



FINAL

**Municipal Service Review
Selected San Joaquin County
Reclamation Districts**

San Joaquin Local Agency Formation Commission

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E Mulberg & Associates
P.O. Box 582931
Elk Grove, CA, 95758
916.217.8393

Policy Consulting Associates
5050 Laguna Blvd. Ste 112-711
Elk Grove, CA 95758

Public and Environmental Finance Associates
3614 Albemarle NW
Washington, DC 20008

Project Resource Associates
P.O. Box 2247
Borrego Springs, CA 92004

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ACRONYMS AND ABBREVIATIONS

CDFW	California Department of Fish and Wildlife
CDP	census designated place
CSDS	California State Duck Stamp
CVFPB	Central Valley Flood Protection Board
DFW	Department of Fish and Wildlife
DUC	Disadvantaged Unincorporated Community
DWR	Department of Water Resources
EOP	Emergency Operation Plan
ERP	Ecosystem Restoration Program
FEMA	Federal Emergency Management Agency
FSRP	Flood Safety Repair Project
Gpm	gallons per minute
HMP	Hazard Mitigation Plan
JPA	Joint Powers Authority
LAFCo	Local Agency Formation Commission
LIDAR	Light Detection and Ranging
LMA	Levee Maintenance Agency
MHI	median household income
NAVD 88	North American Vertical Datum of 1988
NFIP	FEMA’s National Flood Insurance Program
NDAA	Natural Disaster Assistance
NOAA	National Oceanic and Atmospheric Administration
PDM	Pre-Disaster Mitigation
RD	reclamation district
RFMP	Regional Flood Management Plan
RIPFA	River Island Public Financing Authority
ROW	right of way
SAA	Streambed Alteration Agreement
SDWA	South Delta Water Agency
SEWD	Stockton East Water Agency
SJAFCA	San Joaquin Area Flood Control Agency
SJCOG	San Joaquin Council of Governments
SJOES	San Joaquin County Office of Emergency Services
SJOA	San Joaquin Operational Area

SOI	Sphere of Influence
USFWS	U.S. Fish and Wildlife Service
ULDC	Urban Levee Design Criteria
ULOP	Urban Level of Protection
USACE	U.S. Army Corps of Engineers

1: INTRODUCTION

The fundamental role of a Local Agency Formation Commission (LAFCo) is to implement the Cortese-Knox-Hertzberg (CKH) Local Government Reorganization Act of 2000 (Government Code Section 56000, et seq.), providing for the logical, efficient, and most appropriate formation of local municipalities, service areas, and special districts. The CKH requires all LAFCOs, including San Joaquin LAFCo, to conduct a Municipal Service Review (MSR) prior to updating the Spheres of Influence of the various cities and special districts in the County (Government Code Section 56430). CKH requires an MSR and Sphere of Influence (SOI) update every 5 years.

The focus of this MSR is to provide San Joaquin LAFCo with all necessary and relevant information related to twenty-one of the fifty-two reclamation districts (RD) in San Joaquin County. This MSR will focus on the ability of the districts to protect 73,853 acres from flood events through maintenance of 146 miles of levee. Table 1-1 lists the districts that are the subject of this MSR which are shown in Exhibit 1-1.

Table 1-1: Reclamation Districts Reviewed

DISTRICT	NAME	ACREAGE	MILES OF LEVEE	MILES OF PROJECT LEVEE
17	Mossdale	11,221	16.03	16.03
348	New Hope	9,300	18.6	
404	Boggs Tract	2,130	4.75	4.1
828	Weber Tract	695	1.96	
1007	Pico & Nagle	6,089	8.3	
1608	Lincoln Village West	990	3.54	
1614	Smith Tract	1598	6.0	
2042	Bishop Tract	3095	8.0	
2058	Pescadero	8418	9.0	6.58
2062	Stewart Tract	4781	15.45	12.14
2064	River Junction	4938	10.2	11.65
2074	Sargent-Bar	1300	4.64	
2075	Mc Mullin	6045	7.45	7.45
2085	Kasson	2044	6.18	6.28
2094	Wathal	1900	3.23	3.23
2095	Paradise	3567	4.86	4.86
2096	Wetherbee	70	0.7	0.16
2107	Mossdale	1031	4.15	4.15
2115	Shima Tract	1806	6.6	
2119	Wright-Elmwood	2,300	7.07	
2126	Atlas Tract	360	3.08	

Many districts maintain project levees, which by definition are part of the State-Federal Sacramento River Flood Control System and the San Joaquin River Flood Control Project. Those districts that do maintain project levees are subject to Assembly Bill (AB) 156 reporting requirements to the California Department of Water Resources (DWR).

This Municipal Service Review (MSR) will make determinations in each of the seven areas prescribed by CKH. This MSR evaluates the structure and operation of each of the agencies and discusses possible areas for improvement and coordination.

The report contains one subsection for each of the following seven elements as prescribed by CKH:

- **Growth and Population Projections**—This subsection discusses trends in growth and population for the agency. Population projections will be for a minimum of 5 years to comply with the update requirements for municipal service reviews. The section will also look at population projections through the next 30 years.
- **Location and Characteristics of any Disadvantaged Unincorporated Communities Within or Contiguous to the Sphere of Influence**—This subsection was added by Senate Bill (SB) 244, which became effective in January 2012. The legislation was designed to promote infrastructure improvement investments in these areas. It established new requirements for LAFCOs and for land use agencies (cities and counties), requiring them to identify DUCs and to consider the provision of water, wastewater and structural fire protection services to these areas.

The term “Disadvantaged Unincorporated Community” was broadly defined by the legislation as inhabited territory, as defined by § 56046, or as determined by commission policy, that constitutes all or a portion of a “disadvantaged community” as defined by § 79505.5 of the Water Code. A disadvantaged unincorporated community (DUC) consists of at least 10 dwelling units in a fringe, island, or legacy community in which the median household income (MHI) is 80 percent or less of the statewide MHI. According to the U.S. Census Bureau, 2015 American Community Survey 1-Year Estimates, the MHI in California in 2015 was \$64,500. Therefore, a DUC in San Joaquin County would have an MHI of \$51,600 or less.

It further defines an unincorporated fringe community as any inhabited and unincorporated territory that is within a city’s Sphere of Influence. An unincorporated island community is defined as 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. An unincorporated legacy community means a geographically isolated community that is inhabited and has existed for at least 50 years.

Granted reclamation districts do not provide water, wastewater, or fire protection services, in order to comply with the requirements of CKH, DUC’s must be addressed in the MSR and in the determinations. DUCs are determined by first whether the territory is within the city limits. If so it is not an unincorporated area. Then there is a determination of whether the area is inhabited by the above definition and third there is a determination of the median household income.

The DWR has developed a mapping tool to assist in determining which communities meet the disadvantaged communities MHI definition. The DWR Mapping Tool is an interactive map

application that allows users to overlay the following three U.S. Census geographies as separate data layers—Census Place, Census Tract, and Census Block Group. The specific dataset used in the tool is the US Census American Community Survey Five-Year Data: 2010–2014. Only those census geographies that meet the disadvantaged community definition are shown on the map (i.e., only those with an annual MHI that is less than 80 percent of the statewide annual MHI). All these methods will be used to identify any DUC’s within the districts reviewed in this MSR.

- **Present and Planned Capacity of Public Facilities**—This subsection reviews the services provided by the districts, facilities, and capacities of each district’s ability to provide services. This subsection will describe the condition of levees and the district’s maintenance programs, projects receiving federal and state assistance.

Effective July 1, 2008, provisions of AB 156 were added to the Water Code. These additions include requirements for local levee maintaining agencies to submit to the DWR, by September 30 of each year, specific information relative to project levees they operate and maintain. Specifically, the District will be required to report the condition or performance of project levees; information identifying unknown conditions that might impair levee flood protection provided by project levees; a maintenance summary for the fiscal year; a statement of work and estimated cost of operation and maintenance of project levees; and other readily available information relevant to the condition of project levees by the CVFPB and DWR.

Each year, DWR and USACE inspect the project levees. DWR completes spring inspections in May, documenting the location, size, type, and rating of maintenance deficiencies while working with the districts to assist in planning maintenance activities prior to the flood season. DWR completes annual fall inspections in November, verifying the status of previously noted as well as any additional deficiencies that should be corrected to help ensure adequate performance during the flood season. Districts conduct inspections in the winter and summer, completing the requirement to conduct four inspections each year. DWR compiles this information for use by stakeholders and will report to the CVFPB on inspection activities as requested.

The USACE conducts two inspection programs, Routine Inspections and Periodic Inspections. Both of these inspections look at the condition of levees less frequently than DWR does, but the USACE is able to take more time and do a more thorough inspection. The USACE also determines overall ratings differently than DWR, by systems. The USACE defines systems as consisting of levees that protect a common area. This can include multiple units or multiple districts. The USACE uses the overall ratings from these inspections to determine eligibility in its Rehabilitation and Inspection Program, also known as PL 84-99.

The DWR inspection results are categorized by three scores:

Acceptable (A)—No immediate work required, other than routine maintenance. The flood protection project will function as designed and intended with a high degree of reliability, and necessary cyclical maintenance is being performed adequately.

Minimally Acceptable (M)—One or more deficient conditions exist in the flood protection project that needs to be improved or corrected. However, the project will essentially function as designed with a lesser degree of reliability than what the project could provide.

Unacceptable (U)—One or more deficient conditions exist that may prevent the project from functioning as designed, intended, or required.

- **Financial Ability to Provide Services**—This subsection reviews the budgets and audits the agency. The section will address sources of revenues, expenses, and capital improvement plans. The review will also identify financing constraints and opportunities, and cost avoidance opportunities.
- **Status and Opportunity for Shared Facilities**—This subsection discusses how the agencies work cooperatively with each other and other local agencies. In addition, this section will discuss management efficiencies and staffing, and include an organizational chart if appropriate. This portion of the report will also cover participation in joint powers authorities.
- **Government Structure and Accountability**—This subsection describes how the governing boards are selected, compensated, and their meeting schedule. It also discusses outreach efforts to residents, and how citizens participate in the governing process. A portion of this section identifies key issues and the potential for expansion or update of the Sphere of Influence, as well as potential changes of organization.
- **Any Other Matter Related to Effective or Efficient Service Delivery as Required by Commission Policy**—This subsection discusses how San Joaquin LAFCo policies may affect service delivery.

1.1 - Uses of the Municipal Service Review

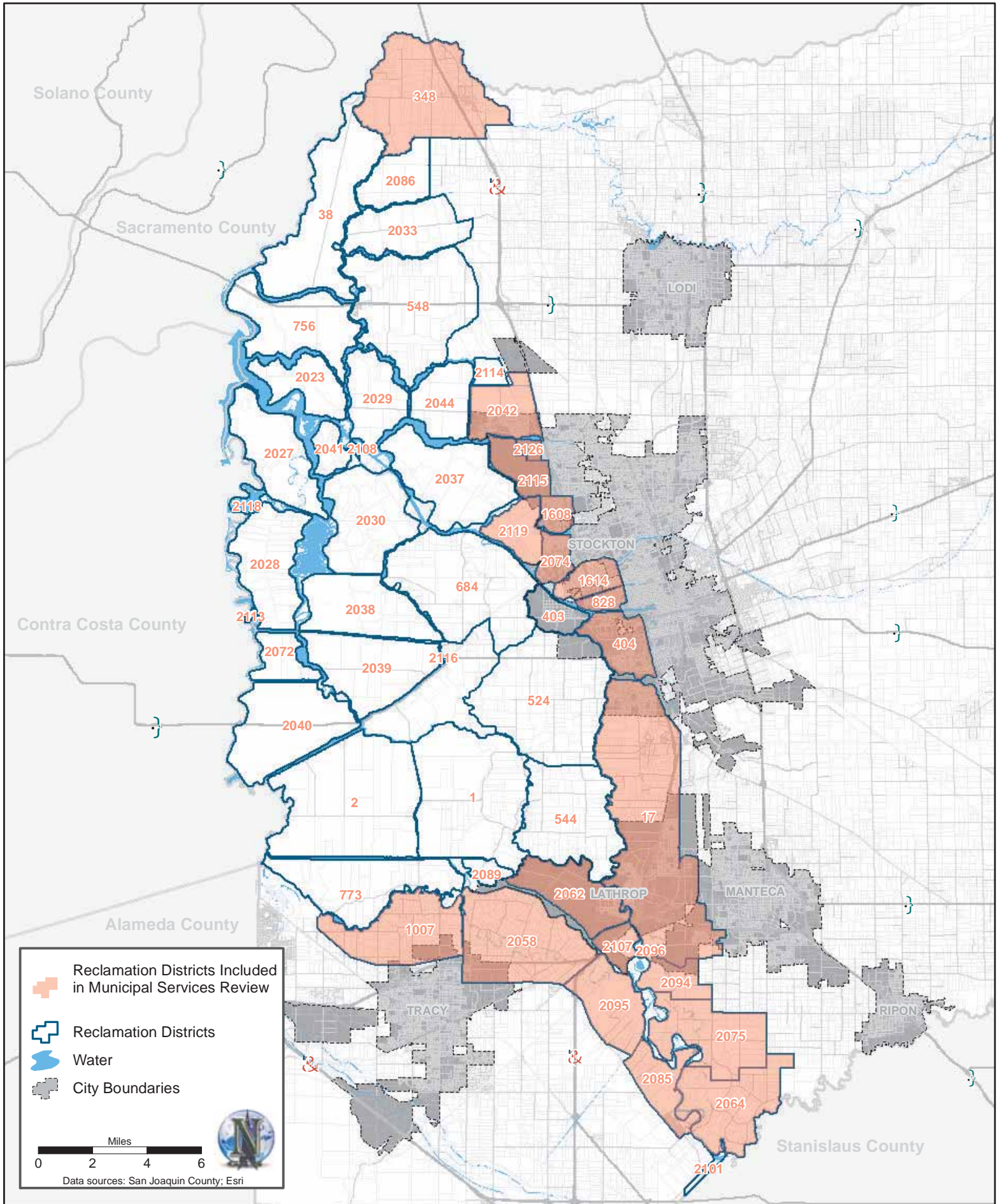
Typically, the MSR is used to shed light on the operations of a local agency, identify agencies unable to perform their mandated services, or identify ways to provide more effective efficient services.

Government Code Section 56375 allows LAFCO to take action on recommendations found in the MSR, which can range from initiating studies for changes of organization, updating the Sphere of Influence, or initiating a change in organization.

Studies in anticipation of a change in organization are useful to identify potential issues that may arise during the process. Issues can range from legal barriers to fiscal constraints to concerns of residents and landowners. A study would allow more focused analysis and the opportunity to resolve issues or options before beginning the process.

The MSR also provides the necessary information to help LAFCO make decisions on a proposed SOI update. In evaluating an expanded SOI, the MSR provides the information necessary to determine if the agency has the capability to serve a larger area. The MSR discusses the financial condition of the District, its source of revenues, and its projected expenses. It also includes a discussion of the projected infrastructure needs that would allow for expansion of those services. The MSR, however, does not address CEQA requirements of the SOI update. That requires a separate analysis.

Exhibit 1-1: San Joaquin County Reclamation Districts



Alternatively, the MSR can recommend changes in organization: consolidation, dissolution, merger, establishment of a subsidiary district, or the creation of a new agency that typically involves a consolidation of agencies. Those changes of organization will also require an environmental review and a tax sharing agreement, and they may require an election.

1.2 - California Environmental Quality Act (CEQA)

The Public Resources Code Section 21000, et seq., also known as the California Environmental Quality Act (CEQA), requires public agencies to evaluate the potential environmental effects of their actions. San Joaquin LAFCo has determined that this MSR is exempt under Class 6 categorical exemption: “Class 6 consists of basic data collection, research, experimental management, and resource evaluation activities that do not result in a serious or major disturbance to an environmental resource (CEQA Guidelines Section 15262).”

2: EXECUTIVE SUMMARY

2.1 - Role and Responsibility of LAFCO

The fundamental role of a LAFCo is to implement the CKH Local Government Reorganization Act of 2000 (Government Code Section 56000, et seq.), providing for the logical, efficient, and most appropriate formation of local municipalities, service areas, and special districts. The CKH requires all LAFCos, including San Joaquin LAFCo, to conduct an MSR prior to updating the spheres of influence of the various cities and special districts in the County (Government Code Section 56430). CKH requires an MSR and Sphere of Influence update every 5 years.

The focus of this MSR is to provide San Joaquin County LAFCo with all necessary and relevant information related to 21 of the 52 RDs in San Joaquin County. This MSR will focus on the ability of the districts to protect 73,853 acres from flood events through maintenance of 146 miles of levee. Table 2-1 lists the districts that are the subject of this MSR.

Table 2-1: RDs Reviewed

DISTRICT	NAME	ACREAGE	MILES OF LEVEE	MILES OF PROJECT LEVEE
17	Mossdale	11,221	16.03	16.03
348	New Hope	9,300	18.6	
404	Boggs Tract	2,130	4.75	4.1
828	Weber Tract	695	1.96	
1007	Pico & Nagle	6,089	8.3	
1608	Lincoln Village West	990	3.54	
1614	Smith Tract	1,598	2.8	
2042	Bishop Tract	3,095	8.0	
2058	Pescadero	8,418	9.0	6.58
2062	Stewart Tract	4,781	15.45	12.14
2064	River Junction	4,938	10.2	11.65
2074	Sargent-Bar	1,300	4.64	
2075	Mc Mullin	6,045	7.45	7.45
2085	Kasson	2,044	6.18	6.28
2094	Wathal	1,900	3.23	3.23
2095	Paradise	3,567	4.86	4.86
2096	Wetherbee	70	0.7	0.16
2107	Mossdale	1,031	4.15	4.15
2115	Shima Tract	1,806	6.6	
2119	Wright-Elmwood	2,300	7.07	
2126	Atlas Tract	360	3.08	

Many of the districts maintain project levees, which by definition are part of the State-Federal Sacramento River Flood Control System and the San Joaquin River Flood Control Project. Those districts that do maintain project levees are subject to AB 156 reporting requirements to the DWR.

This MSR will make determinations in each of the seven areas prescribed by CKH. This MSR evaluates the structure and operation of each of the agencies and discusses possible areas for improvement and coordination. The report contains one section for each of the following seven elements as prescribed by CKH:

1. Growth and Population Projections for the Affected Area
2. The 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 Agencies to Provide Services
5. Status of and Opportunities for Shared Facilities
6. Accountability for Community Service Needs, Including Government Structure and Operational Efficiencies
7. Matters Related to Effective or Efficient Service Delivery Required by Commission Policy

The MSR is used to shed light on the operations of each local agency, identify agencies unable to perform their mandated services, or identify ways to provide more effective, efficient services. Government Code Section 56375 allows LAFCo to take action on recommendations found in the MSR, such as initiating studies for changes of organization, updating the Sphere of Influence, or initiating a change in organization.

2.2 - Overview

The Sacramento-San Joaquin Delta includes parts of San Joaquin, Sacramento, Yolo, Solano, Alameda, and Contra Costa counties. The Delta plays a major role in the economy, natural environment, and human environment of San Joaquin County as well as the entire State of California. In addition to being part of a unique and important estuary ecosystem, the Delta offers a wide variety of goods and services that are provided by the land, water, and people in the Delta.

Water Resource

The Delta is a vital link in California's water delivery system. About one-quarter of California's drinking water comes from the Delta and two-thirds of Californians get some or all of their drinking water from the Delta. It is delivered by the Central Valley Project (CVP) and the State Water Project (SWP) to cities and communities in many of California's largest urban areas. In addition, about three million acres of agricultural lands within and outside the Delta are irrigated using water from the Delta.

Within the San Joaquin County portion of the Delta, two irrigation districts pump irrigation water from Delta channels to farms within the Delta. The City of Stockton has been granted a right from the State Water Resources Control Board (SWRCB) to divert up to 33,600 acre-feet of water directly from the Delta (at a site on Empire Tract) for municipal uses.

Wildlife Habitat

In addition to agriculture and water supply, the Delta provides habitat and riparian areas for wildlife. Riparian habitats support a great diversity of wildlife, including sensitive invertebrates, amphibians, reptiles, birds, and mammals. An estimated 25 percent of all warm water and anadromous sport fishing species and 80 percent of the state's commercial fishery species live in or migrate through the Delta, and at least half of the Pacific Flyway migratory water birds rely on the region's wetlands.

Finally, the Delta, including parts in San Joaquin County, has "designated critical habitat" areas. Critical habitats are designated to ensure that actions authorized by federal agencies will not destroy or adversely modify critical habitat, thereby protecting areas necessary for the conservation of the species. Not all federally listed species have designated critical habitat.

Recreation and Tourism

Recreation is an integral part of the Delta; it has an estimated 12 million visitor days of use annually of which roughly two-thirds are boating and fishing related. Although San Joaquin County has roughly half the Delta's population and three-eighths of its water and land area, it only has about 25 percent of its recreation facilities.

Delta Management

The protection and preservation of water quality within the Delta and for the State and Federal Water Projects is critical. Maintaining the current configuration of Delta levees and channels is critical to insure Delta salinity standards are met and salt water intrusion from the San Francisco Bay into the Delta does not occur.

Hazards and Dangers

The greatest stresses to the levees in the Delta occur when a large storm coincides with high tides. Water levels in Delta channels are elevated by the high stormwater flows, high tides, and even by the low air pressures associated with storms. In addition, the levees must withstand erosion from wind-induced waves. Under these circumstances, levees can fail due to overtopping when water levels become higher than the top of the levees and flow over them onto the islands, and from collapse caused by increased pressure due to island subsidence, the burrowing activities of animals, long term erosion from high flow events, wind-induced waves, and boat wakes, deferred maintenance, the seepage of water through sand layers beneath the levee, and other factors not yet well understood.

Several factors that will strongly affect future conditions in the Delta include climate change, changes in land use patterns, changes in water demand, the continuing subsidence of some islands, seismic activity, and the introduction of new species.

Boundaries, Demographics and Land Use

Boundaries

The Delta Protection Act of 1992 divided the Delta into Primary and Secondary Zones. The Primary Zone, statutorily defined as comprising "Delta land and water area of primary state concern and statewide significance," comprises approximately 500,000 acres of waterways, levees and farmed lands in all the Delta counties. The Secondary Zone, which includes the cities of Stockton, Lathrop, Tracy, Oakley, and West Sacramento, is defined as that part of the Delta where development can occur. Development

projects in the Secondary Zone are primarily subject to local land use decisions. The Delta occupies over a third of San Joaquin County and includes most of the western County.

Land Use

The Delta is an important source of agriculture and open space in San Joaquin County. Table 2-2 shows existing land use in the San Joaquin County portion of the Delta.

Table 2-2: Land Use within the San Joaquin County Portion of the Delta (2008)

LAND USE	PRIMARY ZONE		SECONDARY ZONE		TOTAL	
	ACRES	% OF TOTAL	ACRES	% OF TOTAL	ACRES	% OF TOTAL
Agricultural	164,098	87.39	64,364	49.49	228,462.40	71.88
Residential	699	0.37	5,398	4.15	6,097.60	1.92
Commercial, Industrial, and Mining	133	0.07	815	0.63	947.9	0.30
Public/Quasi-Public	4,044	2.15	5,321.90	4.09	9,365.60	2.95
Open Space and Rec	4,842.00	2.58	1,726.60	1.33	6,569.20	2.07
Vacant	170	0.09	5,413.40	4.16	5,583.20	1.76
Other (rights-of-way, roads, canals, etc.)	13,920.70	7.41	47,842.40	36.78	61,763.00	19.43
Total	187,774	100.00	130,067	100.00	317,841.00	100.00

Population

As of 2010, there were 282,114 people living in San Joaquin County portion of the Delta, including 279,193 in the Secondary Zone and 2,921 in the Primary Zone. Most of the people live within the cities of Stockton, Lathrop, Manteca, Tracy, and Thornton. The San Joaquin’s Secondary Zone population accounts for about half of the entire Delta’s population despite being less than one-fifth of its total area.

Future Growth

Future development and growth of the Delta is substantially affected by Senate Bill (SB) 5 that applies to all areas within the FEMA 500-year and 100-year floodplains. It requires cities and counties to establish substantial evidence that certain development and development projects are protected from a 200-year flood event before approval can be granted. The requirements for substantial evidence are provided in the Urban Levee Design Criteria (ULDC) and the Urban Level of Protection (ULOP) documents developed by DWR. This also applies to in-fill development.

Therefore, since mid-2016, Central Valley cities and counties are now prevented from entering into development agreements, approving discretionary permits or other discretionary entitlement, or any ministerial permit that would result in the construction of residential, commercial, and industrial structures, without a finding of 200-year flood-level protection.

The ULDC and ULOP requirements developed pursuant to SB 5 pose extensive “findings” requirements on local land-use authorities, which can make achieving an Urban Level of Protection in many developed areas difficult due to the required system improvements necessary to meet increased levels of flood

protection. Complying with these requirements will likely require both financial and staff resources, both of which are already overburdened in many local agencies.

Development in the Delta is also constrained by the California Land Conservation Act (commonly known as the Williamson Act) program, in which San Joaquin County is a participant. The Williamson Act aims to preserve agricultural land and related open space uses by discouraging premature and unnecessary conversion to urban uses. In exchange for agreeing to maintain Williamson Act compatible land uses, landowners receive the benefit of reduced property tax rates from the County. Williamson Act contracts are voluntarily established 10-year agreements between a landowner and the County and the term of the contract is automatically renewed every year, unless a notice of non-renewal is filed by the landowner.

A Williamson Act contract restricts a landowner's ability to use or subdivide any parcel of land under an existing contract. Compatible uses under the Williamson Act generally consist of agricultural (i.e. farming, ranching, grazing, timber) and related uses such as agriculturally-related processing facilities.

Similar to Williamson Act lands, conservation easements also aim to set aside lands for non-urban uses. Conservation easements differ from the Williamson Act parcels in that agricultural or conservation easements are legal agreements between a landowner and a government or nonprofit entity such as a land trust, that conserves agricultural, biological habitat, or open space resources by temporarily or permanently limiting future development.

Conservation easements typically restrict development and subdivision to the degree that is necessary to protect the significant habitat, open space, or other conservation values of that particular property. Some conservation easements include "home sites," or areas known as "exclusions" to the easement terms where limited development is allowed. Generally, home sites or exclusions are small in size (one to two acres) and located on areas low in conservation value.

Regulatory Setting

Land and water use in the Delta are managed by a complex network of federal and State laws and regulations related to water rights, water quality, endangered species management, and land development.

The following federal, state and local agencies currently play a significant regulatory and levee management role in the Delta.

- The Federal Emergency Management Agency (FEMA) plays a multitude of flood management roles, including managing the National Flood Insurance Program (NFIP), which includes mapping and classification of flood hazards. FEMA also provides federal disaster recovery assistance in the event of federal emergency declarations or disaster declarations.
- At the federal level, USACE is primarily responsible for planning, designing, and constructing federally authorized flood management facilities, including dams, levees, and other structures. It also develops the operational rules for federally funded flood control reservoirs, which includes most of the major reservoirs on Central Valley streams.
- California Department of Water Resources (DWR), primarily acting through the Division of Flood Management, is responsible for State-level flood management, including cooperating with USACE in project planning, design, and funding, cooperating with the National Ocean and Atmospheric

Administration in flood and water supply forecasting, operating the Flood Operations Center, providing flood fight assistance, and maintaining portions of the flood management system.

- The San Joaquin Area Flood Control Agency (SJAFCA) is a joint powers agency formed in May 1995 by San Joaquin County, the City of Stockton, and the San Joaquin County Flood Control and Water Conservation District. SJAFCA has the authority to finance and construct regional flood control improvements.
- San Joaquin County Office of Emergency Services Flood Contingency Mapping (SJC OES) provides planning, mapping standards, and emergency response guides to help mitigate future flood damages through the Delta and surrounding areas.
- The San Joaquin County Flood Control and Water Conservation District was formed in 1956 to construct, operate, maintain and plan flood control, water supply, drainage and groundwater recharge projects in order to protect life, property, and health of San Joaquin County residents and ensure the economic, environmental and social viability of the community.
- The Stockton East Water Agency (SEWD) was created in 1948 to ensure proper management of the underground water basin and provide supplemental water supplies.
- Local levee districts and reclamation districts (RDs), known collectively as Levee Maintaining Agencies (LMAs), regularly patrol, maintain, repair, and conduct flood fights as needed on the levees within their jurisdictions.
- San Joaquin County Local Agency Formation Commission (LAFCo) oversees the formation, changes of organization and dissolution of special districts, including reclamation districts in San Joaquin County.

Flood Management System

The flood management system, which currently provides protection to San Joaquin County includes reservoirs with active flood control space, levees along the major flood control channels, and drainage facilities that pump interior runoff and seepage from levee protected areas back into the flood control channels. It is part of a vast system of multi-purpose reservoirs, leveed stream channels, weirs, and overflow structures, which has been constructed to reduce flooding in the San Joaquin Valley over the past 60 years.

Non-structural flood risk management elements include a wide range of measures that limit the risk of flood damage primarily by avoiding or reducing the exposure to damaging floodwaters rather than by confining those floodwaters with larger and stronger hydraulic structures. These elements include raising and waterproofing structures so that they will be above anticipated flood levels, limiting development in floodplains through the acquisition of agricultural conservation easements, open space easements, regulatory constraints, and incentive programs. Restoration of floodplains where feasible, to provide additional flood channel storage and conveyance capacity, is often regarded as a non-structural element because it reduces, rather than increases, the confinement of floodwaters in existing channels.

Levees

The present-day Delta is defined geographically and hydraulically by levees. Some of the levees in the Delta are known as project levees, built by the federal government and turned over to the state for maintenance as part of the state plan of flood control. Project levees are part of the Federal Flood Control Project and are built to higher standards that comply with U.S. Army Corps of Engineers guidelines. Most Delta levees, however, are not project levees built privately and maintained by local reclamation districts.

Over half of the approximately 980 miles of levees currently being maintained within the Delta are in San Joaquin County. Fewer than 30 percent of the project levees, but over 70 percent of the non-project levees are located in the County, as shown in Table 2-3.

Table 2-3: Levees of San Joaquin and Other Delta Counties, Miles of Levees

	SAN JOAQUIN COUNTY DELTA		OTHER COUNTIES DELTA		SAN JOAQUIN COUNTY PERCENT OF DELTA	
	LOWLAND (MI)	GRAND TOTAL (MI)	LOWLAND (MI)	GRAND TOTAL (MI)	LOWLAND	GRAND TOTAL
Project	36.7	105.4	106.5	274.1	25.6%	27.8%
Urban Non-Project	0.0	34.9	0.0	28.1	N/A	55.4%
Non-project Non-Urban	354.2	398.5	116.3	138.9	75.3%	74.2%
Total	390.9	538.8	222.8	441.1	63.7%	55.0%

Existing Levee Standards and Guidance

Table 2-4 shows applicable levee standards. The table shows that compliance with a more stringent standard includes compliance with a less stringent standard.

Table 2-4: Levee Standards

Standard	Type	Feet Above Flood	Flood Occurrence	Comments
HMP -Hazard Mitigation Plan	Short term	1	100 year	Pre-condition for receiving disaster assistance
PL 84-99	Project Levees	1.5	100 year	Eligible for USACE and Rehab funds
DWR Bulletin 192-82	Agricultural	1.5	300 year	
FEMA 100	Urban	3	100 year	
FEMA 200	Urban	3	200 year	
DWR Bulletin 192-82	Urban	3	300 year	

Four levee standards and guidance are applicable to the Delta:

- DWR 200-year Urban Levee Protection. This standard goes beyond criteria for levee height and geometric design to include requirements for freeboard, slope stability, seepage/under-seepage, erosion, settlement, and seismic stability. It protects against a flood that has a 0.5 percent chance of being equaled or exceeded in any given year (a 200-year level of flood protection).
- FEMA 100-year Protection. This "insurance" standard, often called the "one percent annual chance flood" level of protection, provides criteria that levees must meet to protect against the flooding that is the basis for FEMA's flood insurance rate maps. It is often used with established USACE criteria to prescribe requirements for levee freeboard, slope stability, seepage/under-seepage, erosion, and settlement. The standard generally does not address seismic stability. In communities where levees provide this level of flood protection, new developments are not required to meet federal flood-proofing standards and can obtain federally guaranteed mortgages without purchasing flood insurance.

- Public Law 84-99. The PL 84-99 standard is a minimum requirement established by USACE for levees that participate in its Rehabilitation and Inspection Program discussed earlier, FEMA Hazard Mitigation Plan (HMP) Guidance. FEMA, DWR, the California Emergency Management Agency (Cal EMA), and the Delta levee-maintaining agencies negotiated the HMP guidance to reduce the likelihood of repetitive flood damage to Delta levees and islands, so that FEMA disaster assistance would not be requested repetitively for the same islands after minor floods.
- Bulletin 192-82. This is DWR's long term mitigation plan standard as opposed to HMP which is DWR's short term mitigation plan standard. The design that satisfies this standard would result in a levee that is substantially stronger than HMP levees with a flatter water side and land side slopes and inclusion of land sider berms, use of one in 300 year water levels, provision of at least 1.5 feet of freeboard and additional freeboard for wind-generated waves. Further, the Delta Flood Protection Act of 1988 requires that Delta Levee Subventions projects be compatible with Bulletin 192-82.

Reclamation Districts

Reclamation districts are special districts responsible for reclaiming and/or maintaining land subject to frequent overflow or flooding via systems of levees, dikes, pumps, and ditches within both urban and rural lands. Most reclamation districts were established when local landowners first started agricultural production many decades ago. Maintenance and improvement of Delta levees has been the responsibility of the local reclamation districts for the last 130 years. There are 52 RDs in San Joaquin County, 21 of which are reviewed in this MSR.

Maintenance of Delta Levees

Flood control facilities are subjected to natural forces that can reduce their effectiveness over time. Routine maintenance helps preserve the original design and reliability of flood control systems and involves activities including routine inspections of flood control facilities, erosion control, vegetation removal, debris and sediment removal, and control of burrowing animals. Coupled with long-term flood risk reduction projects, routine maintenance strengthens the structural integrity of the levee systems. Maintenance activities are typically performed by Levee Maintaining Agencies (LMA), including reclamation districts, responsible for specified segments of levee systems.

Inspections

Project levees are subject to U.S. Army Corps of Engineers (USACE) certification and inspection. In addition, they are subject to AB 156 inspection and reporting requirements. The project levees are inspected four times a year including inspections by USACE. Under AB 156, the District must report the condition of its levees to the DWR, which compiles an annual report.

Overall maintenance ratings are not determined for the spring inspection results. Fall inspection rating is based on operation and maintenance deficiencies identified. The DWR inspection results are categorized by three scores for project levees.

- **Acceptable (A)**—No immediate work required, other than routine maintenance. The flood protection project will function as designed and intended with a high degree of reliability, and necessary cyclical maintenance is being performed adequately.
- **Minimally Acceptable (M)**—One or more deficient conditions exist in the flood protection project that needs to be improved or corrected. However, the project will essentially function as designed with a lesser degree of reliability than what the project could provide.

- **Unacceptable (U)**—One or more deficient conditions exist that may prevent the project from functioning as designed, intended, or required.

Additionally, according to the Water Code division 6, section 12989, the DWR must “inspect non- project levees of local agencies for the purpose of monitoring and ascertaining the degree of compliance with, or progress towards meeting, standards such as those set forth in Section 12984.” The frequency of such inspections is not specified in the Code.

Challenges

It has been revealed that flood management system problems are primarily associated with structural system deficiencies, changing hydrology, SB 5 compliance (200 year flood control compliance), maintenance challenges associated with regulatory permitting, funding and staffing, and maintenance of appropriate emergency response capability. Many of these challenges are interrelated.

2.3 - Revenue Sources

Reclamation Districts (RDs) have several unique funding mechanisms. Most RDs are funded by a combination of property tax, special assessments, the sale of warrants, and grants.

Property Tax

Some districts receive a portion of the property tax. Taxes are collected by the County and redistributed, based on the percentage that agency received in 1978 plus an incremental value that is based on the change in assessed value for the previous year.

Special Assessments

Most RDs receive revenues from special assessments paid by landowners within the districts. In most cases, these assessments are based on the benefit that each parcel receives from the levee system. Special assessments are based on the proportion of benefit received, on land use, the size and elevation of the parcel, and whether the parcel contains buildings. Special assessments require a vote of the landowners. The vote is weighted by the benefit received and the voting threshold is 50 percent plus one.

Warrants

Many times an RD will require funds for capital improvements. These projects are often front-funded by warrants (which are authorized within the Water Code) and drawn on local financial institutions. Board members and/or residents essentially provide the district funds through the issuance of warrants. In return, they receive the benefit of improved flood protection but also earn interest on the value.

Grants

Several state agencies have grant programs available to RDs funded through bonds approved by the California voters. The main source of funding has been derived primarily from Proposition 84, Proposition 1E, and Proposition 13. In 2014, voters approved Proposition 1, which identified \$239 million for statewide and delta levee projects. Bond funding is identified by function, and is often allocated regionally based upon need and benefit. The administration of most levee grant programs is based upon identified need and benefit as overseen by DWR and the Central Valley Flood Protection Board (CVFPB). The two most common programs are Delta Levees Maintenance Subventions Program, administered by DWR and CVFPB, and the Delta Levees Special Flood Control Projects Program, administered by DWR.

The Delta Levees Maintenance Subventions Program is a cost share program that provides technical and financial assistance to local levee agencies in the Delta for the maintenance and rehabilitation of non-project and eligible project levees. The CVFPB reviews and approves DWR’s recommendations and enters into agreements with local agencies to reimburse eligible costs of levee maintenance and rehabilitation. In Fiscal Year 2017 (FY 17), the Delta Levees Maintenance Subventions Program was funded at \$12 million.

The Delta Levees Special Flood Control Projects program is administered solely by DWR. In FY 17 the special projects program was allocated \$60 million. However, there were several very good projects submitted and the program management staff received permission to fund nine projects for a total contribution of \$63.3 million. RD 348 submitted one of those nine projects and will receive \$12 million in matching funds for habitat enhancement and levee repairs.

2.4 - Population and Growth

Table 2-5 shows current population and projected population in 2045. The table shows, six districts serve entirely agricultural land uses with few residents, seven districts serve urban and residential land uses with higher density development, and eight of the districts serve mixed use areas, but are predominantly agricultural in use. Many of the districts in agriculture are expected to remain in agriculture with little to no growth. Other districts are already in city limits and built out and expect little to no growth. Of interest are the districts where population is expected to increase by several thousand. Many of these districts will be required to comply with SB 5. The exceptions are RD 404 which is essentially built out with an unincorporated island. In RD 404 growth is not a major concern and the District is not planning for it. RD 828, RD 1608 and RD 1614 are building a floodgate which when completed will, as a consequence, also offer 200 year flood protection.

Table 2-5: Population and Population Growth

DISTRICT	NAME	PROTECTED LAND USES	POPULATION 2015	POPULATION 2045
RD 17	Mossdale	Mixed use - urban and ag.	43,500	66,092
RD 348	New Hope	Primarily agricultural with some urban	1,400	1,731
RD 404	Boggs Tract	Urban	15,026	15,410
RD 828	Weber Tract	Urban	6,203	~6,200
RD 1007	Pico & Nagle	Primarily agricultural with some urban	~400	410
RD 1608	Lincoln Village West	Urban	8,926	~8,900
RD 1614	Smith Tract	Urban	14,730	~14,700
RD 2042	Bishop Tract	Urban	5,000	7,477
RD 2058	Pescadero	Primarily agricultural with some urban	~5,000	5,128
RD 2062	Stewart Tract	Mixed use - urban and ag.	~600	25,489
RD 2064	River Junction	Primarily agricultural with some urban	523	536
RD 2074	Sargent-Barnhart	Urban	8,617	~8,600
RD 2075	Mc Mullin	Agricultural	~100	~102
RD 2085	Kasson	Agricultural with some residential	860	860

District	Name	Protected Land Uses	POPULATION 2015	POPULATION 2045
RD 2094	Wathal	Agricultural	40	40
RD 2095	Paradise	Primarily agricultural and institutional	4,033	4,133
RD 2096	Wetherbee	Residential	~350	~543
RD 2107	Mossdale	Agricultural	14	14
RD 2115	Shima Tract	Agricultural	20	21,152
RD 2119	Wright-Elmwood	Agricultural	<10	<10
RD 2126	Atlas Tract	Agricultural	0	42,000

2.5 - Disadvantaged Unincorporated Communities

The term “Disadvantaged Unincorporated Community” was broadly defined by the legislation as inhabited territory, as defined by § 56046, or as determined by commission policy, that constitutes all or a portion of a “disadvantaged community” as defined by § 79505.5 of the Water Code. A disadvantaged unincorporated community (DUC) consists of at least 10 dwelling units with at least 12 registered voters in a fringe, island, or legacy community in which the median household income (MHI) is 80 percent or less of the statewide MHI. According to the U.S. Census Bureau, 2015 American Community Survey 1-Year Estimates, the MHI in California in 2015 was \$64,500. Therefore, a DUC in San Joaquin County would have an MHI of \$51,600 or less.

It further defines an unincorporated fringe community as any inhabited and unincorporated territory that is within a city’s Sphere of Influence. An unincorporated island community is defined as any inhabited and unincorporated territory that is surrounded or substantially surrounded by one or more cities or by one or more counties and a county boundary or the Pacific Ocean. An unincorporated legacy community means a geographically isolated community that is inhabited and has existed for at least 50 years.

For the most part there are no disadvantaged communities in the 21 districts primarily because many are in incorporated areas or the MHI exceeds the threshold. However, there are three districts that have disadvantaged communities: in RD 348 (the town of Thornton meets the criteria); in RD 404 (there is an unincorporated island); and in RD 1614 (there are two communities).

Thornton receives fire protection from the Thornton Rural Fire Protection District and water from CSA 12. Most residents are on septic systems, however the San Joaquin County Housing Authority provides wastewater services to approximately 30% of the residents. In RD 404 the San Joaquin County Housing Authority provides wastewater services to approximately 30% of the residents.

RD 404 is mostly within the City of Stockton, however it includes an unincorporated island with a median household income that qualifies as a DUC. The island receives water from Cal Water a private company and fire protection from the Boggs Fire Protection District which has a contract with the Stockton Fire Department. There is no sewer service so residents are on septic systems.

In RD 1614 there are two communities (the entirety of Census Tract 11.02 and a portion of Census Tract 10) within RD 1614 that are considered disadvantaged for LAFCo purposes. The unincorporated area lies within the Country Club Fire District, which is served by the Stockton Fire Department. Water is provided by Cal Water and sewer service by Pacific Gardens Sanitary District.

2.6 - Service Capacity and Infrastructure Needs and Deficiencies

The services offered by each RD are shown in Table 2-6. Levee maintenance, vegetation maintenance, weed abatement, vector and rodent control, levee road upkeep and flood control are all self-explanatory services that are focused on the maintenance and upkeep of the levees themselves and are generally provided by most of the reclamation districts. A majority of the districts provide drainage services and levee patrol services, while only three of the districts (RD's 2058, 2062, and 2096) provide irrigation water. RD 2119 is the only RD's that provide ferry operations. Subvention services indicates that the district takes part in the Delta Levee Subventions Program.

The service configuration varies greatly amongst the agencies, with some districts providing the service directly via hired staff and several providing services through agreements with other agencies or private contractors or any combination thereof. Very few of the districts employ staff for services, but instead rely on some combination of contract providers. Many of the districts make use of the same contracting firms and agencies for multiple services, such as engineering and management. Four of the districts (RDs 17, 348, 2058, and 2119) maintain full-time staff to provide services. Four districts (RD's 404, 1608, 1614, and 2096) hire part-time staff to provide services, and the remaining 13 districts do not employ staff, but instead rely entirely on contract providers.

The services provided by the reclamation districts vary depending on available funding, mandatory standards of maintenance for the type of levee maintained (project or non-project), location in the Delta (primary or secondary zones), the land use for the property protected, and the value of infrastructure on the protected property. For example, an area that is uninhabited and largely agricultural in use will necessitate lower maintenance standards than a residential subdivision where loss of life is a concern with levee failure.

Some of the levees in the Delta are known as project levees, built by the federal government and turned over to the State for maintenance as part of the state plan of flood control. Project levees are part of the Federal Flood Control Project and are built to higher standards that comply with USACE guidelines. Most Delta levees, however, are non-project levees built privately and maintained by local RD's. Eight of the districts maintain only non-project levees, while seven districts maintain only project levees. The remaining districts maintain a combination of project and non-project levees.

Compliance with Levee Standards

As shown in Table 2-7 three districts (RD's 1007, 2096, and 2115) have stretches of levees, nearly eleven miles, that are not meeting the minimum HMP standards. Should these levees fail, then the district will not be eligible for federal disaster assistance. With the exception of RD 2096, all of these districts have prioritized improvements to the levees to facilitate meeting HMP standards for all levees.

Five districts' levees (RD's 17, 1608, 2042, 2096, and 2126) are certified as providing protection against 100-year flood events, while three districts (RD's 404, 828, and 1614) are working to regain this designation. Once the floodgate to address non-compliance issues on the Smith Canal levees is completed in 2018-2019, it is anticipated that RD's 828 and 1614 will regain their accreditation.

