailed Race

|   | #                | %            |
|---|------------------|--------------|
| <b>One race</b>   | <b>1,487,408</b> | <b>93.8%</b> |
| 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%         |
| <b>Two or more races</b>  | <b>97,575</b>    | <b>6.2%</b>  |
| 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%         |
| <b>Total Population</b>   | <b>1,584,983</b> | <b>-</b>     |

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

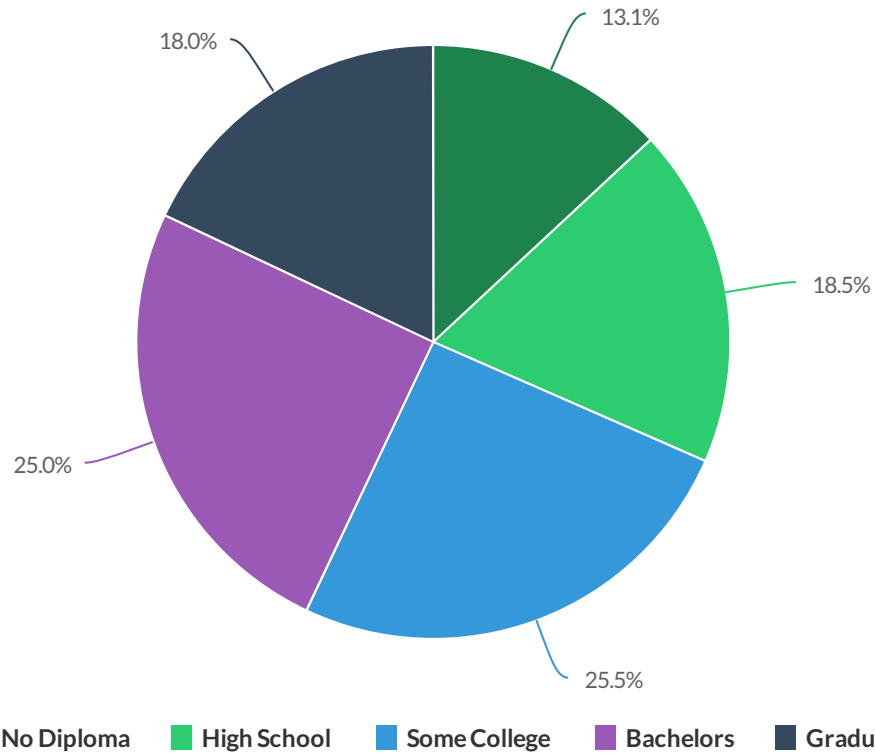
## AGE BREAKDOWN

|                  | #         | %     |
|------------------|-----------|-------|
| 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/](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/](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% |

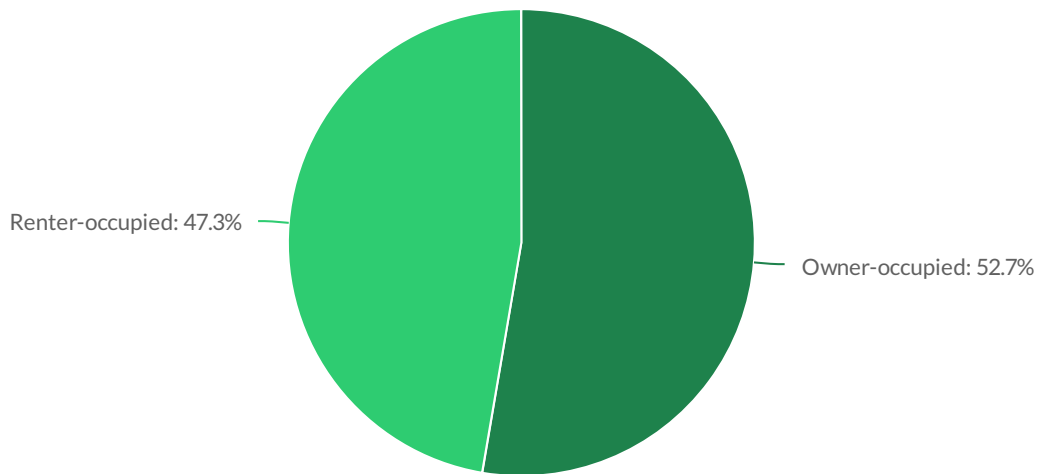
Source: American Community Survey 2015

# 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.

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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/](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>.

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DEMOGRAPHICS STARTER REPORT

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# Contra Costa County

CALIFORNIA



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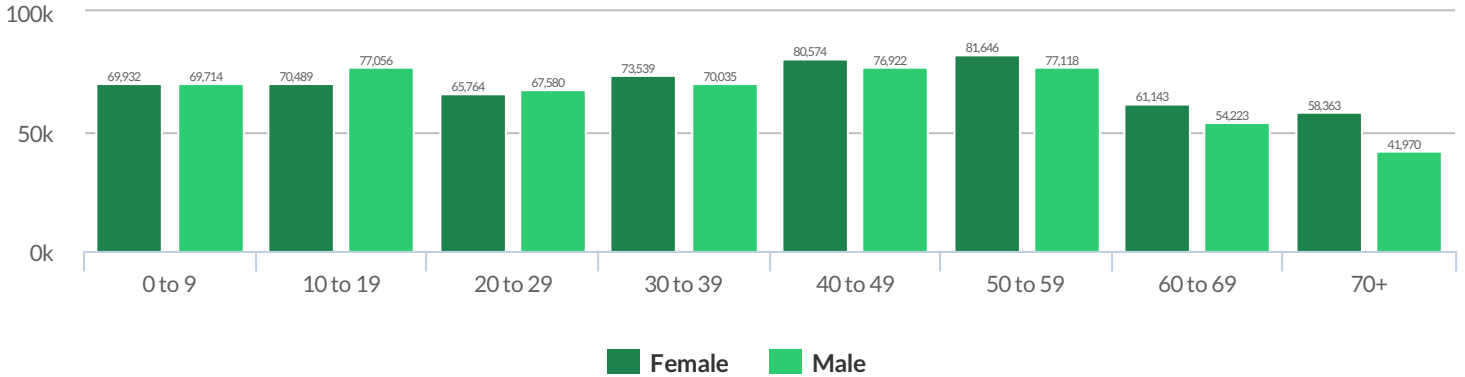


[www.cubitplanning.com](http://www.cubitplanning.com)