Four districts (RD's 404, 2064, 2075, and 2095) received Unacceptable ratings in the DWR assessment, which indicates a struggle meeting standards. Concerns cited in the DWR reports were seepage, erosion, and vegetation. It should be noted that two districts (RD's 404 and 2095) went from Acceptable and

Table 2-6: Reclamation District Service Configuration

DISTRICT	NAME	LEEVE MAINTENANCE	VEGETATION MAINTENANCE	WEED ABATEMENT	VECTOR/RODENT CONTROL	LEEVE ROAD UPKEEP	FLOOD CONTROL	DRAINAGE	IRRIGATION WATER	LEEVE PATROL	FERRY OPERATIONS	SUBVENTION
RD 17	Mossdale	✓	✓	✓	✓	✓	✓	✓	✓	0	✓	0
RD 348	New Hope	0	0	0	0	0	0	0	✓	0	✓	0
RD 404	Boggs Tract	✓	✓	✓	✓	✓	✓	✓	✓	□	✓	□
RD 828	Weber Tract	✓	✓	✓	✓	✓	✓	✓	✓	□	✓	Δ
RD 1007	Pico & Nagle	Δ	Δ	Δ	Δ	Δ	✓	✓	✓	□	✓	✓
RD 1608	Smith Tract	✓	✓	✓	✓	✓	✓	✓	✓	0	✓	Δ
RD 1614	Smith Tract	✓	✓	✓	✓	✓	✓	✓	✓	Δ	✓	Δ
RD 2042	Bishop Tract	✓	✓	✓	✓	✓	✓	✓	✓	Δ	✓	Δ
RD 2058	Pescadero	0	Δ	0	0	0	0	0	0	0	✓	0
RD 2062	Stewart Tract	0	0	0	0	0	0	0	0	□	✓	0
RD 2064	River Junction	Δ	Δ	Δ	✓	Δ	✓	✓	✓	0	✓	0
RD 2074	Sargent-Barnhart	✓	Δ	Δ	Δ	Δ	✓	✓	✓	0	✓	0
RD 2075	Mc Mullin	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
RD 2085	Kasson	0	Δ	Δ	Δ	0	0	0	✓	0	✓	✓
RD 2094	Wathal	0	0	0	0	0	0	0	✓	0	✓	✓
RD 2095	Paradise	Δ	Δ	Δ	Δ	Δ	Δ	✓	✓	Δ	✓	✓

DISTRICT	NAME	LEVEE MAINTENANCE	VEGETATION MAINTENANCE	WEED ABATEMENT	VECTOR/RODENT CONTROL	LEVEE ROAD UPKEEP	FLOOD CONTROL	DRAINAGE	IRRIGATION WATER	LEVEE PATROL	FERRY OPERATIONS	SUBVENTION
RD 2096	Wetherbee	✓	0	0	0	0	0	0	0	0	X	X
RD 2107	Mossdale	Δ	Δ	Δ	Δ	Δ	Δ	X	X	Δ	X	X
RD 2115	Shima Tract	✓	✓	✓	✓	✓	✓	✓	X	□	X	✓
RD 2119	Wright-Elmwood	✓	✓	✓	✓	✓	✓	✓	X	0	0	0
RD 2126	Atlas Tract	✓	✓	✓	✓	✓	✓	✓	X	Δ	X	Δ

✓ Service provided by the district and various contractors
 X Service not provided
 □ Service provided by the district with assistance from other public agencies
 Δ Service is provided by a contractor
 0 Service is provided by the district

Table 2-7: Levee Standards Compliance

DISTRICT	NAME	PROJECT LEVEE RATING 2017	HMP	PL 84-99	192-82	FEMA
RD 17	Mossdale	A				F
RD 348	New Hope		F	P		
RD 404	Boggs Tract	U	F			F
RD 828	Weber Tract					F?
RD 1007	Pico & Nagle		N	N	N	N
RD 1608	Smith Tract					F
RD 1614	Smith Tract					F
RD 2042	Bishop Tract					F
RD 2058	Pescadero	U	F	P	P	
RD 2062	Stewart Tract	M		F		
RD 2064	River Junction	A	F			
RD 2074	Sargent-Barnhart			F		
RD 2075	Mc Mullin	A		P		
RD 2085	Kasson	M		F		
RD 2094	Wathal	A		F		
RD 2095	Paradise	A		P		
RD 2096	Wetherbee	A	P	F		F
RD 2107	Mossdale	A		F		
RD 2115	Shima Tract		F	P		
RD 2119	Wright-Elmwood		F	P		
RD 2126	Atlas Tract		F	F		F
Notes: A= acceptable M=moderately acceptable U= unacceptable F= full compliance P=partial compliance N= non-compliance						

Minimally Acceptable ratings in 2015 to Unacceptable ratings in 2016, and so they had, until recently, been in compliance with standards. In 2017 RD 17, RD 2064, RD 2075, and RD 2095 improved to Acceptable ratings.

Some districts face issues of balancing environmental requirements, levee standards, and costs. For example, RD 2058 is working to address vegetation concerns while at the same time meeting USFWS habitat guidelines. Negotiations for a mitigated management plan are currently underway. It is anticipated that future allowable maintenance practices will pose an increased financial burden on the District.

SB 5 Compliance

Future development and growth of the Delta is substantially affected by Senate Bill (SB) 5 that applies to all urban and urbanizing areas within the FEMA 500-year and 100-year floodplains. It requires cities and counties to establish substantial evidence that certain development and development projects are protected from a 200-year flood event before approval can be granted. The requirements for substantial evidence are provided in the Urban Levee Design Criteria (ULDC) and the Urban Level of Protection (ULOP) documents developed by DWR. This also applies to in-fill development.

The burden of enforcement of the SB 5 requirement is on the land use authorities (cities and counties) not the reclamation districts. Table 2-8 shows the land use authority that has jurisdiction within each of the reviewed districts. Some of the districts, such as RD 17, encompass land within multiple municipalities.

Table 2-8: Reclamation District Associated Land Use Authority

DISTRICT	NAME	LAND USE AUTHORITY				
		STOCKTON	LATHROP	MANTECA	TRACY	COUNTY
RD 17	Mossdale	✓	✓	✓		✓
RD 348	New Hope					✓
RD 404	Boggs Tract	✓				✓
RD 828	Weber Tract	✓				
RD 1007	Pico & Nagle				✓	✓
RD 1608	Lincoln Village West	✓				✓
RD 1614	Smith Tract	✓				✓
RD 2042	Bishop Tract	✓				
RD 2058	Pescadero				✓	✓
RD 2062	Stewart Tract		✓			
RD 2064	River Junction			✓		✓
RD 2074	Sargent-Barnhart	✓				
RD 2075	Mc Mullin					✓
RD 2085	Kasson			✓		✓
RD 2094	Wathal			✓		✓
RD 2095	Paradise					✓
RD 2096	Wetherbee			✓		✓
RD 2107	Mossdale		✓			✓
RD 2115	Shima Tract	✓				
RD 2119	Wright-Elmwood	✓				✓
RD 2126	Atlas Tract	✓				

Municipalities subject to SB 5 had until July 2, 2015 to incorporate its requirements into their General Plan and had until July 2, 2016 to adjust local zoning regulations. Thus, in July 2016, areas that had not achieved compliance with SB 5 requirements would essentially be banned from permitting new development or issuing discretionary permits that would significantly change or intensify the use of existing structures. SB 5 applies to urban areas (greater than 10,000 people) or to urbanizing area (expecting a future population of greater than 10,000 people). SB 5 applies only to residential development. SB 5 does not specify any review, approval, or enforcement authority by any State agency, but instead relies on the due diligence of cities and counties to incorporate flood risk considerations into floodplain management and planning in compliance with the general plan amendment requirements (Government Code §65302.9). Once local general plan and zoning amendments to achieve consistency with SB 5 have been completed, other provisions in SB 5 become effective, such as provisions relating to certain land use decisions and required findings that the land use decisions satisfy an Urban Level of Flood Protection or the national FEMA standard for flood protection.

After July 2016, SB 5 substantially limits the ability of urban communities to approve residential development projects, unless 200-year flood protection has been provided, or the community is making adequate progress toward achieving 200-year flood protection.

All of the land use authorities with territory in the RDs reviewed here, consisting of the cities of Stockton, Lathrop, Manteca, and Tracy and San Joaquin County, have complied with the General Plan and zoning amendment requirements as outlined in SB 5. Further progress on complying with SB 5 requirements for proposed developments is dependent on the imminence of new growth within the 200-year floodplain in each municipality.

A 200-year floodplain map has been developed for the City of Stockton area that shows the anticipated depth of flooding throughout the Stockton metropolitan area; it includes a significant portion of the western side of the City near Interstate 5 and some areas in the central and eastern side of the City that would experience flooding during a 200-year flood event. The City of Stockton adopted changes to its General Plan in June 2015. Building and zoning code changes became applicable to all permits issued after July 2, 2016. These changes include increased building setbacks for flood fighting along levees and requirements to elevate buildings above the floodplain or use flood resistant building materials for development in areas identified as flood hazard zones on federal flood maps, while streamlining the process of making specific findings for development of residential and commercial land uses. Although the City does not have imminent plans to develop in the areas inside the 200-year flood plain, it should move forward with making findings of adequate progress in those areas as well, but has not done so to date. While Stockton is part of the MOU to increase flood protection levels in the RD 17 Basin, the Cities of Lathrop and Manteca have spearheaded this effort.

The City of Lathrop is working in conjunction with the City of Manteca to meet SB 5 requirements. The two cities conducted flood mapping efforts together and are jointly planning for needs in areas of mutual concern. Most of the City of Lathrop is exposed to potential flooding from the San Joaquin River, and from Old River and Paradise Cut, which surround Stewart Tract. Existing 100-year flood protection is provided to much of this area by levees certified by FEMA; the levees are maintained by RD's 17, 2062 and 2107. RD's 17 and 2062 provide flood protection to urban and urbanizing portions of Lathrop. RD 17 also provides flood protection in portions of Manteca immediately adjacent to Lathrop and an area of the City of Stockton. The cities and the County are jointly seeking protection from 200-year flooding by 2025 for the area in the RD 17 Basin through an MOU and joint planning efforts. RD 2062 is independently pursuing 200-year flood protection for Stewart Tract, initially for Phase 1 of the River Islands project,

which is under construction. The City of Lathrop amended its General Plan in June 2015 to meet SB 5 requirements, and a final report demonstrating “adequate progress” in the RD 17 Basin was finalized in June 2016. Also in 2016, the City of Lathrop came to an “adequate progress” finding for the River Islands Stage 1 Area (a subsection of the River Islands master planned community) within RD 2062. And in 2017, came to another finding of adequate progress for the entirety of the River Islands Phase 1 Area. The City will be required to come to another finding of adequate progress to move forward with future development of River Islands Phase 2.

Based on the City of Manteca’s 200-year composite floodplain map, a majority of the City is outside of the 200-year floodplain, with the exception of the area in the southwest of the City within the RD 17 Basin. As mentioned, the City is working with the City of Lathrop and RD 17 to provide urban levels of flood protection in that area. The City of Manteca amended its General Plan and zoning on June 21, 2016 to meet SB 5 requirements, and a final report demonstrating “adequate progress” in the RD 17 Basin was finalized in June 2016.

A majority of the City of Tracy is located outside of the 200-year floodplain and as such is not substantially affected by the SB 5 requirements. The only areas that are within the 200-year flood plain are the very northern portion of the city limits and the northern portion of the City’s SOI and a small area to the south of the City. The 2011 General Plan anticipated the changes to State law, and it included a brief discussion related to the provisions of SB 5. In 2016, the City adopted edits to its General Plan and simultaneously adjusted zoning regulations to address SB 5 requirements.

Tracy is in compliance with this particular requirement of SB 5. The City is not in the process of making any further findings regarding SB 5 as there is no proposed development in the 200-year floodplain at present. As future development is considered, the City will make its findings for individual or groups of new development projects based on studies or assessments that will be required to be provided by the project proponents. In that way proposed new developments will meet SB 5 requirements.

A majority of San Joaquin County to the east of Interstate 5 and north of Interstate 205 lies within a 100-year floodplain. The County reported that it has been working in conjunction with SJAFCA to develop a strategy to meet SB 5 requirements. This includes a long-term strategy aimed at providing 200-year level of flood protection for the existing urban areas of the County, as well as a short-term strategy that addresses permitting of development projects in accordance with SB 5 requirements. As part of this strategy, the County is working to identify its roles and responsibilities for implementation. The County incorporated State requirements for SB 5 in its recent General Plan Update and developed 200-year floodplain maps for the Stockton metropolitan area. Although the County incorporated SB 5 content in its General Plan Policy Document, the County identified a continued need to complete General Plan and zoning code updates to meet additional requirements of SB 5. The County is part of the MOU with RD 17 and the Cities of Lathrop, Stockton, and Manteca to provide increased flood protection for the RD 17 Basin.

Several districts may be required to meet the 200 year flood protection requirement because of anticipated development or development that is in progress. Table 2-9 shows the status of these districts toward meeting that goal.

A number of local agencies, including several reclamation districts that are part of this review, are working with the U.S. Army Corps of Engineers on the Lower San Joaquin River Feasibility Study. The study is a multi-year \$10 million study that will help determine improvements needed to reach or exceed the 200-year level of flood protection. The Lower San Joaquin Feasibility Study will reach the part of San

Joaquin County along the San Joaquin River up to and through Stockton including the Lodi Waste Water Treatment Plant. In addition the study includes the watersheds east of Stockton and covers nearly 140 miles of levees. The districts include in the study include: Bishop Tract (RD 2042), Atlas Tract (RD 2126), Shima Tract (RD 2115), Lincoln Village West (RD. 1608), Sargent Barnhardt (RD.2074), Smith Tract (RD.1614), Weber Tract (RD. 828), Boggs Tract (RD. 404), Rough and Ready Island (RD. 403), and Mossdale (RD. 17)

Table 2-9: Status of RD’s Pursuing 200 Year Flood Protection

DISTRICT	STATUS
RD 17	In progress have \$2M ULDC grant working with Manteca and Lathrop
RD 404	Fully built out - RD 404 is trying to get 100 year certification and is not addressing the 200 year standard at this time. The City of Stockton should assist.
RD 828	Fully built out - working on Smith Floodgate when complete will offer 200 yr protection
RD 1007	Trying to meet HMP standard, not addressing 200 year protection. City of Tracy should assist.
RD 1608	Fully built out affords 100 year flood protection but has no present plans to address the 200 year protection
RD 1614	Fully built out - working on Smith Floodgate when complete will offer 200 year protection
RD 2042	Conducting an engineering study to determine capital improvement projects needed to comply.
RD 2058	Focusing on bringing project levees to required standards and planning for 200 year protection
RD 2062	River Islands Development in process - will be accredited for 200 year protection
RD 2074	Meets or exceed PI 84-99 standards. Most levees meet or exceed 200 year protection. Only 1500 lineal feet will need to be upgraded. Upgrade is in 5 year plan.
RD 2115	Rural district - Grupe is looking to develop if they do they will meet 200 year protection requirement as part of development plan
RD 2126	Meets 200 year protection
Source: Neudeck 2017, Pritchard 2017, Siegfried Engineering 2012	

Infrastructure Needs and Deficiencies

As demonstrated by non-compliance with relevant levee standards by some of the districts, as well as the desire by several districts to attain a higher levee standard, there are significant capital needs and plans for improvements in the levee system. Specific levee needs and deficiencies were identified via self-reporting by the districts, capital improvement plans or five-year plans, and inspection reports carried out by regulatory agency. Table 2-10 summarizes the infrastructure needs of each district.

Table 2-10: Infrastructure Needs by District

DISTRICT	NAME	INFRASTRUCTURE NEEDS
RD 17	Mossdale	100-year seepage repair project consists of three phases and currently under way. Some of the key issues for the District are erosion repair and encroachment enforcement.
RD 348	New Hope	The District's main concern is to improving levees to meet the PL 84-99 standard to prevent overtopping. The District has been approved to start work on the South Fork Mokelumne Setback project. They will begin permitting and design this year and hope to begin construction in 2019.
RD 404	Boggs Tract	The main deficiencies identified were vegetation and animal control. RD 404 reported that encroachment enforcement also remained an ongoing process. The District is working to meet FEMA 100-year protection status.
RD 828	Weber Tract	Floodgate to address non-compliance issues is to be constructed by 2018-2019.
RD 1007	Pico & Nagle	Some slopes on the river side of the levee have eroded and are in need of repair. The upgrade of the levee road will allow for improved inspection and maintenance of the levee.
RD 1608	Smith Tract	None identified.
RD 1614	Smith Tract	The pump station needs to be replaced. Floodgate to address non-compliance issues is to be constructed by 2018-2019.
RD 2042	Bishop Tract	The District has set a goal of achieving the 200-year level of flood protection by upgrading levees.
RD 2058	Pescadero	Scattered sections with serious seepage problems, totaling 1 mile of the 6.58 miles, and an area of erosion at mile 4.77. The District is working to address vegetation concerns while at the same time meeting USFWS requirements. The District's capital improvement plan outlines plans to meet HMP standards on all levees when funding is available.
RD 2062	Stewart Tract	The 2016 inspection found several areas of serious erosion and one area of serious seepage.
RD 2064	River Junction	The DWR inspection recommended that the District should focus more on controlling vegetation to maintain visibility and access.
RD 2074	Sargent-Barnhart	The District identified ongoing maintenance and erosion prevention as its most significant needs. In addition, the District would like to achieve 200-year FEMA compliance.
RD 2075	Mc Mullin	Generally moderate risk of failure due in most part to seepage and erosion concerns. The 2016 inspection of the condition of the levees found several areas of serious seepage, resulting in an unacceptable rating. Many of the levees are too narrow to facilitate all-weather access, and have steep slopes.
RD 2085	Kasson	There appear to be issues with erosion and seepage in the levee that the District is working to address.
RD 2094	Wathal	None identified.
RD 2095	Paradise	The DWR inspection found vegetation that significantly impacts access and visibility and that there are several areas of erosion along the San Joaquin River. DWR recommended the District should focus on controlling

DISTRICT	NAME	INFRASTRUCTURE NEEDS
		vegetation and repairing erosion sites.
RD 2096	Wetherbee	None identified.
RD 2107	Mossdale	The 2016 inspection identified a couple areas where seepage was critical or severe.
RD 2115	Shima Tract	Based on the 2007 inspection results, the District’s levees are in need of substantial improvements to meet the desired protection level. The District is in the process of a levee rehabilitation project to ensure that all levees met the minimum HMP criteria.
RD 2119	Wright-Elmwood	All the Districts levees now meet HMP standards. The district is striving to meet 192-82 standards.
RD 2126	Atlas Tract	Levee needs include continued placement of riprap to address erosion caused by wave action in the adjacent waterways. Additionally, a permanent power supply for the only pump station on the District is needed. The ultimate goal of the District is to continue to improve and maintain its levee system in order to attain a 200-year level of flood protection.

2.7 - Financial Ability to Provide Services

Operations of San Joaquin reclamation districts are financed for the most part only by a few funding sources that consist of benefit assessments, property taxes, and assistance from the State of California, with assessments being by far the largest funding source.

Only seven districts out of 21 reviewed collect property tax income, as shown in Table 2-11. Out of all the reviewed districts only three collect service charges, including RD’s 2058, 2064, and 2074. RD’s 2058 and 2064 charge their residents for the provision of irrigation services; RD 2074 assesses fees and charges for benefits and services rendered in lieu of ad valorem assessments as permitted by the California Water Code. Other minor funding sources that constitute the remaining two percent of the collective revenues include interest income, homeowner’s tax relief, and other miscellaneous sources.

Table 2-11: Main Revenue Sources by District FY 14-15

DISTRICT	NAME	ASSESSMENTS	PROPERTY TAXES	STATE ASSISTANCE	SERVICE CHARGES
RD 17	Mossdale	91%	8%	—	—
RD 348	New Hope	17%	2%	80%	—
RD 404	Boggs Tract	95%	3%	1%	—
RD 828	Weber Tract	97%	—	—	—
RD 1007	Pico & Nagle	100%	—	—	—
RD 1608	Smith Tract	61%	38%	—	—
RD 1614	Smith Tract	61%	14%	24%	—
RD 2042	Bishop Tract	96%	—	—	—
RD 2058	Pescadero	29%	—	1%	69%

District	Name	Assessments	Property Taxes	State Assistance	Service Charges
RD 2062	Stewart Tract	99%	—	—	—
RD 2064	River Junction	58%	—	—	42%
RD 2074	Sargent-Bar	—	—	16%	83%
RD 2075	Mc Mullin	100%	—	—	—
RD 2085	Kasson	100%	—	—	—
RD 2094	Wethall*	100%	—	—	—
RD 2095	Paradise	99%	—	—	—
RD 2096	Wetherbee	—	98%	—	—
RD 2107	Mossdale	100%	—	—	—
RD 2115	Shima Tract	70%	—	29%	—
RD 2119	Wright- Elmwood	—	81%	19%	—
RD 2126	Atlas Tract	40%	—	19%	—
Average		59%	7%	20%	12%

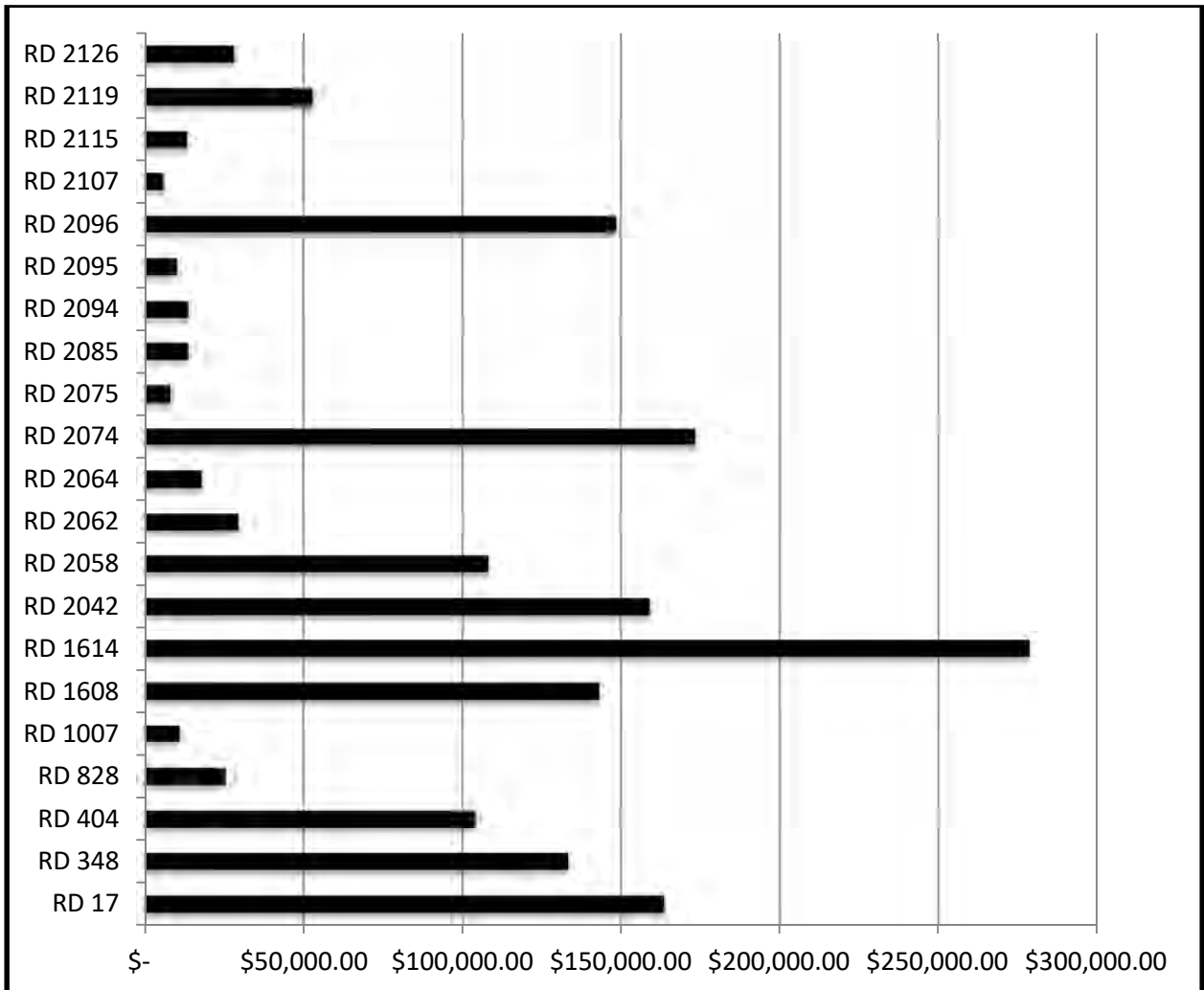
As is seen in Exhibit 2-1, the amount of revenue per levee mile varies greatly between the 21 districts. The revenue per levee mile ratio for RD 2064 was estimated by dividing the District’s governmental activities revenue, by the total number of levee miles. The revenue for FY 14-15 for RD 2094 was estimated by averaging the total revenue collected in FY 16-17 over five years.

The obvious outlier is RD 1614 with revenue of nearly \$300,000 per mile of levee. Unlike many other districts, RD 1614 collected funding from all three main revenue types in FY 15: assessments, property taxes, and state assistance. State assistance, however, is an inconsistent income source. For instance, RD 1614 received \$189,102 in subvention funds in FY 15, but none in the previous two fiscal years. On the other side of the spectrum is RD 2107 that collected the lowest amount of income per levee mile in FY 15, or about \$6,000 per levee mile. Although RD 2107 participates in State assistance programs, it received no income from this source in FY 15. By contrast, RD 2075, which also received a fairly low amount of revenue per levee mile in FY 15, does not participate in State assistance programs, thus its revenue stream is fairly consistent from year to year.

Expenditures

The primary expenditures for all the districts reviewed consisted of levee maintenance and repairs, engineering services, salaries and wages (including contractor fees), and insurance. In FY 15, the reclamation districts’ overall operating expenditures ranged from a low of \$4,912 per levee mile in RD 1007 to a high of \$156,386 in RD 2074, as shown in Exhibit 2-2. For RD 2064, the analysis included only

Exhibit 2-1: Revenues per levee mile.



governmental activities (levee maintenance) operating expenditures and excluded enterprise activities (irrigation water services) expenditures. It appears that select districts may report their levee maintenance expenditures together with other expenses in one category in their audited financial statements. It was not always entirely clear from the documents available whether indicated amounts of maintenance expenses were exclusively spent on levee maintenance. Similar to RD 1007, RD 2094 also spent a relatively low amount that year per levee mile. Because exact expenditures for FY 15 were not available for RD 2094 and the District reported that it tends to spend between \$7,000 and \$16,000 every year on maintenance and insurance, it is estimated that RD 2094 spends approximately between \$2,000 per levee mile to \$5,000 per mile in operating expenditures.

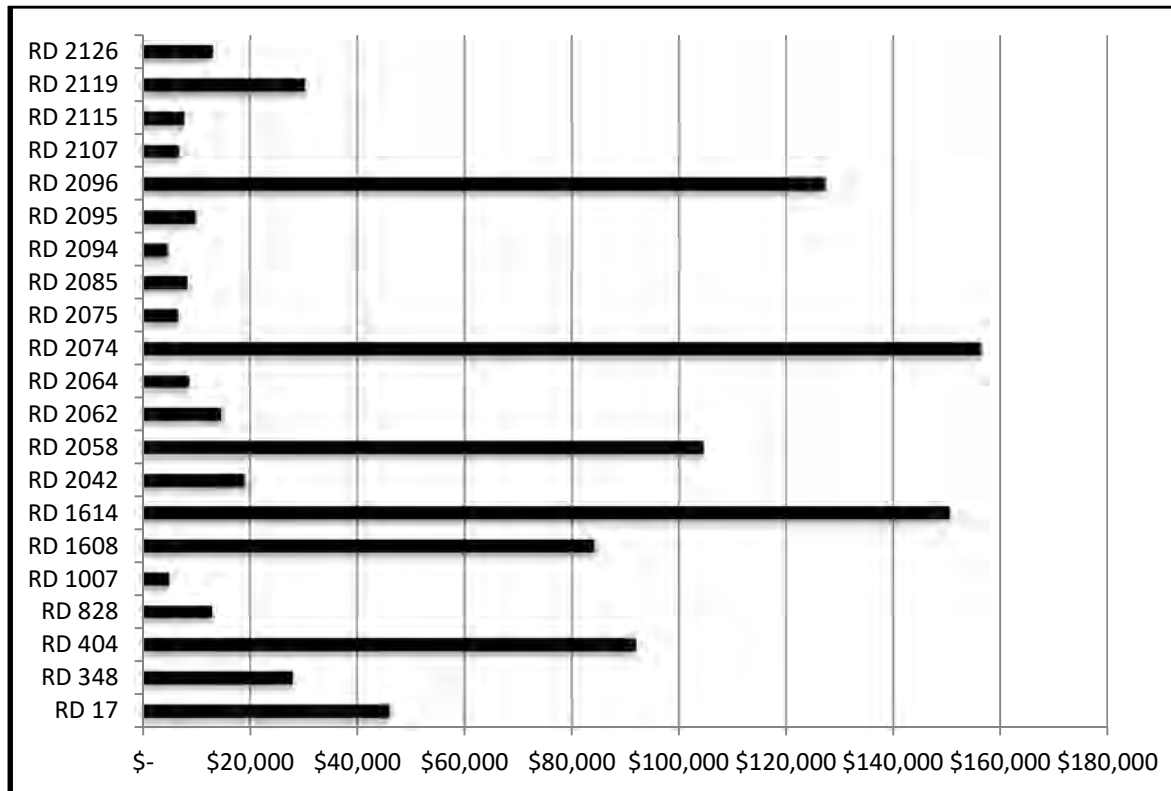
Exhibit 2-2 is depicting that, similar to operating expenditures, RD 2074's maintenance expenditures per levee mile were among the highest in FY 15. Although its legal fees that year were very high, the District also spent the highest amount (\$80,553) on levee maintenance among all the reviewed districts. Conversely, RD 2096 had one of the highest operating expenditures per levee mile, but maintenance expenditures per levee mile were not in the same range. Because the District maintains only 0.16 miles of levees its administrative expenditures are high per levee mile compared to other agencies. RD's 1007 and 828 did not spend any funds on levee maintenance in FY 14-15. This may explain why RD 1007's

operating expenditures per levee mile were so low that year. RD's 348,264,2075, 2094, 2107, and 2115, each spent between \$2,000 and \$4,000 per levee mile. Maintenance costs tend to vary between urban and rural reclamation districts, with the urban ones generally spending more per levee mile than the rural. For all the districts, levee maintenance expenditures per levee mile are fairly consistent from year to year. Due to the absence of detail regarding the exact amount spent on levee maintenance in FY 15 in RD's 348, 2042, 2075, 2085, 2094, and 2119, approximate estimates based on previous fiscal years were used for this analysis.

Fund Balance

The financial ability of the reviewed reclamation districts is, although marginally adequate based on the ability to maintain levees to an adequate standard and generally finance agency operations, severely constrained by the limited number of available financing sources. Additionally, because the largest financing source for the vast majority of the agencies is benefit assessments, its availability is further constrained by the process of voter approval and the expensive and uncertain procedure of running a Proposition 218 election to pass or raise assessment rates. Rural districts also struggle with a limited constituent base, which limits the assessment revenue. As was mentioned in the previous section, capital improvements are also a challenge for the reclamation districts to finance due to the financing constraints and limited availability and eligibility access of grant funding.

Exhibit 2-2: Operating Expenditures per Levee Mile FY 14-15



Districts generally report that the costs of levee maintenance and rehabilitation have increased over the years and continue to grow, which, paired with limited revenues, is likely to present a major financial challenge in meeting the 200-year level of flood protection required by SB 5. San Joaquin reclamation districts also reported that they are being administratively and financially burdened by the efforts to comply with the continued increase in government regulation and standards.

Overall, in FY 15, all but one district ended the fiscal year with a financial surplus. RD 2107’s expenditures exceeded its revenues that fiscal year. In fact, the District ended its last six fiscal years with a financial deficit, covering the difference with its financial reserves.

As is seen in Table 2-12, most of the reviewed districts had adequate fund balances at the end of FY 15. RD’s 17, 2042, and 828 may be able to operate for 16, 17, and 22 years respectively without receiving any income. On the other hand, RD’s 2058, 2075, and 2115 have very small fund balance to draw from in case expenditures exceed revenues.

Table 2-12: Fund Balance at the End of FY 14-15 and Years of Operating Expenditures

DISTRICT	NAME	FUND BALANCE	YEARS OF OPERATING EXPENDITURES
RD 17	Mossdale	\$13,743,653	15.7
RD 348	New Hope	\$4,624,536	8.9
RD 404	Boggs Tract	\$1,673,659	3.8
RD 828	Weber Tract	\$561,198	22.1
RD 1007	Pico & Nagle	\$111,789	2.5
RD 1608	Smith Tract	\$1,892,601	6.8
RD 1614	Smith Tract	\$1,536,766	3.6
RD 2042	Bishop Tract	\$2,578,699	16.9
RD 2058	Pescadero	\$251,296	0.3
RD 2062	Stewart Tract	\$744,975	3.3
RD 2064	River Junction	\$638,315	3.1
RD 2074	Sargent-Bar	\$2,061,292	2.9
RD 2075	Mc Mullin	\$42,343	0.9
RD 2085	Kasson	\$68,848	1.3
RD 2094	Wethall	Unknown*	Unknown
RD 2095	Paradise	\$128,948	2.7
RD 2096	Wetherbee	\$110,029	5.4
RD 2107	Mossdale	\$46,664	1.6
RD 2115	Shima Tract	\$30,834	0.6
RD 2119	Wright- Elmwood	\$214,194	1.0
RD 2126	Atlas Tract	\$67,800	1.7

Note:

* Because RD 2094 is inactive and does not have official financial records in addition to only receiving income once in five years the District's fund balance at the end of FY 14-15 is unknown.

2.8 - Status and Opportunity for Shared Facilities

Reclamation districts in San Joaquin County generally acquire and own limited facilities that they can share with other agencies and organizations. However, the results of this study showed that RD's generally collaborate with and receive assistance from other agencies to improve services or reduce costs. Realizing that the levee system is designed to protect the entire region and failure in one district can affect a much larger area, districts engage in various forms of agreements, such as streambed alteration agreements, work agreements, and mutual aid agreements, with neighboring providers and nearby cities, as well as larger governmental agencies including various county departments, DWR, USACE, California Department of Fish and Wildlife, and SJAFCA, to name a few main ones.

Most of the districts reviewed have adopted emergency operations plans, but even those that have not, engage in similar emergency collaborative practices. A majority of the reviewed districts are signatories to the California Master Mutual Aid Agreement and the San Joaquin Operational Area Agreement that allow RD's to request necessary resources in emergency situations. Mutual aid requests for technical assistance and services, flood fight crews, supplies and materials, and other resources are made through the San Joaquin Operational Area Logistics Section and/or the Operational Area Public Works Mutual Aid Coordinator. In case of an emergency, districts maintain proper management and coordination with 1) other public agencies and jurisdictions operating within the affected area, 2) neighboring RD's, and 3) the San Joaquin Operational Area.

RD's often engage in collaborative practices with state agencies for levee inspections and financial assistance. Districts that own and maintain project levees work with DWR and USACE to maintain and inspect their levee systems. Financial assistance from the State is provided through specific programs, as was previously discussed in Section 4.3 of this report. Approximately half of the districts reviewed participate in either one or both of the Delta Levee Subventions and the Delta Levee Special Flood Control Projects programs.

2.9 - Government Structure and Accountability

The districts reviewed as part of this study generally demonstrated accountability and transparency with regard to governance by cooperating with the MSR process. A majority of the districts keep up-to-date financial records and comply with the Brown Act, with the exception of RD's 2094 and 2096. RD 2094 does not maintain official financial records, including a budget and audited financial statements, and has been labeled inactive by the State Controller's Office since the 1990s for the failure to report its expenditures and revenues. Additionally, the District's agendas for the Board of Trustees meetings are not distributed, and the District's Board communicates with its residents only as needed. RD 2096, although active, similarly does not adopt a budget and does not publish agendas for Board meetings in a public place at least 72 hours ahead of the meetings as legally required by the Brown Act.

While lack of proper notice for public meetings is limited to these two districts, the absence of a budget adopted before the beginning of the fiscal year is an issue for several other reviewed agencies, including RD's 828, 2115, and 2126. RD's 17 and 2119 reported that although they currently do not adopt a budget the practice is being implemented. Well-managed public agencies adopt annual budgets as one of the main financial planning tools. The 2013-2014 San Joaquin County Grand Jury report contains a recommendation that all reclamation districts that do not adopt annual operating budgets prepare a framework for an annual budget and utilize it for all subsequent fiscal years. The Special District

Leadership Foundation also lists it as one of the most essential accountability practices of a public agency. Additionally, and more importantly, Government Code §53901 states that within 60 days after the beginning of the fiscal year each local agency must submit its budget to the county auditor. These budgets are to be filed and made available on request by the public at the county auditor's office. If a local agency does not have a formal budget, it shall file a listing of its anticipated revenues, together with its expenditures and expenses for the fiscal year in progress.

A majority of the districts are governed by a three-member Board of Trustees with the exception of four agencies that include five trustees on their Boards. In addition to the three-member Board of Trustees, RD 2064 has a second Board of Directors that has the responsibilities of setting rates and policies for the enterprise functions of the District. Albeit uncommon, this arrangement provides a way to keep enterprise functions separate from the governmental activities. Reclamation district trustees are generally elected, however, many districts often do not have enough candidates to hold an election, in which case Trustees are appointed by the Board of Supervisors. RD's 2115 and 2126 have a slightly different system of Board member selection. Because in each of these districts there is a single owner of the property within that district, legal representatives are elected by the landowner to four-year terms. When the Board falls below a quorum, sufficient trustees to comprise a quorum are appointed by the landowner and confirmed by the City of Stockton City Council. Upon appointment of a quorum, the two members appoint the third member themselves.

Only six out of the 21 agencies reviewed provide some sort of compensation or stipend for their Trustees. Twelve districts, or just over a half of all reviewed agencies, hold regular Board meetings, while the rest of the Boards meet as needed. A vast majority of the districts do not make any information available for their constituents online. It is generally recommended that to be more transparent and accountable to the public, public agencies need to maintain an online presence through a designated website or social media.

Potential Boundary Changes

Except for RD 404 and RD 2074 none of the districts has expressed interest in expanding its boundaries. With respect to the governance structure, the RD 404 has discussed expansion of boundaries eastward to areas that would be affected by the 100-year flood. The District believes that since the District's levees provide flood protection to lands outside of its boundaries it may be logical to expand the boundaries to cover the protected areas so these areas would contribute to the costs to maintain and improve the levees. RD 2074 is considering expanding its boundaries to include the 1.8 miles of levee owned and maintained by PG&E on 14 Mile Slough. The first step after adoption of this MSR would be to update its sphere.

In addition RD 2095 at one time was interested in consolidating with RD 2085. About five or so years ago the District engaged in discussions with RD 2085. However, they were deterred by the lengthy process and high costs and are no longer considering the change of organization or changing their boundaries.

2.10 - Any Other Matter Related to Effective or Efficient Service Delivery as Required by Commission Policy

For most districts there were no LAFCO policies that would affect service delivery. However, if RD 2074 wishes to pursue expansion, the action would be subject to LAFCo's Sphere of Influence policy and Change of Organization Policy.

2.11 - Conclusions and Recommendations

The amount of information available varies from one district to the next. RD 17 because of its location had more information than RD 2094 which was labeled as inactive even though they continued to maintain their levees at a highly acceptable level.

There are some districts that don't fully comply with the Brown Act. While most are fully compliant, there may be districts that are not aware of changes made by recent legislation. It is recommended that the districts participate in board training at least every four years. The training will allow trustees to learn about the requirements of the Brown Act and keep abreast of changes in the law.

The spheres for the districts were established in 1983. Given the geography and that the district boundaries touch each other like an elaborate jigsaw puzzle, there is very little room for expansion. As a result the recommendation is that LAFCO update each sphere be coterminous with district boundaries. RD 404 expressed interest in a larger sphere for which they should apply to LAFCO for an update.

One of the key methods of communication is through a district website. Of the 21 districts only two have websites. Besides a great way to communicate with residents the website is important for transparency and accountability of the district. Each district should establish a website. There are vendors that will create websites at no cost to special districts. The monthly fee to maintain the site is \$10 if the district is a member of CSDA or \$20 monthly if they are not.

Eleven of the 21 districts have project levees that are inspected at least twice annually and reported to DWR. Project levees for RD 2094, RD 2096, and RD 2107 are maintained to an acceptable level. The report for RD 2094, the "inactive" district, and RD 2107 indicted the levees were maintained at an acceptable level for the most recent five years. Only project levees in RD 404 and RD 2058 were rated unacceptable.

The condition of the non-project levees is a critical concern, given the lack of regular inspections by a regulatory agency. RD 2126, for example which hasn't had an inspection for 10 years, should establish a regular inspection schedule. However, it is the responsibility of the State to address this issue of non-project levees.

Some districts do not approve an annual assessment. If the District is in sound financial condition that is not a problem. Others like RD 1007 should bill annually. RD 2094 bills every five years on an as needed basis.

A few of the districts have some issues that need attention. RD 1007 has yet to meet HMP standards because they do not have a passable access road along the levee. Similarly RD 2115 and RD 2119 have sections of levee below HMP standards. RD 2075 has seepage and vegetation problems that need to be corrected. However, they appear to be short on funding. They should consider applying for subvention or special project funds or raise additional funds by issuing warrants.

Finally RD 2094 needs to be considered active and submit financial information to the State Controller, undergo an audit, and have their trustees be reappointed by the Board of Supervisors.

3: OVERVIEW

3.1 - The Delta

Introduction

The Sacramento-San Joaquin Delta is California's most crucial water and ecological resource. The Delta is formed by the Sacramento River flowing south to meet the north-flowing San Joaquin River just south of Sacramento, where the rivers mingle with smaller tributaries and tidal flows. The rivers' combined fresh water flows roll through the Carquinez Strait, a narrow break in the Coast Range, and into San Francisco Bay's northern arm, forming the Bay Delta. Suisun Marsh and adjoining bays are the brackish transition between fresh and salt water, but the location of that transition is not fixed.

The Sacramento-San Joaquin Delta includes parts of San Joaquin, Sacramento, Yolo, Solano, Alameda, and Contra Costa counties. The Delta plays a major role in the economy, natural environment, and human environment of San Joaquin County as well as the entire State of California. In addition to being part of a unique and important estuary ecosystem, the Delta offers a wide variety of goods and services that are provided by the land, water, and people in the Delta.

Water Resource

The Delta is a vital link in California's water delivery system. About one-quarter of California's drinking water comes from the Delta and two-thirds of Californians get some or all of their drinking water from the Delta. Many industries, including those in the Silicon Valley, also depend on water from the Delta. It is delivered by the Central Valley Project (CVP) and the State Water Project (SWP) to cities and communities in many of California's largest urban areas. In addition, about three million acres of agricultural lands within and outside the Delta are irrigated using water from the Delta.

Within the San Joaquin County portion of the Delta, two irrigation districts pump irrigation water from Delta channels to farms within the Delta. This water is provided from sources distributed over many islands. The City of Stockton has been granted a water right from the State Water Resources Control Board (SWRCB) to divert up to 33,600 acre-feet of water directly from the Delta (at a site on Empire Tract) for municipal uses.

Wildlife Habitat

In addition to agriculture and water supply, the Delta provides habitat and riparian areas for wildlife. Riparian systems provide several important functions to both the aquatic and terrestrial ecosystems associated with them. These include, but are not limited to, stream bank stabilization, flow moderation and flood control, sediment control, organic matter necessary to support aquatic communities, water quality improvement by filtration, temperature moderation by shading, and stream structural diversity. Riparian habitats support a great diversity of wildlife, including sensitive invertebrates, amphibians, reptiles, birds, and mammals. An estimated 25 percent of all warm water and anadromous sport fishing species and 80 percent of the State's commercial fishery species live in or migrate through the Delta, and at least half of the Pacific Flyway migratory water birds rely on the region's wetlands.

Finally, the Delta, including parts in San Joaquin County, has "designated critical habitat" areas, which is a term defined in the Endangered Species Act and used by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service as an area that is essential for the conservation and recovery of a federally threatened or endangered species that requires special management and protection. It may

include an area that is not currently occupied by the species but that will be needed for its recovery. Critical habitats are designated to ensure that actions authorized by federal agencies will not destroy or adversely modify critical habitat, thereby protecting areas necessary for the conservation of the species. Not all federally listed species have designated critical habitat.

Recreation and Tourism

Recreation is an integral part of the Delta; it has an estimated 12 million visitor days of use annually, of which roughly two-thirds are boating and fishing related. In San Joaquin County as in the rest of the Delta, people seeking recreation experiences primarily rely on private enterprises, including marinas, restaurants, retail establishments, wineries, and farm stands, because public recreation facilities are limited. Although San Joaquin County has roughly half the Delta's population and three-eighths of its water and land area, it only has about 25 percent of its recreation facilities.

Delta recreation and tourism supports over 5,300 jobs, \$353 million in value-added, and \$654 million in economic output across California. The regional nature of these impacts is difficult to differentiate across individual counties, but it is reasonable to assume that roughly a quarter of these economic impacts are generated in San Joaquin County.

Delta Management

The protection and preservation of water quality within the Delta and for the state and federal water projects is critical. The RD's in the region help protect drinking water in the Delta by maintaining the appropriate balance between freshwater and saltwater. Flooding of Delta islands has the potential to negatively affect water quality both locally and statewide.

Maintaining the current configuration of Delta levees and channels is critical to insure Delta salinity standards are met and saltwater intrusion from the San Francisco Bay into the Delta does not occur. If the levees along any of the RD's were breached, particularly during a storm or high water event, several adjacent islands would be threatened by seepage under the levee and higher wind fetch, which could cause levee failures.