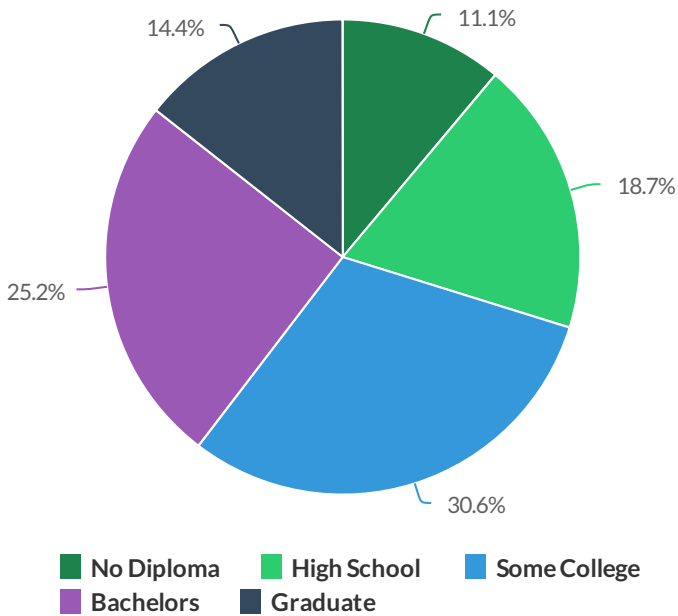
2015 POPULATION  
**1,126,745**

MEDIAN HOUSEHOLD INCOME  
**\$80,185**

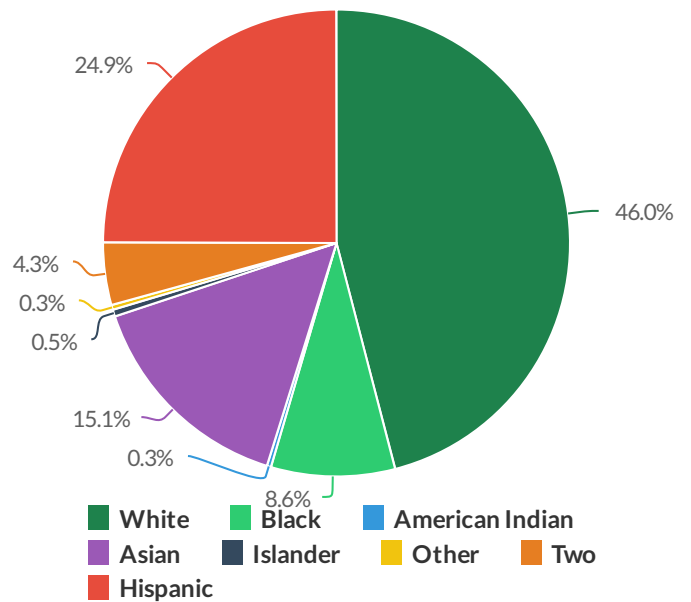
SEX BY AGE



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**

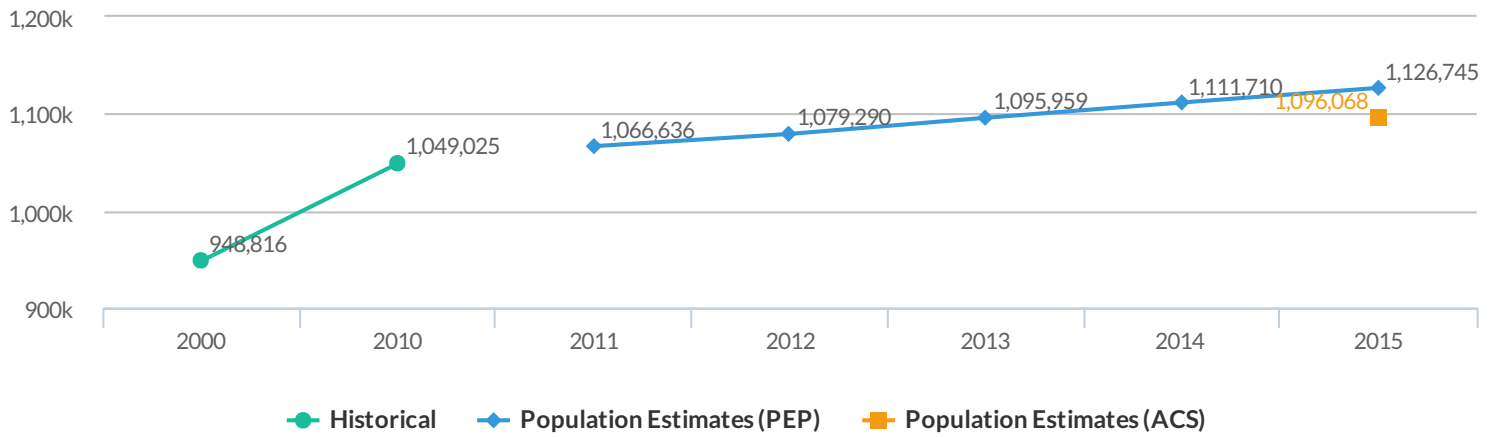
houses, apartments, mobile homes, group of rooms or single rooms that serve as separate living quarters

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

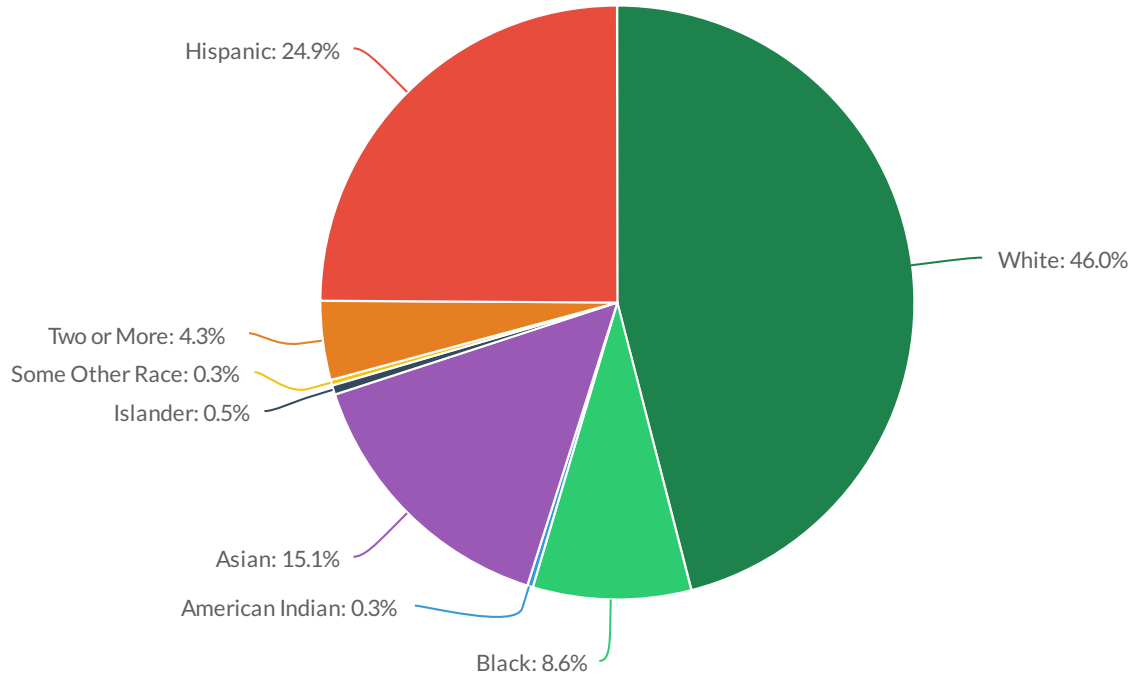
|      | #         | % Change |
|------|-----------|----------|
| 2000 | 948,816   | -        |
| 2010 | 1,049,025 | 10.6%    |

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%    |
| <b>Total Population</b> | <b>1,096,068</b> | <b>-</b> |

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/](http://www.census.gov/acs/www/data_documentation/documentation_main/).

Source: American Community Survey 2015

## Detailed Race

|   | #                | %            |
|---|------------------|--------------|
| <b>One race</b>   | <b>1,028,751</b> | <b>93.9%</b> |
| 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%         |
| <b>Two or more races</b>  | <b>67,317</b>    | <b>6.1%</b>  |
| 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%         |
| <b>Total Population</b>   | <b>1,096,068</b> | <b>-</b>     |

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 | -     |

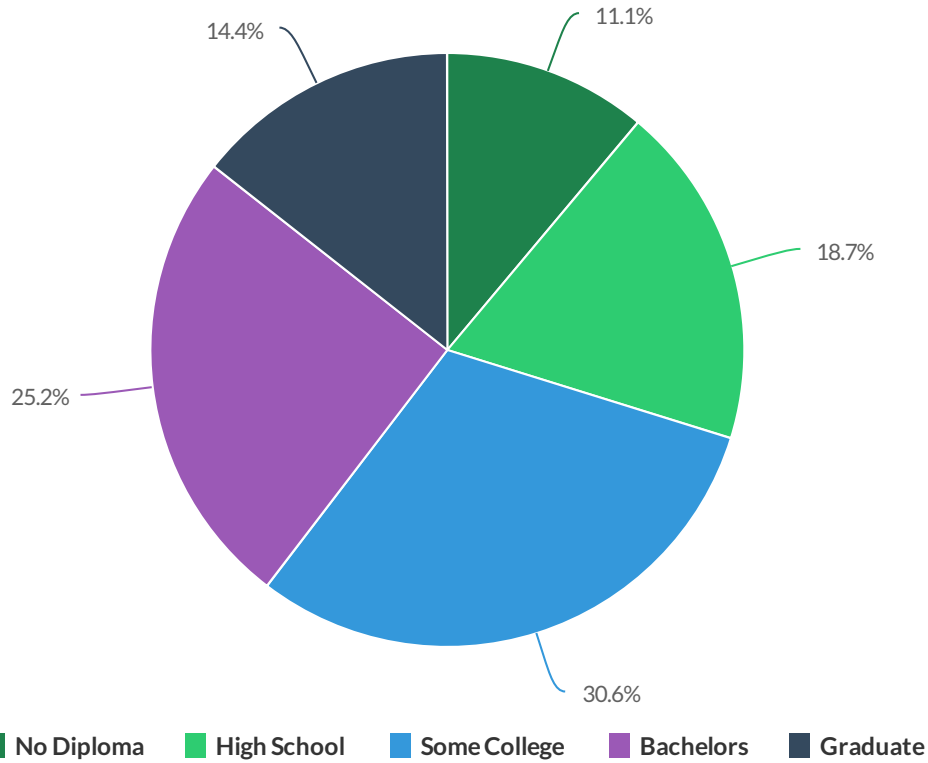
Source: American Community Survey 2015

## 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/](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/](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% |

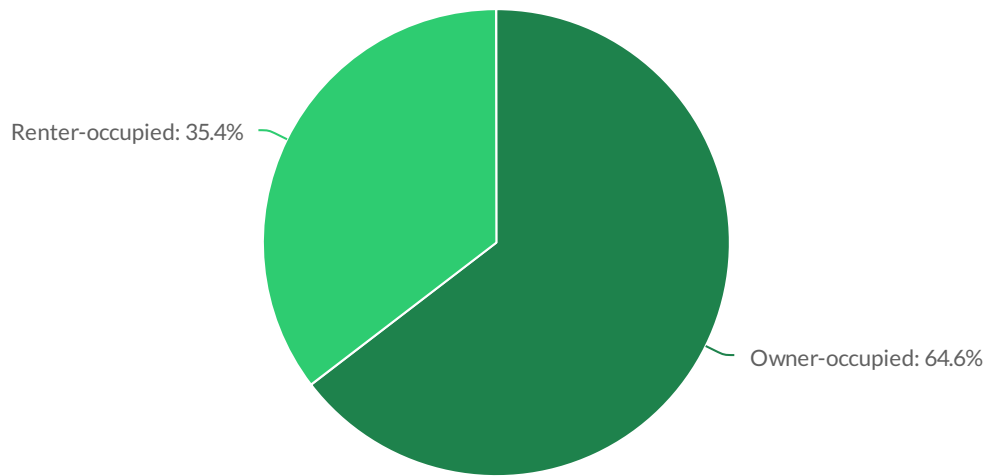
Source: American Community Survey 2015

# 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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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/](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>.

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DEMOGRAPHICS STARTER REPORT

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# San Joaquin County

CALIFORNIA



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| Housing                | 10   |
| Citations              | 11   |

prepared by

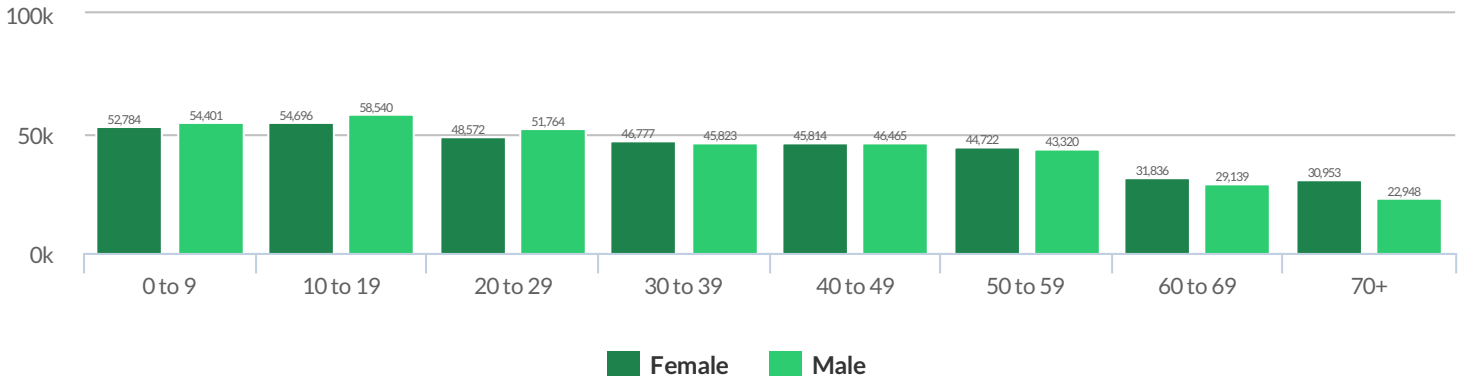


[www.cubitplanning.com](http://www.cubitplanning.com)