If multiple levees were to fail during dry conditions, water quality in the Delta could be greatly degraded by the transportation of tidal salt water through the major Delta channels where fresh and salt waters mix as a result of the effect of each island filling rapidly with water from the surrounding waterways.

Hazards and Dangers

Today, Delta levees protect farms, cities, schools, and people from flooding and related hazards. It consists of approximately 57 major reclaimed islands surrounded by about 1,100 miles of levees and numerous channel islands without levees. Because Delta peat soils are prone to wind erosion and oxidation due to exposure to air through plowing and fires, many Delta islands are subject to subsidence. As of 2008, many islands were 15 or more feet below sea level, and some islands were as much as 25 feet below sea level. Continued rates of subsidence vary throughout the Delta, but rates of 0.5 to 1.5 inches per year are common.

The Delta drains a watershed comprising 40 percent of California's landmass, which means that during storm events, a huge volume of water flows into the Delta. Unlike upstream levees, such as those protecting the City of Sacramento that are mainly under stress during high water events, levees in the

Delta are under constant pressure. In addition, because islands have experienced subsidence, many levees hold back water from land up to 20 feet below water levels in adjacent channels.

The greatest stresses to the levees in the Delta occur when a large storm coincides with high tides. Water levels in Delta channels are elevated by the high stormwater flows, high tides, and even by the low air pressures associated with storms. In addition, the levees must withstand erosion from wind-induced waves. Under these circumstances, levees can fail from overtopping when water levels become higher than the top of the levees and flow over them onto the islands, and from collapse caused by increased pressure due to island subsidence, the burrowing activities of animals, long-term erosion from high flow events, wind-induced waves, boat wakes, deferred maintenance, the seepage of water through sand layers beneath the levee, and other factors not yet well understood.

Conflicts exist between many of the demands being put on the Delta. These conflicts are expected to intensify. Demands on the Delta's resources and physical and biological changes to the Delta are expected to increase. Several factors that will strongly affect future conditions in the Delta include climate change, changes in land use patterns, changes in water demand, the continuing subsidence of some islands, seismic activity, and the introduction of new species.

The combination of sea level rise, changes in hydrology that may lead to higher peaks in runoff levels, and decreasing land elevations in island interiors due to subsidence increase the likelihood of not just single-island levee failures but of multiple island failures. Such multiple island failures increase the length of time needed to repair all levees and increase the damage done by the flooding. Multiple island failures also increase the likelihood that some islands will not be recoverable. Over time, the likelihood of a significant seismic event either in the Bay Area or on the periphery of the Delta increases, and such an event could also cause the catastrophic failure of multiple levees.

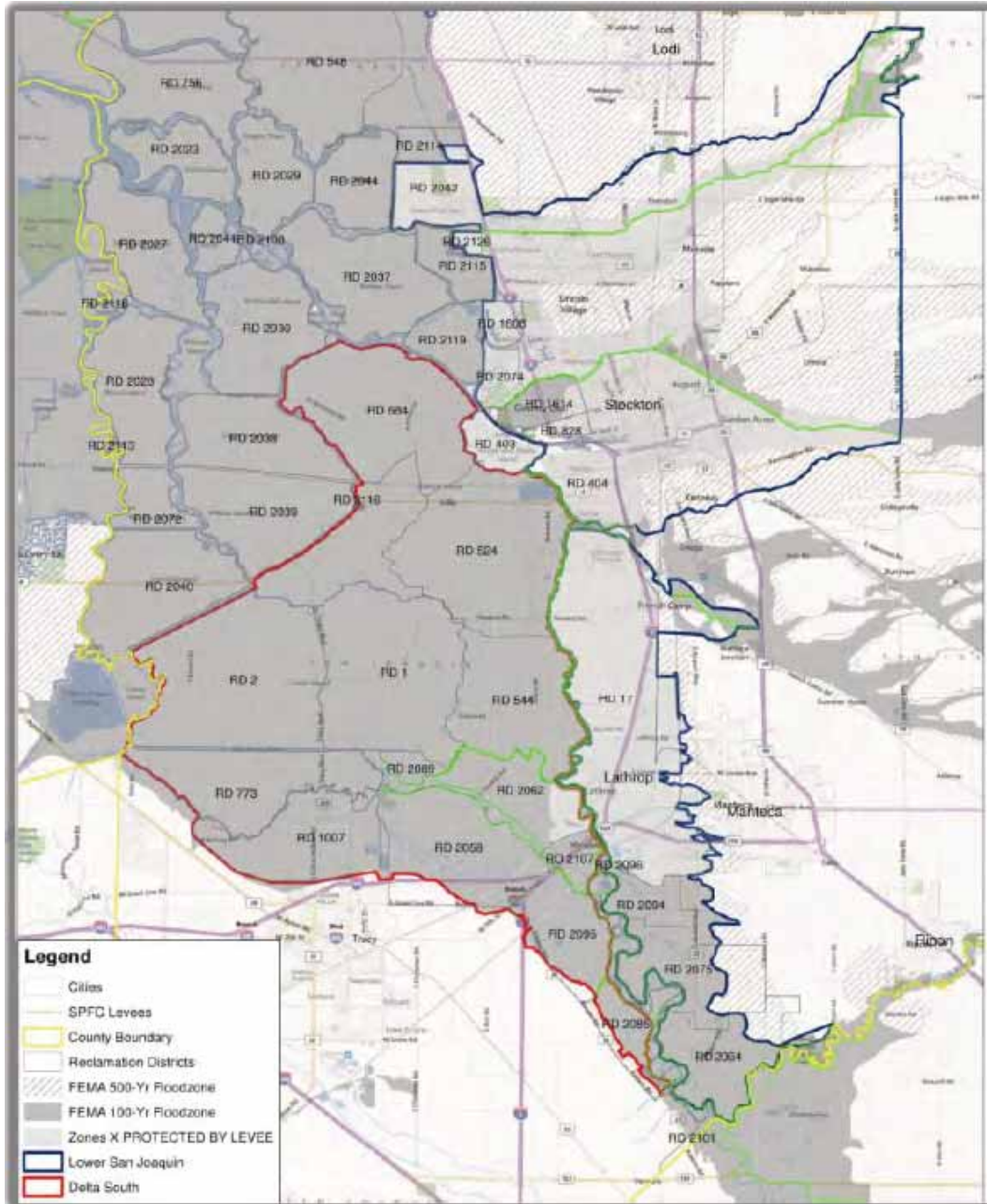
Additionally, rising sea levels have a danger of increasing the overall salinity of the Delta, which would change the habitats, decrease productivity on farms that use water from Delta for irrigation, and trigger a need for more intense water treatments for those using water exported from the Delta for domestic and industrial uses.

The reduced reliability of the Delta levee system will tend to increase the vulnerability of homes, roads, bridges, pipelines, and agricultural fields on Delta islands to increased flood risk. Increasing population in the Delta increases the number of people and amount of property put at risk from levee failures. Additionally, urbanization of the Delta degrades the ecosystem by increasing pollutant levels from urban runoff and wastewater discharges putting more pressure on levees and creating more challenges for local agencies managing the Delta to restore habitat, implement flood management strategies, and implement water supply improvements.

Levee failures in the Delta also increase the cost of levee maintenance. Levees will have to be increased in height and width to avoid being overtopped by rising sea levels and higher spring runoff flows.

In order to illustrate the level of risk of flooding in the San Joaquin County, the FEMA Floodzones are presented in Exhibit 3-1. The map shows the urban areas of Stockton, Lathrop, and Manteca are within levee-protected areas (Shaded Zone X), and a portion of Lathrop is within the 100-year flood plain. Furthermore, nearly the entire Delta South Region is within the 100-year flood plain and nearly the entire Lower San Joaquin River Region is within the 500-year flood plain.

Exhibit 3-1: FEMA Floodzones



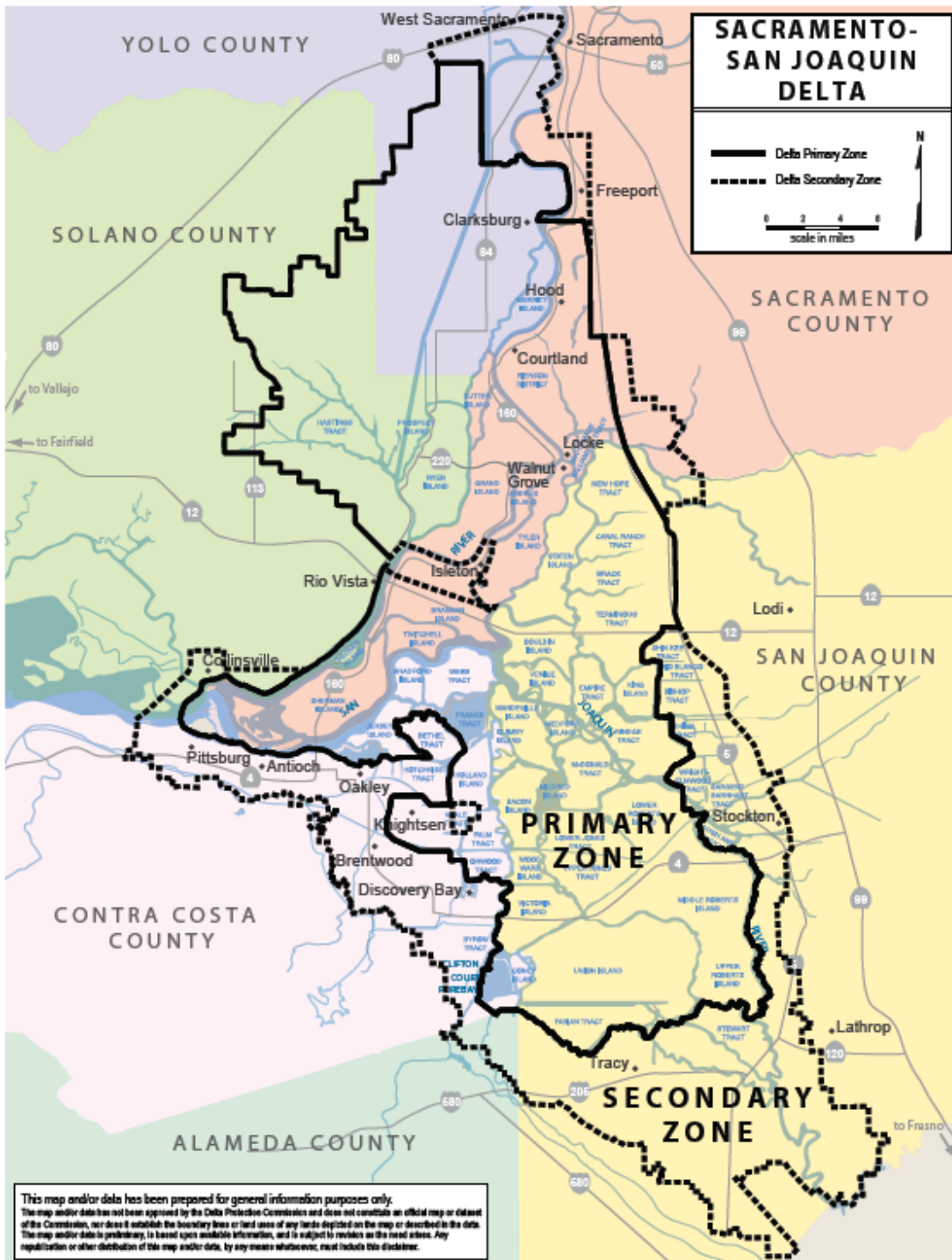
Source: San Joaquin Area Flood Control Agency. 2014.

Boundaries, Demographics and Land Use

Boundaries

The Delta Protection Act of 1992 divided the Delta into Primary and Secondary Zones (Exhibit 3-2). The Primary Zone, statutorily defined as comprising “Delta land and water area of primary state concern and statewide significance,” comprises approximately 500,000 acres of waterways, levees, and farmed lands in all the Delta counties. The Secondary Zone, which includes the cities of Stockton, Lathrop, Tracy, Oakley, and West Sacramento, is defined as that part of the Delta where development can occur. Development projects in the Secondary Zone are primarily subject to local land use decisions.

Exhibit 3-2: Primary and Secondary Zones of the Sacramento-San Joaquin Delta



Source: Delta Protection Commission 2012.

As shown in Exhibit 3-2, the Delta, including both the Primary Zone and Secondary Zone, contains significant portions of five counties, Contra Costa, Sacramento, San Joaquin, Solano and Yolo, and a small rural corner of Alameda County. The Delta contains parts of several large cities, including Antioch, Pittsburg, Stockton, Sacramento, Tracy, and West Sacramento.

The Delta occupies over a third of San Joaquin County and includes most of its western portion. The exact boundaries are shown in Exhibit 3-3. San Joaquin County accounts for over two-fifths of the Delta’s area, which is the largest share among Delta counties. The County’s portion of the Primary Zone accounts for 59 percent of the County’s total Delta area. Another significant feature of the Delta in San Joaquin County is the relatively high proportion of private land ownership. Only 5 percent of the Primary Zone in the County is publicly owned, while it is more than 14 percent in the other counties. Similarly, in the Secondary Zone, only 2 percent of San Joaquin’s Delta area is public but over 5 percent in other counties.

Land Use

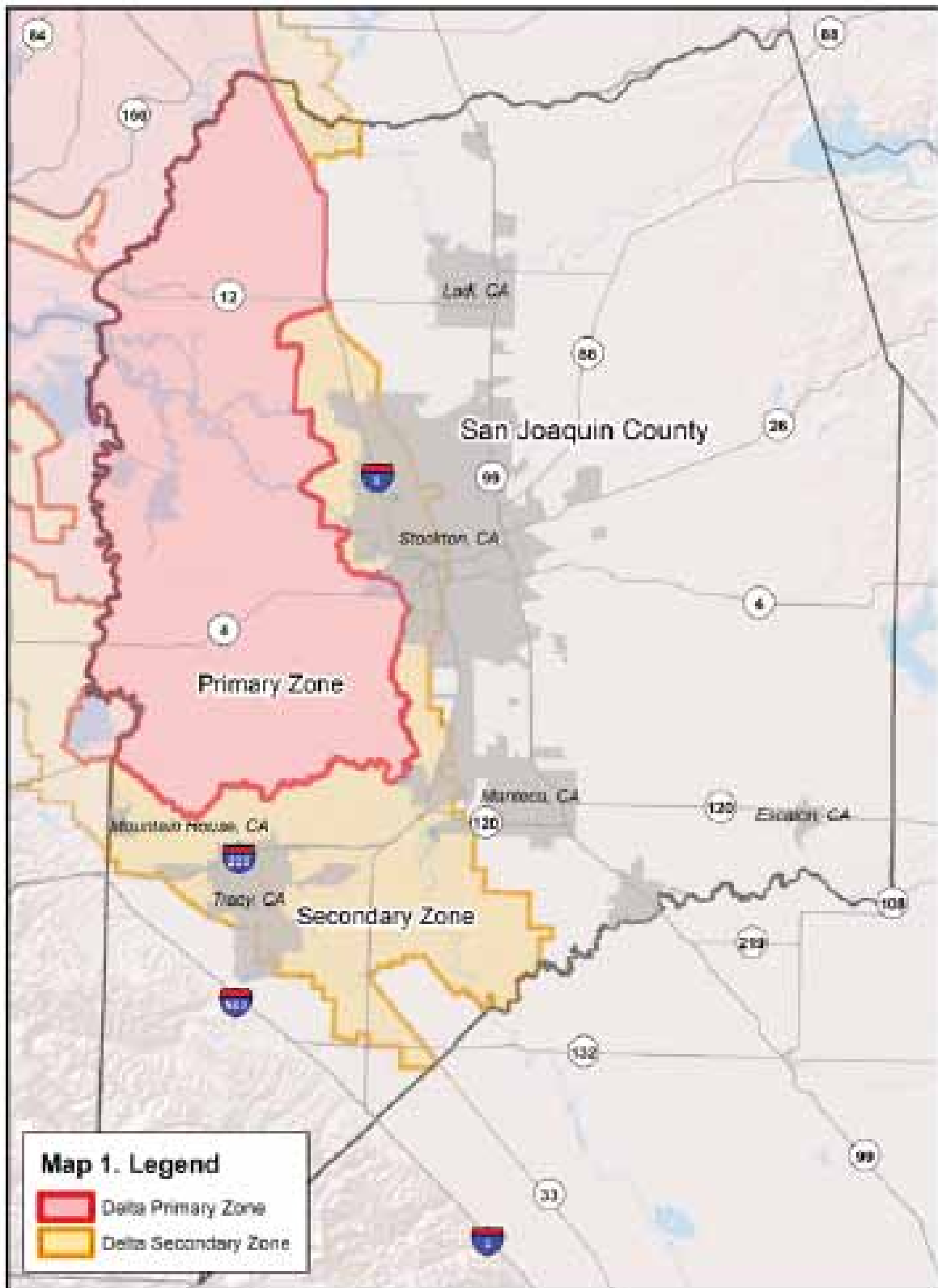
Land in the entire Delta and Suisun Marsh is predominantly in agricultural uses (67 percent). About 9 percent of Delta and Suisun Marsh lands are in urban uses, 14 percent in conservation and managed uses (mainly in Suisun Marsh), and 10 percent in water channels and areas of open water.

The Delta is an important source of agriculture and open space in San Joaquin County. This is especially true in the Primary Zone, where over 80 percent of existing land use is devoted to agriculture. Less than 50 percent of land within San Joaquin County’s portion of the Secondary Zone is in agricultural use, with another 30 percent or so within the jurisdiction of an incorporated city, and the remainder in a variety of uses. Table 3-1 shows existing land use in the San Joaquin County portion of the Delta.

Table 3-1: Land Use within the San Joaquin County Portion of the Delta (2008)

LAND USE	PRIMARY ZONE		SECONDARY ZONE		TOTAL	
	ACRES	% OF TOTAL	ACRES	% OF TOTAL	ACRES	% OF TOTAL
Agriculture	164,098	87.39%	64,364	49.49%	228,462.40	71.88%
Residential	699	0.37%	5,398	4.15%	6,097.60	1.92%
Commercial, Industrial and Mining	133	0.07%	815	0.63%	947.9	0.30%
Public/Quasi-Public	4,044	2.15%	5,321.90	4.09%	9,365.60	2.95%
Open Space and Rec	4,842.00	2.58%	1,726.60	1.33%	6,569.20	2.07%
Vacant	170	0.09%	5,413.40	4.16%	5,583.20	1.76%
Other (right-of-ways, roads, canals, etc.)	13,920.70	7.41%	47,842.40	36.78%	61,763.00	19.43%
Total	187,774	100.00%	130,067	100.00%	317,841.00	100.00%

Exhibit 3-3: Delta in San Joaquin County



Eberhardt School of Business, 2012

One-third of the San Joaquin County’s agricultural land is located in the Delta. Moreover, about two-thirds of the County’s acres of irrigated row crops are located in the Delta. Residential uses make up only a small part (about 2 percent) of land uses in the San Joaquin County part of the Delta, most of which is in the secondary zone. Only about 700 acres or less than 1 percent of residential uses are within the San Joaquin County portion of the Primary Zone.

Population

Over 570,000 people resided in the Delta, according to the 2010 Census. Ninety-eight percent of them lived in the Delta’s Secondary Zone, with the remainder in the Primary Zone. Prior to the recent recession, the population of the Delta’s Secondary Zone had been growing rapidly, increasing almost 56 percent since the 1990 Census, a rate twice as fast as the State as a whole. In contrast, the population of the Primary Zone has been essentially unchanged over those 20 years.

As of 2010, there were 282,114 people living in San Joaquin County portion of the Delta, including 279,193 in the Secondary Zone and 2,921 in the Primary Zone. Most of the people live within the cities of Stockton, Lathrop, Manteca, Tracy, and Thornton. Table 3-2 shows that growth between 2000 and 2010 in the County’s Secondary Zone had been faster than in other Delta counties. As a result, the San Joaquin’s Secondary Zone population accounts for about half of the entire Delta’s population despite being less than one-fifth of its total area.

Table 3-2: Population of the Delta, 2000-2010

REGION:	2000 POPULATION	2010 POPULATION	POPULATION CHANGE	PERCENT CHANGE	ANNUAL PERCENT CHANGE
San Joaquin County Secondary Zone	213,456	279,193	65,737	30.80%	2.68%
Other Counties Secondary Zone	235,653	279,847	44194	18.75%	1.72%
<i>Total Secondary Zone</i>	<i>449,109</i>	<i>559,040</i>	<i>109,931</i>	<i>24.48%</i>	<i>2.19%</i>
San Joaquin County Primary Zone	4,002	2,921	-1,081	-27.01%	-3.15%
Other Counties Primary Zone	8,296	8,630	334	4.03%	0.39%
<i>Total Primary Zone</i>	<i>12,298</i>	<i>11,551</i>	<i>-747</i>	<i>-6.07%</i>	<i>-0.63%</i>
Grand Total Delta	461,407	570,591	109,184	23.66%	2.12%

Future Growth

Future development and growth of the Delta is substantially affected by SB 5 that applies to all areas within the FEMA 500-year and 100-year floodplains. It requires cities and counties to establish substantial evidence that certain development and projects are protected from a 200-year flood event before approval can be granted. The requirements for substantial evidence are provided in the Urban Levee Design Criteria (ULDC) and the Urban Level of Protection (ULOP) documents developed by DWR. This also applies to in-fill development. An urban area or urbanizing area is defined in Government Code 65007(j) and 65007(k) as a developed area with at least 10,000 residents., A developed area is an urbanized area with infrastructure capable of sustaining residential, commercial, and industrial uses and structures. Therefore, since mid-2016, Central Valley cities and counties are now prevented from

entering into development agreements, approving discretionary permits or other discretionary entitlement, or any ministerial permit that would result in the construction of a new residence, or a tentative map, or a parcel map for which a tentative map is not required, that would result in construction, and approving subdivision maps in urban or urbanizing areas without a finding of 200-year flood-level protection.

The ULDC and ULOP requirements developed pursuant to SB 5 pose extensive “findings” requirements on local land-use authorities, which can make achieving an Urban Level of Protection in many developed areas difficult due to the required system improvements necessary to meet increased levels of flood protection. Complying with these requirements will likely require both financial and staff resources, both of which are already overburdened in many local agencies.

Urban and urbanizing areas shown in Exhibit 3-4 with depths of flooding greater than 3 feet may be subject to SB 5 and may need to make adequate progress toward completing flood control projects in order to permit new development after July 2016. These areas may not only be at risk for flooding, their economies may be at risk if new development is halted. In the context of this MSR the cities of Stockton, Lathrop, Manteca, Tracy and San Joaquin County are affected. While the burden is on the land use authority some reclamation districts assist in complying with SB 5. Table 3-3 shows the districts subject to this review and their urbanized areas that they protect. It should be noted only areas of anticipated new development or development that is in progress are affected, so rural and fully built out RD’s generally have no plans to meet the 200 year requirements.

Table 3-3: Districts and Associated Land Use Authority

DISTRICT	NAME	LAND USE AUTHORITY				
		STOCKTON	LATHROP	MANTECA	TRACY	COUNTY
RD 17 ^a	Mossdale	✓	✓	✓		✓
RD 348	New Hope					✓
RD 404	Boggs Tract	✓				✓
RD 828 ^a	Weber Tract	✓				
RD 1007	Pico & Nagle				✓	✓
RD 1608 ^a	Smith Tract	✓				✓
RD 1614 ^a	Smith Tract	✓				✓
RD 2042 ^a	Bishop Tract	✓				
RD 2058	Pescadero				✓	✓
RD 2062 ^a	Stewart Tract		✓			
RD 2064	River Junction			✓		✓
RD 2074	Sargent-Barnhart	✓				
RD 2075	Mc Mullin					✓
RD 2085	Kasson			✓		✓
RD 2094	Wathal			✓		✓
RD 2095	Paradise					✓

DISTRICT	NAME	LAND USE AUTHORITY				
		STOCKTON	LATHROP	MANTECA	TRACY	COUNTY
RD 2096	Wetherbee			✓		✓
RD 2107	Mossdale		✓			✓
RD 2115 ^a	Shima Tract	✓				
RD 2119	Wright-Elmwood	✓				✓
RD 2126 ^a	Atlas Tract	✓				
Note: ^a Anticipating development, developing, or in process of meeting 200 year requirement (Neudeck 2017)						

Development in the Delta is also constrained by the California Land Conservation Act (commonly known as the Williamson Act) program, in which San Joaquin County is a participant. The Williamson Act aims to preserve agricultural land and related open space uses by discouraging premature and unnecessary conversion to urban uses. In exchange for agreeing to maintain Williamson Act compatible land uses, landowners receive the benefit of reduced property tax rates from the County. Williamson Act contracts are voluntarily established 10-year agreements between a landowner and the County and the term of the contract is automatically renewed every year, unless a notice of non-renewal is filed by the landowner.

A Williamson Act contract restricts a landowner’s ability to use or subdivide any parcel of land under an existing contract. Compatible uses under the Williamson Act generally consist of agricultural (such as farming, ranching, grazing, and timber) and related uses such as agriculturally related processing facilities.

Similar to Williamson Act lands, conservation easements also aim to set aside lands for non-urban uses. Conservation easements differ from the Williamson Act parcels in that agricultural or conservation easements are legal agreements between a landowner and a government or nonprofit entity such as a land trust, that conserves agricultural, biological habitat, or open space resources by temporarily or permanently limiting future development.

Conservation easements typically restrict development and subdivision to the degree that is necessary to protect the significant habitat, open space, or other conservation values of that particular property. Some conservation easements include “home sites,” or areas known as “exclusions” to the easement terms where limited development is allowed. Generally, home sites or exclusions are small in size (one to two acres) and located on areas low in conservation value.

3.2 - Regulatory Setting

Land and water use in the Delta are managed by a complex network of federal and state laws and regulations related to water rights, water quality, endangered species management, and land development.

Major flood management initiatives in California have historically been undertaken by local, state, and federal agencies in an evolving cooperative relationship. Beginning in the 1850s, levee improvements were initiated as entirely local undertakings, with sporadic efforts to provide State coordination and

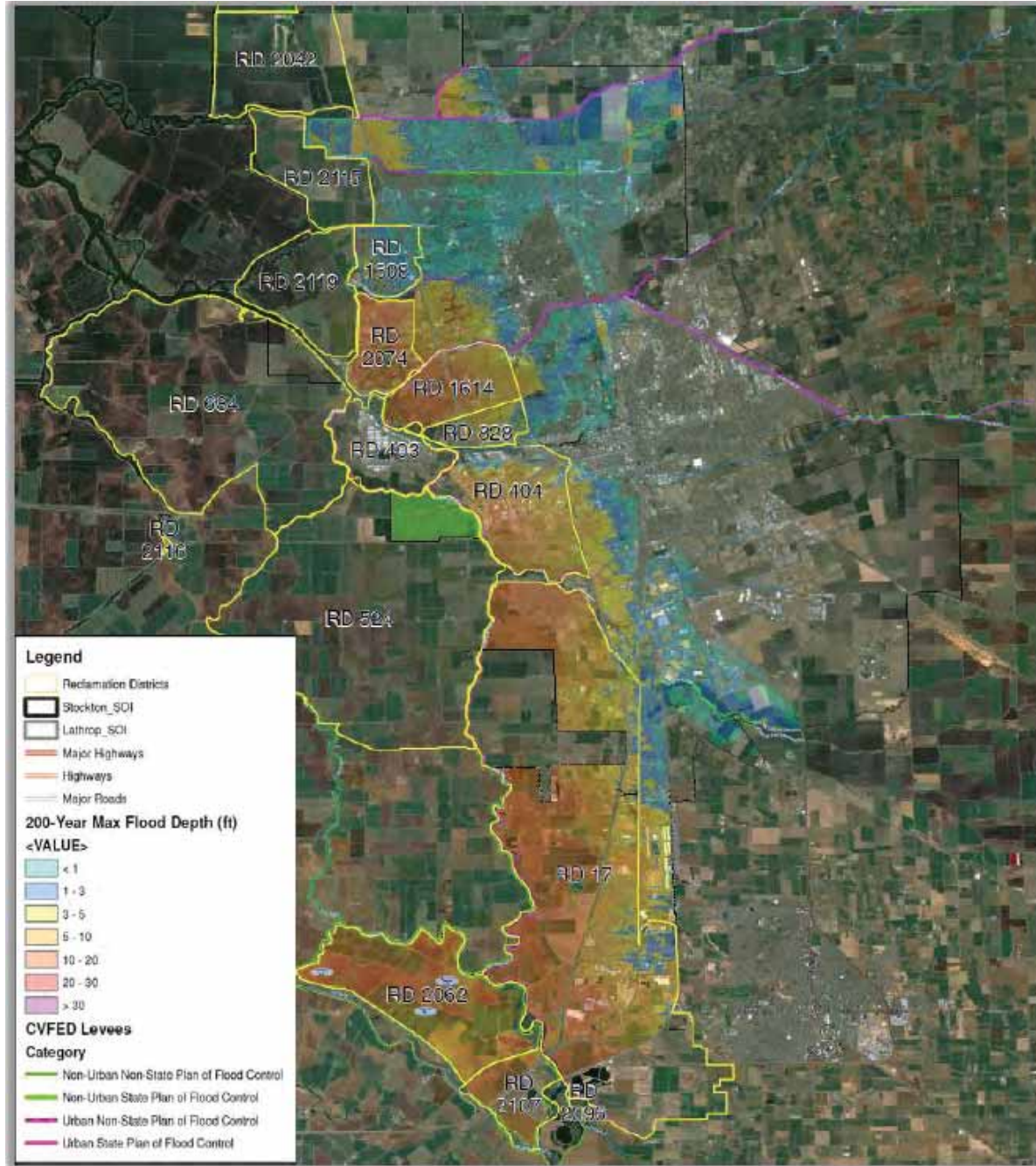
oversight. Federal participation in flood management in California was first authorized with the Caminetti Act of 1893.

State oversight of flood control efforts in the San Joaquin Valley began in 1911, with the creation of the State Reclamation Board (renamed CVFPB in 2007). Federal participation in California flood management was firmly established with authorization of the San Joaquin River Flood Control Project in 1917. From 1917 to 2006, USACE has played a lead role in planning, authorizing, financing, constructing, and inspecting flood system improvements in the San Joaquin River Valley, incorporating and improving upon the levee system originally constructed by local agencies.

The following federal, state, and local agencies currently play a significant regulatory and levee management role in the Delta.

- The Federal Emergency Management Agency (FEMA) plays a multitude of flood management roles, including managing the National Flood Insurance Program (NFIP), which includes mapping and classification of flood hazards. FEMA administers the Disaster Mitigation Act of 2000, which requires that local communities evaluate the natural hazards within their boundaries and develop mitigation plans for those hazards in order to maintain eligibility for its Pre-Disaster Mitigation (PDM) and Hazard Mitigation Grant Programs. FEMA also provides federal disaster recovery assistance in the event of federal emergency declarations or disaster declarations.
- At the federal level, USACE is primarily responsible for planning, designing, and constructing federally authorized flood management facilities, including dams, levees, and other structures. It also develops the operational rules for federally funded flood control reservoirs, which includes most of the major reservoirs on Central Valley streams. Following the Hurricane Katrina Gulf Coast disaster of 2005, the USACE implemented a National Levee Safety Program, promulgated strict vegetation management guidelines, and strengthened its national levee inspection program.
- California Department of Water Resources (DWR), primarily acting through the Division of Flood Management, is responsible for State-level flood management, including cooperating with USACE in project planning, design, and funding, cooperating with the National Ocean and Atmospheric Administration in flood and water supply forecasting, operating the Flood Operations Center, providing flood fight assistance, and maintaining portions of the flood management system. DWR's levee maintenance responsibilities include portions of the system designated for State maintenance in the California Water Code, and operating Maintenance Areas when local agencies cannot, or choose not to meet the maintenance obligations established under the assurances given to the CVFPB and USACE. Under these authorities, the DWR will assume responsibility for levee maintenance.
- The SJAFCA is a joint powers agency formed in May 1995 by San Joaquin County, the City of Stockton, and the San Joaquin County Flood Control and Water Conservation District. SJAFCA has the authority to finance and construct regional flood control improvements.

Exhibit 3-4: 200-year Inundation Depths in the Planning Area



Source: San Joaquin Area Flood Control Agency. 2014.

- San Joaquin County Office of Emergency Services Flood Contingency Mapping provides planning, mapping standards, and emergency response guides to help mitigate future flood damages through the Delta and surrounding areas. Additionally, the San Joaquin County Office of Emergency Services Flood Contingency Mapping provides maps for critical flood zones in the Delta, cities, and RD's. These maps contain the flooding history, locations of critical facilities, locations of levee failures and repairs, evacuation plans, drainage plans, supply delivery points, flood contingency options, and a plan of action for each respective levee in the case of flooding.

- The San Joaquin County Flood Control and Water Conservation District was formed in 1956 to construct, operate, maintain and plan flood control, water supply, drainage and groundwater recharge projects in order to protect life, property, and health of San Joaquin County residents and ensure the economic, environmental and social viability of the community. This entity performs maintenance of flood control systems along Bear Creek and the Calaveras River.
- The Stockton East Water Agency (SEWD) was created in 1948 to ensure proper management of the underground water basin and provide supplemental water supplies. SEWD provides surface water for both agricultural and urban uses.
- Local levee districts and reclamation districts (RD's), known collectively as Levee Maintaining Agencies (LMAs), regularly patrol, maintain, repair, and conduct flood fights as needed on the levees within their jurisdictions.
- San Joaquin County Local Agency Formation Commission oversees the formation, changes of organization and dissolution of special districts, including RD's in San Joaquin County. The primary role of LAFCo in reviewing the services of cities and special districts (in the case of this MSR, RD's) is to determine the level of services currently provided by these agencies and their long-term capability of providing services in the future.

Senate Bill 5 (SB 5)

Future development and growth of the Delta is substantially affected by Senate Bill (SB) 5 that applies to all areas within the FEMA 500-year and 100-year floodplains. It requires cities and counties to establish substantial evidence that certain development and projects are protected from a 200-year flood event before approval can be granted. The requirements for substantial evidence are provided in the Urban Levee Design Criteria (ULDC) and the Urban Level of Protection (ULOP) documents developed by DWR. This also applies to in-fill development.

The burden of enforcement of the SB 5 requirement is on the land use authorities (cities and counties) not the reclamation districts. Table 3-4 shows the land use authority that has jurisdiction within each of the reviewed districts. Some of the districts, such as RD 17, encompass land within multiple municipalities.

DWR developed the ULOP criteria to assist affected cities and counties within the Sacramento-San Joaquin Valley in making the findings related to an urban level of flood protection before approving certain land use entitlements in accordance with the 2007 California Flood Legislation. ULOP does not require levy improvements to withstand 200-year flood; ULOP can be accomplished through four mechanisms:

- That the flood management systems are in place that protect the property to the urban level of flood protection;
- That conditions imposed by the local community on a property, development project, or subdivision are sufficient to protect the property to the urban level of flood protection;
- That the LFMA has made "Adequate Progress" on the construction of a flood protection system that will provide the necessary urban level of flood protection for the location of the proposed development; or
- That property in an undetermined risk area has met the urban level of flood protection based on substantial evidence in the record.

Municipalities subject to SB 5 had until July 2, 2015 to incorporate its requirements into their General Plan and had until July 2, 2016 to adjust local zoning regulations. Thus, in July 2016, areas that had not achieved compliance with SB 5 requirements would essentially be banned from permitting new development or issuing discretionary permits that would significantly change or intensify the use of existing structures. SB 5 does not specify any review, approval, or enforcement authority by any State agency, but instead relies on the due diligence of cities and counties to incorporate flood risk considerations into floodplain management and planning in compliance with the general plan amendment requirements (Government Code §65302.9). Once local general plan and zoning amendments to achieve consistency with SB 5 have been completed, other provisions in SB 5 become effective, such as provisions relating to certain land use decisions and required findings that the land use decisions satisfy an Urban Level of Flood Protection or the national FEMA standard for flood protection.

After July 2016, SB 5 substantially limits the ability of urban communities to approve development projects (residential), unless 200-year flood protection has been provided, or the community is making adequate progress toward achieving 200-year flood protection.

All of the land use authorities with territory in the RD's reviewed here, consisting of the cities of Stockton, Lathrop, Manteca, and Tracy and San Joaquin County, have complied with the General Plan and zoning amendment requirements as outlined in SB 5. Further progress on complying with SB 5 requirements for proposed developments is dependent on the imminence of new growth within the 200-year floodplain in each municipality.

The Urban Level of Flood Protection Criteria document requires, prior to development approval, the presentation of substantial evidence to support a finding of "adequate progress" on the construction of a flood protection system that will result in providing an urban level of flood protection to an urban area. Such a finding by a local agency shall be based, at a minimum, on the following:

1. A report prepared by the local flood management agency demonstrating adequate progress as defined in California Government Code §65007(a).
2. A report prepared by a professional civil engineer registered in California to document the data and analyses for demonstrating the property, development project, or subdivision will have an urban level of flood protection at the time when the flood protection system is completed.
3. A report by an Independent Panel of Experts on the review of the report prepared by the Professional Civil Engineer.
4. A response by the Professional Civil Engineer to the comments from the Independent Panel of Experts.
5. The most recent annual report prepared by the local flood management agency that was submitted to the Central Valley Flood Protection Board documenting the efforts in working toward completion of the flood protection system.
6. Any additional data and information that cities or counties use to make the finding.

California Government Code §65007(a) defines adequate progress as all of the following:

- (1) The total project scope, schedule, and cost of the completed flood protection system have been developed to meet the appropriate standard of protection.

- (2) (A) Revenues that are sufficient to fund each year of the project schedule developed in paragraph (1) have been identified and, in any given year and consistent with that schedule, at least 90 percent of the revenues scheduled to be received by that year have been appropriated and are currently being expended.
- (B) Notwithstanding subparagraph (A), for any year in which state funding is not appropriated consistent with an agreement between a state agency and a local flood management agency, the Central Valley Flood Protection Board may find that the local flood management agency is making adequate progress in working toward the completion of the flood protection system.
- (3) Critical features of the flood protection system are under construction, and each critical feature is progressing as indicated by the actual expenditure of the construction budget funds.
- (4) The city or county has not been responsible for a significant delay in the completion of the system.
- (5) The local flood management agency shall provide the Department of Water Resources and the Central Valley Flood Protection Board with the information specified in this subdivision sufficient to determine substantial completion of the required flood protection. The local flood management agency shall annually report to the Central Valley Flood Protection Board on the efforts in working toward completion of the flood protection system.

The first Adequate Progress Report by the local flood management agency and the associated finding by the city is due to DWR and the CVFPB by July 1, 2016, with a progress report due annually thereafter.

Flood Management System

The flood management system, which currently provides protection to San Joaquin County includes reservoirs with active flood control space, levees along the major flood control channels, and drainage facilities that pump interior runoff and seepage from levee protected areas back into the flood control channels. It is part of a vast system of multi-purpose reservoirs, leveed stream channels, weirs, and overflow structures, which has been constructed to reduce flooding in the San Joaquin Valley over the past 60 years.

Non-structural flood risk management elements include a wide range of measures that limit the risk of flood damage primarily by avoiding or reducing the exposure to damaging floodwaters rather than by confining those floodwaters with larger and stronger hydraulic structures. These elements include raising and waterproofing structures so that they will be above anticipated flood levels, limiting development in floodplains through the acquisition of agricultural conservation easements, open space easements, regulatory constraints, and incentive programs. Restoration of floodplains where feasible, to provide additional flood channel storage and conveyance capacity, is often regarded as a non-structural element because it reduces, rather than increases, the confinement of floodwaters in existing channels.

Flood risk reduction programs include:

- FEMA's National Flood Insurance Program (NFIP) discussed earlier includes mapping flood hazard areas nationwide and requires that homes and other structures with federally backed mortgages must carry flood insurance if the flood risks warrant it. San Joaquin County, the City of Stockton, and other cities participate in the NFIP program, which provides community residents with reduced flood insurance

rates, if the permitting agencies meet certain requirements. If a community does not participate in the NFIP, residents within that community are not able to purchase flood insurance.

- Nearly all RD's in San Joaquin County participate in the Subventions Program, which is a State cost sharing program meant to provide technical and financial assistance to LMAs in the Sacramento—San Joaquin Delta. Authorized by the California Water Code Sections 12980, et seq., and managed by DWR, the subvention program is designed to reimburse local agencies for eligible costs of maintenance and rehabilitation, as well as costs associated with disaster. The CVFPB reviews and approves DWR's recommendations and enters into reimbursement agreements with the local agencies.
- To qualify for assistance under the program local agencies within the Delta must submit an application to the CVFPB each fiscal year. Agencies are then eligible to receive up to 75 percent reimbursement of eligible costs incurred in excess of \$1,000 per mile for all of its levees. A levee maintenance and inspection report for these levees is required before reimbursement may take place.
- PL 84-99 is another program that aims to mitigate flood risk. PL 84-99 gives USACE the authority to provide emergency management services to state and local agencies in need. Acting for the Secretary of the Army, the Chief of Engineers is authorized to undertake activities such as disaster preparedness, advance measures, emergency response operations, and rehabilitation of flood control works threatened or destroyed by flood.
- Many of the levees in San Joaquin County are project levees (discussed later in this section), and therefore participate in the PL 84-99 program. In order to benefit from the federal funding of rehabilitation, a federal flood protection system (e.g., project levee) must be enrolled in the PL 84-99 program prior to the flood event. An eligible system would be restored to its pre-disaster status at no cost to the owner (typically the owner of a project levee is the State of California). In order to remain eligible for PL 84-99 damage assistance, project levees need to receive an Acceptable or Minimally Acceptable rating by the DWR. If any part of a project receives an Unacceptable rating, the project is put on probation, and if it receives another Unacceptable rating the following year, it is placed on "inactive" status and is ineligible for the PL 84-99 program until the problem is resolved.

Levees

The present-day Delta is defined geographically and hydraulically by levees. Some of the levees in the Delta are known as project levees, built by the federal government and turned over to the State for maintenance as part of the state plan of flood control. Project levees are part of the Federal Flood Control Project and are built to higher standards that comply with USACE guidelines. Most Delta levees, however, are non-project levees built privately and maintained by local RD's. Exhibit 3-5 shows the location of project and non-project levees in the Delta.

Delta levees are distinguished from river levees in that they are constantly holding back water, making them more comparable to dams. Unlike dams, however, Delta levees were not constructed with strict engineering standards to withstand the constant pressure of water from the daily cycle of tides, wind and boat wakes.

Over half the approximately 980 miles of levees currently being maintained within the Delta are in San Joaquin County. Fewer than 30 percent of the project levees, but over 70 percent of the non-project levees, are located in the County, as shown in Table 3-5. The non-project levees are the focus of most concerns about Delta levee integrity.

Table 3-4: Project and Non-Project Levees (miles of levee)

	SAN JOAQUIN COUNTY DELTA		OTHER COUNTIES DELTA		SJC PERCENT OF DELTA	
	LOWLAND	GRAND TOTAL	LOWLAND	GRAND TOTAL	LOWLAND	GRAND TOTAL
Project	36.7	105.4	106.5	274.1	25.6%	27.8%
Urban Non-Project	0.0	34.9	0.0	28.1	NA	55.4
Non-Project Non-Urban	354.2	398.5	116.3	1385.9	75.3%	74.2%
Total	390.9	538.8	222.8	441.1	63.7	55.0

Note: Lowland means below sea level
 Levees of San Joaquin and Other Delta counties, miles of levees
 Source: Eberhardt School of Business, Business Forecasting Center in partnership with San Joaquin Council of Governments, Regional Analyst, The Delta and the San Joaquin County Economy, May 2012, p. 4.

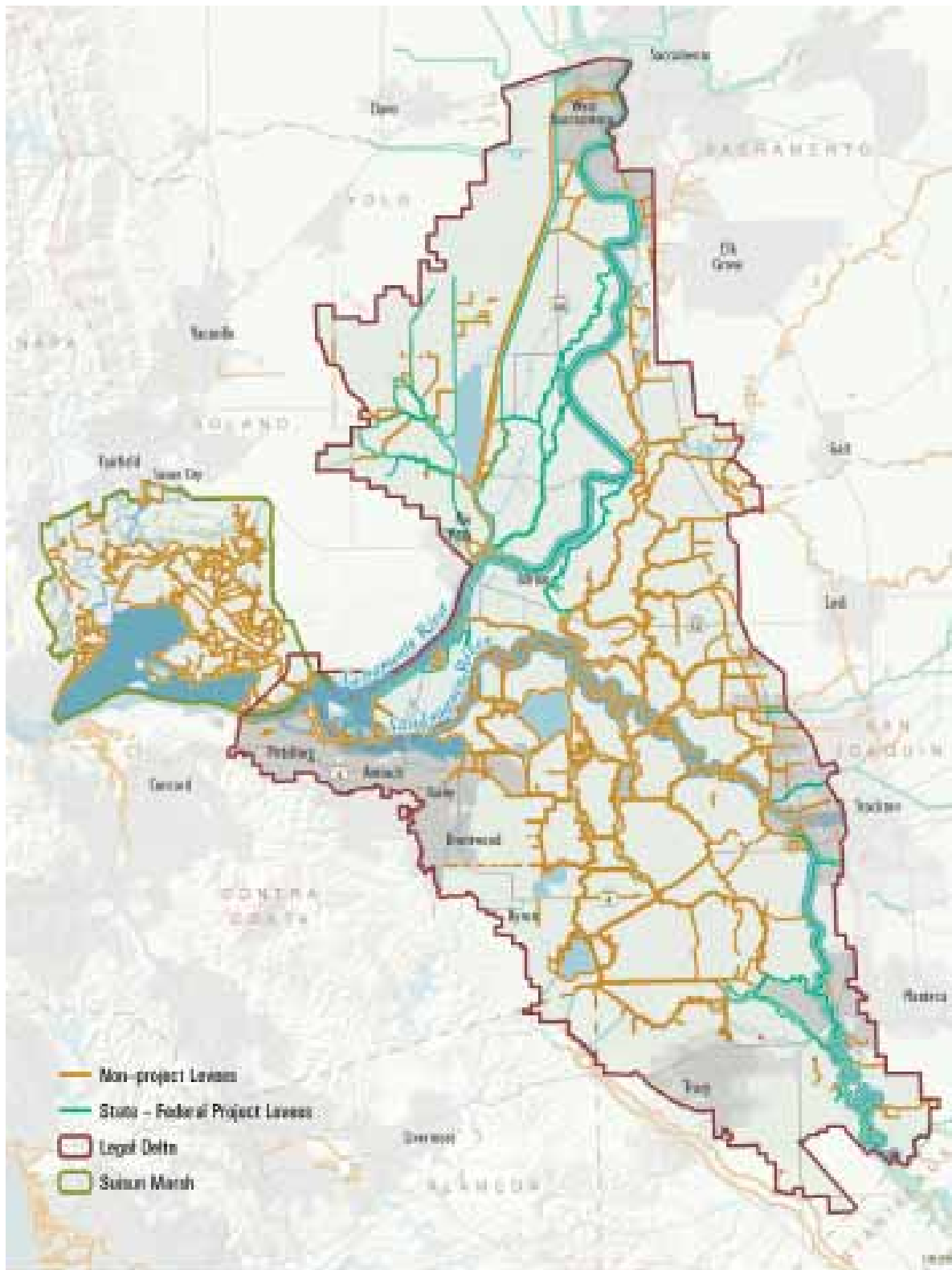
Although the non-project levees are privately owned, they provide broad public benefits including water conveyance for the SWP and CVP. Since the early 1980s, the State has made significant financial contributions to local RDs to improve non-project levees, and the condition and performance of the levees has improved as a result. However, the future of state support for non-project levees, the vast majority of which are in San Joaquin County, is uncertain due to funding constraints and changing policies. About two-thirds of Delta levees are “lowland” levees, which protect lands below sea level that have subsided since they were drained and farmed. Unlike islands and tracts where the land surface is above sea level, these islands cannot drain naturally in a flood and have to be pumped out after first repairing the levee.

Further, failure and flooding of lowland islands increases both the wave action and the seepage forces on the adjacent islands. While the farmland behind most lowland levees has relatively low values, the lowland levees are economically important because they are critical to the integrity of the overall levee system.

Existing Levee Standards and Guidance

It is more important than ever that the Delta’s levees are designed, constructed, and maintained to provide a level of flood risk reduction commensurate with the coequal goals and protection of the Delta’s unique values as a place. Over the last few decades, state and federal agencies have developed guidelines and standards for levees. These standards establish minimum criteria for levee design and maintenance.

Exhibit 3-5: Levees in the Delta



Source: Delta Stewardship Council, 2013.

Table 3-5 shows applicable levee standards. The table shows that compliance with a more stringent standard includes compliance with a less stringent standard.

Table 3-5: Levee Standards

Standard	Type	Feet Above Flood	Flood Occurrence	Comments
HMP -Hazard Mitigation Plan	Short term	1	100 year	Precondition for receiving disaster assistance
PL 84-99	Project Levees	1.5	100 year	Eligible for USACE and Rehab funds
DWR Bulletin 192-82	Agricultural	1.5	300 year	
FEMA 100	Urban	3	100 year	
FEMA 200	Urban	3	200 year	
DWR Bulletin 192-82	Urban	3	300 year	

Four levee standards and guidance are applicable to the Delta:

- **DWR 200-year Urban Levee Protection.** This standard goes beyond criteria for levee height and geometric design to include requirements for freeboard, slope stability, seepage/under-seepage, erosion, settlement, and seismic stability. It protects against a flood that has a 0.5 percent chance of being equaled or exceeded in any given year (a 200-year level of flood protection). This urban levee standard is the only levee standard that specifically links land uses to levee criteria. State law requires that by 2025, flood-prone urban areas with over 10,000 residents must meet this 200-year flood protection standard. Compliance likely will be achieved by upgrading levees to meet the 200-year design standard, under development by DWR. Sacramento, West Sacramento, and Stockton are planning levee improvements to attain this level of protection.

Very few levees in the Delta meet this standard because most Delta levees do not protect urban areas. Under existing law, rural levees are not required to meet this standard.

- **FEMA 100-year Protection.** This “insurance” standard, often called the “one percent annual chance flood” level of protection, provides criteria that levees must meet to protect against the flooding that is the basis for FEMA’s flood insurance rate maps. It is often used with established USACE criteria to prescribe requirements for levee freeboard, slope stability, seepage/underseepage, erosion, and settlement. The standard generally does not address seismic stability. In communities where levees provide this level of flood protection, new developments are not required to meet federal flood proofing standards and can obtain federally guaranteed mortgages without purchasing flood insurance.

Few Delta levees outside of cities meet this standard, and many urban levees need improvement to meet it.

- **Public Law (PL) 84-99.** The PL 84-99 standard is a minimum requirement established by USACE for levees that participate in its Rehabilitation and Inspection Program discussed earlier.

Twenty-five Delta RDs, protecting about 31 percent of the Delta’s land behind about 516 miles of levees, are at or above this standard, according to a 2012 report to the Delta Council by DWR. Delta islands or tracts that meet this standard are eligible for USACE funding for levee rehabilitation, island restoration after flooding, and emergency assistance, provided that the reclamation district is accepted into the USACE’s program and passes a rigorous initial inspection and periodic follow-up inspections.

Eligibility for PL 84-99 was formerly based primarily on levee geometry with minimum freeboard and maximum steepness of slopes. USACE's periodic inspection program incorporates other elements into eligibility, including presence of structure encroachments, vegetation, rodent control programs, and more. The standard for levee geometry implies a minimum levee height and a slope stability factor of safety but is not associated with a level of protection (such as a 100-year flood) and does not address seismic stability. In 1987, USACE developed a Delta-specific standard based on the Delta's particular organic soils and levee foundation conditions. The CALFED Record of Decision set a goal of improving Delta levees to the PL 84-99 standard, as does the DPC Economic Sustainability Plan, but funding has been inadequate to attain this objective.

- **FEMA Hazard Mitigation Plan (HMP) Guidance.** FEMA, DWR, the California Emergency Management Agency (Cal EMA), and the Delta levee-maintaining agencies negotiated the HMP guidance to reduce the likelihood of repetitive flood damage to Delta levees and islands, so that FEMA disaster assistance would not be requested repetitively for the same islands after minor floods.

Fifty-three of the Delta's RDs, protecting over 47 percent of the legal Delta's acreage, fall below this standard, which 139 miles of Delta levees do not meet. Local communities that do not meet the HMP guidance are not eligible for FEMA disaster reimbursement for flood fights or assistance if levees fail or islands flood. If even a portion of the levee around an island or tract does not meet the HMP guidance, assistance from FEMA to recover from levee damage is unavailable.

Fifteen districts comply with this guidance, but are below the PL 84-99 standard. FEMA and Cal EMA have a memorandum of understanding, updated in 2010, that sets forth the requirements for FEMA public assistance funding for emergency flood fighting, emergency repair, permanent restoration, and/or replacement of eligible damaged non-project levees within Delta RDs. The guidance is based on geometric criteria for the levees. The HMP guidance, negotiated between 1983 and 1987, was intended as an interim guidance, but has not been adjusted using subsequent or projected flood elevations.

- **Bulletin 192-82** This is DWR's long term mitigation plan standard as opposed to HMP which is DWR's short term mitigation plan standard. The design that satisfies this standard would result in a levee that is substantially stronger than HMP levees with a flatter water side and land side slopes and inclusion of land sider berms, use of one in 300 year water levels, provision of at least 1.5 feet of freeboard and additional freeboard for wind-generated waves. Further, the Delta Flood Protection Act of 1988 requires that Delta Levee Subventions projects be compatible with Bulletin 192-82.

No state standards currently address design criteria for flood protection of the state highways and interstate highways that traverse the Delta. Federal standards require that interstate highways must be protected from 50-year flood events to qualify for Federal Highway Administration funds. Because most roads in the Delta were constructed before these standards were developed, they do not meet the standards.

3.3 - Reclamation Districts

Reclamation districts are special districts responsible for reclaiming and/or maintaining land subject to frequent overflow or flooding via systems of levees, dikes, pumps, and ditches within both urban and rural lands. Most RDs were established when local landowners first started agricultural production many decades ago. Maintenance and improvement of Delta levees has been the responsibility of the local RDs for the last 130 years.

The principal act that governs the District is the Reclamation District Act. It empowers RDs to (1) construct, maintain, and operate levees, pumping plants, canals, and other diversion and irrigation infrastructure; (2) acquire, maintain, and operate irrigation systems (dams, diversion works, canals,

pumps) and supply irrigation water to lands within and contiguous to district bounds; (3) construct, maintain, and operate transportation (such as roads, bridges, and ferry boats) for access to district facilities and land in the district bounds; and (4) retain an agricultural expert to advise landowners. Districts must apply and obtain LAFCO approval to exercise latent powers, that is, those services authorized by the Reclamation District Act but not provided by the District by the end of 2000.

RDs are charged with preventing flooding of the land in their jurisdiction, which requires maintenance of levee structures and/or other facilities such as pump stations. California RDs tend to operate under their own authority. Typically RDs are overseen by elected board members and the costs to maintain the levees are covered by property taxes and benefit assessments. The financing abilities of RDs have been limited relative to needs, although some funds have been made available by the State for the last few decades. Under emergency situations RDs are supported by county, state, and federal agencies, but receive their authorization to operate under their own authority through the DWR and the USACE.

There are 52 RDs in San Joaquin County as shown in Exhibit 3-6, 21 of which are reviewed in this MSR.

3.4 - Flood Hazards in San Joaquin County

San Joaquin County receives runoff from over 40 percent of the land area in California. Flooding is the most likely natural hazard to occur in the County, although many physical and management systems are in place to limit risks of flooding or damage when it periodically occurs. San Joaquin County has a location and topography that is naturally subject to flooding. Before levees and other flood protection infrastructure were constructed over 130 years ago, water would seasonally cover large areas of the County. The County is located at the downstream end of the San Joaquin River basin, and over 30 percent of the County is in the Sacramento-San Joaquin Delta, which receives flow from all major rivers in the Central Valley. In addition, several river corridors flow from the Sierra Nevada foothills across the County from east to west (e.g., Dry Creek, Mokelumne River, Stanislaus River). Flood hazards in San Joaquin County can result from intense rain and snowmelt and/or failure of flood control facilities, such as dams, levees, or drainage channels. The San Joaquin River basin topography and surrounding terrain creates flood intensities unseen elsewhere in the nation.

Flood events from rainstorms generally occur between November and April and are characterized by high peak flows of moderate duration. Snowmelt floods, which normally occur between April and June, have larger water volumes and last longer than rain flooding. Intensive rainstorm or snowmelt generally cause flooding because of levee overtopping, levee failure, or localized drainage problems.

Levees and other flood control infrastructure function to protect areas by conveying floodwaters past locations without flooding. Regional dams also provide protection by incorporating flood storage capacity and managing the rate of releases downstream. Most of the area's existing flood control facilities along local and regional rivers were constructed and are now maintained to provide mandated levels by the USACE of flood protection. However, changing regulations from the Federal and State governments will necessitate additional improvements for some levees and will require property owners to purchase flood insurance as more lands are designated as high-risk areas. Within the Delta, few of the levees were constructed or maintained to meet present levels of protection.

Flooding has serious implications for public safety (e.g., loss of life, displacement or complete destruction of buildings, siltation, temporary loss of utilities, road and bridge damage, loss of goods and services, mobilization of hazardous materials, and the threat of waterborne diseases), and flooding within the Delta can result in regional and statewide impacts (e.g., economic activity and water supply). Despite the

potential hazards involved with living and working in flood-prone areas, they remain desirable locations for a variety of land uses. In addition to important agricultural uses, flood-prone areas and their associated waterways offer recreational opportunities, provide habitat for many forms of wildlife, including rare or endangered animal and plant species, and comprise critical links in transportation, energy, and water conveyance systems, as was previously discussed in Section 3.1, The Delta.

3.5 - Maintenance of Delta Levees

As with all working structures, the Delta levees are continually deteriorating and must be regularly maintained, something that costs millions of dollars annually. In some cases, allowing some Delta islands to flood can be helpful as a release valve for excess water. Similarly, farmland set aside for deliberate flooding is also being explored. These flooded spaces can also provide ecosystem benefits.

According to controversial findings from the Delta Risk Management Strategy (commonly known as DRMS), Delta islands may flood more than 200 times in the next century, and there is a chance of as many as 30 levees crumbling simultaneously. Such levee failure would also result in an economic loss of \$35 billion.

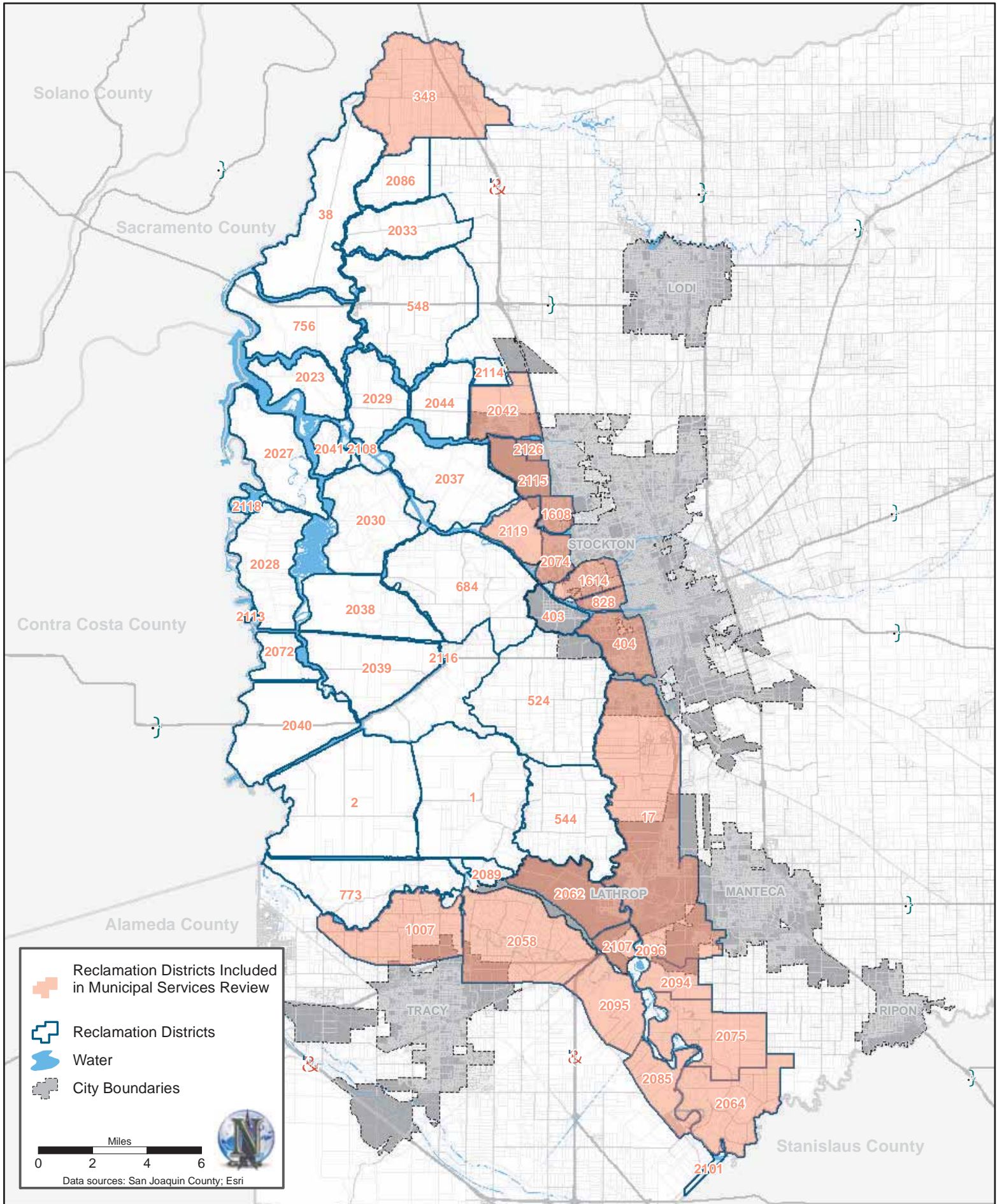
Experts also say there is a better than 60 percent chance that an earthquake or major flooding in the Sacramento-San Joaquin Delta will cause multiple levees to fail simultaneously in the next 50 years, especially in the western and central Delta. If such an event occurs, repairs would take years, if it all, given the cost and the fact that there is only one contractor in California currently doing such work. Widespread flooding could force a long-term shutdown of the State Water Project and federal Central Valley Project pumps that supply much of California with water. Delta levees also protect an extensive network of public utilities (pipelines, highways, rail lines), preserve extensive farmland and facilitate significant recreational opportunities.

Only about a third of the Delta levees (385 miles) are part of a federal flood management project of the Sacramento and San Joaquin River system and, as a result, are eligible for rehabilitation by the USACE. The vast majority of the levees—more than 730 miles and all of the Suisun Marsh levees—are local levees. These local levees were constructed and maintained during the past 130 years by local RD's. In general, the levee work has been financed by the landowners within the levees. In the past 30 years or so, the State has provided supplemental financing for levee maintenance and emergency response.

3.6 - Maintenance Activities

Flood control facilities are subjected to natural forces that can reduce their effectiveness over time. Routine maintenance helps preserve the original design and reliability of flood control systems and involves activities including routine inspections of flood control facilities, erosion control, vegetation removal, debris and sediment removal, and control of burrowing animals. Coupled with long-term flood risk reduction projects, routine maintenance strengthens the structural integrity of the levee systems. Maintenance activities are typically performed by Levee Maintaining Agencies (LMAs, including RDs, responsible for specified segments of levee systems.

Exhibit 3-6: San Joaquin County Reclamation Districts



Wave action and high water events cause erosion on the waterside of levees, thereby altering the levee geometry and reducing a levees overall effectiveness. RDs work to mitigate these issues by placing rock on the waterside of the levee to reduce the erosive forces. To a lesser extent, slope grading/dragging can be done to repair minor rills in the levee slopes.

Burrowing animals also threaten the structural integrity of levees. Burrowing rodents can create extensive networks of tunnels throughout levee systems, creating a path for water to get from the waterside to the landside of the levee. RDs have employed measures such as grouting, baiting, and hunting to remove burrowing animals from their levees.

Additionally, thick vegetation on levees reduces the ability to visually inspect a levee. Therefore, RDs trim, remove trees and shrubs and mow grass to meet guidelines established by USACE and DWR.

Inspections

Project levees are subject to USACE certification and inspection. In addition, they are subject to AB 156 inspection and reporting requirements. The levees are inspected four times a year, including by USACE. Under AB 156, the District must report the condition of its levees to the DWR, which compiles an annual report.

Effective July 1, 2008, provisions of AB 156 were added to the Water Code. These additions include requirements for local levee maintaining agencies to submit to the DWR, by September 30 of each year, specific information relative to project levees they operate and maintain. Specifically, the District is required to report the condition or performance of project Levees, information identifying unknown conditions that might impair levee flood protection provided by project Levees, a maintenance summary for the fiscal year, a statement of work and estimated cost of operation and maintenance of project Levees, and other readily available information relevant to the condition of project levees by the CVFPB and DWR.

Each year, DWR and USACE inspect the project levees. DWR completes spring inspections in May, documenting the location, size, type, and rating of maintenance deficiencies while working with the Districts to assist in planning maintenance activities prior to the flood season. DWR completes annual fall inspections in November after verifying the status of previously noted as well as any additional deficiencies that should be corrected to help ensure adequate performance during the flood season. Districts conduct inspections in the winter and summer, completing the requirement to conduct four inspections each year. DWR compiles this information for use by stakeholders and reports to the CVFPB on inspection activities as requested.

Overall maintenance ratings are not determined for the spring inspection results. Fall inspection rating is based on operation and maintenance deficiencies identified. The DWR inspection results are categorized by three scores:

- **Acceptable (A)**—No immediate work required, other than routine maintenance. The flood protection project will function as designed and intended with a high degree of reliability, and necessary cyclical maintenance is being performed adequately.

- **Minimally Acceptable (M)**—One or more deficient conditions exist in the flood protection project that needs to be improved or corrected. However, the project will essentially function as designed with a lesser degree of reliability than what the project could provide.
- **Unacceptable (U)**—One or more deficient conditions exist that may prevent the project from functioning as designed, intended, or required.

Additionally, according to the Water Code division 6, section 12989, the DWR must “inspect non-project levees of local agencies for the purpose of monitoring and ascertaining the degree of compliance with, or progress towards meeting, standards such as those set forth in Section 12984.” The frequency of such inspections is not specified in the Code. The DWR therefore reportedly does not conduct regular inspections of non-project levees because of the quantity of work it would require and lack of available resources to perform such inspections in addition to non-project levees mostly protecting agricultural scarcely populated areas making inspection of these levees a lesser priority. Inspection results of non-project levees are not readily available.

Challenges

It has been revealed that flood management system problems are primarily associated with structural system deficiencies, changing hydrology, SB 5 compliance, maintenance challenges associated with regulatory permitting, funding and staffing, and maintenance of appropriate emergency response capability. Many of these challenges are interrelated.

Hazards associated with structural system deficiencies are due to a myriad of factors including original design/construction deficiencies, floodway capacity, seepage, geometry, erosion/deterioration, encroachments, vegetation, animal control, sedimentation, and land use practices. In addition to these physical factors, changing hydrology in the Central Valley has altered the design water surface elevations over the past several decades.

Some of the structural system problems are due in part to maintenance challenges. Complicated and conflicting regulatory processes and limited allowable maintenance periods make performing routing maintenance difficult. For example, some RDs are prevented from using mechanical means to perform vegetation management and instead have to use goats to remove vegetation due to endangered species concerns. Additionally, permits to place rock on the waterside of a levee are difficult to obtain because of riparian habitat issues. This can cause levees to fail to meet vegetation criteria established by USACE, rated as Unacceptable in periodic inspections, and potentially rendering them ineligible for disaster assistance under the PL 84-99 program.

Limited funding and staffing can impact the ability of local agencies to perform maintenance or fund the design and construction of necessary flood control system improvements. The most common source of funding for flood control system maintenance and improvement is from assessments paid by property owners in areas protected by flood control facilities. These assessments typically only cover annual maintenance costs, which cannot be used for capital improvements. Additional special assessments need to be approved for large-scale levee improvements.

Furthermore, assessments can be difficult to obtain via a Proposition 218 election even for improvements that propose to remove areas from the FEMA 100-year floodplain and thus will also remove the requirement for property owners to purchase flood insurance. Many areas in San Joaquin County may need to further upgrade flood management facilities in the future to provide a 200-year

level of protection. A Proposition 218 election may be difficult to pass for these improvements, particularly for areas that are currently out of the FEMA 100-year floodplain since there may not be any financial incentive for property owners to assess themselves.

Maintenance of levees for many of the RDs in the Delta South Region is performed by landowners who live within the respective Districts. In most cases, this means levee maintenance is performed by the farmers who work their land on a daily basis. In order to ensure all maintenance issues are addressed, many of the RDs need a full-time staff member to maintain the levees, which is challenging to achieve with the current funding available to most RDs.

To help local agencies fund capital improvements, the State has made grant programs available. However, limited staff resources often make it difficult for local agencies to identify, apply for, and manage these often complex and administratively challenging grants. Additionally, some grant funds come with very stringent and specific requirements, which often makes funding multi-benefit projects difficult due to the burdensome accounting necessary to comply with these grant programs.

Finally, there is the challenge of implementing appropriate emergency response capability and maintaining this capability into the future. San Joaquin County has made significant progress towards initiating communication and increasing OES staff readiness to effectively fight a flood event.

4: RECLAMATION DISTRICT—FUNDING OPPORTUNITIES

RDs are a unique type of special district. Typically they are formed by landowners to protect their property from flooding by maintaining the levees or the natural habitat. RDs have several unique funding mechanisms. Most RDs are funded by a combination of property tax, special assessments, the sale of warrants, and grants. Other RDs have been more creative in seeking funding. Some RDs, for example, receive revenues by charging owners to use the levees as roads.

4.1 - Property Tax

Some districts receive a portion of the property tax. Taxes are collected by the County and redistributed on the basis of the percentage that agency received in 1978 plus an incremental value that is based on the change in assessed value for the previous year.

Special Assessments

Most of the RDs receive revenues from special assessments paid by landowners within the districts. In most cases, these assessments are based on the benefit that each parcel receives from the levee system. Special assessments are based on the proportion of benefit received assessments are based on land use, the size and elevation of the parcel, and whether the parcel contains buildings. Special assessments require a vote of the landowners. The vote is weighted by the benefit received and the voting threshold is 50 percent plus one.

Warrants

An RD will often require funds for capital improvements. These projects are often front-funded by warrants (which are authorized within the Water Code) and drawn on local financial institutions. Board members and/or residents essentially provide the District funds through the issuance of warrants. In return, they receive the benefit of improved flood protection but also earn interest on the value of the warrant.

4.2 - Grant Funding Sources

The following section describes grant funding opportunities available from state bond measures, the DWR, the CDFW, and CALFED. State programs primarily derive funding from bond measures approved by the voters of California. The main source of funding has been derived primarily from Proposition 84, Proposition 1E, and Proposition 13. In 2014, voters approved Proposition 1, which identified \$239 million for statewide, and delta levee projects. All bond funding is identified in the bond measure by function, and is often allocated regionally based upon need and benefit. Most levee grant programs are administered based upon identified need and benefit as overseen by DWR and the CVFPB.

- **Proposition 84:** Proposition 84 provides renewed funding for the Flood Protection Corridor Program (FPCP) in the amount of \$40,000,000. The FPCP was created by Proposition 13 in March 2000 to provide grant funding for nonstructural flood management projects. In addition to demonstrating a significant reduction of peak flood flows, flood stage, flood risk, or potential flood damage, projects must also provide for agricultural land preservation or wildlife habitat protection or enhancement, or both.

Grants are available to any local agency or nonprofit organization with interest in flood management issues that seek to acquire, restore, enhance, and protect real property for the purposes of flood control protection, together with agricultural land preservation and/or wildlife habitat protection.

These agencies, termed sponsoring agencies, can partner with other types of agencies and organizations as necessary to ensure diverse funding sources and necessary expertise on the project team.

The involvement of cost-sharing partners is strongly encouraged. A grant cap of \$5 million per project has been established for grants from the FPCP, so grant funds can be distributed to the greatest number of deserving projects. However, exceptional projects requesting funding greater than the established cap are considered on a case-by-case basis. Smaller projects with greater financial participation by partners are encouraged to allow widest possible distribution of funds.

- **Proposition 1E:** The “Disaster Preparedness & Flood Protection Bond Act of 2006” (Proposition 1E) makes funding available to improve local flood emergency response. Up to \$5 million in funding is available through this grant and requires no local match. California public agencies with primary responsibility for flood emergency response and coordination are eligible to apply for this competitive grant. The geographic scope of this grant is the legal Delta, including primary and secondary zones.

Funding is available through this program for projects such as preparing or updating the local flood emergency plan, coordinating flood emergency planning and preparedness, developing processes to effectively communicate and coordinate response to flood emergencies, collecting and exchanging flood information, and purchasing and installing equipment for emergency communications.

- **Proposition 13:** California voters passed Proposition 13, the “Safe Drinking Water, Clean Water, Watershed protection, and Flood Protection Act” in March of 2000. This proposition provided funding for nonstructural flood management projects that include wildlife habitat enhancement and/or agricultural land preservation.

This funding was first made available for direct expenditure projects during the fiscal year of 2001-2002, followed by a competitive solicitation for grant-funded project proposals in fiscal year 2002-2003. Most of these funds have been expended but the Legislature continues to have a small amount available when identified needs occur.

- **Proposition 1:** In November 2014, California voters passed a \$7.1 billion bond measure for state water supply infrastructure projects, such as public water system improvements, surface and groundwater storage, drinking water protection, water recycling and advanced water treatment technology, water supply management and conveyance, wastewater treatment, drought relief, emergency water supplies, and ecosystem and watershed protection and restoration. Included in the bond measure is \$395 million for flood management. Of that total, \$295 million is designated to reduce the risk of levee failure and flooding in the Delta. Guidelines for applying for the funding are still in the development stage under the purview of the DWR and CVFPB.

4.3 - Grant Funding Programs and Projects

Many of the districts rely on grants administered by the DWR. Most of the grants come from three main programs, the Delta Levees Program, the Flood Control Subventions Program, and Flood Protection Corridor Program. There are also grant programs available from the CDFW for some habitat restoration. Grants are available for:

- Non-structural flood damage reduction projects within flood corridors
- Acquisition of real property or easements in a floodplain
- Setting back existing flood control levees or strengthening or modifying existing levees in conjunction with levee setbacks

- Preserving or enhancing flood-compatible agricultural use of the real property
- Preserving or enhancing wildlife values of the real property through restoration of habitat compatible with seasonal flooding
- Repairing breaches in the flood control systems, water diversion facilities, or flood control facilities damaged by a project developed pursuant to Chapter 5, Article 2.5 of the Safe Drinking Water, Clean Water, Watershed Protection and Flood Protection Act of 2000
- Establishing a trust fund for up to 20 percent of the money paid for acquisition for the purpose of generating interest to maintain the acquired lands
- Paying the costs associated with the administration of the projects

DWR Programs

Delta Levees Program

This program provides financial assistance to local agencies in the Delta and portions for the Suisun Marsh as outlined in Water Code §12200, et seq. for levee maintenance and improvements costs, and to provide mitigation and environmental enhancement associated with Delta and Suisun Marsh levee maintenance and improvements.

There are several components of the Delta Levees Program. They offer a variety of tools to implement projects efficiently in order to achieve program goals. The two largest components are the Special Flood Control Projects and Delta Levee Subventions. The majority of the Delta Levees Program is used to plan and build levee maintenance, levee improvement, and habitat-related projects.

These programs receive \$265 million of funding from Proposition 84 , and \$320 million of funding from Proposition 1E. Funding sources began awarding grants in FY 2007–08.

The *Delta Levees Special Flood Control Projects* provides financial assistance to local levee maintaining agencies for rehabilitation of levees in the Delta. The program was established by the California Legislature under SB 34, SB 1065, and AB 360. Since the inception of the program, more than \$100 million have been provided to local agencies in the Delta for flood control and related habitat projects. The Special Project is authorized in the California Water Code, sections 12300 through 12314. The intent of Legislature, as stated in the Water Code, is to preserve the Delta as much as it exists at the present time.

The program presently focuses on flood control projects and related habitat projects for eight western Delta islands—Bethel, Bradford, Holland, Hotchkiss, Jersey, Sherman, Twitchell and Webb Islands—and the Towns of Thornton and Walnut Grove.

Delta Levees Maintenance Subventions Program

The Delta Levees Maintenance Subventions Program is authorized by the California Water Code, sections 12980 through 12995. The Subventions Program has been in effect since 1973 and has been modified periodically by legislation. Water Code §12981 states the intent of the legislature as “the physical characteristics of the Delta should be preserved essentially in their present form; and that the key to preserving the Delta’s physical characteristics is the system of levees defining the waterways and producing the adjacent islands.” The Delta Levees Maintenance Subventions Program is a cost share program that provides technical and financial assistance to local levee maintaining agencies in the

Sacramento-San Joaquin Delta for the maintenance and rehabilitation of non-project and eligible project levees.

In 2000, the state statute was amended to require flood management projects to meet prescribed requirements prior to state authorization and to create a variable state cost-share percentage based on the objectives of the projects, ranging from a minimum of 50 percent to a maximum of 70 percent. The CVFPB (formerly Reclamation Board) reviews and approves the Department's recommendations and enters into agreements with local agencies to reimburse eligible costs of levee maintenance and rehabilitation, usually at a 75 percent share of qualified expenses after the initial \$1,000 per mile of levee by the RD.

There are also several types of projects that are eligible for subventions funding. In 2000, AB 1147 prescribed new requirements for projects authorized after January 1, 2002:

- Major Flood Control Projects—these are major USACE projects that are specifically authorized by Congress. Generally, the federal authorization is done in a Water Resources Development Act (WRDA). These major USACE projects must also be specifically authorized by the Legislature.
- Small Flood Control Projects—these are small USACE projects authorized by §205 of Public Law 80-858 and the U.S. Army Chief of Engineers. These small USACE projects are authorized by Water Code §12750 and are subject to certain findings by the Department.
- Watershed Protection Projects—these are Natural Resources Conservation Service (NRCS) watershed protection projects that are authorized by the Administrator of the NRCS after the reports are reviewed by the Agriculture Committees of Congress. These watershed protection projects are authorized by Water Code §12868 and are subject to completion of specified administrative actions and to findings by the Department.

Historically, the Subventions Program has reimbursed an average of about \$6 million annually. Since the passage of Propositions 1E and 84, the funding level for the Subventions Program has significantly increased to approximately \$12 million per year. This increased funding has been used to support the maintenance and rehabilitation activities of over 700 miles of project and non-project levees annually. Propositions 1E and 84 have provided \$656 million in total Program funding (since FY 2007–2008). As of January 2013, just over \$400 million remains in proposition funding, some of which has been committed to existing authorized projects. DWR staff reports that the proposed projects in 2015–16 (\$12 million in total funding) will be considered by the CVFPB in September–October 2015.

Flood Protection Corridor Program

The goal of the Flood Protection Corridor Program is to fund primarily nonstructural flood management solutions through direct expenditures and grants to local public agencies and nonprofit organizations. Funding under this Program is intended to be used for acquisition, restoration, enhancement and protection of real property while preserving sustainable agriculture and enhancing wildlife habitat in and near flood corridors throughout the State. Implementation of the Program seeks to avoid future flood damage and correct existing problems by restoring natural fluvial and related biological processes in flood corridors by acquiring, through easement or fee title, rights to real property that is subject to periodic damaging flood flows.

The Flood Protection Corridor Program (FPCP) was established when California voters passed Proposition 13, the “Safe Drinking Water, Clean Water, Watershed Protection, and Flood Protection Act” in March of

2000. This proposition provided funding for nonstructural flood management projects that include wildlife habitat enhancement and/or agricultural land preservation. This funding was first made available for direct expenditure projects during FY 2001–2002, followed by a competitive solicitation for grant-funded project proposals in FY 2002–2003.

Proposition 84—the Safe Drinking Water, Water Quality & Supply, Flood Control, and River & Coastal Bond Act of 2006—provides \$40 million in renewed funding for the FPCP.

Proposition 1E—the Disaster Preparedness and Flood Prevention Bond Act of 2006 — provides \$38 million in additional funds for the FPCP’s regular activities as well as funding for constructing new levees necessary for the establishment of a flood protection corridor or bypass and relocating or flood proofing structures necessary for the establishment of a flood protection corridor.

Flood Emergency Response Projects

DWR has made additional funding available for the Flood Emergency Response Projects grants. The original amount of \$5 million was increased to \$10 million in early 2013, and another \$5 million was added in mid-2013. \$10 million in funding has been awarded for statewide projects and Delta communications equipment, while the remaining \$5 million has been recommended for projects in the legal Delta. An additional \$5 million is available for the second round of statewide grants being considered for later in 2015.

California Department of Fish and Wildlife Programs

California State Duck Stamp Project

The California State Duck Stamp (CSDS) was created by legislation in 1971 (Fish and Game Code §3702). The stamp is required when hunting waterfowl and purchased by stamp collectors. All funds generated by the sale of stamps are deposited in the State Duck Stamp Account. The funds can only be used for projects approved by the Fish and Game Commission (FGC) for the purpose of protecting, preserving, restoring, enhancing, and developing migratory waterfowl breeding and wintering habitat, evaluating habitat projects, and conducting waterfowl resource assessments and other waterfowl related research. These funds also may be used to reimburse nonprofit organizations for completed habitat projects.

The goals of the CSDS, are to protect, preserve, restore, enhance, and develop migratory waterfowl breeding and wintering habitat, evaluate habitat projects, and conduct waterfowl resource assessments and other waterfowl related research.

The CDFW awards grants for waterfowl conservation purposes to nonprofit organizations, local government agencies, state departments and federal agencies. The organizations must have the specific capacity in waterfowl habitat enhancement, restoration, creation and or research experience.

Wetlands Restoration for Greenhouse Gas Reduction

The CDFW administers the Wetlands Restoration for Greenhouse Gas Reduction Program. The program is funded through the Air Resources Board’s Cap-and-Trade Program as part of its overall greenhouse gas (GHG) reduction strategy. The program will support projects that reduce GHGs and provide co-benefits such as enhancing fish and wildlife habitat, protecting and improving water quality and quantity, and helping California adapt to climate change. The program is focused on GHG emission reduction through restoration or enhancement of Delta and coastal wetlands and mountain meadow habitat.

This grant program will focus on two areas. One area includes the Sacramento-San Joaquin Delta and Coastal Wetlands, to develop and implement projects in the Delta and coastal areas with measurable objectives that will lead to reductions in GHGs. The other area is Mountain Meadow Ecosystems, to develop and implement mountain meadow projects throughout the State with measurable objectives that will lead to reductions in GHGs. The first round of grants awarded approximately \$30 million to several projects in the northern area of the Delta.

Other Agency Grant Programs

CALFED Water Use Efficiency Grants

The U.S. Bureau of Reclamation has \$2 million to award under the Bay-Delta Restoration Program: CALFED Water Use Efficiency Grants. The federal funding cap is \$300,000 per award, not to exceed 50 percent of project costs.

The Bay-Delta Restoration Program is a collaborative effort among 25 state and federal agencies. Their joint mission is to improve California's water supply and the ecological health of the San Francisco Bay/Sacramento-San Joaquin Delta (Bay-Delta). The Bay-Delta provides water for urban, agricultural, industrial and environmental uses.

A key element of the Bay-Delta Restoration Program is water use efficiency. The CALFED Water Use Efficiency Grant Program was established to accelerate the implementation of cost-effective actions that provide state-wide benefits of water conservation. Water conservation and water use efficiency are critical elements of any plan to address Bay-Delta water concerns. With leveraged water efficiency grants, an important step will be taken towards increasing conservation for a more efficient use of water in California. Applicants encouraged consider cost sharing with projects emphasizing water use efficiency and conservation activities that will improve ecosystem health, water supply reliability and water quality.

Endangered Species Recovery Land Acquisition Grant Program

The Endangered Species Recovery Land Acquisition (RLA) Grant Program is one of four grant programs administered by the USFWS through the Cooperative Endangered Species Conservation Fund (CESCF) and authorized through Section 6 of the Endangered Species Act of 1973. The RLA Grant Program is part of what is known as the Nontraditional Section 6 Program, and provides funding to States and Territories for the acquisition of threatened and endangered species habitat in support of approved and draft species recovery plans. The RLA Grant Program is coordinated by CDFW Wildlife Branch in California.

Ecosystem Restoration Program

The Ecosystem Restoration Program (ERP) is a multi-agency effort aimed at improving and increasing aquatic and terrestrial habitats and ecological function in the Delta and its tributaries. The ERP Focus Area includes the Sacramento-San Joaquin Delta, Suisun Bay, the Sacramento River below Shasta Dam, the San Joaquin River below the confluence with the Merced River, and their major tributary watersheds directly connected to the Bay-Delta system below major dams and reservoirs. Principal participants overseeing the ERP are CDFW, the United States Fish and Wildlife Service (USFWS), and the NOAA's National Marine Fisheries Service (NMFS), collectively known as the ERP Implementing Agencies. The ERP implements restoration projects through grants administered by the ERP Grants Program. The vast majority of these projects focus on fish passage issues, species assessment, ecological processes, environmental water quality, or habitat restoration.

The ERP uses several processes to achieve its goals and ecosystem restoration activities. ERP uses both state and federal funding to accomplish projects and activities. In addition, ERP coordinates and collaborates with other funding entities to accomplish restoration activities. The primary sources of State funding for ERP projects include Proposition 204 (the Safe, Clean, reliable Water Supply Act—1996), Proposition 13, Proposition 50 (the Water Quality, Supply and Safe Drinking Water Projects Act—2002), and Proposition 84.

4.4 - Summary of Future Grant Funding Opportunities

Funding for delta levee and water supply projects is very competitive and is usually based upon the need for the funding, benefit to water supply reliability, and water quality and other program objectives. The Legislature and Governor Brown have supported increasing the funding for these grants and directed DWR to coordinate with all parties including counties, resource agencies, and RDs to identify plans for needed facility improvements and allocation of funds where they may be best utilized.

Funding for the construction and maintenance of project and non-project levees continues to be a particular challenge for RDs in San Joaquin County. Most RDs are generally small and used primarily for agricultural purposes. This makes securing the use of grant funds or loans to fund major capital improvements challenging for many landowners.

Most of the RDs operate from year-to-year utilizing short-term borrowing to match annual Levee Subventions Program Grant funding. Many grants require from 5 to 50 percent local matching funds, which places constraints upon local property owners with limited revenue resources to provide the matching funds. Special Project Grants and loans have been made available to RDs with high-priority levees as identified in the Delta Plan and will be evaluated in the future under the Delta Stewardship Council Delta Levee Investment Strategy process.

In August 2016 the legislature passed SB 554 which would allow the Delta Levees Maintenance Subventions Program to continue to provide 75% of the cost for the maintenance and rehabilitation of non-project and eligible project levees through 2020. The CVFPB reviews and approves DWR's recommendations and enters into agreements with local agencies to reimburse eligible costs of levee maintenance and rehabilitation. In FY 17, the Delta Levees Maintenance Subventions Program was funded at \$12 million.

The Delta Levees Special Flood Control Projects program is administered solely by DWR. In FY 17, the special projects program was allocated \$60 million. However, several very good projects were submitted and the program management staff received permission to fund nine projects for a total contribution of \$63.3 million. RD 348 submitted one of those nine projects and will receive \$12 million in matching funds for habitat enhancement and levee repairs. The staff at DWR also reports that they are available to discuss opportunities for grants and loans and assist, where possible, with the smaller RD agencies. DWR staff contacts are available through the DWR website: www.water.ca.gov.

5: RECLAMATION DISTRICT NO. 17 (MOSSDALE TRACT)

The District was originally formed in 1863 by the Board of SwampLand Commissioners for reclamation purposes. The District operates and maintains 19.01 miles of levees to provide protection from floodwaters of streams creeks, rivers and bypasses that empty into the Sacramento-San Joaquin Delta, and from extreme high tides.

RD No. 17 encompasses approximately 16,108 acres at the eastern edge of the Sacramento-San Joaquin Delta. The District is bounded by French Camp Slough and extensions to the north, the San Joaquin River to the west, and the Walthall Slough and extensions to the south (Exhibit 5-1). The District is highly urbanized, with a reported resident population of 43,500, substantially developed commercial and industrial properties and numerous critical public facilities, such as the San Joaquin County Hospital, jail, criminal justice facilities, I-5, Highway 120 and two major railroads.

Table 5-1 provides the general information about the district and services it provides.

Table 5-1: RD 17 General Information

GENERAL INFORMATION	
Agency	RD 17 (MosSDale Tract)
Address	PO Box 1461, Stockton, CA 95201
Principal Act	California Water Code §50000 et seq.
Date Formed	1863
Population	43,500
Last SOI Update	1983
Services Provided	Levees and flood control
Contact Person	Mr. Dante John Nomellini, Sr., (209)465-5883 PO Box 1461, Stockton, CA 95201
Website	None

Table 5-2 shows land uses in RD 17. As shown in the table, in 2008 43.5 percent of the acreage in RD 17 is in agricultural use, agricultural acreage with residential uses consisting of 13.5 percent (urban) and another 5.2 percent (rural). About 13.4 percent of the acreage is vacant. Commercial and industrial acreage amounts to 10 and 8.5 percent, respectively, while easements and parks account for 4.5 and 1.3 percent, respectively.

Table 5-2: RD 17 Land Uses

LAND USE	ACRES	PERCENT	NO OF PARCELS
Agricultural	7006.28	43%	180
Commercial	1600.1	10%	296
Easement	725.69	5%	117
Industrial	1377.47	9%	88
Parks	211.53	1%	15
Residential	2183.86	14%	10438
Rural Residential	837.83	5%	298
Vacant (all)	2164.81	13%	1903
Total	16,107.57	100%	13,335
Source: Reclamation District No. 17 2008.			