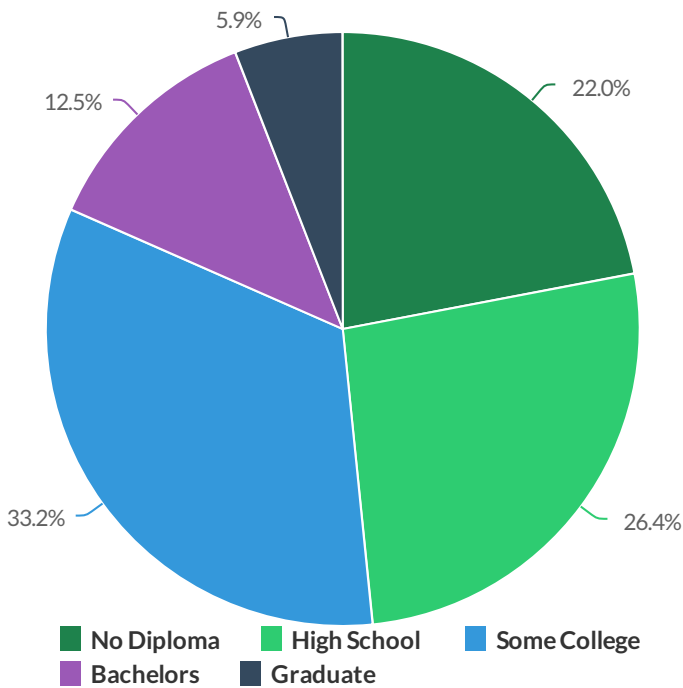
2015 POPULATION  
**726,106**

MEDIAN HOUSEHOLD INCOME  
**\$53,274**

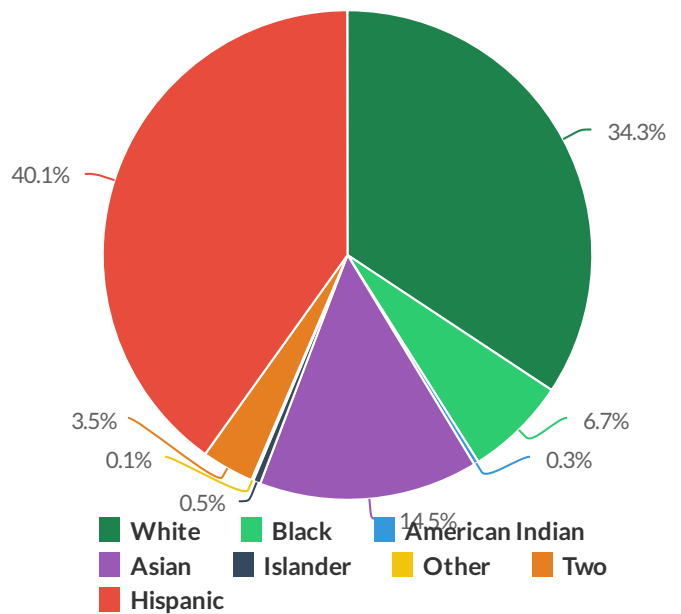
SEX BY AGE



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

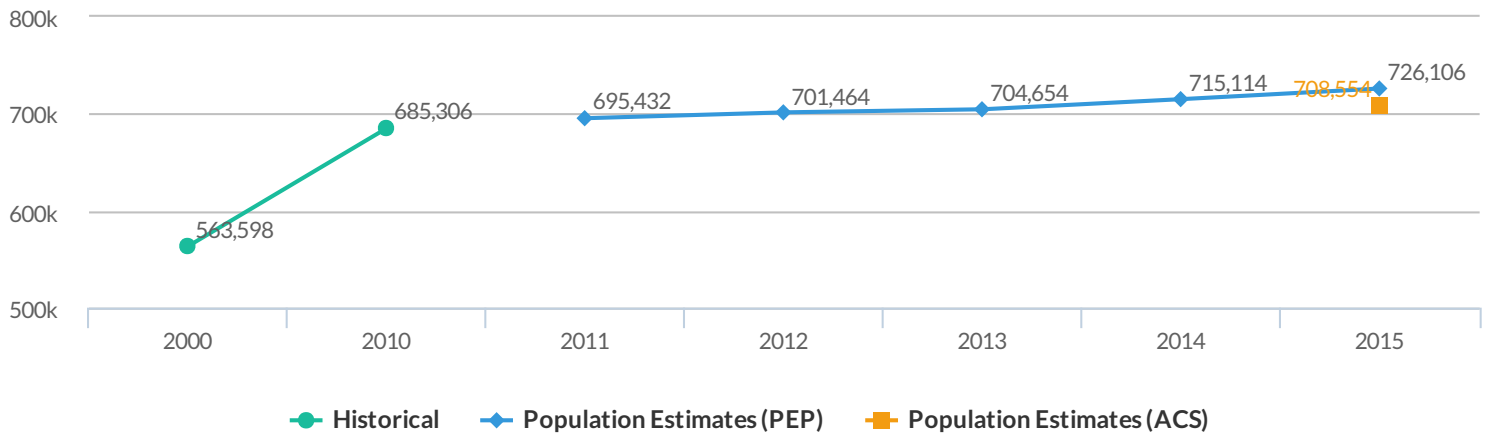
HOUSEHOLDS

**219,073**

all the people who occupy a housing unit

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 | 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

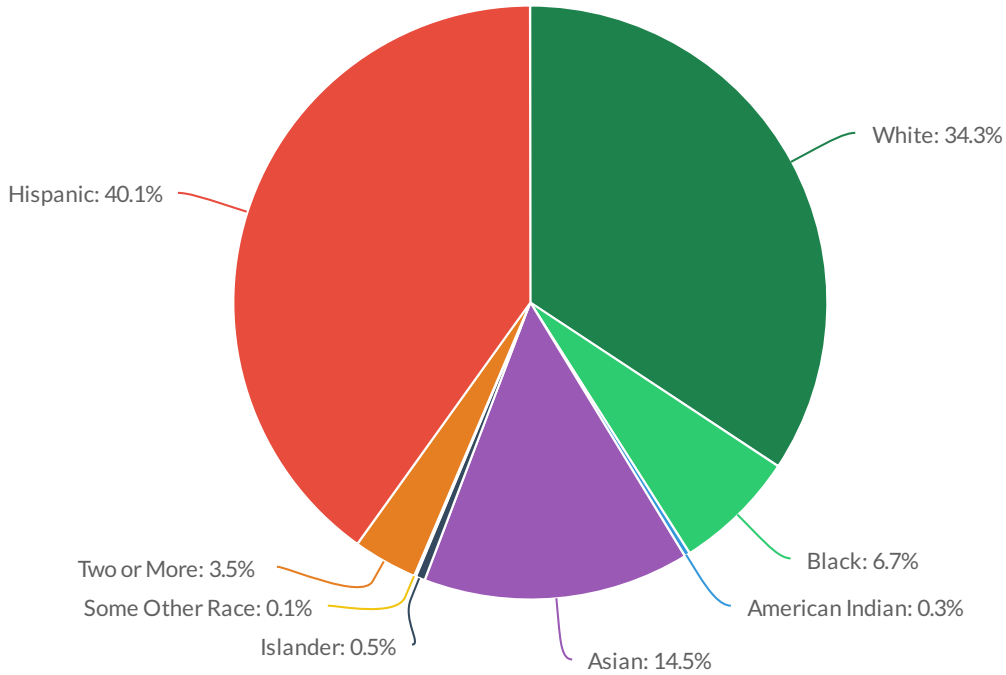
## Historical Population Counts

|      | #       | % 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%    |
| <b>Total Population</b> | <b>708,554</b> | <b>-</b> |

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/](http://www.census.gov/acs/www/data_documentation/documentation_main/).

Source: American Community Survey 2015

## Detailed Race

|   | #              | %            |
|---|----------------|--------------|
| <b>One race</b>   | <b>650,281</b> | <b>91.8%</b> |
| 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%        |
| <b>Two or more races</b>  | <b>58,273</b>  | <b>8.2%</b>  |
| 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%         |
| <b>Total Population</b>   | <b>708,554</b> | <b>-</b>     |

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 | -     |

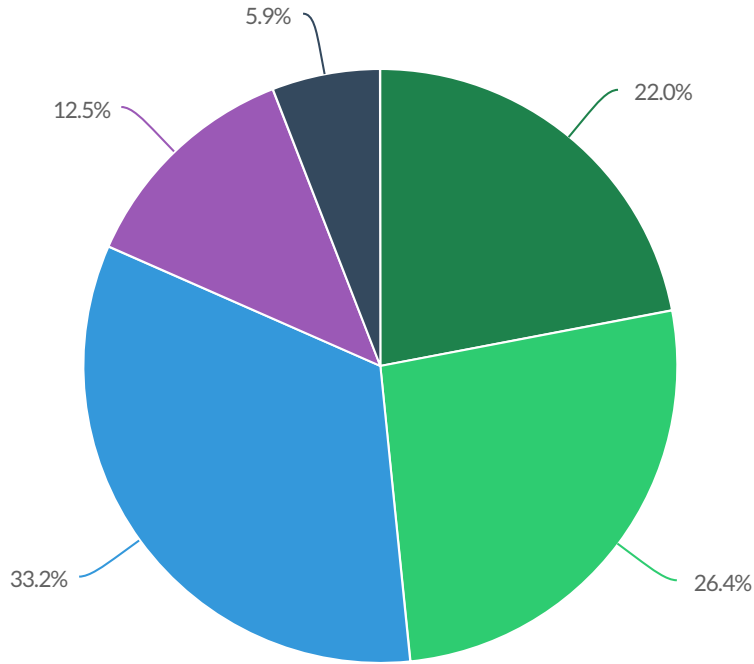
Source: American Community Survey 2015

## 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/](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/](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% |

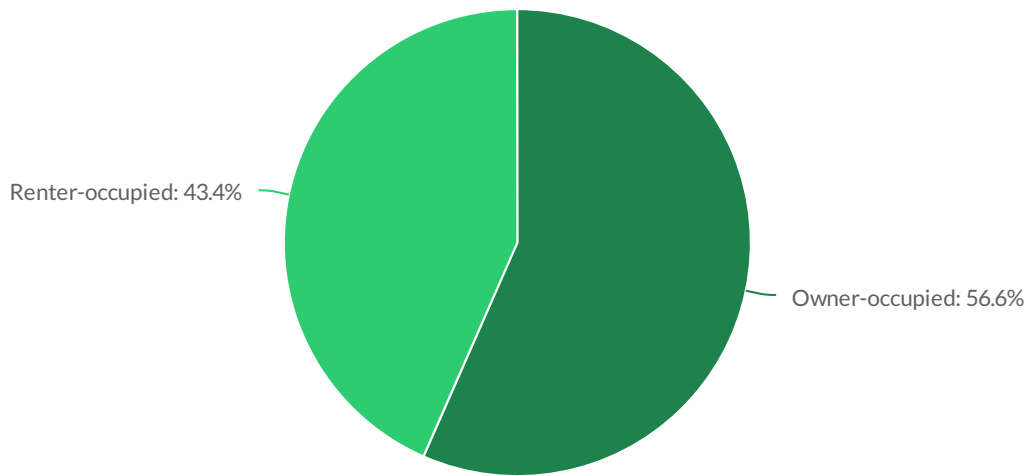
Source: American Community Survey 2015

# 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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United States Census Bureau. *2010 Census*. U.S. Census Bureau, 2012. Web. 17 October 2012 [ftp://ftp.census.gov/census\\_2010/](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/](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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## **Appendix C: TWSID List of Interim Drainage Agreements**

## Appendix A

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 <b>(Not Executed)</b>   |
| 3/1999     | Agreement Regarding Interim Drainage for King & Lyons <b>(Not Executed)</b>  |
| 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 <b>(NOT Fully Executed)</b>  |
| 6/8/2000   | Agreement Regarding Interim Drainage for Patterson Pass Business Park <b>(Fully Executed)</b>  |
| 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 <b>(NOT Fully Executed)</b>  |
| 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 <b>(Not Executed)</b>   |
| 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 <b>(Not Executed)</b>   |
| 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, 14<sup>th</sup> Floor ♦ Sacramento, California 95814 ♦ 916.341.5300  
P.O. Box 2000 ♦ Sacramento, California 95812-2000  
Fax: 916.341.5400 ♦ [www.waterboards.ca.gov/waterrights](http://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.

(000027)

**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 SE $\frac{1}{4}$  of NE $\frac{1}{4}$  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, Tuso

NOES:

ABSENT: Musco

ABSTAIN:

  
\_\_\_\_\_  
Russell Kagehiro, President

ATTEST:  
  