5.1 - Growth and Population Projections

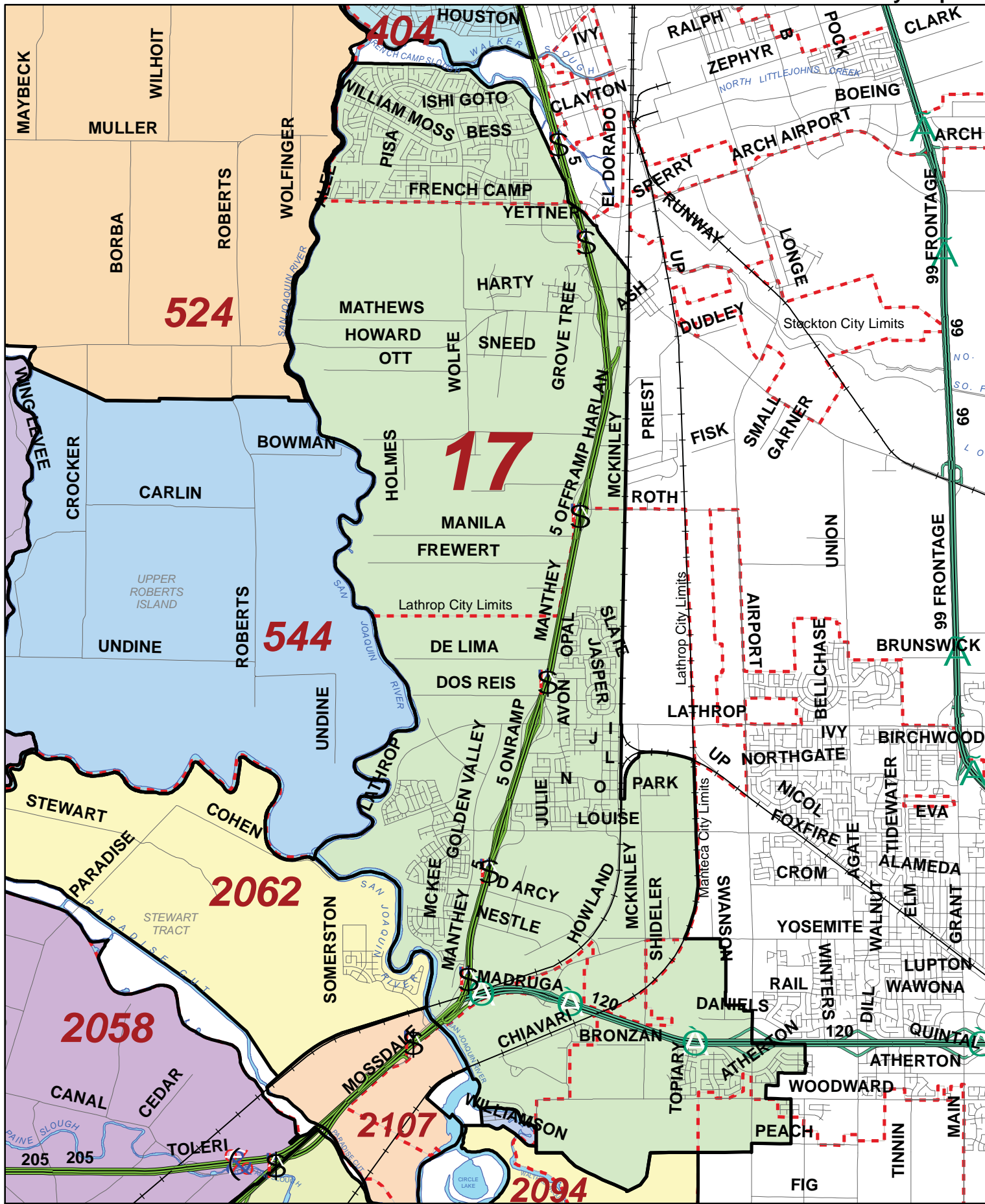
The District serves a reported population of 43,500 in Lathrop, Manteca and Stockton. The District’s reported population represents approximately 6 percent of the County’s estimated 2016 population. A large portion of the City of Lathrop lies within the boundary of RD 17. Much of the City of Lathrop’s expected new growth is designated to occur within the boundary of RD 17. The City of Lathrop has been growing at a much greater rate than the County and is expected to continue to do so. Accordingly, the District’s population can be expected to increase at a rate significantly greater than that of the County. For example, the County experienced a 1.3 percent population increase between 2015 and 2016 and is forecast to continue this rate of growth through 2035. By way of comparison, the City of Lathrop has experienced an average annual growth rate of 3.16 percent between 2010 and 2015.

Additional population could be added to the District should it expand its service area boundary to include areas within the 200-year flood plain in areas within the City of Lathrop, Stockton, and Manteca. Were that to occur, the District will likely need to update or expand its Sphere of Influence.

To estimate the change in population over the next 30 years, the San Joaquin Council of Governments (SJCOG) has published population projections for census designated places and the unincorporated county. Table 5-3 shows projected total growth in the County and in the Census Designated Places that are within the boundaries of RD 17. The table shows expected growth of Census Designated Places whose boundaries overlap that of RD 17 account for 65.7 percent of expected growth within the County between 2015 and 2050. The large majority of this growth will occur within the corporate boundaries of Lathrop and Manteca.

Allocation of Lathrop’s share of forecast population to RD 17 is based upon approved developments at River Islands, Mossdale Village and Central Lathrop Specific Plan, the latter two of which are within RD 17 and account for 46 percent of Lathrop’s expected new residential units.

A review of approved developments indicates that Manteca’s share of forecast population to RD 17 is nominal; Manteca’s major approved developments are outside of RD 17’s boundaries. Accordingly, RD 17’s share of Manteca’s new residential growth is allocated at 1 percent, as is Stockton and French Camp.



RECLAMATION DISTRICT 17 SAN JOAQUIN COUNTY

San Joaquin County Geographic Information Systems
1810 East Hazelton Avenue, Stockton, CA 95205

The information on this map is based on the most current information available to San Joaquin County Geographic Information Systems. The County of San Joaquin does not warrant its accuracy, completeness, or suitability for any particular purpose. The information on this map is not intended to replace engineering, financial or primary records research.

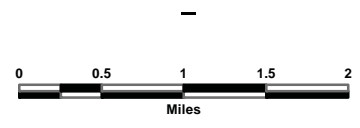


Table 5-3: RD 17 Census Designated Place Population Forecast

AREA	2015	2020	2025	2030	2035	2040	2045
San Joaquin County Population Forecast	728,644	775,819	829,426	883,484	947,835	1,020,862	2,094,253
Stockton	309,919	329,729	352,239	374,939	401,961	432,627	463,445
French Camp	3,554	3,746	3,964	4,184	4,446	4,743	5,041
Manteca	71,831	77,018	82,912	88,855	95,930	103,958	112,027
Lathrop	23,107	28,896	34,475	42,109	50,007	58,969	67,976
Subtotal, RD 17 Designated Places	408,411	439,389	473,590	510,087	552,344	600,297	648,489
Rest of County ?	70,950	71,184	71,450	71,718	72,038	72,400	72,764
RD 17 Share, Lathrop, 46%		2,663	2,566	3,512	3,633	4,123	4,143
RD 17 Share, Manteca, Stockton, French Camp, 1%		252	286	289	344	390	392
RD 17 Population Growth		2,915	2,853	3,800	3,977	4,512	4,535
RD 17 Population	43,500	46,415	49,267	53,068	57,044	61,557	66,092

DETERMINATIONS

5.1.1 The District serves a population of 43,500, which is expected to increase substantially over time as additional residential parcels are developed. The anticipated population in 2020 is 46,415 and 2030 is 49,267, growing to 66,092 in 2045.

5.2 - Disadvantaged Unincorporated Communities

Most of RD 17 overlays much of the City of Lathrop or Manteca. The portion of the District north of French Camp Road is developed and lies within the City of Stockton. The MHI for this area is \$63,320. South of French Camp Road in unincorporated San Joaquin County the land is primarily in agriculture. The MHI is \$42,112. As this area is adjacent to the City of Lathrop and Stockton, the area lies within the French Camp McKinley Fire District and is also served by the Lathrop-Manteca Fire Protection District. There are no municipal service providers of water and sewer. The area is zoned AG-40.

DETERMINATIONS

5.1.2 Much of the District lies with the city limits of Stockton, Manteca, or Lathrop. However, the area south of French Camp Road has an MHI of \$42,112, which qualifies it as a DUC. The area receives fire protection from the French Camp McKinley Fire District. There are no municipal water or sewer service providers in this area as residents are on septic systems and water wells.

5.3 - Present and Planned Capacity of Public Facilities.

The District maintains 19.01 miles of levees. All of the District's 19.01 levee miles are urban levees, meeting the FEMA 100 year criteria for urban development. All 19.01 levee miles meet Bulletin 192-82, PL 84-99, and HMP Standards, Table 5-4 provides a district overview of levee system.

Of the 19.01 miles of levees, 16.03 miles are designated federal "project" levees. The non-federal project levees consist of 2.98 levee miles along and extending east of Walthall Slough. In addition there are sections extending southeast of French Camp Slough. DWR reports that in 2015 and 2016 that RD 17 received an overall rating of M, minimally acceptable. In 2017 the rating improved to A, acceptable.

Although compliance with SB 5 rests with the land use authority several districts that protect potentially developable lands are working with the cities and County to improve levees to the 200 year flood protection standard. The City of Lathrop received a \$2M ULDC grant. RD 17 is working with Stockton, Manteca, Lathrop, and San Joaquin County to meet that standard.

Levee repair and maintenance and vegetation control are the two primary functions of the District in terms of budget. Other services the District provides include:

- Trimming vegetation that impairs the visibility of levees and adjacent areas where boils, seepage or other signs of levee distress can be observed
- Weed abatement and control
- Upkeep of levee maintenance roads
- Flood control
- Vector and rodent control
- Levee patrol and subvention
- Erosion repairs to levees from high water, wave action, and runoff
- Emergency flood response
- Encroachment enforcement

The District contracts for a part-time administrative staff and temporary workers on an as-needed basis. The large majority of RD 17's internal operations and services are performed by contract service providers, consultants, and professional contracts.

Table 5-4: RD 17 Facilities Overview

RD 17 FACILITIES			
Total Levee Miles	19.01	Surface Elevation	+5 to +20 feet
LEVEE MILES BY STANDARD		LEVEE MILES BY TYPE	
No Standard	0.0	Dry Land Levee	2.98
HMP Standard	19.01	Urban Levee	19.01 miles
PL 84-99 Standard	19.01	Agricultural Levee	0.0
Bulletin 192-82 Standard	19.01	Other	0.0
FEMA Standard	19.01		
DISTRICT FACILITIES			
Internal Drainage System	No	Pump Station(s)	No
Detention Basins(s)	No	Bridges	No District bridges
FLOODPLAIN			
FIRM Designation	Zone X	Base Flood Elevation	Less than 1 foot
LEVEE INSPECTION PRACTICES			
Routinely for visual; Four Times per Year with State and US Corps. Personnel			
LEVEE INSPECTION REPORTS			
Most Recent Written Inspection	2017	Inspection Rating	Acceptable
LEVEE SEGMENT	DESCRIPTION		CONDITION
Unit No.1 French Camp Slough	1.76 mile canal bank		Acceptable
San Joaquin River	14.27 miles river bank		Acceptable
LEVEE MAINTENANCE			
Miles Rehabilitated	Selected Areas	Miles Needing Rehabilitation	0
% Rehabilitated	%	% Needing Rehabilitation	0
Rehabilitation Cost per Levee Mile \$	*N/P	Maintenance Cost per Levee Mile**	\$2,893
INFRASTRUCTURE NEEDS/DEFICIENCIES			
District levees met the 100-year flood protection standard in 2009; the District is currently working with area cities to upgrade levees to meet the 200-year flood protection standard.			
Notes: NP = Not Provided * Rehabilitation cost per levee mile is equal to the expenditure amount on capital improvements in FY 12-13 divided by the number of levee miles rehabilitated in FY 12-13. ** Maintenance cost per levee mile is equal to the expenditure amount on levee maintenance in FY 12-13 divided by the total number of levee miles.			

The District anticipates potential negative impacts as a result of the Bay Delta Conservation Plan that would result in water quality degradation, thereby negatively impacting agricultural properties in the District. The District indicates the Delta Stewardship Council plans may also be detrimental to the extent they encourage abandonment of the levee systems in non-urban areas and discourage development in areas protected by levees. Lacking additional development and tax base within the District, its ability to provide the local share of funding improvements necessary to achieve 200-year protection is uncertain.

DETERMINATIONS

- 5.3.1:** The District maintains 19.01 miles of levees. All of the District’s 19.01 levee miles are Urban Levees, meeting and exceeding the FEMA 100 year standard for urban development. All 19.01 levee miles are also maintained according to Bulletin 192-82 Standards reflecting FEMA 100-year flood plain criteria.
- 5.3.2:** Of the 19 miles of levees, 16.03 miles are designated federal “project” levees. Project levees are inspected at least twice a year. The results of inspections of the project levees are reported to DWR to comply with AB 156. DWR reports that in 2015 and 2016 that RD 17 received an overall rating of M, minimally acceptable. In 2017 the rating improved to A, acceptable.
- 5.3.3:** The District provides a variety of services for landowners and residents of the District, including levee repair, levee maintenance, and vegetation control. Most services are provided under contract.

5.4 - Financial Ability to Provide Service

The District budgets annually for maintenance costs for the levees and the drainage system. Revenues are derived primarily from assessments, property taxes, and occasionally from DWR grants. Table 5-5 summarizes actual revenues and expenses from FY 12 to FY 16.

Table 5-5: RD 17 Revenues and Expenses FY 12–FY 16.

ACCOUNT	2011–12	2012–13	2013–14	2014–15	2015–16
Total Revenues	\$6,497,238	\$3,350,742	\$4,768,807	\$3,099,098	\$3,138,416
Total Expenditures	\$2,872,157	\$4,107,412	\$2,990,224	\$2,627,294	\$4,134,912
Fund Balance (EOY)	\$12,134,328	\$11,377,658	\$13,262,391	\$13,743,653	\$12,747,157

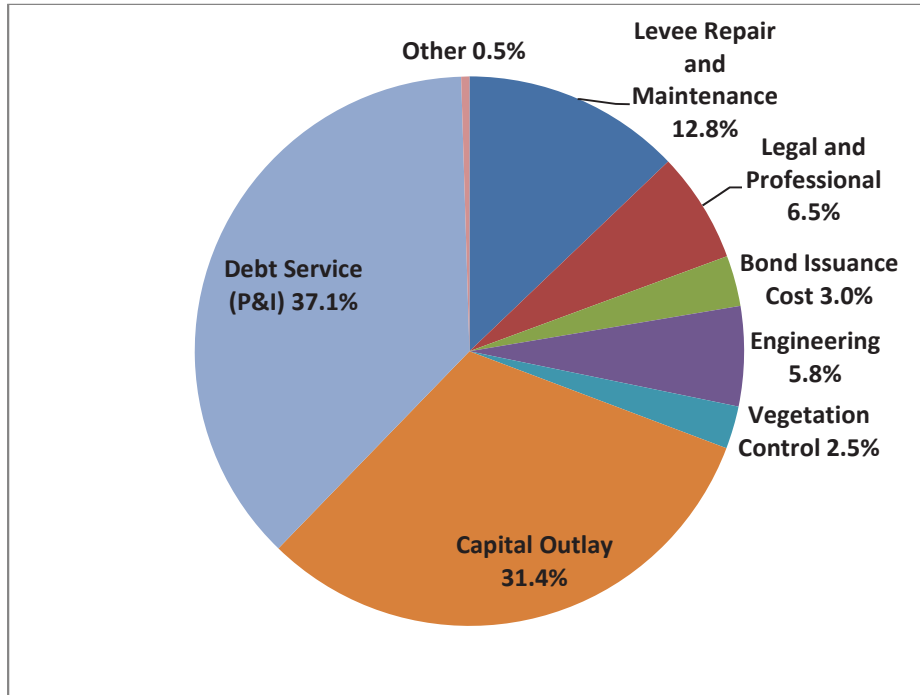
Source: Croce & Company 2012, Croce, Sanguinetti & Vander Veen 2013, 2015a, 2015b, 2016.

The District received \$2.89 million in property assessments together with \$0.21 million in property taxes in FY 2014. The amount of the assessment is determined annually by the Board of Trustees and is charged to landowners on a pro-rata basis calculated on assessed value as required by Proposition 218. Revenues are sometimes augmented by state grants for capital projects.

The District participates in the Joint Powers Authority (JPA) together with the cities of Stockton, Manteca and Lathrop and the County of San Joaquin. The JPA was formed for the purpose of issuing bonds to fund the District’s share of the seepage repair project. As of June 30, 2012, bonds outstanding amounted to \$15.675 million in public financing authority revenue bonds repayable from assessment revenue.

Exhibit 5-2 shows the average allocation of expenses for the 5-year period from FY 12 to FY 16. Just over a third of annual expenses go to repay principal and interest on long-term debt. Another third is spent on capital improvement projects. Levee repair and maintenance accounts for nearly 13 percent and vegetation and rodent control another 3 percent.

Exhibit 5-2: RD 17 Allocation of Expenses



Source: Croce & Company 2012, Croce, Sanguinetti & Vander Veen 2013, 2015a, 2015b, 2016.

Capital Improvements

The District has an active capital improvements program implemented through various plans, studies and agreements with cooperating agencies. The District receives project-specific funding from the DWR for qualifying projects and improvements. In FY 2014, the District received \$1.62 million from DWR for capital projects. For example, the District is planning to complete the Phase 3 100-year seepage repair and may also participate in efforts to upgrade facilities to provide 200-year flood protection.

Long-term Debt

In June 2009, the District issued \$16.115 million of RD 17 Levee Area Public Financing Authority 2009 Assessment Revenue Bonds. The bonds are to be repaid by assessment revenue of the General Fund.

In July 2013, the District issued Series 2013 Refunding Assessment Revenue Bonds for \$3.875 million at an interest rate of 3.08 percent, which were used to advance refund the \$3.405 million remaining balance of the District's outstanding Series 2009 Assessment Revenue Bonds that had a higher interest rate. As shown above, debt service payments account for 37 percent of annual expenses.

DETERMINATIONS

- 5.4.1:** The District spent \$4,134,912 in FY 15–16. Its major budget component expenditures include, levee repair and maintenance, engineering, legal and professional special

projects and capital improvement projects. The District has adequate funding to maintain the levee system, relying on several sources. The District receives most of its funding from assessments imposed upon properties in the District.

- 5.4.2:** The District has ready access to public credit markets through its JPA for its capital programs.
- 5.4.3:** The District also obtains substantial non-recurring revenue from the DWR grants.
- 5.4.4:** The District has an active capital improvements program implemented through various plans, studies and agreements with cooperating agencies. The District receives project-specific funding from the DWR for qualifying projects and improvements.

5.5 - Status and Opportunity for Shared Facilities.

The District works with the DWR and obtains reimbursements for qualifying capital projects (\$1.62 million in FY 2014). Inspections are accomplished throughout the year, and accelerated during flood/high water events on an hourly basis as appropriate. Two annual inspections are scheduled with the CVFPB and DWR and at least two are performed by the District. Additional inspections are conducted by the USACE. The District is planning to complete the Phase 3 100-year seepage repair and may also participate in efforts to upgrade facilities to provide 200-year flood protection.

The District participates in a JPA with the cities of Stockton, Manteca and Lathrop and San Joaquin County. The JPA was formed for the purpose of issuing bonds to fund costs related to seepage repair improvements including Phase 3 activities.

The District periodically enters into SAAs with the CDFW for work performed along the waterside of its levee slopes. The District has an annual routine levee maintenance program. For activities that fall outside that agreement, separate SAAs are obtained for specific projects and they are not typically renewed or reviewed since the work they cover is typically completed soon after issuance of the SAA and well before the standard 5-year term of such permits. Work on the project levees requires permits from both the CVFPB and USACE. Depending upon the type of work, numerous environmental and regulatory permits may be required.

The District has partnered in the Lower San Joaquin River Feasibility Study with several other reclamation districts, the U.S. Army Corps of Engineers, the State Central Valley Flood Protection Board, and SJAFCA. The results of the study will help identify needed improvements to meet or exceed the 200 year flood protection level.

The District has an Emergency Operations Plan (EOP). It details how the District would work with state, federal, and county agencies in case of a flood event.

The EOP is an example of planning that is a measure of management efficiencies. The District also approves a budget each year, or the financial plan for the District.

DETERMINATIONS

- 5.5.1:** The District works cooperatively with various local, state, and federal agencies to implement its capital projects consistent with federal and state environmental protection requirements.

5.6 - Government Structure and Accountability

The board of trustees consists of three members who are elected by District landowners to serve 4-year terms. If no election is required because seats are uncontested or no candidates apply, the Board of Supervisors makes appointments. Vacancies can be filled by the two remaining Trustees. Trustees receive \$25 per diem for each meeting they attend. Public meetings are held the monthly on the second Tuesday at 235 E. Weber Avenue in Stockton, California.

The District contracts out for most services and occasionally employs a part-time administrative aid and maintenance worker.

The District has no website. It communicates with residents by mail and by posting the meeting agendas in accordance with the Brown Act.

DETERMINATIONS

- 5.6.1:** The District is governed by a three-member Board of Trustees. The Board is elected by landowners or appointed by the County if election is not required. Vacancies can be filled by the two remaining Trustees.
- 5.6.2:** The Board meets monthly and also adopts an annual budget. Meetings are held on the second Tuesday of each month at 235 E. Weber Avenue, Stockton, California. Members of the Board receive \$25 per diem for each meeting they attend.
- 5.6.3:** The District has one part-time administrative employee and occasionally employs maintenance staff. It contracts for engineering, professional services and contractors sufficient to provide effective services.

5.7 - Any Other Matter Related to Effective or Efficient Service Delivery as Required by Commission Policy

The District is also working with the cities of Stockton, Manteca, Lathrop and San Joaquin County to achieve 200 flood protection. The effort may require expanding boundaries and imposing a special assessment to include areas that would benefit from enhanced flood protection. The only policies that may affect the District operations are the Sphere of Influence policies. Should the District go forward with those plans they would need to apply to LAFCO for an expanded sphere. In the meantime it is recommended the Commission establish a coterminous sphere according to San Joaquin LAFCO's Sphere of Influence Policy.

DETERMINATIONS

- 5.7.1:** Only the San Joaquin LAFCO sphere policies that may affect service delivery.

5.8 - Key Findings and Issues

1. Erosion repair and encroachment enforcement are key issues for the District.
2. The District anticipates potential negative impacts as a result of the Bay Delta Conservation Plan that would result in water quality degradation, thereby negative impacting agricultural properties in the District. Lacking additional development and tax base within the District, its ability to provide the local share of funding improvements necessary to achieve a 200-year flood protection is uncertain.

3. RD 17's Sphere of Influence was established in 1983. A sphere of influence update is long overdue. The District is also working with the cities of Stockton, Manteca, Lathrop and San Joaquin County to achieve 200 flood protection. The effort may require expanding boundaries and imposing a special assessment to include areas that would benefit from enhanced flood protection. Should the District go forward with those plans they would need to apply to LAFCO for an expanded sphere. In the meantime it is recommended the Commission establish a coterminous sphere according to San Joaquin LAFCO's Sphere of Influence Policy.
4. The District is partnering in the Lower San Joaquin River Feasibility Study with several other reclamation districts, the U.S. Army Corps of Engineers, the State Central Valley Flood Protection Board, and SJAFCA. The results of the study will help identify needed improvements to meet or exceed the 200 year flood protection level.

6: RECLAMATION DISTRICT 348 (NEW HOPE)

RD 348 was formed on December 2, 1879 under the Act of 1861 to provide levee maintenance and drainage services. The District lands were originally part of Swampland District 5. RD 348 was also known as New Hope Tract, which encompasses an area bounded by the Mokelumne River to the west, north, and east and Beaver Slough to the south. Exhibit 6-1 shows the boundary map for the District, while Table 6-1 provides the general information about the district and services it provides.

Table 6-1: RD 348 General Information

Agency	Reclamation District 348 (New Hope)
Address	2151 River Plaza Dr., Suite 100, Sacramento, CA 95833
Principal Act	California Water Code §50000, et seq.
Date Formed	December 2, 1879
Population	Approximately 1,400 including residential and commercial
Last SOI Update	1983
Services Provided	Levees, flood control and drainage
Contact Person	Patrick W. Ervin, P.E District Engineer, Wagner & Bonsignore (916) 441-6850
Website	None

The District includes approximately 9,407 acres primarily in agricultural. Alfalfa, hay, and grain were important crops throughout the 1920s. Thereafter, farmers turned to asparagus and sugar beets, though the beets did not remain as important. In the 1950s, corn and tomatoes became major crops and over 1,000 acres were devoted to irrigated pasture. Currently agricultural uses include field crops, vineyards, tomatoes, grains, truck crops, orchards, and alfalfa. Table 6-2 shows the land uses within the district boundaries.

Table 6-2: Land Uses RD 348

LAND USES	ACREAGE
Agricultural/Recreational	8,943.60
Commercial/Office/Industrial	121.37
Residential Over 1 acre	218.68
Residential	97.05
Misc./Other	26.88
Total	9,407.58
Source: Wagner & Bonsignore 2012	

In addition to agricultural uses, two marinas for local and public use are located on New Hope Tract, Wimpy’s Marina and New Hope Landing along the Mokelumne River.

6.1 - Growth and Population Projections

The District population is estimated at approximately 1,400 residents. It includes the community of Thornton. An analysis of population projections for Thornton was included in 2016 population and jobs forecast. To estimate the change in population over the next 30 years, the San Joaquin Council of Governments (SJCOG) has published population projections for census designated places and the unincorporated county. Table 6-3 shows the Thornton community comprises 1,166 of the 1,400 residents of the District or there are 234 people in the District who are not Thornton residents. The analysis projects a population increase of 3 to 4 percent growth during each 5-year period from 2015 to 2045. An upper bound for the population of the District assumes the area outside Thornton will grow at the same rate as Thornton. In that case, the District is projected grow to 1,731 residents by 2045. The lower bound assumes the only growth is in Thornton. In that case, it is anticipated the population of the District would be 1,676 in 2045.

Table 6-3: RD 348 Census Designated Place Population Forecast

YEAR	2015	2020	2025	2030	2035	2040	2045
Thornton	1,166	1,201	1,242	1,283	1,331	1,386	1,442
Change		3.0%	3.4%	3.3%	3.7%	4.1%	4.0%
Growth at the same rate as Thornton	1,400	1,442	1,491	1,540	1,598	1,664	1,731
Growth only in Thornton	1,400	1,435	1,476	1,517	1,565	1,620	1,676
Source: Eberhardt School of Business, 2016							

DETERMINATIONS

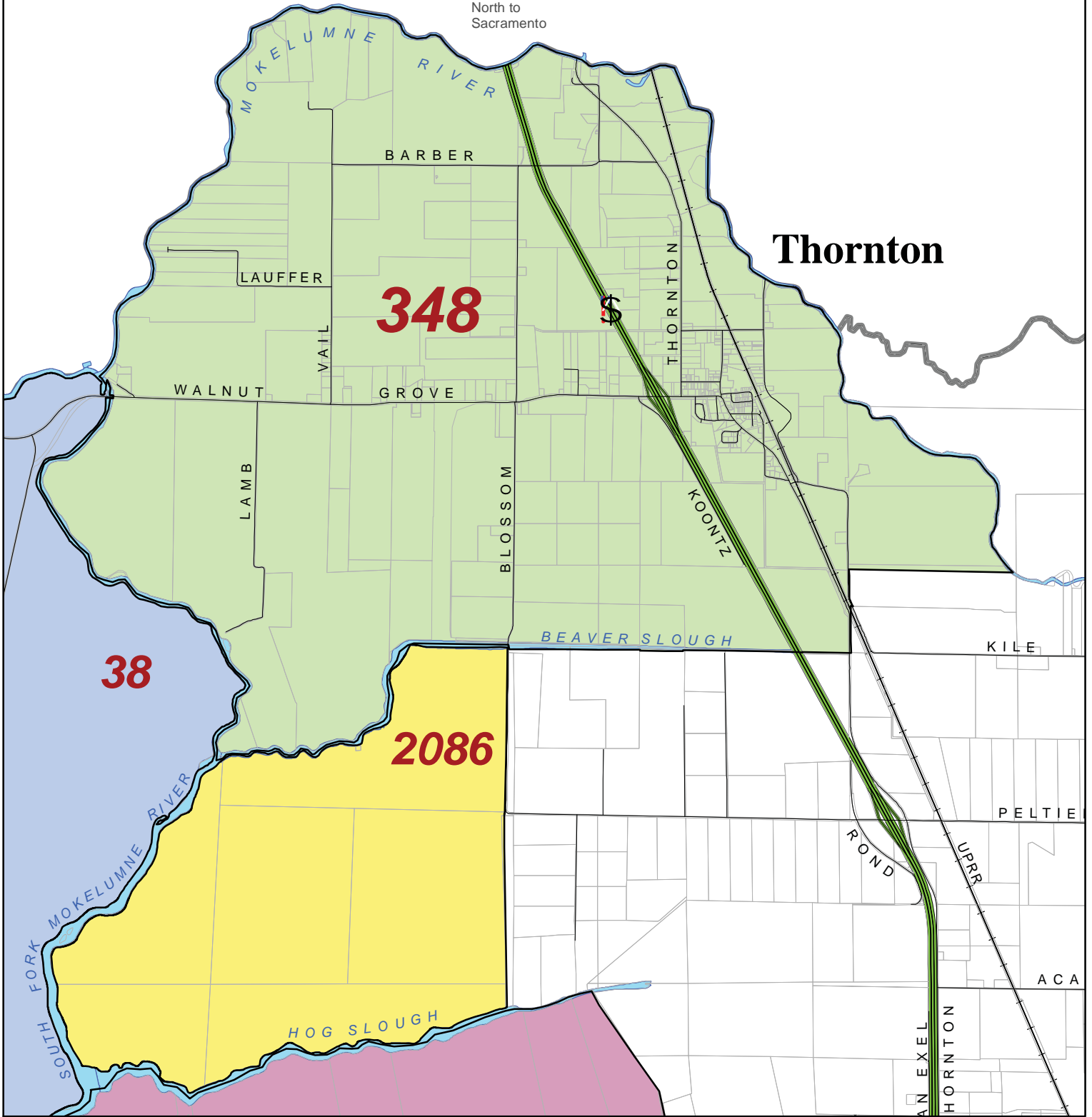
- 6.1.1:** There are currently 1,400 residents of the District that includes 1,166 residents of the community of Thornton.
- 6.1.2:** Thornton is expected to growth by 3-4 percent for each 5-year period for the next 30 years. If it is assumed the only growth is in Thornton then the District’s population would be expected to be 1,676 in 2045. If it is assumed the portion of the District outside of Thornton grows at the same rate as Thornton there would be 1,731 residents by 2045.

6.2 - Disadvantaged Unincorporated Communities

Thornton is an unincorporated rural community that lies within RD 348. It was established in 1855 on the New Hope Ranch by Arthur Thornton. In 1904 Thornton donated a right-of-way through his property to Western Pacific Railroad and worked to obtain the rest of the local right of way for the company. For Thornton’s efforts Western Pacific named the rail station and large freight depot for him. In 1928 a cannery was built east of the railroad track, which later became part of Tri Valley Growers Inc. It closed in 2002 when the Tri Valley Growers filed for bankruptcy. Since it was founded over one hundred years ago Thornton can be considered a legacy community.

Sacramento
County

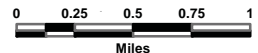
North to
Sacramento



RECLAMATION DISTRICT 348
SAN JOAQUIN COUNTY

San Joaquin County Geographic Information Systems
 1810 East Hazelton Avenue, Stockton, CA 95205

The information on this map is based on the most current information available to San Joaquin County Geographic Information Systems.
 The County of San Joaquin does not warrant its accuracy, completeness, or suitability for any particular purpose.
 The information on this map is not intended to replace engineering, financial or primary records research.



In 2015, the California MHI was estimated as \$64,500 by the Department of Finance. By definition, the MHI for a DUC would be \$51,600 or less. According to the most recent census, the MHI in Thornton was \$38,359. Based on the MHI Thornton can be considered a DUC.

As a DUC, it is necessary to identify water, wastewater, and fire suppression services for the community. Thornton Rural Fire Protection District serves the community. Potable water is provided by County Service Area #12 (CSA 12). Tri-Valley Growers owns five wells and a 100,000 gallon water tank that provides water only to its processing plant. CSA 12 is operated by San Joaquin County. Its water system consists of two wells each equipped with a 5,000-gallon hydro-pneumatic pumping system. All wells are treated for iron, manganese, and methane gas contamination.

Wastewater collection and disposal is provided by private septic systems and the San Joaquin County Housing Authority. Most development in Thornton relies on septic systems for sewage disposal. The San Joaquin Housing Authority has its own treatment plant and provides sewage disposal for approximately 30 percent of the housing units in town. Operation of septic systems has been a problem because of Thornton's high water table.

DETERMINATIONS

- 6.2.1:** A DUC can be a legacy community that has been in existence for over 50 years. In RD 348, the rural unincorporated community of Thornton qualifies as a legacy community. According to the last census the MHI of Thornton was \$38,359. Since it is less than 80 percent of the statewide MHI, Thornton can be considered a DUC.
- 6.2.2:** Thornton receives fire suppression services from the Thornton Rural Fire Protection District. It receives potable water from CSA 12. Most residences are on septic systems although the San Joaquin County Housing Authority provides wastewater services to 30 percent of the town.

6.3 - Present and Planned Capacity of Public Facilities

The District operates and maintains 18.6 miles of the New Hope Tract levee system, a system of drainage canals, and four pump stations. The District system protects Interstate 5 (I-5), the Union Pacific Railroad, County roads J-8 and J-11, the Thornton Fire District, New Hope Elementary School, and White Slough Wildlife Area. Table 6-3 provides an overview of District levees.

The levee system is primarily agricultural levees. It includes 3.69 miles originally built to no specific standard, 1.61 miles built to HMP standards and 13.25 that meet PL 84-99 standards. In its current 5 year plan the District has been working to bring all of its levees to at least HMP standards, which require the levee to be 1 foot above the 100-year flood level. The HMP standard is a precondition for receiving disaster assistance. The HMP standard is generally not considered adequate to avoid flooding. PL 84-99 is a USACE standard. PL 84-99 levees are 1.5 feet above the 100-year flood level. They are the minimum standard for projects levees found in other districts that protect areas along the San Joaquin River. PL 84-99 levees are eligible for USACE emergency assistance and levee rehabilitation funds.

Exhibit 6-2 shows a map of District levees and the level of protection in 2017. Exhibit 6-2 shows that all levees are at HMP standards and most are at PL 94-99 standards. The District is in the process of preparing an updated Five Year Plan. They are continuing to seek funding from DWR to upgrade to PL 84-99 standards.

Although compliance with SB 5 rests with the land use authority several districts that protect potentially developable lands are working with the cities and County to improve levees to the 200 year flood protection standard. For districts that are built out or in agricultural use with no foreseeable development the 200 year flood standard is of low priority and not being addressed. RD 348 is currently not addressing the 200 year standard.

Table 6-4: RD 348 Facilities Overview

RD 348 FACILITIES			
Total Levee Miles	18.6 miles	Surface Elevation	Varies
LEVEE MILES BY STANDARD		LEVEE MILES BY TYPE	
No Standard	0.0	Dry Land Levee	1.1 miles
HMP Standard	18.6 miles	Urban Levee	0
PL 84-99 Standard	13.25 miles	Agricultural Levee	17.5 miles
Bulletin 192-82 Standard	0.0	Other	0.0
FEMA Standard			
DISTRICT FACILITIES			
Internal Drainage System	Yes - canals	Pump Station(s)	4 PS
Detention Basins(s)	No	Bridges	No
FLOODPLAIN			
FIRM Designation	N/P	Base Flood Elevation	12.4 – 25.8 Feet (NAVD88)
LEVEE INSPECTION PRACTICES			
Routinely as needed by trustees			
LEVEE INSPECTION REPORTS			
Most Recent Written Inspection	N/P	Inspection Rating	N/P nor in DWR Report
LEVEE SEGMENT	DESCRIPTION		CONDITION
Tract Levee System	18.6 mile canal bank		Erosion & rodent holes (field observations)
LEVEE MAINTENANCE			
Miles Rehabilitated	0 mi.	Miles Needing Rehabilitation	3.6 Miles
% Rehabilitated	0%	% Needing Rehabilitation	19.8%
Rehabilitation Cost per Levee Mile*	\$0.0	Maintenance Cost per Levee Mile**	\$7,273.29
INFRASTRUCTURE NEEDS/DEFICIENCIES			
District planned upgrade of sections 71-236, 269-292.50 & 318 – 377.50 in 2016 using FESSRO Special Projects Program funding.			
Notes: NP= Not Provided * Rehabilitation cost per levee mile is equal to the expenditure amount on capital improvements in FY 12-13 divided by the number of levee miles rehabilitated in FY 12-13. ** Maintenance cost per levee mile is equal to the expenditure amount on levee maintenance in FY 12-13 divided by the total number of levee miles.			

Exhibit 6-3 shows the District's drainage canals and pump stations. As shown there are four pumping stations on New Hope Tract: three on the Mokelumne River on the west side of the District and one on Beaver Slough on the south side of the District. The pumps are part of a larger system of pumps, siphons, irrigation ditches and canals used to circulate water and drain the island.

District employees conduct visual inspections of the levee system during the year. In addition, the Board president and the District Engineer survey and participate in an annual inspection of the levee from the waterside. These inspections can identify issues such as seepage, cracking, and erosion.

As a result of the inspections, the Board and the Engineer have determined District levees are most vulnerable to failure caused by flooding due to overtopping, erosion, seepage, burrowing animals, or waterside vegetation. Areas most susceptible to overtopping are those that do not meet HMP or PL 84-99 standards. Over the last 5 years, the District has worked diligently ensure that all levees meet HMP standards.

The dangers of flooding can result from erosion of areas with inadequate riprap protection. Ongoing maintenance of riprap slope protection is critical to maintaining the integrity of the system. Some areas have considerable amounts of vegetation. The waterside vegetation can hide the waterside slopes, making erosion or an otherwise compromised section difficult to identify. In addition, during a high water event, trees can be uprooted, exposing sandy soil that is susceptible to erosion and compromises levee stability.

Levee failure could also be triggered by slope instability. Areas prone to instability often crack as the levee shifts. Seepage and boils can also contribute to instability. Regular visual inspections can identify areas of cracking and seepage with the levee. Burrowing animals can also contribute to seepage and instability by providing a pathway for water to enter the levee. The District actively manages the rodent population to prevent tunneling on levee slopes.

The District's main concern is to improving levees to meet the PL 84-99 standard to prevent overtopping. The current status of the levees is the subject of routine inspection to identify any erosion areas, seepage or boils posing a danger to levee stability.

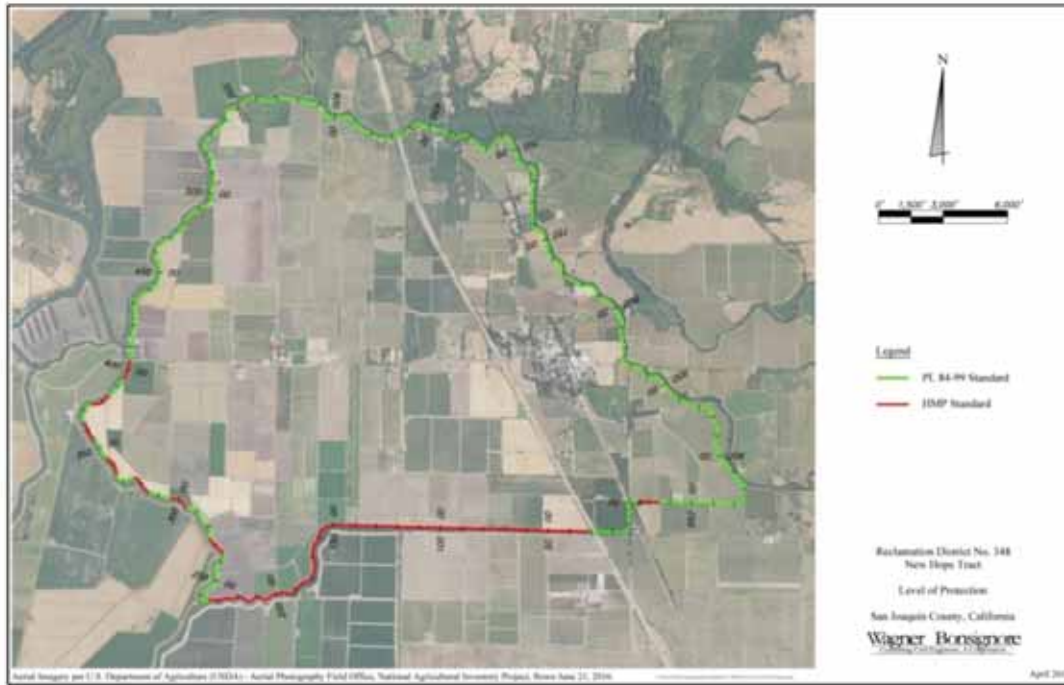
Capital Improvements

The District has been actively pursuing improvements to its levee system. In 2015, it completed a project on Beaver Slough and the Mokelumne River that brought the remainder of the levees up to the HMP standard. More recently, the District has been approved to start work on the South Fork Mokelumne Setback project. They will begin permitting and design this year and hope to begin construction in 2019.

DETERMINATIONS

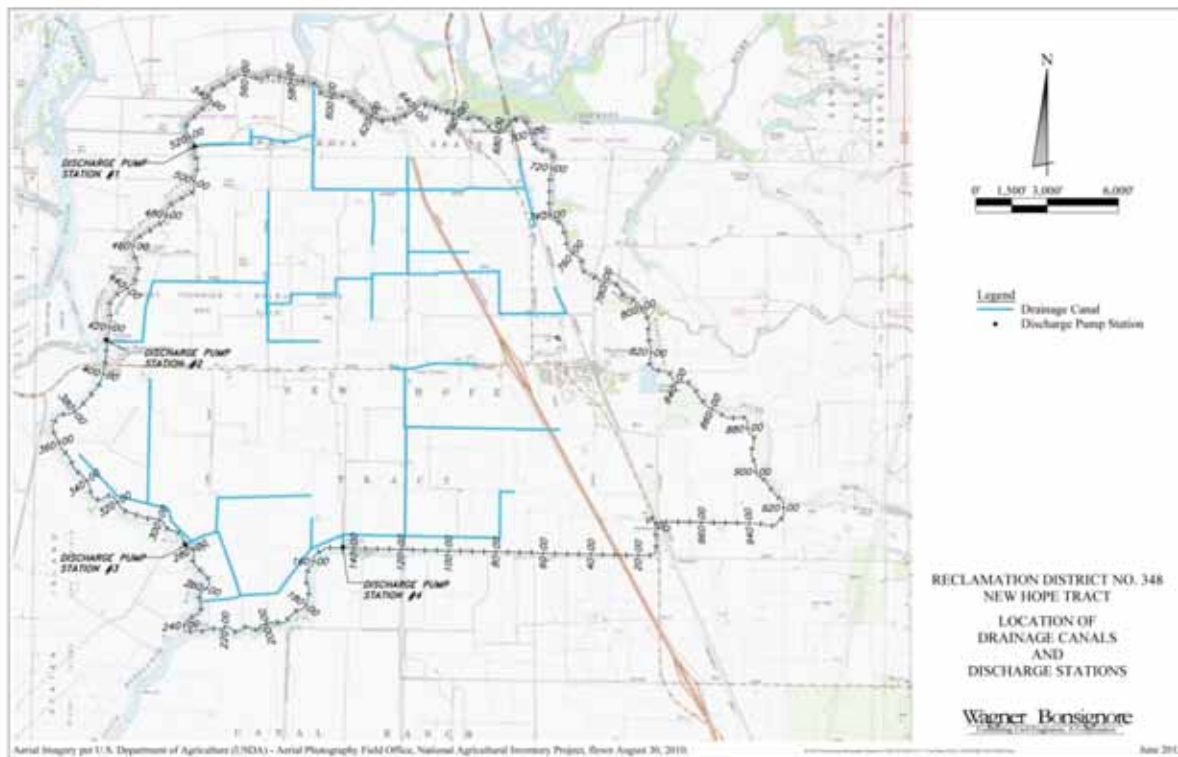
- 6.3.1:** The District operates and maintains 18.6 miles of the New Hope Tract levee system. All levees are at HMP standards and 13.25 miles are at the higher PL 84-99 standard.
- 6.3.2:** The District also operates a system of drainage canals, and four pump stations that are used to evacuate water from the District.

Exhibit 6-2: RD 348 Levee System



Source: Wagner & Bonsignore Civil Engineers.2017

Exhibit 6-3: RD 348 Drainage Canals and Pump Stations



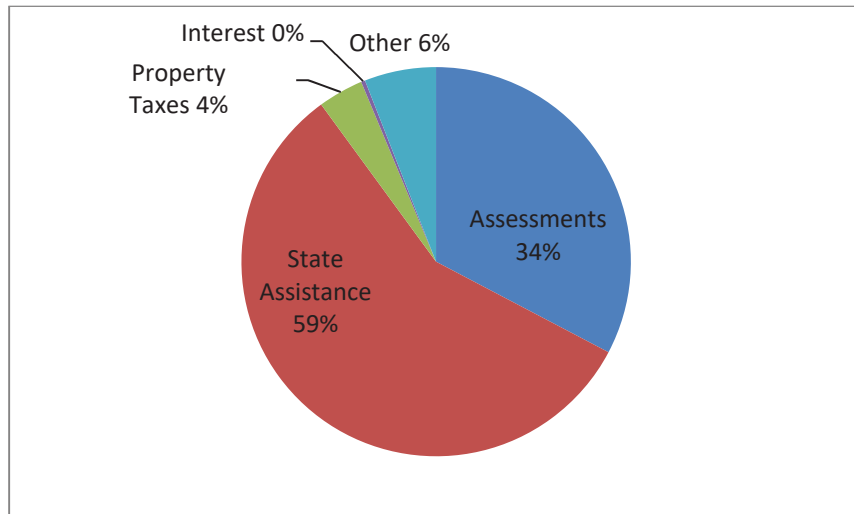
Source: Wagner & Bonsignore Civil Engineers.2017

- 6.3.3:** The District staff, Engineer, and Board President actively inspect levees on a routine basis to identify areas of seepage, erosion, burrowing animals, or waterside vegetation that can hide problems. The District actively pursues rodent control and vegetation control.
- 6.3.4:** The main concern of the District is flooding due to overtopping of the levees; the focus has been to bring all its levees up to PL 84-99 standards.