\_\_\_\_\_  
Rick Gilmore, Secretary

**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:

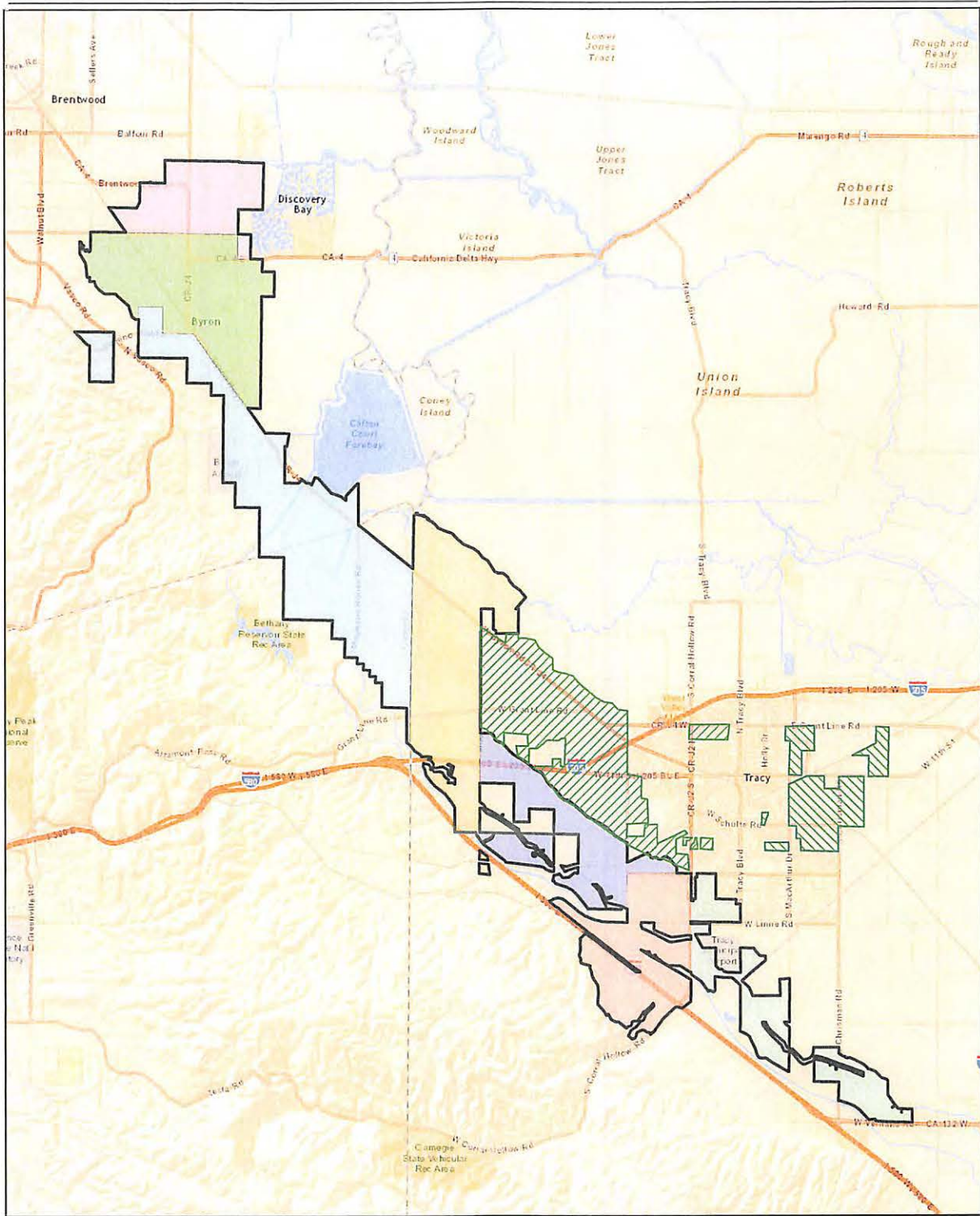
  
\_\_\_\_\_  
Jack Alvarez, President

ATTEST:

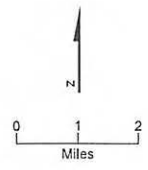
  
\_\_\_\_\_  
Carol Petz, Secretary

**EXHIBIT A**





- LEGEND**
- BBID District Boundary
  - West Side Irrigation District (approximate boundary)
  - Divisions**
  - Division 1
  - Division 2
  - Division 3
  - Division 4
  - Division 5
  - Division 6
  - Division 7
  - 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, Incept 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 rate<sup>1</sup> 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 rate<sup>2</sup> 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

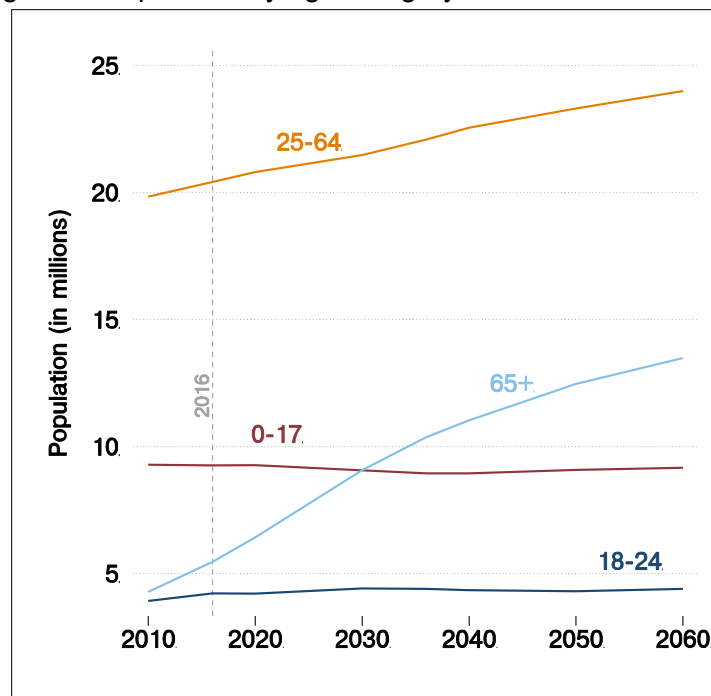
In 2016, 24 percent of the population of California was under age 18 (9.2 million). The working-age population (18-64) was 63 percent of the population (24.6 million), and is projected to decrease modestly as a share of the total population. Growth is expected in the age 65 and over group: it was 14 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

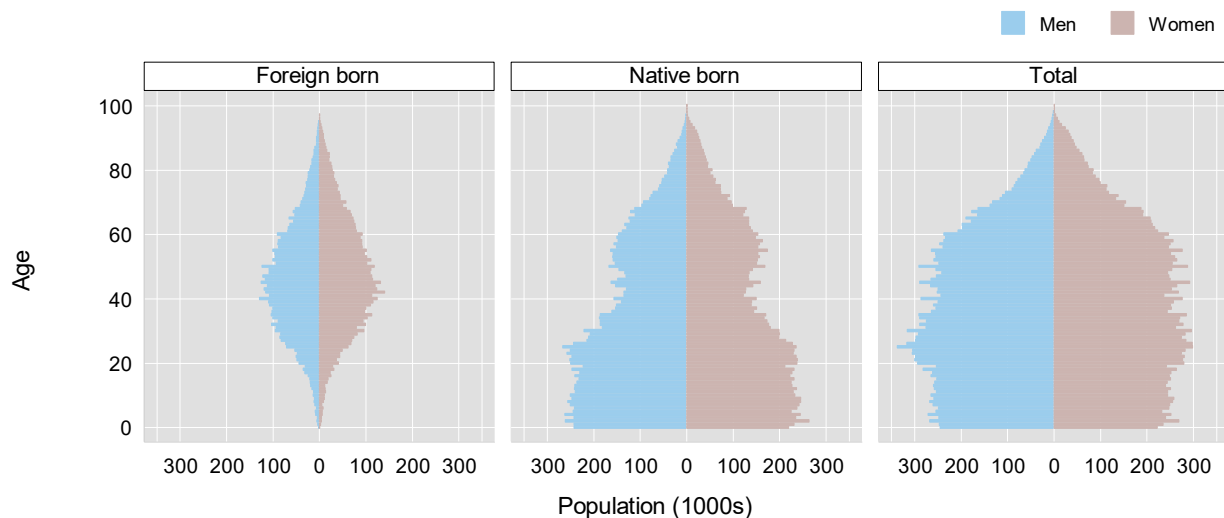


Population aging will be rapid during the next 20 years as a large cohort of Baby Boomers (born 1946-1964) moves into and through retirement. The share of the population age 65 and older is projected to grow rapidly, becoming a larger share of the population in 2030 than children under 18. The median 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 rate<sup>3</sup> 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