6.4 - Financial Ability to Provide Services

Unlike other RDs, RD 348 has three sources of revenue. The District collects assessments, receives property tax, and often receives subvention funds from DWR. Exhibit 6-4 shows the average distribution of revenues for FY 13 and FY 14. As shown Assessments account for 34 percent, while State Subvention funds account for 59 percent. Although the exhibit shows two years of data, the allocation is fairly representative of relative proportions of district revenues.

Exhibit 6-4: RD 348 Allocation of Revenues 2013–2014



Source: Reclamation District 348, 2014.

The Assessment rate was approved in 2001 and has been adjusted for inflation using San Francisco Bay Area CPI as of December of the succeeding year. However, the Board set the assessment at the 2011 level of \$34.62 per acre or portion of an acre. The direct benefit is determined by the assessed value of the property so the number of acres is adjusted accordingly. Table 6-5 shows assessments from FY 01 to FY 15. While the rate stays the same, the valuation changes so the total assessment revenue has stayed around \$434,000.

Table 6-5: RD 348 Assessments 2000–01 to 2014–15

FISCAL YEAR	PARCEL COUNT	TOTAL ASSESSMENT VALUATION	TOTAL ACRES*	ASSESSMENT RATE	TOTAL ACRES ASSESSMENT*	ANNUAL CHANGE TOTAL ASSESSMENT
2000–01	519	\$48,149,882	10,123	\$55.00	\$556,765.00	
2001–02	519	\$51,587,647	13,805	\$28.00	\$386,540.00	(\$170,225.00)
2002–03	519	\$58,040,514	12,022	\$28.84	\$348,009.94	(\$38,530.06)
2003–04	521	\$56,540,584	12,056	\$29.24	\$353,875.00	\$5,865.06
2004–05	521	\$66,350,981	12,056	\$29.70	\$359,442.46	\$5,567.46
2005–06	523	\$74,792,714	12,070	\$30.34	\$366,212.40	\$6,769.94
2006–07	529	\$86,171,603	12,337	\$30.92	\$381,833.03	\$15,620.63
2007–08	531	\$101,745,698	12,523	\$31.86	\$399,409.48	\$17,576.45
2008–09	537	\$112,450,793	12,656	\$32.82	\$415,911.13	\$16,501.65
2009–10	536	\$115,982,689	12,633	\$33.24	\$420,321.73	\$4,410.60
2010–11	534	\$117,866,546	12,600	\$34.10	\$429,135.55	\$8,813.82
2011–12	546	\$112,775,957	12,592	\$34.62	\$434,536.80	\$5,401.25
2012–13	550	\$111,545,950	12,600	\$34.62	\$434,809.94	\$273.14
2013–14	552	\$112,782,350	12,562	\$34.62	\$433,464.27	(\$1,345.67)
2014–15	551	\$121,491,735	12,547	\$34.62	\$432,979.93	(\$484.34)
2015–16	554	\$124,516,292	12,334	\$34.62	\$426,409.06	(6,570.87)
2016–17	555	\$133,488,499	12,350	\$34.62	\$426,986.52	\$577.46

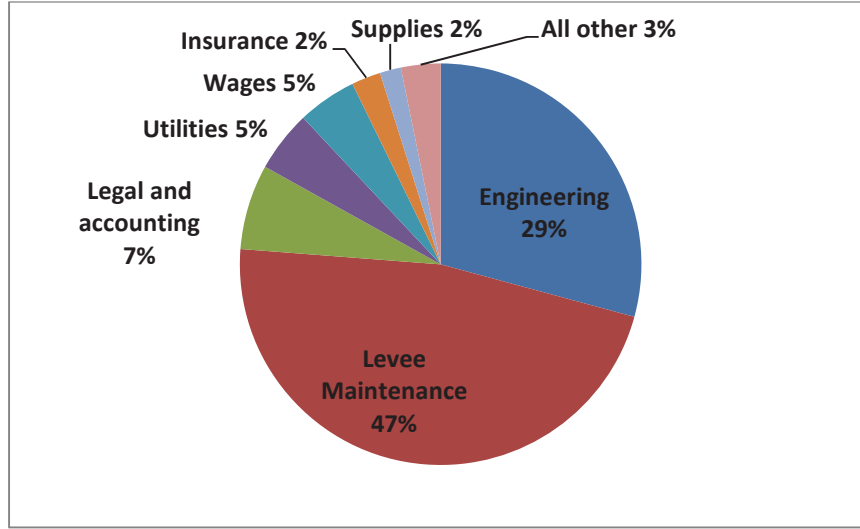
Source: SCI Consulting Group, 2016.

Assessments are collected for levee maintenance. The DWR Subventions Program reimburses \$0.75 for every \$1 spent on levee maintenance. Table 6-6 summarizes revenues and expenses for 2010 through 2015. The table shows subvention funding ranged from \$225,000 to \$2.6 million during the period. Assessments not used for levee maintenance are kept in the General Fund for flood emergencies.

The third source, property taxes, accounts for 4 percent of revenues. The District receives approximately \$50,000 annually in property taxes.

Exhibit 6-5 shows the allocation of expenses for FY 2013 and FY 2014. Similar to Exhibit 6-4 (although the data represents an average allocation for two years), the allocation is fairly representative of relative proportions of district expenses. The exhibit shows the major expense categories are levee maintenance 47 percent and engineering 29 percent. The “All other” category represents 3 percent of total expenses. The category includes routine pumping, consulting fees, dues, mileage reimbursement, shop rent, and payroll taxes.

Exhibit 6-5: Allocation of Expenses 2013–2014



Source: Reclamation District 348, 2014.

Table 6-6 summarizes revenues and expenses from 2010 to 2015. Although there were some years where expenses exceeded revenues, the shortfall is covered by the fund balance. The District does maintain a healthy fund balance. The fund balance on June 30, 2014 was \$2.664 million, which represents nearly 5 years of average expenses (FY10-FY14).

Table 6-6: RD 348 Revenues and Expenses 2010-2015

YEAR	REVENUES	STATE CONTRIBUTION	TOTAL REVENUES	TOTAL EXPENSES	DIFFERENCE
2010	\$473,588	\$2,450,811	\$2,924,399	\$573,172	\$2,351,227
2011	\$477,196	\$2,636,241	\$3,113,437	\$4,785,946	(\$1,672,509)
2012	\$673,508	\$224,638	\$898,146	\$1,459,452	(\$561,306)
2013	\$487,573	\$519,059	\$1,006,632	\$1,438,084	(\$431,452)
2014	\$483,070	\$1,007,436	\$1,490,506	\$463,886	\$1,026,620
2015	\$484,449	\$1,989,751	\$2,474,200	\$520,182	\$1,954,018

Source: State of California State Controller’s Office 2017

In 2012, the District produced a 5-year strategic plan. It included a number of projects that could be undertaken to reduce vulnerability to strengthen the levee system around RD 348. Most of these projects would include extensive environmental review, permitting, and planning before construction could even begin. The District does not have sufficient reserves to complete any of the projects but would rely on 100 percent cost share from the State or some other funding source.

DETERMINATIONS

- 6.4.1:** The Districts main sources of revenues are assessments, property tax, and Subvention Funds. The subvention fund reimburses \$0.75 for each \$1 spent on levee maintenance.

Assessments not used for maintenance are set aside for flood emergencies. Assessments and property tax account for an average of approximately \$480,000. Subvention funds ranged from \$225,000 to \$2.6 million between 2010 and 2015.

- 6.4.2:** The major expenses are levee maintenance and engineering. During the period 2010 to 2015 expenses varied from \$464,000 to \$4.8 million.
- 6.4.3:** The District maintains an ample fund balance that can be used to cover shortfalls. At the end of FY 2014 the District had a fund balance of \$2.6 million approximately 2 to 5 years of operating expenses. The District has the financial ability to provide services.
- 6.4.4:** The District has completed a Five Year Plan that includes a number of projects that would reduce the threat of levee failure. These projects require an extensive amount of planning, permitting costs, and extensive environmental review. Unfortunately the District has no funding for these projects and would rely on 100 percent funding from the State or another source.

6.5 - Status and Opportunities for Shared Facilities

The District participates in the Delta Levees Subventions Program and the Special Projects Program administered by DWR. Both programs provide levee maintenance and rehabilitation funding. These are the only two programs that provided the District additional assistance.

The District does coordinate with a number of agencies as part of the emergency operations plan, including the San Joaquin County Office of Emergency Services, San Joaquin County Sheriff's Department, and Solano County Department of Public Works. In addition, it coordinates with the Thornton Rural Fire Department for rescue and emergency services.

One measure of management practices is whether the District prepares plans for operations as well as finances. RD 348 does prepare an annual budget to plan expenses for the year. It also has an Emergency Operations Plan that involves coordinating activities with a number of local agencies to deal with a flood emergency. In addition, it has have a Five Year Plan that identifies in detail the current state of the levees and reviews capital improvement projects to be undertaken in the next 5 years.

DETERMINATIONS

- 6.5.1:** The District participates in the DWR grant programs Delta Levees Subventions Program and Special Projects Program.
- 6.5.2:** The District works with a number of local agencies in its Emergency Operations Plan, including the County Office of Emergency Services, County Sheriff's Office, Department of Public Works, and Thornton Rural Fire Protection District.
- 6.5.3:** The District devotes resources to strategic, financial and emergency planning. It completed a Five Year Plan that identifies capital improvement projects. It also completed an annual budget and an Emergency Operations Plan.

6.6 - Government Structure and Accountability

The District is governed by a three-member board elected to 4-year staggered terms. Often, there are not enough candidates to hold an election, so Trustees are appointed by the Board of Supervisors. Board members receive a stipend of \$75/meeting.

Board meetings are held monthly on the second Thursday at 3247 West March Lane Suite 200 in Stockton. Agendas are posted according to the Brown Act and minutes are distributed to trustees. The District has no website and communicates with residents via mail as necessary.

The District has a full-time maintenance employee responsible for all routine levee maintenance, including rodent extermination, vegetation control, levee patrol, drainage control, and other tasks as necessary. The District employs one part-time accountant responsible for maintaining financial records and payroll.

DETERMINATIONS

- 6.6.1:** The District is governed by a three member board of trustees that serve 4-year staggered terms. Trustees may be elected but often there are not enough candidates to hold an election so they are appointed by the Board of Supervisors. Board member receive a stipend of \$75 per meeting.
- 6.6.2:** Board meetings are held on the second Thursday of the month at 3247 West March Lane Suite 200 in Stockton. Meeting notices are posted according to the Brown Act.
- 6.6.3:** The District does not have a website but communicates with residences via mail as necessary.
- 6.6.4:** The District employs one full-time maintenance employee responsible for maintaining the levees and one part-time administrative staff that is responsible for financial records.

6.7 - Any Other Matter Related to Effective or Efficient Service Delivery as Required by Commission Policy

The District is not seeking to expand its boundary, consolidate with a neighboring district, or discontinue service. Any growth is expected to take place in the community of Thornton but within District boundaries. The only policies that may affect the District operations are the Sphere of Influence policies. San Joaquin LAFCo's Sphere of Influence policy allows for open space or rural lands to be designated in an agencies sphere to preserve the use and character of that territory. While there are rural lands adjacent to the District, there is no need to include them in the sphere, as they are not likely to need or receive services from the District. San Joaquin LAFCO's Sphere of Influence policy allows for a coterminous sphere. Since the District has no plans for expansion and needs no additional drainage and flood control services, a coterminous sphere would be appropriate for the District. Since the sphere policies are the only applicable policy and the District would seek a coterminous sphere, no additional services would be required and there would be no effect of the policy on service delivery. Therefore, the San Joaquin LAFCo policies will have no effect on service delivery.

DETERMINATIONS

- 6.7.1:** There are no San Joaquin LAFCo policies that would affect service delivery.

6.8 - Key Findings and Issues

1. The unincorporated community of Thornton is a legacy community that can be considered a DUC. The Thornton Fire Protection District provides fire suppression. CSA 12 provides potable water and most residences are on septic systems, although 30 percent receive wastewater services from the San Joaquin Housing Authority.

2. The District has upgraded its levee system so that all levees are at least to the HMP standard. Most levees are at PL 84-99 standards with the goal of bringing all levees to that standard. Funding from DWR is a major constraint on achieving that goal.
3. The District is supported by assessments, property taxes, and subvention funds. The DWR subvention funds account for nearly 59 percent on average of all revenues. The District maintains a healthy fund balance of over \$2 million.
4. RD 348's Sphere of Influence was established in 1983. A sphere of influence update is long overdue. It is recommended Commission update the sphere and set it as conterminous with District boundaries.

7: RECLAMATION DISTRICT 404 (BOGGS TRACT)

RD 404 was formed in 1883 as an independent special district to provide levee maintenance services. Table 7-1 shows general information and lists services provided by the RD 404.

Table 7-1: RD 404 General Information

GENERAL INFORMATION	
Agency	RD 404 (Boggs Tract)
Address	235 E. Weber Avenue, Stockton, CA 95202
Principal Act	California Water Code §50000, et seq.
Date Formed	1883
Population	15,026
Last SOI Update	1983
Services Provided	Levees and flood control
Contact Person	Dante Nomellini, Jr., Esq. (209) 465-5883 PO Box 1461, Stockton, CA 95201-1461
Website	None

Additionally, the District receives services and assistance from other agencies. For example, RD 404 receives financial assistance from the DWR for levee maintenance, rehabilitation, and improvement. During high flood emergencies, local, state and/or federal agencies may provide physical or financial emergency flood control assistance. Such agencies may also provide physical and/or financial aid with restoration or rehabilitation of the District's levees after such emergencies.

The District entered into a service agreement with ENGEO Incorporated to enable the District to meet FEMA's 100-year flood protection standards.

The District's boundary area includes about 2,130 acres or 3.3 square miles. As shown in Exhibit 7-1, RD 404 is bounded to the west by the San Joaquin River, to the north by the Stockton Deep Water Channel, and to the south by French Camp Slough and Walker Slough. The ground rises to the east up to and along Mormon Slough, which flows in an easterly direction to the Stockton Diverting Canal. Failure of Mormon Slough above the Diverting Canal, or the Diverting Canal itself, would potentially flood the District from the east. I-5 runs generally from northeast to southwest along the District's southeastern boundary.

The width of the San Joaquin River varies between 150 and 200 feet along the District's boundaries. There are no major islands or barriers in the stretch of the San Joaquin River along the District's boundaries; however, the stretch is crossed by five bridges. The French Camp Slough channel extends up to 350 feet in width along the District's southern boundary. This channel contains scrub and tree covered islands and obstructions within the channel.

RD 404 is threatened primarily by riverine floods along the San Joaquin River, Delta high tidal events, or from failure of levee systems on the southeastern side of Stockton along Mormon Slough. The Delta tidal prism extends up the Stockton Deep Water Channel, the San Joaquin River, French Camp Slough, and Walker Slough along the District levees. Delta tidal pool flood elevations are relevant to the District's flood threat.

District levees protect areas within the City of Stockton and unincorporated areas of the County. Major facilities within the District include the Port of Stockton, a major regional fuel storage area, a large industrial area, and the Stockton Regional Wastewater Treatment Plant.

RD 404’s Sphere of Influence was established in 1983. LAFCo will have to update a Sphere of Influence for the District as part of this MSR process.

7.1 - Growth and Population Projections

Based on U.S. Census tract information, the population of RD 404 in 2010 was 13,234. The U.S. Census American Community Survey indicates that the population of the RD 404 in 2015 was about 15,026.

To estimate the future change in population, the SJCOG has published population projections for census-designated places and the rest of the County through 2060. The SJCOG’s projections are based on data from the U.S. Census Bureau, the Internal Revenue Service, and the California Vital Statistics Query System and feedback from San Joaquin County along with the incorporated cities within the County. The countywide growth rate is predicted to be fairly steady, fluctuating between 1.22 and 1.48 percent annually. In comparison, the California Department of Finance forecast for the same time period starts with a lower growth rate that accelerates over time, so that the forecasted 2060 population is higher than SJCOG’s.

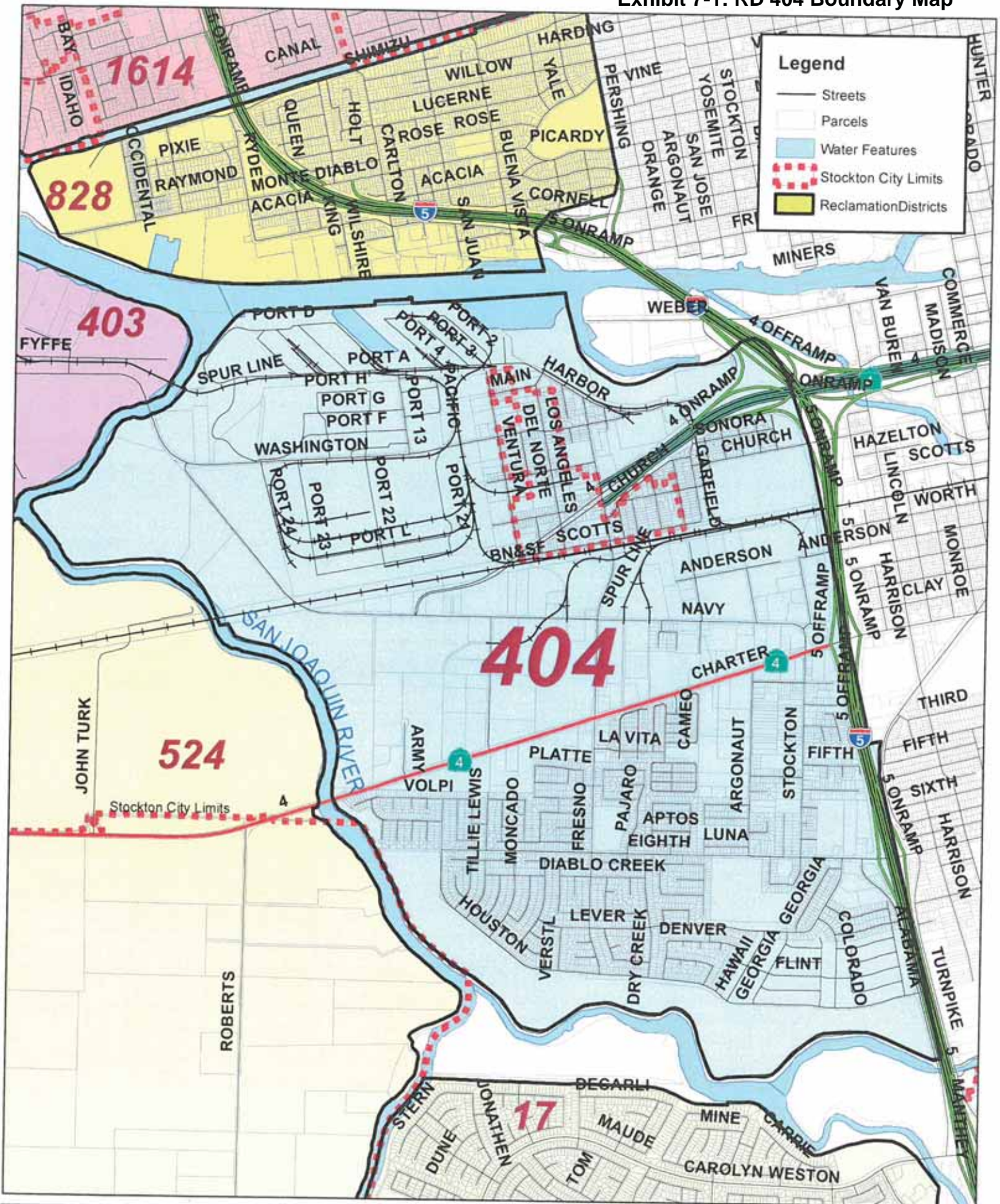
RD 404 is an urban district, hence land uses within its boundaries primarily consist of commercial, industrial, residential, and recreational. The District anticipates that, to the extent there are any vacant lands within its boundary area, it is foreseeable that such lands will ultimately be developed. RD 404 did not indicate an anticipated timeline of such development.

Since RD 404 is located mostly within the City of Stockton, the population projections for Stockton are also applicable to the District. Since most of the District has been built out the District will grow as the areas outside urban areas in San Joaquin. Those areas are expected to grow at from 0.1% per year. Based on this data the population of the District can be expected to range from 15,132 in 2025 to 15,410 by 2045 (Table 7-2).

Table 7-2: RD 404 Population Projections

AGENCY	2015	2020	2025	2030	2035	2040	2045
Rest of the County	70,950	71,184	71,450	71,718	72,038	72,400	72,764
% change		0.3%	0.4%	0.4%	0.4%	0.5%	0.5%
RD 404	15,026	15,076	15,132	15,189	15,256	15,333	15,410

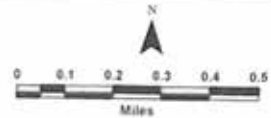
Source: Eberhardt School of Business, Center for Business and Policy Research 2016



RECLAMATION DISTRICT 404 SAN JOAQUIN COUNTY

San Joaquin County Geographic Information Systems
1810 East Hazelton Avenue, Stockton, CA 95205

The information on this map is based on the most current information available to San Joaquin County Geographic Information Systems. The County of San Joaquin does not warrant or guarantee the accuracy, completeness or timeliness of this information. The information on this map is not intended to replace engineering, planning or other professional services.



Determinations

- 7.1.1:** The estimated population of RD 404 as of 2015 was 15,026.
- 7.1.2:** RD 404 is located mostly in the City of Stockton and is nearly built out. Even though the District is in the City growth projections for the City would overestimate growth in the District. It is expected the district would see no growth or very modest growth comparable to the growth rate in the unincorporated rest of the County. We would expect RD 404 to have a population ranging from 15,026 to 15,410 in 30 years. RD 404 is an urban district, hence land uses within its boundaries primarily consist of commercial, industrial, residential, and recreational. The District anticipates that, to the extent there are any vacant lands within its boundary area, it is foreseeable that such lands will ultimately be developed.

7.2 - Disadvantaged Unincorporated Communities

LAFCO is required to evaluate DUCs as part of this service review, including the location and characteristics of any such communities. A DUC is defined as any area with 12 or more registered voters, or as determined by commission policy, where the MHI is less than 80 percent of the statewide annual median income.

According to the DWR mapping tool, two out of three U.S. Census Tracts within RD 404 are considered disadvantaged communities. There is an unincorporated island in the district which would qualify as a DUC. The area is south of Main Street, east of Ventura Street, west of Los Angeles Street and north of the Scott Street. The area has no sewer service so residents are on septic systems, water is provided by Cal Water, a private water company. Fire protection is provided by the Boggs Tract Fire Protection District, which has a contract with the Stockton Fire Department.

DETERMINATIONS

- 7.2.1:** RD 404 is mostly within the City of Stockton, however it includes an unincorporated island with a median household income that qualifies as a DUC. The island receives water from Cal Water a private company and fire protection from the Boggs Fire Protection District which has a contract with the Stockton Fire Department. There is no sewer service so residents are on septic systems.

7.3 - Present and Planned Capacity of Public Facilities

The District operates and maintains approximately 4.75 miles of levees, 4.1 miles of which are project levees, while the remainder are non-project levees. Project levees are subject to USACE certification and inspection. In addition, they are subject to AB 156 inspection and reporting requirements. The levees are inspected four times a year, including by USACE. Under AB 156, the District must report the condition of its levees to the DWR, which compiles an annual report. Table 7-3 shows facilities operated and maintained by RD 404.

Table 7-3: RD 404 Facilities Overview

RD 404 FACILITIES			
Total Levee Miles	4.1 miles of project levees/ 0.65 miles non-project levees	Surface Elevation	varies
LEVEE MILES BY STANDARD		LEVEE MILES BY TYPE	
No Standard	0.0	Dry Land Levee	0.0
HMP Standard	4.75 Miles	Urban Levee	4.75 Miles
PL 84-99 Standard		Agricultural Levee	
Bulletin 192-82 Standard	0.0	Other0.0	
FEMA Standard			
DISTRICT FACILITIES			
Internal Drainage System	No – private systems	Pump Station(s)	No
Detention Basins(s)	No	Bridges	No
FLOODPLAIN			
FIRM Designation	Zone X	Base Flood Elevation	Less than 1-foot
LEVEE INSPECTION PRACTICES			
Routinely for visual; Four Times per Year with State and US Corps. Personnel			
LEVEE INSPECTION REPORTS			
Most Recent Written Inspection	2017	Inspection Rating	<u>Unacceptable</u> with Comments for Correction
LEVEE SEGMENT	DESCRIPTION	CONDITION	
San Joaquin River	2.35 miles of river bank	Vegetation/erosion (field observations)	
French Camp Slough	1.75 miles river bank	Vegetation/rodent activity (field observations)	
INFRASTRUCTURE NEEDS/DEFICIENCIES			
District levees met the 100-year flood protection standard in 2009.			
Notes: NP = Not Provided * Rehabilitation cost per levee mile is equal to the expenditure amount on capital improvements in FY 14-15 divided by the number of levee miles rehabilitated in FY 14-15. ** Maintenance cost per levee mile is equal to the expenditure amount on levee maintenance in FY 143-15 divided by the total number of levee miles.			

DWR notes that routine levee maintenance inspections by the local agency are necessary to ensure that adequate maintenance is being carried out and that dangerous or unusual conditions are discovered early. The DWR recommends that, at a minimum, levees should be inspected (1) once by September 15 to allow time to correct dangerous conditions; (2) once in April to provide information to plan annual maintenance and repair; and (3) during and after periods of high water and high winds, which can accelerate wave erosion.

The District constantly maintains and upgrades its levees. These activities are financed via the benefit assessment proceeds and through DWR funding assistance when available.

SB 5 compliance with SB 5 rests with the land use authority. Several districts that protect potentially developable lands are working with the cities and County to improve levees to the 200 year flood protection standard. For districts that are built out or in agricultural use with no foreseeable development the 200 year flood standard is of low priority and not being addressed. RD 404 is nearly built out with limited or no development planned. RD 404 is trying to get 100 year certification and has deferred addressing the 200 year standard. The reclamation district is participating in the Lower San Joaquin River Feasibility Study which will help determine needed improvements for future flood protection systems in an effort to reach or exceed the future 200-year level of flood protection .

According to the RD 404 Emergency Operations Plan, the District performs the following routine preparedness actions:

- District Engineer inspects district levees on a routine basis,
- Ongoing baiting and grouting program for ground rodents,
- Ongoing vegetation control program,
- Annual inspection and inventory of district flood fight supplies,
- Semi-annual joint inspection of levees with State inspectors,
- Periodic joint inspection of levees with federal inspectors, and
- Annual inspection and maintenance of access control gates on levees.

The District monitors and analyzes water conditions, elevations, and forecasts for waterways affecting District levees throughout the flood season for the purpose of promptly identifying heightened threats to the integrity of its levee systems. The objective of this monitoring effort is to identify conditions that warrant additional actions beyond routine flood season preparedness activities.

According to the fall 2016 and the 2017 DWR inspection report, the District's overall LMA rating was U, unsatisfactory. The main deficiencies identified were vegetation and animal control. In the fall of 2015, the overall LMA rating was M.

As noted by RD 404 in the fall 2016 DWR report, the District continued to perform routine maintenance on all levee units, including, but not limited to erosion repair, rodent baiting, and hole grouting; vegetation management; and visual inspections. RD 404 reported that encroachment enforcement remained an ongoing process.

Additionally, according to the Water Code Division 6 Section 12989, DWR must "inspect non-project levees of local agencies for the purpose of monitoring and ascertaining the degree of compliance with, or progress towards meeting, standards such as those set forth in Section 12984." The frequency of such inspections is not specified in the Code. DWR, therefore, reportedly does not conduct regular inspections of non-project levees because of the quantity of work it would require and the lack of available resources

to perform such inspections. Inspection results of non-project levees are not readily available, and the date of the latest inspection of the District's non-project levees is unknown.

The USACE conducts two inspection programs: Routine Inspections and Periodic Inspections. Both programs evaluate the condition of levees less frequently but more thoroughly than DWR. The USACE also determines overall levee ratings by systems, which is also different from DWR's rating scheme. The USACE defines systems as consisting of levees that protect a common area. This can include multiple units or multiple districts. The USACE uses the overall ratings from these inspections to determine eligibility in the Rehabilitation and Inspection Program, which is also known as PL 84-99.

The District periodically enters into SAAs with the CDFW for work performed along the waterside of its levee slopes. The District has an annual routine levee maintenance agreement that must be renewed every 5 years. For activities that fall outside the routine agreement, separate SAAs are obtained for specific projects that are not typically renewed or reviewed, since the work they cover is usually completed soon after the issuance of the SAAs and well before the standard five-year term of such permits.

The District's levees have traditionally met FEMA's 100-year flood criteria. The RD 404's major current goal is to make whatever levee improvements necessary to maintain that criteria.

DETERMINATIONS

- 7.3.1:** The District operates and maintains approximately 4.75 miles of levees, 4.1 miles of which are project levees.
- 7.3.2:** RD 404 provides levee maintenance. The District is threatened primarily by riverine floods along the San Joaquin River, Delta high tidal events, or from failure of levee systems on the southeastern side of Stockton along Mormon Slough. The District levees protect areas within the City of Stockton and unincorporated areas of the County.
- 7.3.3:** The District constantly maintains and upgrades its levees. These activities are financed via the benefit assessment proceeds and through DWR funding assistance when available.
- 7.3.4:** According to the fall 2016 and the 2017 DWR inspection report, the District's overall LMA rating was U (Unacceptable). The main deficiencies identified were vegetation and animal control.
- 7.3.5:** The District's levees have traditionally met FEMA's 100-year flood protection criteria. RD 404 is working on maintaining that criteria.

7.4 - Financial Ability to Provide Services

The District's operations are financed mainly by the benefit assessment. Other funding sources include property taxes, county homeowner's property tax relief, and bank loans when necessary. Additional variable sources fluctuate in availability and include funding provided through a joint levee project with DWR and/or through state or federal disaster funds in case of a natural disaster. The District participates in the Delta Levee Subventions Program. The DWR and/or the CDFW perform inspections of maintenance and repair work completed by the District before providing the reimbursement Subventions funds.

In FY 14-15, the District collected \$496,257 in assessments. The rates for the same fiscal year are shown in Table 7-4. RD 404 imposed a minimum assessment of \$44.00 per parcel. The assessment income

finances operations, maintenance, and improvement of the District’s levee system. Approximately 33 percent of the total assessment valuation of District land is concentrated with one landowner.

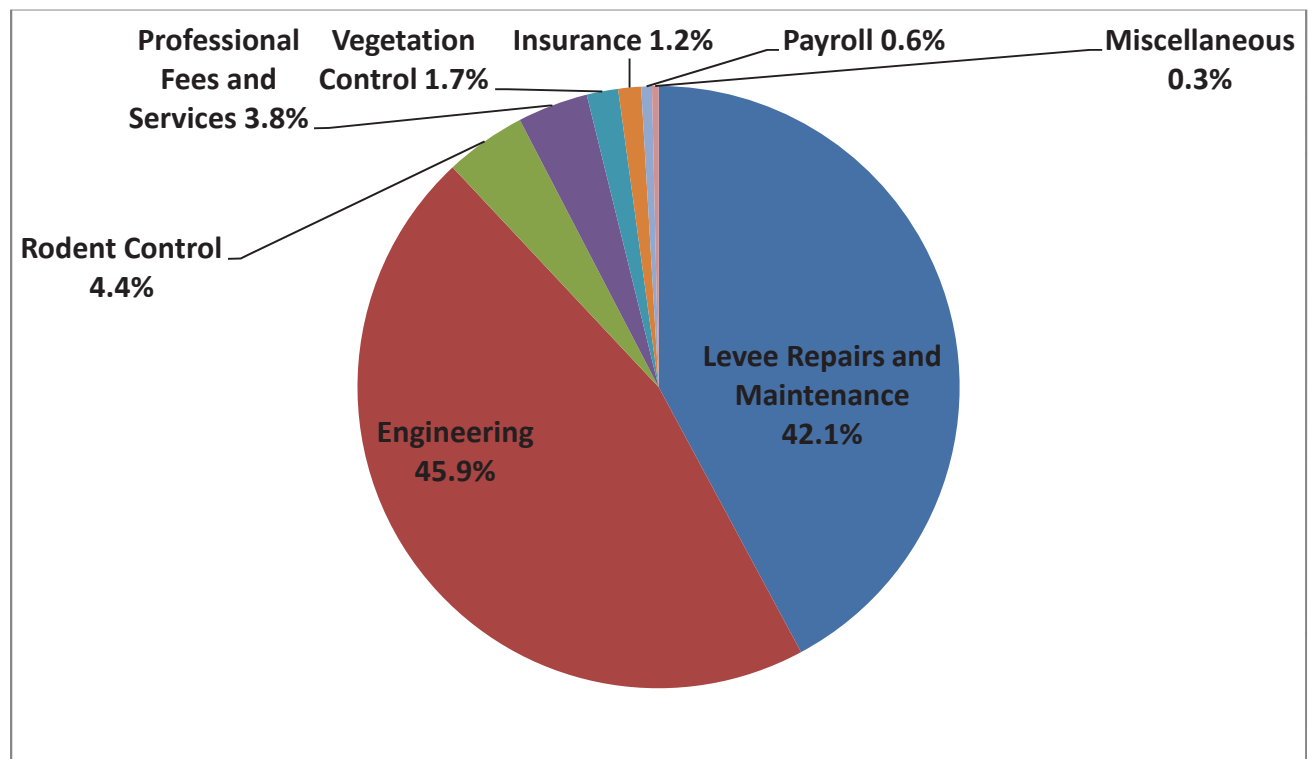
Table 7-4: RD 404 Benefit Assessment Rates FY 14–15

LAND USE	ASSESSMENT RATE
Commercial Lands	\$345.20/acre
Industrial Lands	\$345.20/acre
Other Lands	\$172.60/acre
Golf Courses and Parks	\$86.30/acre
Residential Lands	\$172.60/acre
Utility Easements and Public Roads	\$345.20/acre

Source: Resolution of the Board of Trustees of Reclamation District No. 404, FY 14–15.

Exhibit 7-2 shows the allocation of expenditures based on an average of five years from FY11- FY15. The District’s expenditures consist mostly of levee repairs and maintenance; other expenses include engineering, rodent control, professional fees, vegetation control, insurance, and payroll. Revenues and expenditures for the last five fiscal years are shown in Table 7-5. The District’s revenues have consistently exceeded its expenditures for the last four fiscal years.

Exhibit 7-2: RD 404 Allocation of Expenditures



Source: RD 404 Audited Financial Statements

Table 7-5: RD 404 Revenues and Expenditures, FYs 10–11 through 14–15

ACCOUNT	FY 10–11	FY 11–12	FY 12–13	FY 13–14	FY 14–15
Total Revenues	\$542,163	\$522,449	\$506,083	\$1,667,403	\$495,139
Total Expenditures	\$733,803	\$413,665	\$181,080	\$1,411,647	\$437,232
Revenues over Expenditures	(\$191,640)	\$108,784	\$325,003	\$255,756	\$57,907
Fund Balance	\$926,209	\$1,034,993	\$1,359,996	\$1,615,752	\$1,673,659
Source: RD 404 Audited Financial Statements					

The District’s fund balance is reported in its Audited Financial Statements in five components, including non-spendable, restricted, committed, assigned, and unassigned. The unassigned balance is the only balance that has not been restricted to a specific purpose within the general fund. When both restricted and unrestricted resources are available for use, it is the District’s policy to use restricted resources first, then unrestricted resources as needed.

The District’s current goal is to maintain at least one year’s worth of special assessment receipts in its reserves. However, RD 404 is currently planning a significant levee improvement project that will likely deplete all of the available reserves. At the end of FY 14–15, the District had \$1,673,659 in its unrestricted reserve.

At the end of FY 14–15, the District did not have any long-term debt. The District’s capital improvements are financed by either the RDs reserves or specific program or assistance funds. The District’s current Capital Improvement Plan (CIP) consists of meeting and maintaining FEMA’s 100-year flood protection criteria. Due to the fact that the district does not expect much growth meeting the 200 year flood requirement has been a lower priority.

DETERMINATIONS

- 7.4.1:** The District’s operations are financed primarily by the benefit assessment. The main constraint to this funding source is its dependence on voter approval.
- 7.4.2** The District is constrained by the limited budget. Additionally, its expenditures have increased since levee maintenance, rehabilitation, and improvements have become more expensive over the years. Meeting the 200-year level of flood protection standard is likely to be a major financial challenge for the District in terms of engineering and construction costs. Since there is very little anticipated growth the District has made meeting the 200-year standard a lower priority.
- 7.4.3** The District’s current goal is to maintain at least one year’s worth of special assessment receipts in its reserves. However, RD 404 is currently planning a significant levee improvement project that will likely deplete all of the available reserves.
- 7.4.4** At the end of FY 14–15, the District did not have any long-term debt.
- 7.4.5** The District’s capital improvements are financed by either the RDs reserves or specific program or assistance funds.

7.5 - Status and Opportunity for Shared Facilities

RD 404 collaborates with and receives assistance from other agencies to improve services and reduce costs. The District works with DWR and USACE to maintain and inspect the levee system. One of the District's collaborative practices includes participation in the Delta Levee Subvention Program. Additionally, the District performed a joint levee improvement project in coordination with DWR in 2014, wherein DWR covered 75 percent of all the costs.

The District is a signatory to the California Master Mutual Aid Agreement and the San Joaquin Operational Area Agreement. The San Joaquin Operational Area Agreement and San Joaquin County Ordinances have provisions allowing the San Joaquin Operational Area Logistics Section and San Joaquin County Purchasing Agent to acquire and transport, on behalf of the District, resources requested by the District.

Mutual aid requests for technical assistance and services, flood fight crews, supplies and materials, and other resources are made through the San Joaquin Operational Area Logistics Section and/or the Operational Area Public Works Mutual Aid Coordinator.

In case of an emergency, RD 404 ensures that proper management and coordination is maintained with (1) other public agencies and jurisdictions operating within the District, (2) neighboring RDs, and (3) the San Joaquin Operational Area.

In addition, the District periodically enters into SAAs with the CDFW for work performed along the waterside of its levee slopes.

The District's management practices consist of maintaining up-to-date financial records and performing regular financial audits. The District adopts an annual budget at the or near the beginning of each fiscal year. RD 404 adopted a Capital Improvement Plan, which currently consists of meeting and maintaining FEMA's 100-year flood protection criteria. The District plans for emergencies by adopting an Emergency Operations Plan, last updated in 2015.

DETERMINATIONS

- 7.5.1:** RD 404 works cooperatively with DWR and USACE to maintain and inspect the levee system. The District participates in the Delta Levee Subventions Program.
- 7.5.2:** The District is a signatory to the California Master Mutual Aid Agreement and the San Joaquin Operational Area Agreement.
- 7.5.3:** The District periodically enters into SAAs with the CDFW for work performed along the waterside of its levee slopes.
- 7.5.4:** The District's management practices consist of maintaining up-to-date financial records and performing regular financial audits and adopting an annual budget. RD 404 adopted a Capital Improvement Plan, which currently solely consists of meeting and maintaining FEMA's 100-year flood protection criteria.
- 7.5.5:** Maintaining an online presence is considered a best management practices and is recommended for RD 404.

7.6 - Government Structure and Accountability

RD 404 is governed by a three-member Board of Trustees headed by the President of the Board. Trustees are elected by the landowners or appointed by the County Board of Supervisors to 4-year terms.

The Board meets as needed usually at the District’s office at 235 E. Weber Avenue in Stockton. Agendas are distributed to everyone on the mailing list and posted on the front door of the District’s office. Meeting minutes are distributed to meeting attendees and available upon request. The Board of Trustees details are shown in Table 7-6.

Table 7-6: RD 404 Governing Body

BOARD OF TRUSTEES	
Manner of Selection	Elected by the landowners or appointed by the Board of Supervisors
Length of Term	Four years.
Board Compensation:	\$20.00 per month.
Meeting Schedule	As needed. Currently approximately once every three months.
Meeting Location	District’s office at 235 E. Weber Avenue, Stockton, CA 95202.
Agenda Distribution	Posted on the front glass door of the District’s Office and distributed to everybody on the mailing list.
Minutes Distribution	Distributed to all meeting attendees, and available to anyone upon request.

RD 404 contracts with a law firm to handle secretarial and legal functions for the District with the lead attorney serving as the District Secretary. Engineering services are provided by a lead engineering consultant. The District also hires part-time staff as needed to assist with levee maintenance and operations and flood fighting. Regular employee performance reviews are not performed.

With respect to the governance structure, the District has discussed expansion of boundaries eastward to areas that would be affected by the 100-year flood. RD 404 believes that since the District’s levees provide flood protection to lands outside of its boundaries it may be logical to expand the boundaries to cover the protected areas so these areas would contribute to the costs to maintain and improve the levees.

DETERMINATIONS

- 7.6.1:** RD 404 is governed by a three-member Board of Trustees headed by the President of the Board. Trustees are elected by the landowners or appointed by the Board of Supervisors to 4-year terms. The Board does not have a regular meeting schedule and meets as needed.
- 7.6.2:** The District demonstrated accountability and transparency related to its governance by cooperating with the MSR process and publishing agendas for public meetings as legally required.
- 7.6.3:** RD 404 contracts with a law firm to handle secretarial and legal functions for the District with the lead attorney serving as the District Secretary. The District hires part-time staff as needed to assist with flood control and drainage maintenance and operations.

- 7.6.4:** Concerning the District’s governance structure, RD 404 believes that since the District’s levees provide flood protection to lands outside of its boundaries it may be logical to expand the boundaries to cover the protected areas so these areas would contribute to the costs to maintain and improve the levees.

7.7 - Any Other Matter Related to Effective or Efficient Service Delivery as Required by Commission Policy

San Joaquin LAFCo has not adopted any policies that would affect service delivery in RD 404.

DETERMINATIONS

- 7.7.1:** San Joaquin LAFCo has not adopted any policies that would affect service delivery in RD 404.

7.8 - Key Findings and Issues

1. In the fall of 2016, RD 404 received the lowest rating of Unacceptable for the maintenance of its levees, a downgrade from the previous year’s rating of Minimally Acceptable. The main deficiencies to be addressed are vegetation and animal control.
2. RD 404 does not maintain a website or any other form of online presence. Well-managed and governed agencies share their information and provide public outreach through websites or social media.
3. The District’s Board of Trustees does not have a regular meeting schedule. It is one of the best management practices for public agencies to conduct advanced planning, an integral part of which are regular planned governing board meetings. In addition, regular governing board meetings are identified by the Special District Leadership Foundation as one of the essential accountability and transparency practices of a public agency.
4. According to the Water Code division 6, section 12989, the DWR must “inspect non-project levees of local agencies for the purpose of monitoring and ascertaining the degree of compliance with, or progress towards meeting, standards such as those set forth in Section 12984.” The frequency of such inspections is not specified in the Code. DWR, therefore, reportedly does not conduct regular inspections of non-project levees because of the quantity of work it would require and lack of available resources to perform such inspections. Inspection results of non-project levees are not readily available, and the date of the latest inspection of the District’s non-project levees is unknown. There is a need for the State to standardize the inspection process for all non-project levees.
5. RD 404 has project levees and a non- project levee segment within the secondary zone. However, because that segment of non-project levee is only 0.65 mile long, the District made a decision not to adopt a five-year plan for such a small portion of its levees.
6. Concerning the District’s governance structure, RD 404 believes that since the District’s levees provide flood protection to lands outside of its boundaries it may be logical to expand the boundaries to cover the protected areas so these areas would contribute to the costs to maintain and improve the levees.
7. The District’s benefit assessment is the only consistent and reliable source of funding. Any increase in the District’s benefit assessments must undergo a Proposition 218 Assessment

Ballot Proceedings and, therefore, must be supported by a majority of the voters in such a proceeding. Thus, the District is constrained by the limited budget. Additionally, its expenditures have increased since levee maintenance, rehabilitation, and improvements have become more expensive over the years. Meeting the 200-year level of flood protection standard is likely to be a major financial challenge for the District in terms of engineering and construction costs. As a result the District has made the 200 year flood protection goal a lower priority. It is recommended that the District work closely with the City of Stockton to achieve 200 year flood protection.

8. RD 404's Sphere of Influence was established in 1983. Although the District would like to consider expansion to include areas that receive flood protection outside its boundaries, it is recommended the Commission initially establish a coterminous sphere for the district and then have the District apply for an update.
9. The reclamation district is participating in the Lower San Joaquin River Feasibility Study which will help determine needed improvements for future flood protection systems in an effort to reach or exceed the future 200-year level of flood protection.

8: RECLAMATION DISTRICT 828 (WEBER TRACT)

RD 828 was formed on March 4, 1912 by the landowners of Weber Tract as an independent special district for the purpose of maintenance, protection, and repair of the reclamation works on Weber Tract. Table 8-1 shows RD 828 services.

Table 8-1: RD 828 General Information

GENERAL INFORMATION	
Agency	RD 828 (Weber Tract)
Address	711 N. Pershing Avenue, Stockton, CA 95203
Principal Act	California Water Code §50000, et seq.
Date Formed	March 4, 1912
Population	5,859
Last SOI Update	1983
Services Provided	Levees, vegetation, flood control and drainage
Contact Person	Christopher H. Neudeck; District Engineer (209) 946-0268
Website	None

The District is about 695 acres or 1.1 square miles in area. As shown in Exhibit 8-1, RD 828 is located along the western edge of the City of Stockton, south of RD 1614, Smith Tract, and Smith Canal; east of RD 403, Rough and Ready, and north of RD 404, Boggs Tract. RD 282 is bordered on the south by the Stockton Deep Water Channel which is fed by the San Joaquin River. Flood system challenges identified for Reclamation District 828 include highly encroached levees and non-accredited levees along Smith Canal.

RD 828 is located entirely within the City of Stockton and contains mostly residential structures, with some limited commercial facilities, a city park, and an elementary school.

RD 828's Sphere of Influence was established in 1983. A sphere of influence update is long overdue. It is recommended Commission update the sphere and set it as conterminous with District boundaries. LAFCo will have to update a Sphere of Influence for the District following this MSR process.

8.1 - Growth and Population Projections

Based on the U.S. Census tract information, the population of RD 828 in 2010 was 5,859. The U.S. Census American Community Survey indicates that in 2015 the estimated population within the District was about 6,203.

Since RD 828 lies within the City of Stockton, RD 828 is an urban district. Land uses are primarily residential and commercial. The District is mostly built out with a few undeveloped parcels. If all the vacant residential land was developed, based on current zoning at buildout the district can expect an additional 200 residents. However, the District does not anticipate the development of any vacant land within its boundaries over the next several years. Accordingly the population is expected to remain at approximately 6200 residents.

DETERMINATIONS

- 8.1.1:** The estimated population of RD 828 as of 2015 was 6,203.
- 8.1.2:** RD 828 is an urban district; hence, land uses within its boundaries are primarily residential and commercial. The District is nearly completely built out. The District does not anticipate the development of any vacant land within its boundaries. The population is expected to remain at approximately 6,200 residents.

8.2 - Disadvantaged Unincorporated Communities

LAFCo is required to evaluate DUCs as part of this service review, including the location and characteristics of any such communities. A DUC is defined as any area with 12 or more registered voters, or as determined by commission policy, where the MHI is less than 80 percent of the statewide annual median income. However, since the District is located entirely within the City of Stockton and is not an unincorporated island, the community does not meet LAFCo's definition of a DUC.

DETERMINATIONS

- 8.2.1:** RD 828 is located entirely within the City of Stockton; therefore, there are no DUCs.

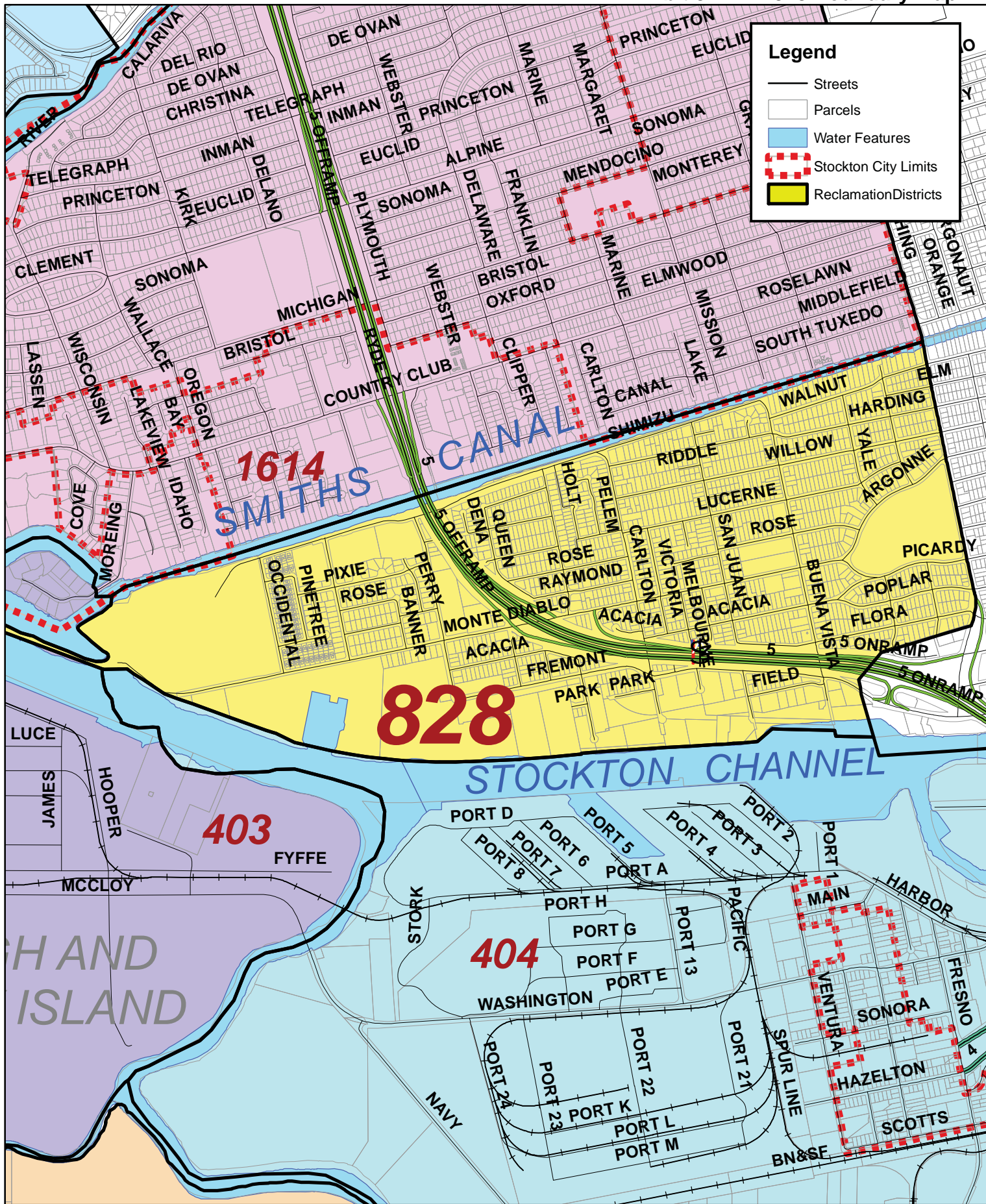
8.3 - Present and Planned Capacity of Public Facilities

The District operates and maintains approximately 1.96 miles of levees, all of which are non-project levees. RD 828 does not own or maintain pumping stations for internal drainage control. The City of Stockton is responsible for internal drainage collection, conveyance and terminal drainage. The City has two pump stations in the District at levee station 21+00 and 78+00. No culverts or through levee pipes exist within the District. Table 8-2 lists facilities operated and maintained by RD 828.

DWR notes that routine levee maintenance inspections by the local agency are necessary to ensure that adequate maintenance is being carried out and that dangerous or unusual conditions are discovered early. The DWR recommends that, at a minimum, levees should be inspected (1) once by September 15 to allow time to correct dangerous conditions; (2) once in April to provide information to plan annual maintenance and repair; and (3) during and after periods of high water and high winds that can accelerate wave erosion.

The District's levees are inspected periodically. If there is a problem or maintenance issues, the District's engineering consultant is notified to perform additional detailed inspection.

Additionally, according to the Water Code Division 6, Section 12989, the DWR must "inspect non-project levees of local agencies for the purpose of monitoring and ascertaining the degree of compliance with, or progress towards meeting, standards such as those set forth in Section 12984." The frequency of such inspections is not specified in the Code. The DWR, therefore, reportedly does not conduct regular inspections of non-project levees because of the quantity of work it would require and lack of available resources to perform such inspections; in addition, non-project levees mostly protect agricultural scarcely populated areas making inspection of these levees a lesser priority. Inspection results of non-project levees are not readily available, and the date of the latest inspection of the District's non-project levees by DWR is unknown.



Legend

- Streets
- ▭ Parcels
- ▭ Water Features
- - - Stockton City Limits
- ▭ Reclamation Districts

**RECLAMATION DISTRICT 828
SAN JOAQUIN COUNTY**

San Joaquin County Geographic Information Systems
1810 East Hazelton Avenue, Stockton, CA 95205

The information on this map is based on the most current information available to San Joaquin County Geographic Information Systems. The County of San Joaquin does not warrant its accuracy, completeness, or suitability for any particular purpose. The information on this map is not intended to replace engineering, financial or primary records research.



Table 8-2: RD 828 District Overview and Facilities

RD 828 FACILITIES			
Total Levee Miles	1.96	Surface Elevation	N/P
LEVEE MILES BY STANDARD		LEVEE MILES BY TYPE	
No Standard	0.0	Dry Land Levee	0.0
HMP Standard	0.0	Urban Levee	1.96 Miles
PL 84-99 Standard	0.0	Agricultural Levee	0.0
Bulletin 192-82 Standard	0.0	Other	0.0
FEMA Standard	1.96 Miles	Doesn't add up	
DISTRICT FACILITIES			
Internal Drainage System systems	No – private	Pump Station(s)	0
Detention Basins(s)	No	Bridges	No District bridges
FLOODPLAIN			
FIRM Designation	Zone X, AE	Base Flood Elevation	9.8 – 9.9' (North American Vertical Datum of 1988 (NAVD 88))
LEVEE INSPECTION PRACTICES			
Routinely for visual observation; any problems by Engineering Consultant			
LEVEE INSPECTION REPORTS			
Most Recent Written Inspection	N/P	Inspection Rating	
LEVEE SEGMENT	DESCRIPTION	CONDITION	
		Vegetation/erosion (field observations)	
		Vegetation/rodent activity (field observations)	
INFRASTRUCTURE NEEDS/DEFICIENCIES			
District levees met the 100-year flood protection standard.			
Notes: NP = Not Provided * Rehabilitation cost per levee mile is equal to the expenditure amount on capital improvements in FY 14-15 divided by the number of levee miles rehabilitated in FY 14-15. **Maintenance cost per levee mile is equal to the expenditure amount on levee maintenance in FY 14-15 divided by the total number of levee miles.			

The District receives levee certifications from the USACE, FEMA, and CDFW, and is monitored and inspected by these agencies regularly.

According to the RD 828 Emergency Operations Plan, the District performs the following routine preparedness actions:

- Inspect district levees once a week on a routine basis
- Ongoing and routine baiting and grouting program for ground rodents
- Ongoing and routine vegetation control program
- Annual inspection and inventory of district flood fight supplies
- Semi-annual joint inspection of levees with State inspectors
- Periodic joint inspection of levees with Federal inspectors
- Annual inspection and maintenance of access control gates on levees

The District monitors and analyzes water conditions, elevations, and forecasts for waterways affecting District levees throughout the flood season for the purpose of promptly identifying heightened threats to the integrity of its levee systems. The objective of this monitoring effort is to identify conditions that warrant additional actions beyond routine flood season preparedness activities.

The District's flood system challenges include highly encroached levees and non-accredited levees along Smith Canal. No current drainage problems have been identified by the District.

Although RD 828 was reported to be meeting FEMA urban levee requirements and state levee certifications, in 2009 it became evident that the Smith Canal levees would lose their FEMA accreditation. At that time, SJAFCA partnered with the Smith Canal levee owners, including RD 1614 (north bank levee) and RD 828 (south bank levee), and took the lead in evaluating options for restoring flood protection to the Smith Canal area. Voters within the assessment district approved a benefit assessment to construct a flood-control gate near the mouth of the Smith Canal. Since FY 14–15, residents have been paying a yearly assessment that will fund construction of this \$37 million project, which is supposed to relieve them of a flood insurance mandate imposed by the federal government. Completion of the floodgate will also provide the district with 200 year flood protection that will comply with SB 5. The floodgate will be constructed by 2018 or 2019.

DETERMINATIONS

- 8.3.1:** The District operates and maintains approximately 1.96 miles of non-project levees.
- 8.3.2:** RD 828 does not own or maintain pumping stations for internal drainage control. The City of Stockton is responsible for internal drainage collection, conveyance and terminal drainage through its two pump stations. No culverts or through levee pipes exist within the District.
- 8.3.3:** The District's levees are inspected periodically. If there is an issue revealed by a routine inspection, a more in-depth inspection is performed by the District's engineer.
- 8.3.4:** The District's flood system challenges include highly encroached levees and non-accredited levees along Smith Canal. No current drainage problems have been identified by the District.
- 8.3.5:** Although RD 828 reported that it was meeting FEMA urban levee requirements and state levee certifications, in 2009 Smith Canal levees lost their FEMA accreditation. At the same time, SJAFCA partnered with the Smith Canal levee owners, including RD 1614 and RD 828, to finance construction of a floodgate at the mouth of the Smith Canal. The gate will be constructed by 2018–2019. Completion of the floodgate will also provide the district with 200 year flood protection that will comply with SB 5.

8.4 - Financial Ability to Provide Services

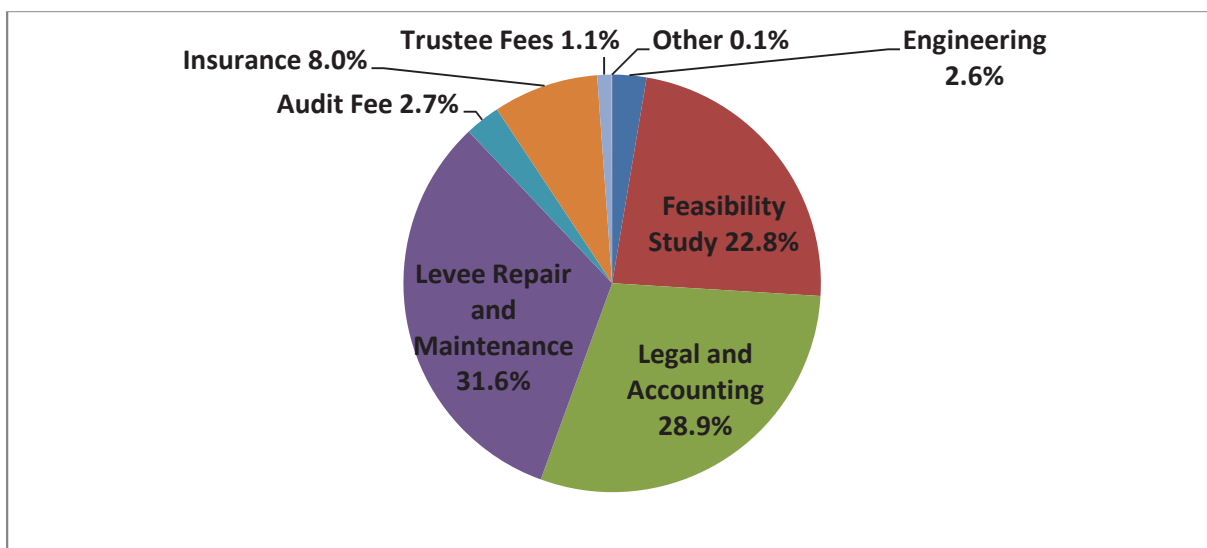
The District is primarily supported by assessments of its landowners as projected, calculated, and levied by its Board of Trustees. Expenses incurred by the District are, at times, partially reimbursed by various federal, state, and local assistance or reimbursement programs. The District participates in the Delta Levee Subventions Program. DWR and/or the CDFW perform inspections of maintenance and repair work completed by the District before providing the reimbursement subvention funds.

Similar to other RDs in San Joaquin County that rely on benefit assessment income, one of the constraints to the District's primary funding source is the assessment's dependence on voter approval. Any increase in the District's special assessments must undergo a Proposition 218 Assessment Ballot Proceedings, and therefore, be supported by a majority of the voters in such a proceeding. RD 828 is further constrained by the limited number of available funding sources.

In FY 15, the District collected \$48,650 in assessments, which constituted 97 percent of its total income for that fiscal year.

Exhibit 8-2 shows the allocation of expenses averaged over FY11 to FY 15. The District's expenditures consist mostly of engineering, development of the feasibility study, legal and accounting costs, audit fees, insurance, and trustee fees. The District reported that one of the primary near-future challenges would be costs associated with meeting the 100-year FEMA standards and state levee requirements. Revenues and expenditures for the last five fiscal years are shown in Table 8-3. In two out of the last five fiscal years, the District's expenditures exceeded its revenues. In FY 11, RD 828 spent a large lump sum on levee repairs and maintenance, while in FY 14, higher expenditures were due to a greater amount spent on the feasibility study.

Exhibit 8-2: RD 828 Allocation of Expenditures



Source: RD 828 Audited Financial Statements

Some of the landowners within the District, who would benefit from the construction of the Smith Canal Floodgate have been paying additional assessments for the floodgate since FY 15. The capital component of the assessment will be collected for up to 30 years from a permanent financing associated with the completion of the project. The administration and operations and management component of the

assessment will be collected for as long as needed to effectively operate and maintain the facilities. An assessment rate was calculated for each separate parcel within the District. SJAFCA is responsible for the gate construction; the project will be completed by 2018 or 2019.

Table 8-3: RD 828 Revenues and Expenditures FYs 10–11 through 14–15

ACCOUNT	FY 10–11	FY 11–12	FY 12–13	FY 13–14	FY 14–15
Total Revenues	\$51,683	\$52,373	\$49,987	\$50,061	\$50,106
Total Expenditures	\$91,951	\$31,163	\$22,794	\$60,682	\$25,358
Revenues over Expenditures	(\$40,268)	\$21,210	\$27,193	(\$10,621)	\$24,748
Fund Balance	\$498,668	\$519,878	\$547,071	\$536,450	\$561,198
Source: RD 828 Audited Financial Statements					

RD 828 does not currently have a formal policy for establishing or maintaining a financial reserve, but it is in the process of establishing one. The District’s fund balance is reported in its Audited Financial Statements in four components: restricted, committed, assigned, and unassigned. The unassigned balance is the only balance that has not been restricted to a specific purpose within the general fund. At the end of FY 14–15, RD 828 had \$561,198 in its unassigned fund balance, which is equal to over 20 years of the District’s regular annual expenditures.

At the end of FY 14–15, the District did not have any long-term debt. The District’s capital improvements are financed by either the RDs reserves or specific program or assistance funds.

DETERMINATIONS

- 8.4.1:** The District’s operations are financed by the benefit assessment. In FY 15, RD 828 received \$48,650 in assessments. The primary constraint to this funding source is its dependence on the voter approval. The District’s financing is further constrained by the limited number of available financing sources.
- 8.4.2:** In addition to the regular benefit assessment collected from all district residents that supports the District’s operations, RD 828 also collects benefit assessments for the Smith Canal floodgate construction project from select residents who benefit from the project and are located within the assessment district.
- 8.4.3:** One of the District’s short-term challenges is costs associated with meeting the 100-year FEMA standards and state levee requirements.
- 8.4.4:** RD 828 is in the process of developing a formal policy for establishing and maintaining a financial reserve. At the end of FY 15, RD 828 had \$561,198 in its unassigned fund balance, which is equal to over 20 years of the District’s regular annual expenditures.
- 8.4.5:** At the end of FY 15, the District did not have any long-term debt.
- 8.4.6:** The District’s capital improvements are financed by either RDs reserves or specific program or assistance funds.

8.5 - Status and Opportunity for Shared Facilities

RD 828 collaborates and receives assistance from other agencies to improve services or reduce costs. As was mentioned earlier, the District participates in the Levee Subventions Program. In 2009, SJAFCA partnered with RDs 1614 and 828 on a project to construct a closure structure at the mouth of Smith Canal to protect areas affected by Smith Canal levee decertification.

The District also occasionally receives services from other agencies, primarily in emergency circumstances. Agencies providing such services include the San Joaquin County Fire Department, San Joaquin County Office of Emergency Services, County Sheriff, Stockton City Police Department, DWR, and State Office of Emergency Services. KSN, Inc. provides grant funding management. In case of an emergency, RD 828 ensures that proper management and coordination is maintained with (1) other public agencies and jurisdictions operating within the District, (2) neighboring RDs, and (3) the SJOA.

The District is a member of the Metropolitan Unified Flood Flight Command established by the San Joaquin Operational Area. RD 828 is also a signatory to the San Joaquin Operational Area (SJOA) Agreement, and as such, the District Engineer will participate in SJOA multi-agency coordination process and procedures on behalf of the District in case of an emergency.

The District is partnering in the Lower San Joaquin River Feasibility Study with several other reclamation districts, the U.S. Army Corps of Engineers, the State Central Valley Flood Protection Board, and SJAFCA. The results of the study will help identify needed improvements to meet or exceed the 200 year flood protection level.

The District's management practices consist of maintaining up-to-date financial records and performing regular financial audits. However, annual budgets or even informal lists of anticipated revenues and expenses are not adopted as required by law. The District's accounting firm does prepare yearly statements for the District. RD 828 similarly has not developed a Capital Improvement Plan. The District plans for emergencies by adopting an Emergency Operations Plan, which was last updated in 2015.

Select RDs participate in the Delta Levees Special Projects Program under which they receive funding to develop and regularly update five-year plans for rehabilitation of their facilities to a desired level of protection and that are also required for districts to receive other project funding. The program only applies to local agencies with project or non-project levees in the primary zone of the Delta or non-project levees in the secondary zone of the Delta.

RD 828's non-project levees are located within the secondary zone; therefore, the District is eligible to participate in the program. RD 828, however, does not take part in the Delta Levees Special Projects Program and has not developed a five-year plan.

RD 828, 1608, 1614, and 2126 jointly rent a storage garage for their records from a storage facility.

DETERMINATIONS

- 8.5.1:** RD 828 collaborates and receives assistance from other agencies to improve services or reduce costs. The District participates in the Levee Subventions Program. The District partnered with SJAFCA and RD 1614 on the construction project of the Smith Canal floodgate.

- 8.5.2:** The District is a member of the Metropolitan Unified Flood Flight Command by the San Joaquin Operational Area and a signatory to the San Joaquin Operational Area Agreement.
- 8.5.3:** In case of an emergency, RD 828 ensures proper management and coordination with other public agencies.
- 8.5.4:** The District’s management practices consist of maintaining up-to-date financial records and performing regular financial audits. However, annual formal or informal budgets are not adopted. The District also does not have a Capital Improvement Plan.
- 8.5.5:** Adopting an annual budget before the beginning of every fiscal year and maintaining an up-to-date list of capital improvement needs are considered best management practices and are recommended for RD 828.
- 8.5.6:** RDs 828, 1608, 1614, and 2126 rent a shared storage garage for their records from a storage facility.

8.6 - Government Structure and Accountability

RD 828 is governed by a three-member Board of Trustees headed by the President of the Board. Trustees are elected by the landowners to 4-year terms.

The Board meets on the fourth Thursday of every January and July at Neumiller & Beardslee, 509 W. Weber Avenue, 5th Floor in Stockton. Agendas and minutes from the previous meeting are distributed one week before the meeting and posted on the agency website and office window. Trustees are compensated at \$50 per meeting per trustee. The Board of Trustees details are shown in Table 8-4.

Table 8-4: RD 828 Governing Body

BOARD OF TRUSTEES	
Manner of Selection	Elected by the landowners.
Length of Term	Four years.
Board Compensation:	\$50.00 per meeting per trustee.
Meeting Schedule	4 th Thursday of every January and July.
Meeting Location	Neumiller & Beardslee, 509 W. Weber Avenue, 5 th Floor, Stockton.
Agenda Distribution	Distributed one week before the meeting. Posted on the website and office window.
Minutes Distribution	Distributed one week before the meeting with the agenda. Posted on the website.

RD 828 does not employ any personnel directly. Administrative, legal, and engineering services are provided by contractors.

Concerning governance structure alternatives, no changes to the District’s boundaries are suggested, and no suggested changes to service configuration or governance were identified.

DETERMINATIONS

- 8.6.1:** RD 828 is governed by a three-member Board of Trustees headed by the President of the Board. Trustees are elected by the landowners to 4-year terms.
- 8.6.2:** The District demonstrated accountability and transparency related to its governance by cooperating with the MSR process, publishing agendas for public meetings as legally required, and maintaining a website.
- 8.6.3:** RD 828 has no employees. Administrative, legal, and engineering functions are performed by contractors.
- 8.6.4:** Concerning the District's governance structure, no changes are suggested at this time.

8.7 - Any Other Matter Related to Effective or Efficient Service Delivery as Required by Commission Policy

San Joaquin LAFCo has not adopted any policies identifying any other matters related to effective or efficient service delivery, and no additional issues have been identified.

DETERMINATIONS

- 8.7.1:** San Joaquin LAFCo has not adopted any policies identifying any other matters related to effective or efficient service delivery, and no additional issues have been identified.

8.8 - Key Findings and Issues

1. The District does not adopt a budget or a list of anticipated revenues and expenses before the beginning of a fiscal year, which is considered to be a best management practice. Well-managed public agencies maintain annual budgets as one of the primary financial planning tools. The 2013–2014 San Joaquin County Grand Jury report contains a recommendation that all RDs that do not adopt annual operating budgets prepare the framework for an annual budget and utilize it for all subsequent fiscal years. Additionally, the Special District Leadership Foundation lists it as one of the most essential accountability practices of a public agency. However, the District's accounting firm does prepare yearly statements for the District.
2. RD 828 has not developed a Capital Improvement Plan. Well-managed agencies develop a list of infrastructure needs with costs and timeline for short-term and long-term planning purposes.
3. The District's existing levees along the south bank of the Smith Canal are heavily encroached upon and cannot be certified as meeting FEMA standards or the State's Urban Levee Design Criteria (ULDC), placing many people and properties at increased risk from flooding. RDs 1614 and 828 have been collecting assessment fees from their residents to fund the project to restore flood protection to the Smith Canal area. The project will close off Smith Canal during high flow and tide events, allowing existing Smith Canal levees to function as a secondary risk-reduction measure. The floodgate project is likely to be completed by 2018–2019. SJAFCA, which is responsible for the gate construction, is currently collecting statements of qualifications from qualified contractors to provide construction management and inspection services.

4. According to Water Code Division 6, Section 12989, DWR must “inspect non-project levees of local agencies for the purpose of monitoring and ascertaining the degree of compliance with, or progress towards meeting, standards such as those set forth in Section 12984.” The frequency of such inspections is not specified in the Code. The DWR, therefore, reportedly does not conduct regular inspections of non-project levees because of the quantity of work it would require and lack of available resources to perform such inspections. Inspection results of non-project levees are not readily available, and the date of the latest inspection of the District’s non-project levees by DWR is unknown. There is a need for the State to standardize the inspection process for all non-project levees.
5. RD 828’s Sphere of Influence was established in 1983. A sphere of influence update is long overdue. It is recommended Commission update the sphere and set it as conterminous with District boundaries.
6. The District has partnered in the Lower San Joaquin River Feasibility Study with several other reclamation districts, the U.S. Army Corps of Engineers, the State Central Valley Flood Protection Board, and SJAFCA. The results of the study will help identify needed improvements to meet or exceed the 200 year flood protection level.

9: RECLAMATION DISTRICT 1007 (PICO AND NAGLEE)

The District was formed on February 8, 1913 under Section 50000 of Division 15 of the California Water. District 1007 provides levee maintenance, vegetation removal, weed abatement, vector/rodent control services and also maintains levee access roads. The District is located to the north and east of the City of Tracy, west of the City of Lathrop, and south of the Old River branch of the San Joaquin River. The District maintains the levee to the south of the Old River and Tom Paine Slough and west of Sugar Cut for a total of 8.3 levee miles. All levees are maintained to HMP, PL 84-99, and Bulletin 192-82 standards.

Table 9-1 provides the general information about the district and services it provides.

Table 9-1: RD 1007 (Pico & Nagle) General Information

TABLE 9-1: RD 1007 GENERAL INFORMATION	
Agency	RD 1007 (Pico and Naglee)
Address	4600 S. Tracy Boulevard, Suite 114, Tracy, CA 95377
Principal Act	California Water Code §50000, et seq.
Date Formed	February 8, 1913
Population	Est. 400
Last SOI Update	1983
Services Provided	Levees, vegetation, flood control
Contact Person	Robert Mehlhaff, District Secretary (209) 835-3232
Website	None

The land of Pico Naglee is higher than most of the Delta and the levees perform their purpose only during high water events. The flood stage is higher than the primary Delta and the velocity of flow in the river is higher than the normal Delta tides. The higher velocity is more conducive to erosion on the waterside levee banks. The District currently consists of 6,090 acres with a range of land uses including agricultural land and residential areas. Approximately 15 percent of the District’s acreage is within the Tracy city limits. Exhibit 9-1 shows the boundary map for the District.

Table 9-2 shows land uses in RD 1007. As shown in the table the District is for the most part agricultural land with 195 acres in mixed uses located within Tracy city limits. There are a total of 309 parcels in the District.

Table 9-2: Land Use RD 1007

LAND USE	ACRES
Agricultural	5,895
Mixed Use (inside Tracy city limits)	195
Total	6,090
Source: RD 1007, 2015.	

An assessment was approved in 1993 based on costs of flood protection at the time.

9.1 - Growth and Population Projections

The District has an estimated population of approximately 400 persons as estimated by the District Engineer. This represents 0.565 percent of the 2015 County population outside of census designated places. To estimate the change in population over the next 30 years, the SJCOG has published population projections for census designated places and the unincorporated county. Table 9-3 shows projected growth for unincorporated portions of the County. The table shows expected growth of approximately 2.5 percent growth over the 30-year period from 2015 to 2045. If it is assumed that the population of the District will follow the change in population of the unincorporated county, we can expect about 10 additional residents by 2045.

Table 9-3: RD 1007 Census Designated Place Forecast

	2015	2020	2025	2030	2035	2040	2045
Unincorporated County	70,950	71,184	71,450	71,718	72,038	72,400	72,764
% Change	0.37	0.33	0.37	0.38	0.45	0.50	0.50
Est. Population RD 1007	400	401	403	404	404	408	410

Source: Eberhardt School of Business, 2016

No significant new development is anticipated to occur within the District.

DETERMINATIONS

- 9.1.1:** The population of the District is estimated at 400 residents. Most of the population resides within the municipal boundaries of Tracy City. No significant new development is anticipated as the projected population in 2045 is expected to be 410.

9.2 - Disadvantaged Unincorporated Communities

In 2015, the California MHI was estimated as \$64,500 by the Department of Finance. By definition, the MHI for a DUC would be \$51,600 or less. RD 1007 lies in Census Tract 52.06. According to the most recent census the MHI is \$86,050, well above the statewide MHI. Furthermore, there are no fringe communities, legacy communities, or unincorporated islands in the District that would qualify as unincorporated communities. Therefore, there are no DUCs in RD 1007.

DETERMINATIONS

- 9.2.1:** The MHI in the census tract containing RD 1007 is \$86,950, well above 80 percent of the statewide MHI of \$51,600. Furthermore, there are no fringe communities, legacy communities, or unincorporated islands in the District that would qualify as unincorporated communities. Therefore, there are no DUCs in RD 1007.

9.3 - Present and Planned Capacity of Public Facilities

RD No. 1007, Pico and Naglee, is responsible for maintenance of the levees along Old River, Tom Paine Slough, and Sugar Cut within the District only. The levees for which the District is responsible for maintenance consist of the levee along the left bank of Old River, a distance of 6.40 miles, the left bank levee along Tom Paine Slough, a distance of 1.86 miles, and the left bank levee along Sugar Cut, a distance of 0.74 mile. Therefore, the total length of the levees maintained by RD No. 1007 is 9.00 miles.

Table 9-4: RD 1007 Facilities Overview

RD 1007 FACILITIES			
Total Levee Miles	8.3	Surface Elevation	0 - 10 feet
LEVEE MILES BY STANDARD		LEVEE MILES BY TYPE	
No Standard	8.3	Dry Land Levee	0.0
HMP Standard	Exceed height and width requirements but lack a complete levee road	Urban Levee	0.0
PL 84-99 Standard	Exceed height and width requirements but lack a complete levee road	Agricultural Levee	8.3 miles
Bulletin 192-82 Standard	Exceed height and width requirements but lack a complete levee road	Other	0.0
FEMA Standard			
DISTRICT FACILITIES			
Internal Drainage System	No – private systems	Pump Station(s)	2
Detention Basins(s)	No	Bridges	No
FLOODPLAIN			
FIRM Designation	Zone AE	Base Flood Elevation	9.2 feet (Vertical Datum NAVD 88)
LEVEE INSPECTION PRACTICES			
At least annually by Trustee for visual observation; more often after rain events			
LEVEE INSPECTION REPORTS			
Most Recent Written Inspection 2014		Inspection Rating None	
INFRASTRUCTURE NEEDS/DEFICIENCIES			
District levees met the 100-year flood protection standard for height and width. Needs complete levee road.			
Notes: NP = Not Provided * Rehabilitation cost per levee mile is equal to the expenditure amount on capital improvements in FY 14-15 divided by the number of levee miles rehabilitated in FY 14-15. ** Maintenance cost per levee mile is equal to the expenditure amount on levee maintenance in FY 14-15 divided by the total number of levee miles.			

With regard to SB 5 and the 200 year flood protection requirement districts that are built out or in agricultural use with no foreseeable development, the 200 year flood standard is of low priority and not being addresses. RD 1007 has made the 100 year certification a high priority. Meeting the 200 year protection is a lower priority although an important one.

The drainage canals and drainage pumps are maintained and operated by the individual irrigation districts or landowners within RD No. 1007.

All of the irrigation water supply within RD No. 1007 is owned and distributed by the landowners or the irrigation districts. The reclamation district is not involved in irrigation system operations and maintenance or in the delivery of irrigation water.

Certain irrigation districts maintain and operate facilities that provide drainage for most of the land within RD No. 1007. Some landowners maintain and operate facilities to drain their individual properties.

In the event of a flood, the District lands could be inundated from a minimum depth of approximately 2 feet to as much as nearly 10 feet (in the event of a levee failure) during a maximum flood flow.

The District is protected primarily by the levee along its northern and eastern boundary. The area within the District is drained internally by a system of drainage canals and collection ditches leading to pumping stations with electric pumps that expel excess water into the Old River.

In 1993, irrigation water was provided by four irrigation districts, Naglee Burk irrigation District, Independent Mutual Water Company, West Side Irrigation District and Fremont Irrigation District. All but the Fremont Irrigation District are still providing services.

Services provided by the District are:

- Levee maintenance
- Vegetation removal
- Weed abatement
- Vector/rodent control
- Upkeep of levee roads

Exhibit 9-1 shows the levee system. The District is responsible for 9.0 levee miles. Levees are built to proper height and width to meet HMP standards. However the levee road that allowed for inspection of the complete levee was impassible in some places because of vegetation. There had been evidence of significant erosion on the river side of the levee in some areas.

In 2012, the District applied for a FEMA grant to upgrade the levee road. The upgrade of the levee road would allow for improved inspection and maintenance of the levee. Without the levee road they do not meet HMP, PL84-99, or Bulletin 192-82 standards.

The grant required the District to provide a 5 percent match for the DWR contribution. Apparently the grant was awarded in 2014 however data show no significant funds were spent on levee maintenance even though funding was approved in the annual budget. The repairs to the levee road are awaiting the completion of a survey by the District Engineer, which is in progress. It is anticipated once the survey is complete it will take an addition few years to complete the improvements. Fortunately the current levee has withstood numerous flood events over that last eighty years.

DETERMINATIONS

- 9.3.1:** The District provides five key services for landowners and residents of the District, levee maintenance, vegetation removal, weed abatement, vector/rodent control and upkeep of levee roads. The District maintains 8.3 miles of non-project levees.

9.3.2: In 2012 the District applied for a grant to all for improvements on the levee road. Some of the sections are impassible because of vegetation. The grant would allow for an aggregate base road around the entire levee. Without the levee road although the levees are of proper height and width they do not meet HMP, PL84-99, or Bulletin 192-82 standards. In 2014 the District was awarded a \$100,000 matching grant, the District’s match was 5 percent. The District is currently conducting the necessary surveys to begin the project.

9.4 - Financial Ability to Provide Service

Each year, the District adopts an annual budget. Table 9-3 shows actual revenues and expenses from FY 13 to FY 16. In 1993 the San Joaquin Board of Supervisors approved an assessment of \$2.00 for every \$100 of assessed value. The table shows revenues for FY 13 are the sum of the 1993 assessment plus a small amount of interest. In December of 2010 the District conducted a survey among landowners to determine whether landowners would support an increase to \$4.50 in anticipation of a Proposition 218 vote. The results of the survey showed the increase was supported by only one-third of the landowners, when a two-thirds majority is required. Consequently, the measure was never formally voted upon and the assessment remains at the 1993 levels.

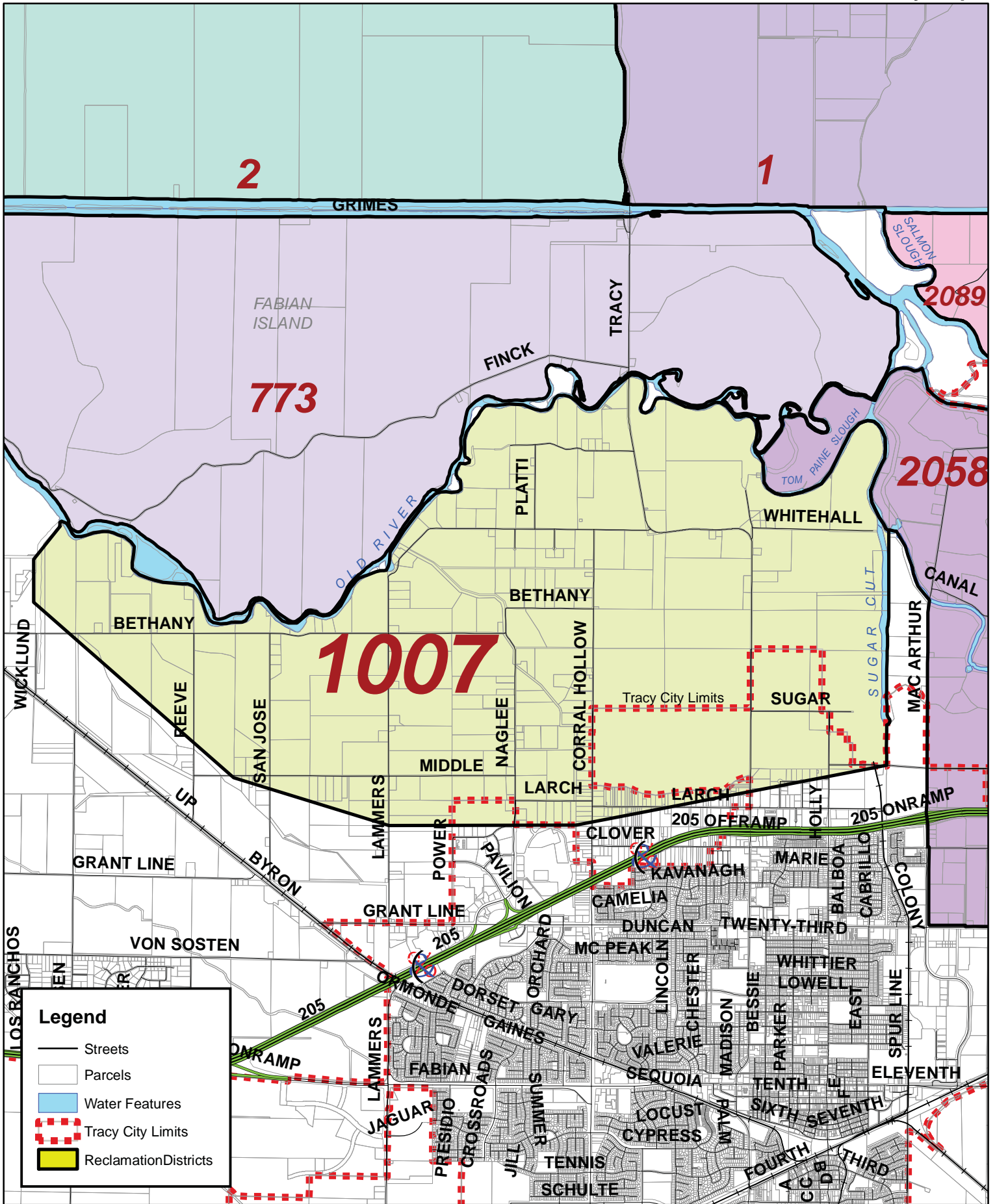
Table 9-5 shows that in FY 14 there was a significant drop in revenues. Apparently the District did not record or not receive assessments, That is because sometimes the Board of Trustees does not vote for an assessment. The District will mail assessment notices and checks received will be deposited in the County Treasury. In FY 14, the District only received partial payment of its annual assessments. In FY 15, because the District received a grant it is likely the Board of Trustees did not vote on an assessment. In 2015, the revenue sources were listed as a \$100,000 grant plus interest revenue. The purpose of such funds would be to extend an all-weather road along the entire length of the levee, to accomplish some repairs on the riverside portion of the levees due to erosion, and to qualify the District for federal disaster aid should such be required. In 2016, the revenues included a \$10,000 grant while the remainder is likely to be assessments from the current and past fiscal year. Recent sources of revenues then include assessments of approximately \$32,000, interest from cash in the County Treasury, plus occasional grant funding.

Table 9-5: RD 1007 Revenues and Expenses 2010–2015

ACCOUNT	FY 13	FY 14	FY 15	FY 16
Total Revenue	\$32,852	\$2,472	\$100,284	\$72,478
Total Expenditures	\$16,615	\$17,056	\$44,213	\$39,638
Revenues—Expenses	\$16,237	(\$14,584)	\$56,071	\$32,840
Beginning Fund Balance	\$54,064	\$70,301	\$55,718	\$111,788
Ending Fund Balance	\$70,301	\$55,717	\$111,789	\$144,628

Source: RD 1007 Financial Audits FY 13-FY16

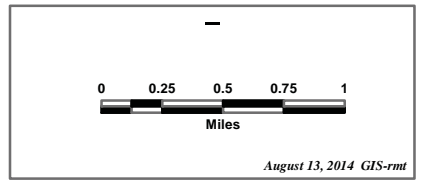
The table also shows expenses increased dramatically between FY 14 and FY 15. The increase was primarily due to increases in engineering expenses as the District works on surveys in preparation of spending grant funds for the improvement of the levee road. Even when not preparing the surveys the District spent very little on maintenance, most likely due to limitations on assessments.



RECLAMATION DISTRICT 1007 SAN JOAQUIN COUNTY

San Joaquin County Geographic Information Systems
1810 East Hazelton Avenue, Stockton, CA 95205

The information on this map is based on the most current information available to San Joaquin County Geographic Information Systems. The County of San Joaquin does not warrant its accuracy, completeness, or suitability for any particular purpose. The information on this map is not intended to replace engineering, financial or primary records research.



The table also shows the District maintains a healthy fund balance. The fund balance is approximately three years of operating expenses, which is sufficient to cover any shortfall. In addition, the District has no outstanding debt.

The allocation of expenses is shown in Exhibit 9-2, based on the average expenses of FY 13 through FY 16. The exhibit shows that nearly half available funds were spent on engineering but only 2 percent was spent on levee maintenance.

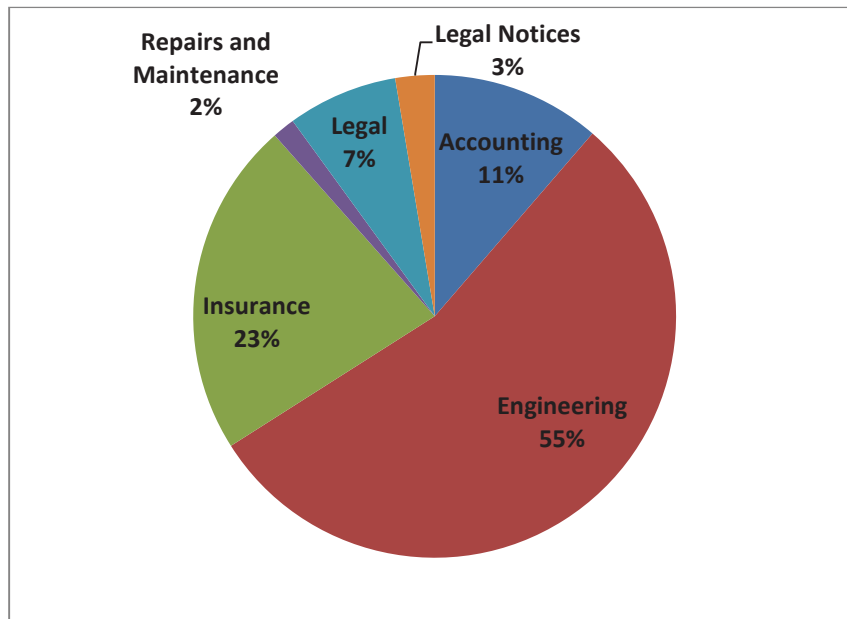
Capital Improvements

The District has demonstrated the need to improve the levee road so it is accessible for the entire length of the levee. The District has applied for and received grant funding for that project. The District is in the process of preparing the engineering surveys needed to complete the project. The District anticipates it will take several more years to complete the process.

DETERMINATIONS

- 9.4.1:** The District adopts an annual budget although it is legally not required to do so.
- 9.4.2:** The District budget in FY 12–13 is \$32,852 (revenue) based on an assessment formula approved in 1993. Recent audits show the District does not always levee an assessment and in some years, revenues are only those received from grants.
- 9.4.3:** Over the last 4 years, levee maintenance and repair accounted for only 2 percent of the annual expenses. Over half the expenses are due to engineering. The District is currently conducting surveys that are needed to use the grant funding to extend the levee road.
- 9.4.4:** The District maintains a fund balance equal to about 2.5 years of its FY 15 audited operating expenses.

Exhibit 9-2: Average Expense Allocation FY 13–FY 16



Source: RD 1007 Financial Audits FY13-FY16

9.5 - Status and Opportunity for Shared Facilities

The District has no shared facilities. However, the District works cooperatively with a number of local and state agencies. It works with the City of Tracy as well as the San Joaquin County Office of Emergency Services, and the Sheriff's Department on its EOP. It also works with the DWR on levee maintenance and the California Office of Emergency Services on the EOP.