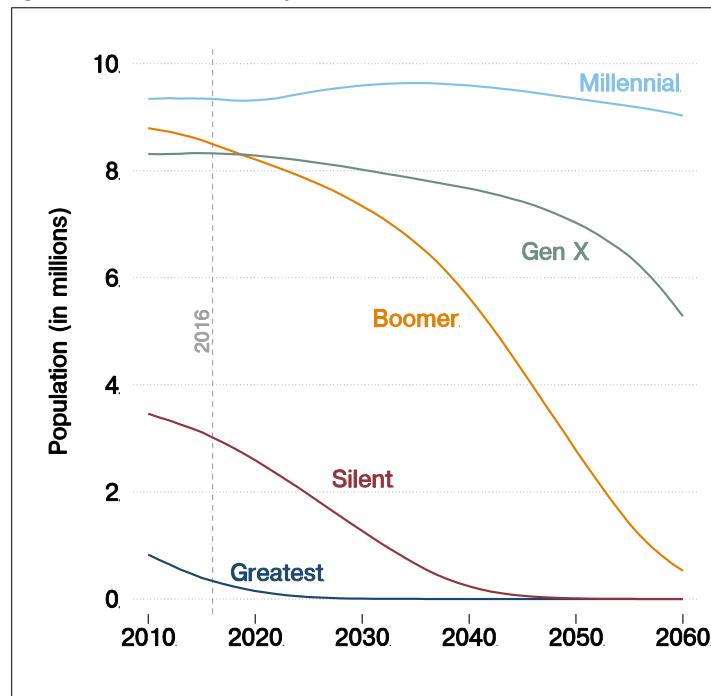
Births through 1997 can be divided into five generations or cohorts (Table 3/Figure 3). The largest cohort in California today is the Millennial (born 1981-1997). The Millennial generation is projected to peak in size at 9.5 million persons during the 2030s, as its ranks continue to grow due to migration. 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       |      |
|----------------------------|------------|------|------------|------|------------|------|
|                            | Population | %    | Population | %    | Population | %    |
| 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/>

<sup>1</sup> Crude birth rate: number of births per 1,000 population.

<sup>2</sup> Crude death rate: number of deaths per 1,000 population.

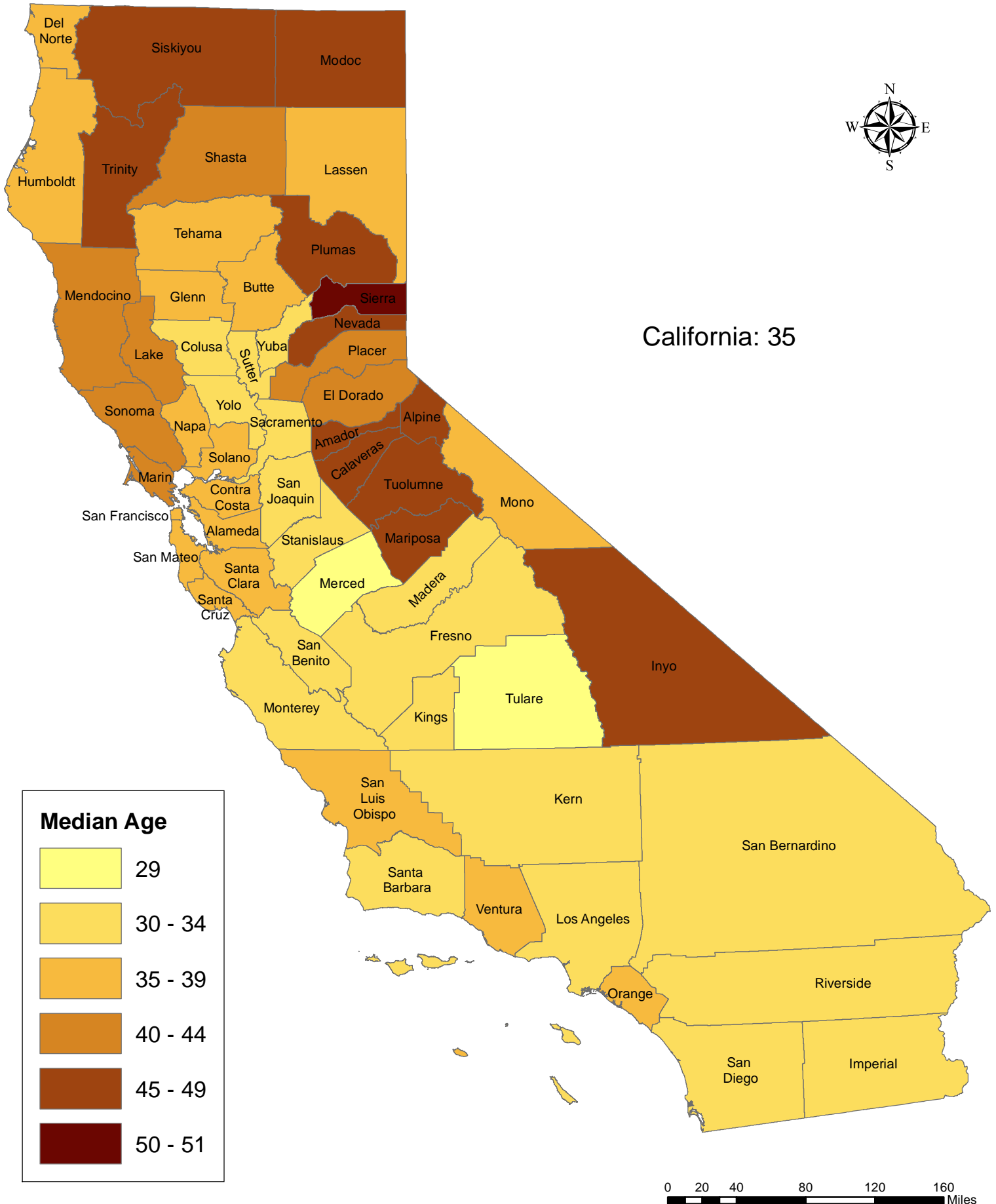
<sup>3</sup> Total fertility rate: a synthetic measure of fertility representing the hypothetical number of children born to a woman during her lifetime, if she experienced the age-specific rates for the period in question throughout her reproductive life.

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    | 140,485    |
| 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    |

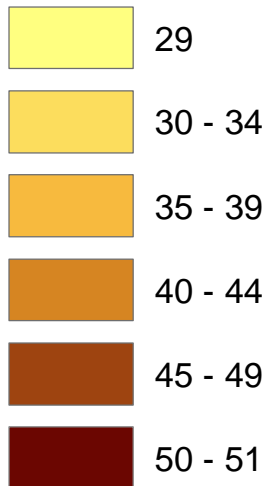
Projections Prepared by Demographic Research Unit, California Department of Finance, February 2017

# California 2010 Median Age



California: 35

## Median Age

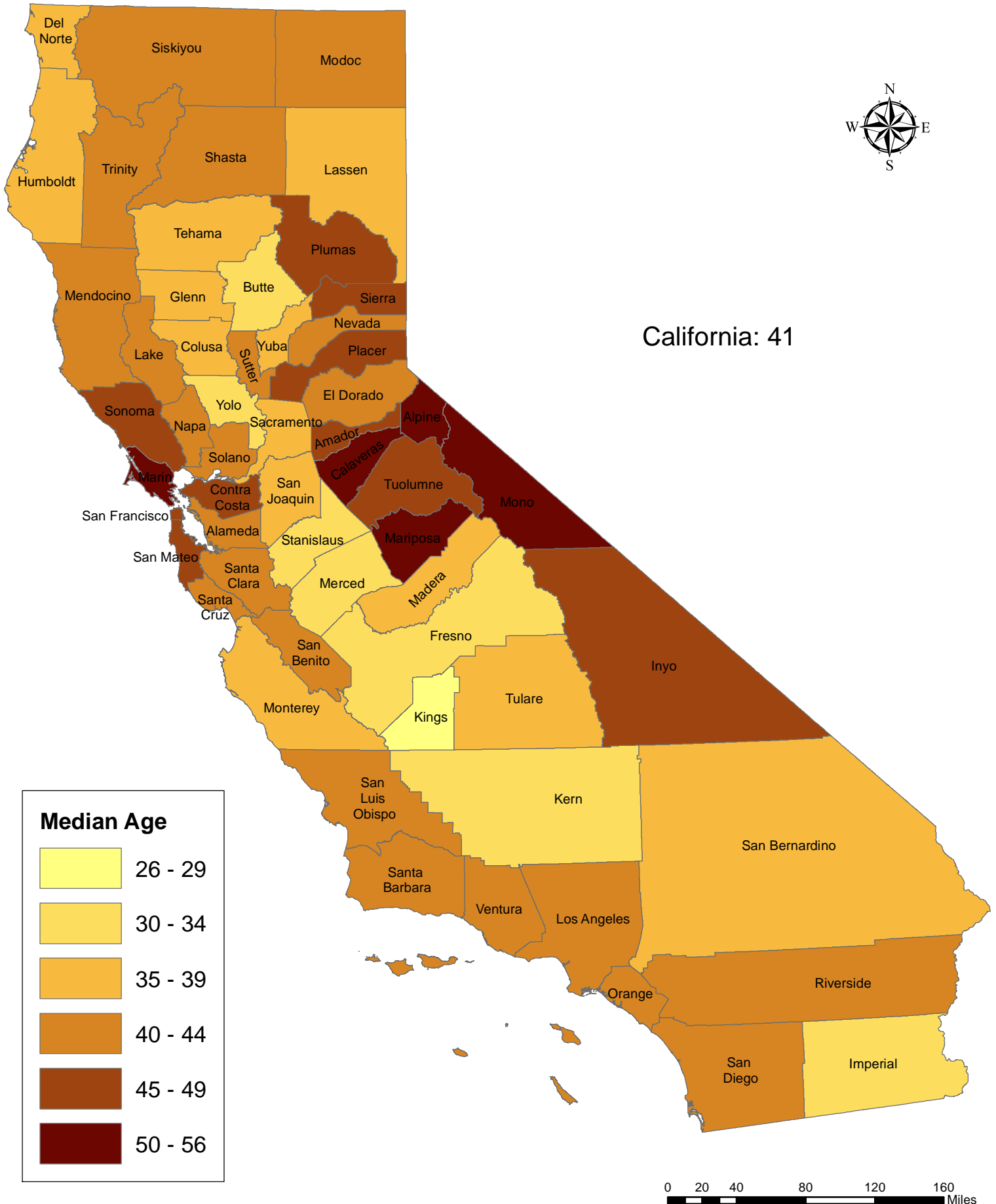


0 20 40 80 120 160 Miles

Source: U.S. Census Bureau, 2010 Census.

Map prepared by: California Department of Finance, Demographic Research Unit, February 2017.

# California Projected 2035 Median Age



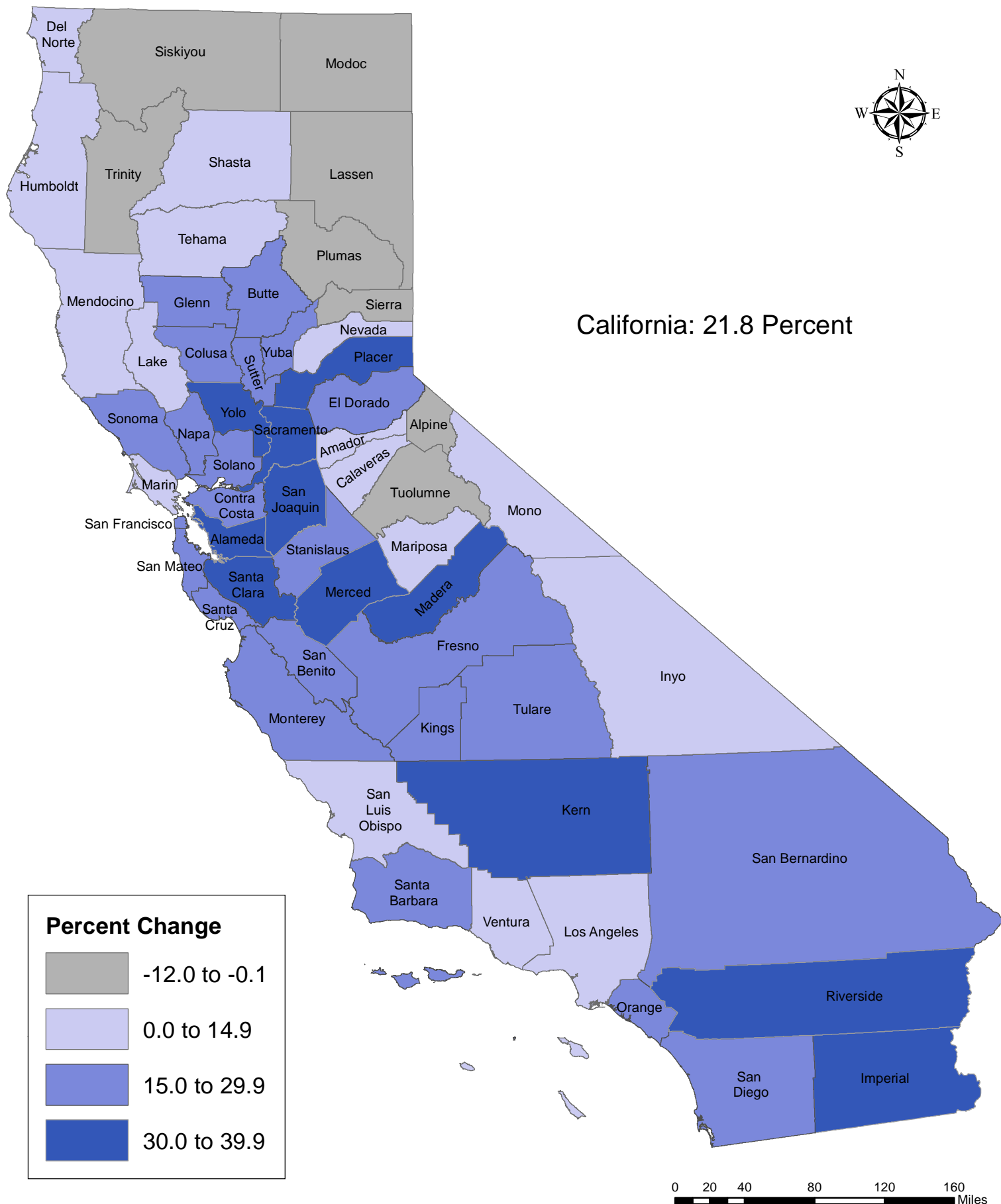
Source: California Department of Finance, Population Projections for California and its Counties, 2016 Baseline Series. Map prepared by: California Department of Finance, Demographic Research Unit, February 2017.

# California Projected Population Growth 2010 to 2035 Numeric Change



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 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.