Although not an example of formal planning the District does adopt an annual budget. The budget is the spending plan for the next fiscal year. It often includes plans for capital improvements and levee repairs.

DETERMINATION

- 9.5.1:** The District has no shared facilities and no plans for any.
- 9.5.2:** The District works cooperatively with a number of state and local agencies, particularly for planning in case of a flood emergency. It also works with DWR on grant programs for levee maintenance and repair.

9.6 - Government Structure and Accountability

The District is governed by a three-member board upon vote of the landowners in the District or as appointed by the Board of Supervisors. Board members serve a 4-year term. The current board has three members; who have served since 2003, 2010, and 2012. Trustees are volunteers and receive no stipend. The Board meets as needed at 4600 S. Tracy Boulevard, Suite 114 in Tracy CA 95337.

The District has no full-time paid staff. The District Secretary/Treasurer maintains the district records, prepares minutes of meetings, updates the annual assessment roll for changes in ownership, supplies assessment information to the County. Additional duties include correspondence both incoming and outgoing. The District staff also includes a part-time engineer who inspects the levees. Maintenance staff are contracted out on an as-needed basis.

The District has no website. It communicates with residents via mailers as necessary.

DETERMINATIONS

- 9.6.1:** The District is governed by a three member elected by vote of District landowners or appointed by the San Joaquin Board of Supervisors. Board members serve 4-year terms and receive no stipend. The board meets as needed at 4600 S. Tracy Boulevard, Suite 114 in Tracy, CA 95377.
- 9.6.2:** The District has no full-time employees. The District Secretary/Treasurer maintains District records, prepares minutes of meetings, updates annual assessment role for changes in ownership, supplies assessment information to the County and handles District correspondence. Maintenance and other work is contracted out.
- 9.6.3:** The District has no website. It communicates with residents via mailers as necessary.

9.7 - Any Other Matter Related to Effective or Efficient Service Delivery as Required by Commission Policy

The District is not seeking to expand its boundary, consolidate with a neighboring district, or discontinue service. The only policies that may affect the District operations are the Sphere of Influence policies. However, since it is not likely that there will be a change in boundaries, it is recommended that the

Sphere of Influence be coterminous with current boundary. Therefore, the San Joaquin LAFCO policies will have no effect on service delivery.

DETERMINATIONS

- 9.7.1:** There are no San Joaquin LAFCO policies that would affect service delivery.

9.8 - Key Findings and Issues

1. The District's last assessment was approved in 1993 at \$2 per \$100 of assessed value. The District determined that the assessment was insufficient to provide funding needed in 2010 to provide services. In December of that year, the District conducted a survey of landowners asking if they would support an increase in assessments to \$4.50 per \$100 of assessed valuation. Only one-third of the landowners agreed, and if such an increase had passed along through the Proposition 218 process, it would likely have failed. No further action was taken to increase assessments. Rather than requesting a doubling of the assessment, the District should ask for a smaller increase at 5-year intervals until the assessment is sufficient to cover the cost of services.
2. The District has sometimes not voted to send out an assessment request. The District should include a vote with the annual assessment preferably in April or May of each year.
3. The District is concerned about some slopes on the levee that have eroded and are in need of repair. However, the District levees have withstood flood events since 1938.
4. Not all the District's levees meet HMP standards because portions of the levee road are impassible so that inspections cannot be completed. This should be a high priority.
5. RD 1007's Sphere of Influence was established in 1983. A sphere of influence update is long overdue. It is recommended Commission update the sphere and set it as conterminous with District boundaries.

10: RECLAMATION DISTRICT 1608 (LINCOLN VILLAGE WEST)

RD 1608 was formed in 1914 to provide drainage, irrigation, and complete reclamation of lands within the District’s boundaries. Table 10-1 provides an overview of the District.

Table 10-1: RD 1608 General Information

Agency	RD 1608 (Lincoln Village West)
Address	711 Pershing Avenue, Stockton, CA 95203
Principal Act	California Water Code §50000, et seq.
Date Formed	1914
Population	8,926 (City-data.com)
Last SOI Update	1983
Services Provided	Levees, vegetation, flood control
Contact Person	Christopher H. Neudeck, District Engineer (209)946-0268
Website	None

RD 1608 is a heavily populated urban area and approximately 990.3 acres or 1.5 square miles in size. As shown in Exhibit 10-1, Reclamation District 1608 is bordered to the north by Five Mile Slough, to the west and south by Fourteen Mile Slough, and to the east by Swenson Golf Course and Plymouth Road. The crown of the District levees along Fourteen Mile Slough and Five Mile Slough are at the approximate elevation of 13.2 (NAVD 88). The ground elevation for most of the District is approximately 2.5 (NAVD 88), rising to about 5.0 at the Swenson Golf Course border. Fourteen Mile Slough is connected to the waters of the San Joaquin Delta by way of the San Joaquin River. RD 1608 is influenced by tidal stages.

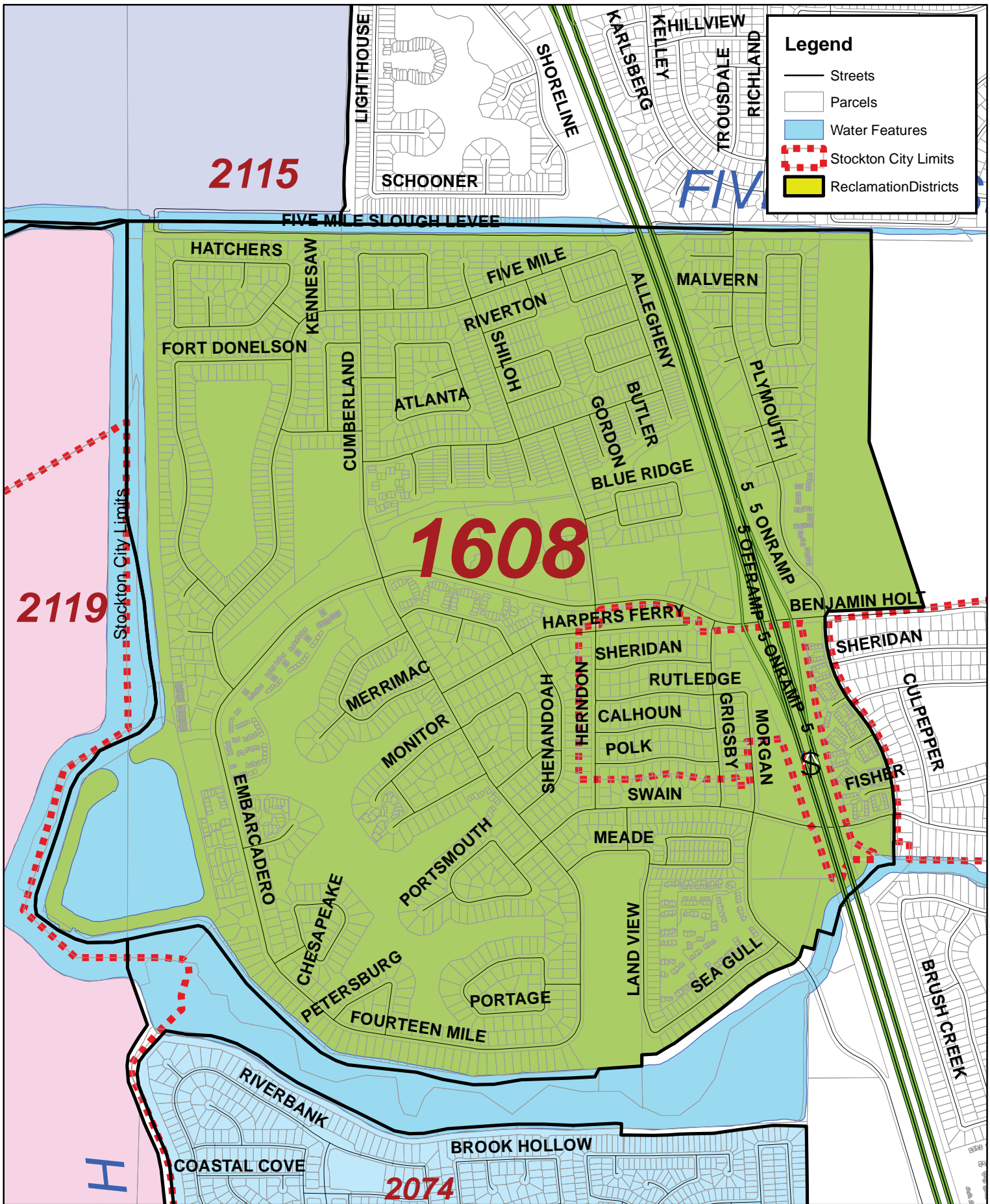
10.1 - Growth and Population Projections

RD 1608 is an urban district with primarily residential and commercial land uses. Based on U.S. Census tract information, the population of RD 1608 in 2010 was approximately 8,050. The U.S. Census American Community Survey indicates that in 2015 an estimated population within the District was about 7,842. The population of the District is likely slightly higher than the estimate, as it is not possible to estimate the population of a small portion of one of the tracts within the District. RD 1608 estimates its population to be about 8,926.

RD 1608 is located within the City of Stockton with only a small island (still highly urbanized) situated in unincorporated San Joaquin County. The District is nearly completely built out so that population growth in the next 10 and thirty years is very limited. The future development of any vacant land within the District’s boundary is unknown. Accordingly the population is expected to remain at approximately 8,900 residents.

DETERMINATIONS

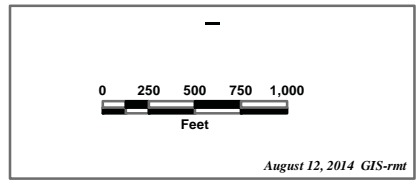
- 10.1.1:** RD 1608 is an urban district with primarily residential and commercial land uses. The estimated population of RD 1608 as of 2015 was 8,926.



**RECLAMATION DISTRICT 1608
SAN JOAQUIN COUNTY**

San Joaquin County Geographic Information Systems
1810 East Hazelton Avenue, Stockton, CA 95205

The information on this map is based on the most current information available to San Joaquin County Geographic Information Systems. The County of San Joaquin does not warrant its accuracy, completeness, or suitability for any particular purpose. The information on this map is not intended to replace engineering, financial or primary records research.



- 10.1.2:** RD 1608 is located within the City of Stockton with a only a small island situated in unincorporated San Joaquin County and is completely surrounded by the City. The District is nearly completely built out so that population growth in the next 10 and 30 years is very limited. The future development of any vacant land within the District boundary is unknown. Accordingly the population is expected to remain at approximately 8,900 residents.

10.2 - Disadvantaged Unincorporated Communities

LAFCo is required to evaluate DUCs as part of this service review, including the location and characteristics of any such communities. A DUC is defined as any area with 12 or more registered voters, or as determined by commission policy, where the MHI is less than 80 percent of the statewide annual median income.

The DWR has developed a mapping tool to assist in determining which communities meet the disadvantaged communities median household income definition. According to the DWR mapping tool there are no disadvantaged communities within RD 1608.

DETERMINATIONS

- 10.2.1:** There are no DUCs within RD 1608.

10.3 - Present and Planned Capacity of Public Facilities

The District operates and maintains approximately 3.54 miles of levees, all of which are non-project levees. Additionally, RD 1608 owns and maintains one pumping station for internal drainage control. There is one small five-horsepower drainage pump at approximate levee station 160+00, which is used for localized drainage from the park's sprinkler system and minor seepage. Table 10-2 shows facilities operated and maintained by RD 1608.

The District also operates a gated weir and the pump station constructed at the confluence of Five Mile Slough and Fourteen Mile Slough to control tidal flows from entering Five Mile Slough. When the gates are fully open, Five Mile Slough is directly connected to the Delta tidal stage and its fluctuations. When the gates are closed, Five Mile Slough is isolated from the Delta and is not affected by tidal stages. The gates are controlled to minimize high tide fluctuations from backing up into the area east of the gated weir.

DWR notes that routine levee maintenance inspections by the local agency are necessary to ensure that adequate maintenance is being carried out and that dangerous or unusual conditions are discovered early. The DWR recommends that, at a minimum, levees should be inspected (1) once by September 15 to allow time to correct dangerous conditions; (2) once in April to provide information to plan annual maintenance and repair; and (3) during and after periods of high water and high winds that can accelerate wave erosion.

RD 1608 levees are inspected regularly by the District and landowners within the District. If a problem or a maintenance issue arises, the District's engineering consultant is notified to perform additional detailed inspection.

Table 10-2: RD 1608 Facilities Overview

RD 1608 FACILITIES			
Total Levee Miles:	3.54	Surface Elevation:	N/P
No Standard (below HMP Standard):	N/A	Dry Land Levee:	0 miles
HMP Standard:	N/A	Urban Levee:	3.54 miles
PL 84-99 Standard:	N/A	Agricultural Levee:	0 miles
Bulletin 192-82 Standard:	N/A	Other:	0 miles
FEMA Standard:	3.54 miles	Pump Station(s): 1 (small, for limited purpose only)	
Internal Drainage System:	None	Bridges: 0	
Detention Basin(s):	None	Ferry: 0	
FIRM Designation:	X Zone	Base Flood Elevation: 7.4' (NGVD 29 Datum)	
Note: The levee is inspected regularly by the District and landowners within the District. If problems or maintenance issues occur, the District's engineering consultant is notified to perform addition inspections.			
Total Levee Miles	3.54	Surface Elevation	N/P
LEVEE MILES BY STANDARD		LEVEE MILES BY TYPE	
No Standard	0.0	Dry Land Levee	0.0
HMP Standard		Urban Levee	3.54 Miles
PL 84-99 Standard		Agricultural Levee	
Bulletin 192-82 Standard	0.0	Other	0.0
FEMA Standard			
DISTRICT FACILITIES			
Internal Drainage System	No – private systems	Pump Station(s)	1
Detention Basins(s)	No	Bridges	No
FLOODPLAIN			
FIRM Designation	Zone X	Base Flood Elevation 7.4' (NGVD 29 Datum)	
LEVEE INSPECTION PRACTICES			
Routinely for visual; District Engineer upon request.			
LEVEE INSPECTION REPORTS			
Most Recent Written Inspection N/P		Inspection Rating with Comments for Correction	
INFRASTRUCTURE NEEDS/DEFICIENCIES			
Notes: NP = Not Provided			

Additionally, according to the Water Code Division 6, Section 12989, DWR must “inspect non-project levees of local agencies for the purpose of monitoring and ascertaining the degree of compliance with, or progress towards meeting, standards such as those set forth in Section 12984.” The frequency of such inspections is not specified in the Code. DWR, therefore, reportedly does not conduct regular inspections of non-project levees because of the quantity of work it would require and lack of available resources to perform such inspections. Inspection results of non-project levees are not readily available, and the date of the latest inspection of the District’s non-project levees by DWR is unknown.

Although compliance with SB 5 rests with the land use authority several districts that protect potentially developable lands are working with the cities and County to improve levees to the 200 year flood protection standard. For districts that are built out or in agricultural use with no foreseeable development the 200 year flood standard is of low priority and not being addressed. RD 1608 is built out, so compliance with the 200 year protection level is a lower priority. The District should work with the City of Stockton to meet the 200 year flood protection level. The reclamation district is participating in the Lower San Joaquin River Feasibility Study which will help determine needed improvements for future flood protection systems in an effort to reach or exceed the future 200-year level of flood protection.

According to the RD 1608 Emergency Operations Plan, the District performs the following routine preparedness actions:

- Inspect District levees once a week on a routine basis,
- Ongoing and routine baiting and grouting program for ground rodents,
- Ongoing and routine vegetation control program,
- Annual inspection and inventory of District flood fight supplies,
- Semi-annual joint inspection of levees with State inspectors,
- Periodic joint inspection of levees with Federal inspectors, and
- Annual inspection and maintenance of access control gates on levees.

The District monitors and analyzes water conditions, elevations, and forecasts for waterways affecting District levees throughout the flood season for the purpose of promptly identifying heightened threats to the integrity of its levee systems. The objective of this monitoring effort is to identify conditions that warrant additional actions beyond routine flood season preparedness activities.

The District’s levees were reported to be meeting the established urban FEMA standards at 3 feet above the 100 year level, which offers more protection than HMP or PL 84-99 standards. No infrastructure needs are identified at this time.

DETERMINATIONS

- 10.3.1:** The District operates and maintains approximately 3.54 miles of non-project levees and one pumping station for internal drainage control.

- 10.3.2:** The District's levees are inspected periodically. If there is an issue revealed by a routine inspection, a more in-depth inspection is performed by the District's engineer.
- 10.3.3:** The District's levees meet the established FEMA standards. No infrastructure needs are identified at this time.

10.4 - Financial Ability to Provide Services

The District's operations are financed primarily by property taxes and benefit assessments. Other funding sources include interest and property tax relief. The District participates in the Delta Levee Subventions Program. The DWR and/or the CDFW perform inspections of maintenance and repair work completed by the District before providing the reimbursement subvention funds.

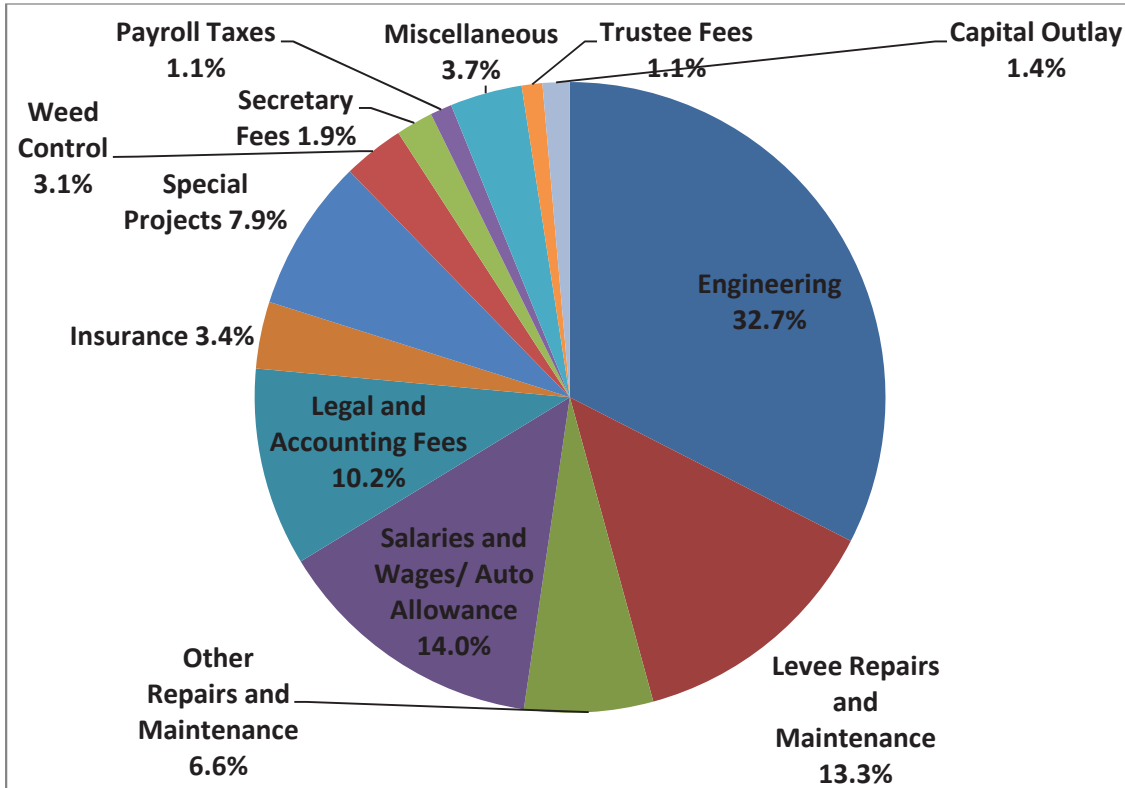
Similar to other RDs in San Joaquin County, RD 1608 relies heavily on the income from the benefits assessment, which is constrained by its dependency on voter approval and the cost of implementation of the Proposition 218 elections. Additionally, it is reported that the administrative and financial burden stemming from compliance with government regulations has been a strain on the District.

The importance of maintaining state and federal funding programs for maintenance and rehabilitation of levees, particularly in light of the expensive and uncertain process of running a Proposition 218 election to raise assessment rates was reported to be a significant challenge for RD 1608. The District is also challenged by the costs of increasing environmental requirements associated with the maintenance and rehabilitation related to compliance, permitting, mitigation, and enhancement. Overall, a higher percentage of the District's budget is being spent on legal compliance overhead and not on levee maintenance and rehabilitation.

In FY 14–15, the District collected \$290,322 in assessments or 61 percent of the total income. Property tax revenue constituted 38 percent of the total income during the same fiscal year.

Exhibit 10-2 shows the average allocation of expenditures for the period FY11 through FY15. The District's expenditures consist mostly of engineering, levee repairs and maintenance, other repairs and maintenance, salaries and wages, and legal and accounting fees. It should be noted that accounting and legal fees are lumped together so it is not clear whether they are mostly legal or accounting. Legal and accounting fees have been fairly consistent around \$40,000 each year.

Exhibit 10-2: RD 1608 Allocation of Expenditures FY11 through FY 15



Source: RD 1608 Audited Financial Statements

Revenues and expenditures for the last five fiscal years are shown in Table 10-4. Revenues have been consistently higher than expenditures for four out of five reviewed fiscal years. During FY 12–13, RD 1608 spent greater than usual amounts on engineering and repairs and maintenance, which resulted in a deficit at the end of the year that was covered by the District’s reserve fund balance.

Table 10-3: RD 1608 Revenues and Expenditures FYs 10–11 through 14–15

AUDITED FINANCIAL STATEMENTS					
ACCOUNT	FY 10–11	FY 11–12	FY 12–13	FY 13–14	FY 14–15
Total Revenues	\$479,669	\$452,579	\$505,987	\$463,266	\$475,134
Total Expenditures	\$315,632	\$408,900	\$612,454	\$393,889	\$307,259
Revenues over Expenditures	\$164,037	\$43,679	(\$106,467)	\$69,377	\$167,875
Fund Balance	\$1,759,788	\$1,803,467	\$1,697,000	\$1,724,726	\$1,892,601

Source: RD 1608 Audited Financial Statements

The District’s fund balance is reported in its Audited Financial Statements in four components, including restricted, committed, assigned, and unassigned. The unassigned balance is the only balance that has not been restricted to a specific purpose within the general fund. When both restricted and unrestricted

resources are available for use, it is the District's policy to use restricted resources first, then unrestricted resources as needed. The District's Board of Trustees determines any establishment of reserve annually. At the end of FY 15, RD 1608 had \$1,892,601 in its emergency reserve, which is equal to over 4 years of the District's regular expenditures.

At the end of FY 15, the District did not have any long-term debt.

The District's capital improvements are financed by either RD 1608's reserves or grants as well as specific program or assistance funds.

DETERMINATIONS

- 10.4.1:** The District's operations are financed mainly by the benefit assessment and property taxes. The main constraint to the benefit assessment funding source is its dependence on voter approval and the cost of implementation of Proposition 218 elections.
- 10.4.2:** Administrative and financial burden stemming from compliance with government regulations has been a strain on the District. The District is also challenged with the costs of increasing environmental requirements associated with maintenance and rehabilitation. A higher percentage of the District's budget is being spent on legal compliance overhead as opposed to levee maintenance and rehabilitation.
- 10.4.3:** The District Board determines the amount of reserves annually. At the end of FY 15, RD 1608 had \$1,892,601 in its emergency reserve, which is equal to over 4 years of the District's regular expenditures.
- 10.4.4:** At the end of FY 15, the District did not have any long-term debt.
- 10.4.5:** The District's capital improvements are financed by either RDs reserves, grants, or specific program or assistance funds.

10.5 - Status and Opportunity for Shared Facilities

RD 1608 collaborates with and receives assistance from other agencies to improve services or reduce costs. As was mentioned earlier, the District participates in the Levee Subventions Program. Occasional assistance with levee maintenance and repairs is provided by various federal, state, and local agencies as specified in the *Present and Planned Capacity of Public Facilities* section.

Additionally, the District and RDs 828, 1614, and 2126 rent a shared storage garage for their records from a storage facility.

The District is a member of the Metropolitan Unified Flood Flight Command established by the SJOA. Reclamation District 1608 is a signatory to the SJOA Agreement; as such, its superintendent and engineer will participate in SJOA multi-agency coordination processes and procedures on behalf of the District. Mutual aid requests for technical assistance and services, flood fight crews, supplies and materials, and other resources are made through the San Joaquin Operational Area Logistics Section and/or the Operational Area Public Works Mutual Aid Coordinator.

The District also occasionally receives assistance from other agencies primarily in emergency circumstances. Agencies providing such services include San Joaquin County Fire Department, San Joaquin County Office of Emergency Services, County Sheriff, Stockton City Police Department, DWR, and the State Office of Emergency Services.

In case of an emergency, RD 1608 ensures that proper management and coordination is maintained with (1) other public agencies and jurisdictions operating within the District, (2) neighboring RDs, and (3) the SJOA.

The District's management practices consist of maintaining up-to-date financial records, adopting annual budgets before the beginning of every fiscal year, and performing regular financial audits. Additionally, RD 1608 adopted an Emergency Operations Plan, which was last updated in 2016; no Capital Improvement Plan is adopted by the District. The District conducts annual performance reviews of the levee superintendent and district secretary.

Select RDs participate in the Delta Levees Special Projects Program under which they receive funding to develop and regularly update five-year plans for rehabilitation of their facilities to a desired level of protection and are also required for districts to receive other project funding. The program only applies to local agencies with project or non-project levees in the primary zone of the Delta or non-project levees in the secondary zone of the Delta.

RD 1608's non-project levees are located within the secondary zone; therefore, the District is eligible to participate in the program. RD 1608, however, does not take part in the Delta Levees Special Projects Program and has not compiled a five-year plan.

DETERMINATIONS

- 10.5.1:** RD 1608 collaborates and receives assistance from other agencies to improve services or reduce costs. The District participates in the Levee Subventions Program. Occasional assistance with levee maintenance and repairs is provided by various federal, state, and local agencies.
- 10.5.2:** The District is a member of the Metropolitan Unified Flood Flight Command by the San Joaquin Operational Area and a signatory to the San Joaquin Operational Area Agreement.
- 10.5.3:** In case of an emergency, RD 1608 ensures proper management and coordination with other public agencies.
- 10.5.4:** RD 1608 jointly with RDs 828, 1614, and 2126 rent a storage garage for their records from a storage facility.
- 10.5.5:** The District's management practices consist of maintaining up-to-date financial records, adopting annual budgets, and performing regular financial audits. RD 1608 adopted an Emergency Operations Plan last updated in 2016; no Capital Improvement Plan has been compiled.
- 10.5.6:** Maintaining an up-to-date list of capital improvement needs is considered a best management practice and is recommended for RD 1608.

10.6 - Government Structure and Accountability

RD 1608 is governed by a three-member Board of Trustees headed by the President of the Board. Trustees are elected by the landowners to 4-year terms.

The Board meets on the first Wednesday of every month at 8:00 a.m. at Neumiller and Beardlsee located at 509 W. Weber Avenue, Suite 500 in Stockton. Agendas are distributed to interested parties and posted

on the website and office window. Meeting minutes are distributed to meeting attendees and available on the District website. The Board of Trustee’s details are shown in Table 10-5.

Table 10-4: RD 1608 Governing Body

BOARD OF TRUSTEES	
Manner of Selection	Elected by the landowners.
Length of Term	Four years.
Board Compensation:	\$100 per meeting.
Meeting Schedule	1 st Wednesday of the month at 8:00 a.m.
Meeting Location	Neumiller and Beardsee, 509 W. Weber Avenue, Suite 500, Stockton, CA
Agenda Distribution	Distributed and posted on the website and office window.
Minutes Distribution	Distributed with the agenda and posted on the website.

RD 1608 employs one part-time levee superintendent and maintenance personnel as needed. An engineer and a district secretary, are employed on a contractual basis.

The District hires additional staff under the job description of an “Emergency Levee Worker” for levee patrol as needed.

RD 1608’s Sphere of Influence was established in 1983 LAFCo will have to update a Sphere of Influence for the District following this MSR process. Concerning governance structure alternatives, no changes to the District’s boundaries are suggested and no changes in the District service and governance structure appear necessary at this time.

DETERMINATIONS

- 10.6.1:** RD 1608 is governed by a three-member Board of Trustees headed by the President of the Board. Trustees are elected by the landowners to 4-year terms.
- 10.6.2:** The District demonstrated accountability and transparency by cooperating with the MSR process and publishing agendas for public meetings as legally required. RD 1608 maintains a website but could improve its accountability by publishing its financial documents online.
- 10.6.3:** RD 1608 employs one part-time levee superintendent and maintenance personnel as needed. An engineer and a district secretary, are employed on a contractual basis.
- 10.6.4:** Concerning the District’s governance structure, no changes are suggested at this time.

10.7 - Any Other Matter Related to Effective or Efficient Service Delivery as Required by Commission Policy

San Joaquin LAFCo has not adopted any policies identifying any other matters related to effective or efficient service delivery, and no additional issues have been identified.

DETERMINATIONS

- 10.7.1:** San Joaquin LAFCO has not adopted any policies identifying any other matters related to effective or efficient service delivery, and no additional issues have been identified.

10.8 - Key Findings and Issues

1. RD 1608 does not compile a Capital Improvement Plan. Well-managed agencies develop a list of infrastructure needs with associated costs and a timeline for short-term and long-term planning purposes.
2. Although compliance with SB 5 rests with the land use authority several districts that protect potentially developable lands are working with the cities and the County to improve levees to the 200 year flood protection standard. For districts that are built out or in agricultural use with no foreseeable development the 200 year flood standard is of low priority and not being addressed. RD 1608 is built out, so while no new development is anticipated the District should consider how it can work with the City of Stockton to meet the 200 year protection level. The reclamation district is participating in the Lower San Joaquin River Feasibility Study which will help determine needed improvements for future flood protection systems in an effort to reach or exceed the future 200-year level of flood protection.
3. The DWR, therefore, reportedly does not conduct regular inspections of non-project levees because of the quantity of work it would require and lack of available resources to perform such inspections. In addition, non-project levees mostly protect agricultural scarcely populated areas making inspection of these levees a lesser priority. Inspection results of non-project levees are not readily available, and the date of the latest inspection of the District's non-project levees by DWR is unknown. There is a need for the State to standardize the inspection process for all non-project levees.
4. RD 1608's Sphere of Influence was established in 1983. A sphere of influence update is long overdue. It is recommended Commission update the sphere and set it as conterminous with District boundaries.

11: RECLAMATION DISTRICT 1614 (SMITH TRACT)

RD 1614 was formed on November 4, 1914 to provide drainage, irrigation, and complete reclamation of lands within the District’s boundaries. Table 11-1 lists services delivered by RD 1614.

Table 11-1: RD 1614 General Information

Agency	RD 1614 (Smith Tract)
Address	711 N. Pershing Avenue, Stockton, CA 95203
Principal Act	California Water Code §50000, et seq.
Date Formed	February 5, 1894
Population	12,500
Last SOI Update	1983
Services Provided	Levees, vegetation, patrol, flood control and drainage
Contact Person	Christopher H. Neudeck; District Engineer (209) 946-0268
Website	Yes

RD 1614 is responsible for maintaining the levee system that provides flood protection for primary residential and commercial land, as well as a golf course, some vacant parcels, and one parcel of agricultural land. The District is located just outside of the boundary of the Central Delta Water Agency, surrounded by 6 miles of levee and bordered by Smith Canal to the south, Riviera Cliffs Subdivision to the west, the Calaveras River to the north, and Pershing Avenue to the east, as shown in Exhibit 11-1. A portion of the District is located within the City of Stockton, while the remainder of the territory is unincorporated within a country club.

The District protects 1,598 acres of land dedicated to mostly residential and commercial uses. RD 1614 maintains about 2.8 miles of non-project levees along Smith Canal, a man-made backwater slough off the San Joaquin River that terminates just east of Pershing Avenue, which is leveed to protect the now-residential land adjacent to the canal against back-flooding from the Delta. The Riviera Cliffs Subdivision is on higher ground, effectively removing the need to connect the Smith Canal levee directly to the Calaveras River levee. The Calaveras River levee is approximately 3.5 miles of federal project levee that is maintained by the San Joaquin County Flood Control and Water Conservation District and is not under the jurisdiction of the District.

11.1 - Growth and Population Projections

Based on U.S. Census tract information, the population of RD 1614 reported in the 2015 Five year Plan was about 12,500. The U.S. Census American Community Survey indicates that in 2015 the estimated population within the District was about 14,730. The District’s population is likely slightly lower than the aforementioned estimate since one of the Census Tracts is partially located outside of the District’s boundary, in RD 403 that includes the Port of Stockton with no population. The population of the unincorporated country club within the District was 9,997 in 2015, while the rest of the population was located within the City of Stockton portion of RD 1614.

RD 1614 is located within both incorporated and unincorporated San Joaquin County and is nearly built out. However based on current zoning at buildout the district can expect an additional 500 residents. Consequently the population is expected to remain at approximately 12,500 residents. RD 1614 is an urban district; hence, land uses within its boundaries are primarily residential, commercial, and recreational. The development of vacant lands is expected to occur in compliance with local zoning and planning approvals and permits. Based on current zoning at buildout the district can expect an additional 500 residents. However, there is no estimated timeline for buildout.

DETERMINATIONS

- 11.1.1:** The estimated population of RD 1614 as of 2015 was 14,730 according to the U.S. Census American Community Survey.
- 11.1.2:** RD 1614 is located within both incorporated and unincorporated San Joaquin County and is nearly built out. Consequently, the population is expected to remain at approximately 14,700 residents.
- 11.1.3:** RD 1614 is an urban district; hence, land uses within its boundaries are primarily residential, commercial, and recreational. The development of vacant lands is expected to occur in compliance with local zoning and planning approvals and permits.

11.2 - Disadvantaged Unincorporated Communities

LAFCo is required to evaluate DUCs as part of this service review, including the location and characteristics of any such communities. A DUC is defined as any area with 12 or more registered voters, or as determined by commission policy, where the MHI is less than 80 percent of the statewide annual median income.

According to the DWR mapping tool, there are two disadvantaged communities (U.S. Census Tracts 10 and 11.02) within RD 1614, which are either entirely or partially located within the Country Club area, and correspondingly cover a portion of the unincorporated area of the District. Tract 10 has a median household income of \$45,613, while Tract 11.02 is considered severely disadvantaged with an MHI of \$30,841. Tract 11.01, which covers a portion of the Country Club, is not considered disadvantaged.

The unincorporated area lies within the Country Club Fire District, which is served by the Stockton Fire Department. Water is provided by Cal Water and sewer service by Pacific Gardens Sanitary District.

DETERMINATIONS

- 11.2.1** There are two communities (the entirety of Census Tract 11.02 and a portion of Census Tract 10) within RD 1614 that are considered disadvantaged for LAFCo purposes. The unincorporated area lies within the Tuxedo-Country Club Fire District, which is served by the Stockton Fire Department. Water is provided by Cal Water and sewer service by Pacific Gardens Sanitary District.

11.3 - Present and Planned Capacity of Public Facilities

Table 11-2 summarizes the facilities operated and maintained by the District. RD 1614 is responsible for operating and maintaining levees within the District, which consists of approximately 2.8 miles of non-project levees along Smith Canal. This levee protects nearly 1,600 acres of land dedicated to mostly residential and commercial uses. The Calaveras River levee on the northern boundary consists of 3.5 miles of project levees maintained by the San Joaquin County Flood Control and Water Conservation District. The Calaveras River levee is not under the jurisdiction of RD 1614.

Stormwater runoff within RD 1614 is collected and conveyed via an extensive network of inlets and pipes owned and operated by the City of Stockton and San Joaquin County. The District is divided into eleven main storm drain watersheds, each of which drains to an existing discharge pump station. The runoff is then ultimately discharged into the Calaveras River and Smith Canal by one of eleven storm drain pump stations owned and operated by the District. These pump stations have various numbers of pumps and pumping capacities suited to the requirements of that watershed. All but one of the pump stations have sufficient pumping capacities and do not currently require improvement.

The largest storm pumping station of RD 1614, Pump Station No. 7, known as the Wisconsin Pump Station, is several decades old. It is in an advanced state of deterioration, no longer meets FEMA requirements, and is nearing the end of its useful life. This pump station is responsible for pumping stormwater runoff from over 40 percent of the area of RD 1614, including stormwater runoff from State Route 5 into the Calaveras River. Without the replacement of this pump station, that area will remain in a floodplain subject to FEMA restrictions. Currently, the Wisconsin Pump Station is sized with two pumps with a combined capacity of 10,000 gallons per minute (gpm) that discharge into the Calaveras River. Based on the analysis performed by KSN, the required capacity is 30,000 gpm to meet current 100-year flood standards.

Property owners in RD 1614 have raised, through assessment, \$1,175,000 toward the \$2,350,000 it is estimated to cost to replace the pump station. Despite the assessment, RD 1614 has been unsuccessful in three attempts to obtain grant funding to pay the balance of the cost to replace the pump station.

The sum of \$1,175,000 will be appropriated from the General Fund of the State of California (AB 200) to the DWR for the purpose of constructing a new pump station to replace Pump Station No. 7. The DWR will provide a grant of \$1,175,000 appropriated for the purpose of replacing the pump station. The hearing of the bill at the State Assembly took place on March 21, 2017 and resulted in unanimous approval. The bill was re-referred to the appropriations committee. The construction is tentatively scheduled to begin in 2018.

DWR notes that routine levee maintenance inspections by the local agency are necessary to ensure that adequate maintenance is being carried out and that dangerous or unusual conditions are discovered early. The DWR recommends that, at a minimum, levees should be inspected (1) once by September 15 to allow time to correct dangerous conditions; (2) once in April to provide information to plan annual maintenance and repair; and (3) during and after periods of high water and high winds that can accelerate wave erosion.

RD 1614 levees are reportedly regularly inspected by the District and landowners within the District. The District engineer provides a more detailed assessment if a problem is detected.

Table 11-2: RD 1614 Facilities Overview

RD 1614 FACILITIES			
Total Levee Miles	2.8	Surface Elevation	N/P
LEVEE MILES BY STANDARD		LEVEE MILES BY TYPE	
No Standard	0.0	Dry Land Levee	0.0
HMP Standard	0.0	Urban Levee	2.8
PL 84-99 Standard	0.0	Agricultural Levee	0.0
Bulletin 192-82 Standard	0.0	Other	0.0
FEMA Standard	2.8		
DISTRICT FACILITIES			
Internal Drainage System	Yes; several drain systems	Pump Station(s)	11
Detention Basins(s)	No	Bridges	No
FLOODPLAIN			
FIRM Designation	Zone X, A, AE	Base Flood Elevation	9.8 – 9.9' (Vertical Datum NAVD 88)
LEVEE INSPECTION PRACTICES			
Routinely for visual observation; any problems are reviewed by Engineering Consultant			
LEVEE INSPECTION REPORTS			
Most Recent Written Inspection	N/P	Inspection Rating	?
LEVEE SEGMENT	DESCRIPTION	CONDITION	
		Vegetation/erosion (field observations)	
		Vegetation/rodent activity (field observations)	
INFRASTRUCTURE NEEDS/DEFICIENCIES			
District levees met the 100-year flood protection standard.			
Notes: NP = Not Provided			

Additionally, according to the Water Code Division 6, Section 12989, DWR must “inspect non-project levees of local agencies for the purpose of monitoring and ascertaining the degree of compliance with, or progress towards meeting, standards such as those set forth in Section 12984.” The frequency of such inspections is not specified in the Code. DWR, therefore, reportedly does not conduct regular inspections of non-project levees because of the quantity of work it would require and lack of available resources to

perform such inspections. Although RD 1614 reported that it was meeting FEMA urban levee requirements and state levee certifications, in 2009 it became evident that the Smith Canal levees would lose their FEMA accreditation, at which time SJAFCA partnered with the Smith Canal levee owners, including RD 1614 (north bank levee) and RD 828 (south bank levee) and took the lead in evaluating options for restoring flood protection to the Smith Canal area. Voters within the assessment district approved a benefit assessment to construct a flood-control gate near the mouth of the Smith Canal. Since FY 14–15, residents have been paying a yearly assessment to fund construction of this \$37 million project, which is supposed to relieve them of a flood insurance mandate imposed by the federal government. The floodgate will be constructed by 2018 or 2019.

Generally, the District levees perform well under typical river conditions and are not prone to problems during high water events. The primary threats to Delta levees are high water surface elevations from floods or high tides, wave action due to high winds or boat wakes, and rodent damage, either as individual actions or in combination.

The primary source of levee vulnerability for the District is residential development up to and even on top of the levee. Since the levees are included in the private property of the adjacent landowners along Smith Canal, the District cannot make improvements to the levees without landowner approval, and often is unable to make any change due to structures present in the locations where improvements would be most beneficial. In addition to the District's limitations resulting from the nature of the private property the levee occupies, landowners often do not realize that their home and garden improvements can jeopardize the integrity and/or stability of the levee. The Smith Canal Closure Structure would remove the levee adjacent to Smith Canal from the overall flood control structure protecting the District so that any deficiencies in the levee along Smith Canal are negated by the improved flood control capabilities of the closure structure.

Although compliance with SB 5 rests with the land use authority, several districts that protect potentially developable lands are working with the cities and County to improve levees to the 200 year flood protection standard. For districts that are built out or in agricultural use with no foreseeable development, the 200 year flood standard is of low priority and not being addressed. RD 1614 is built out. However, the District is working with RD 828 on the Smith Canal Floodgate which, when complete, will offer 200 year protection. Each maintenance and/or rehabilitation project performed by the District has site-specific requirements, which are determined on a case-by-case basis as to the level of permits, licenses, or accreditation are necessary. The agencies that may have jurisdiction include but are not limited to San Joaquin County (various departments), California CVFPB, California Delta Stewardship Council, California Delta Protection Commission, CDFW, California State Lands Commission, California Regional Water Quality Control Board, California State Water Resources Control Board, DWR, California Department of Industrial Relations, USACE, USFWS, NOAA Fisheries, U.S. Environmental Protection Agency, and U.S. Bureau of Reclamation. The District, however, is not obligated to provide annual reports or inspection reports to these agencies.

According to the RD 1614 Emergency Operations Plan, the District performs the following routine preparedness actions:

- Inspect district levees on a periodic basis,
- Periodic trapping program for ground rodents,
- Vegetation control program on an as-needed basis in coordination with Fish and Wildlife,

- Annual inspection District of pumping stations,
- Annual inspection and inventory of district flood fight supplies, and
- Semi-annual joint inspection of levees with State inspectors.

The District monitors and analyzes water conditions, elevations, and forecasts for waterways affecting District levees throughout the flood season for the purpose of promptly identifying heightened threats to the integrity of its levee systems. The objective of this monitoring effort is to identify conditions that warrant additional actions beyond routine flood season preparedness activities.

DETERMINATIONS

- 11.3.1:** The District operates and maintains approximately 2.8 miles of non-project levees and 11 pump stations.
- 11.3.2:** Pump Station No. 7 is over capacity and at the end of its useful life. The pump station replacement project estimated to cost \$2.3 million will be financed through benefit assessments and a DWR grant appropriated from the State of California general fund.
- 11.3.3:** RD 1614 levees are regularly inspected by the District and landowners within the District.
- 11.3.4:** Although RD 1614 reported that it was meeting FEMA urban levee requirements and State levee certifications, in 2009 Smith Canal levees lost their FEMA accreditation, at which time SJAFCA partnered with the Smith Canal levee owners, including RD 1614 and RD 828, to finance construction of a floodgate at the mouth of the Smith Canal. The gate will be constructed by 2018–2019.
- 11.3.5:** Generally, the District’s levees are not prone to problems during high water events. The primary source of levee vulnerability for the District is residential development up to and on top of the levee.

11.4 - Financial Ability to Provide Services

The District’s operations are primarily supported by property taxes, benefit assessments, and interest income. Additional sources may include assistance from state and federal disaster funds. The District participates in the Delta Levee Subventions Program. The DWR and/or the CDFW perform inspections of maintenance and repair work completed by the District before providing the reimbursement subvention funds.

RD 1614 relies heavily on the income from the benefit assessment, which is constrained by its dependency on voter approval and the cost of implementation of Proposition 218 elections. The District is thus reluctant to raise assessment rates. Additionally, it is reported that the administrative and financial burden stemming from compliance with government regulations has been a strain on the District.

The importance of maintaining state and federal funding programs for maintenance and rehabilitation of levees, particularly in light of the expensive and uncertain process of running a Proposition 218 election to raise assessment rates is a primary challenge for RD 1614. The District is also challenged with the costs of increasing environmental requirements associated with the maintenance and rehabilitation related to compliance, permitting, mitigation, and enhancement. Overall, a higher percentage of the District’s budget is being spent on legal compliance overhead and not on levee maintenance and rehabilitation.

In FY 14–15, the District collected \$143,963 in assessments and \$124,064 in property taxes, which constituted about 34 percent and 29 percent, respectively, of the total income for that fiscal year. Revenues and expenditures for the last five fiscal years are shown in Table 11-3. For the last 2 fiscal years the RD 1614’s revenues exceeded expenditures; however, in FY 12 and FY 13, the District spent larger amounts on levee maintenance and repairs and special projects and ended up in a deficit at the end of both fiscal years, which was covered by reserve funds. In FY 15, the District received State subvention funding, which resulted in higher revenues than in few previous years.

Table 11-3: RD 1614 Revenues and Expenditures FYs 10–11 through 14–15

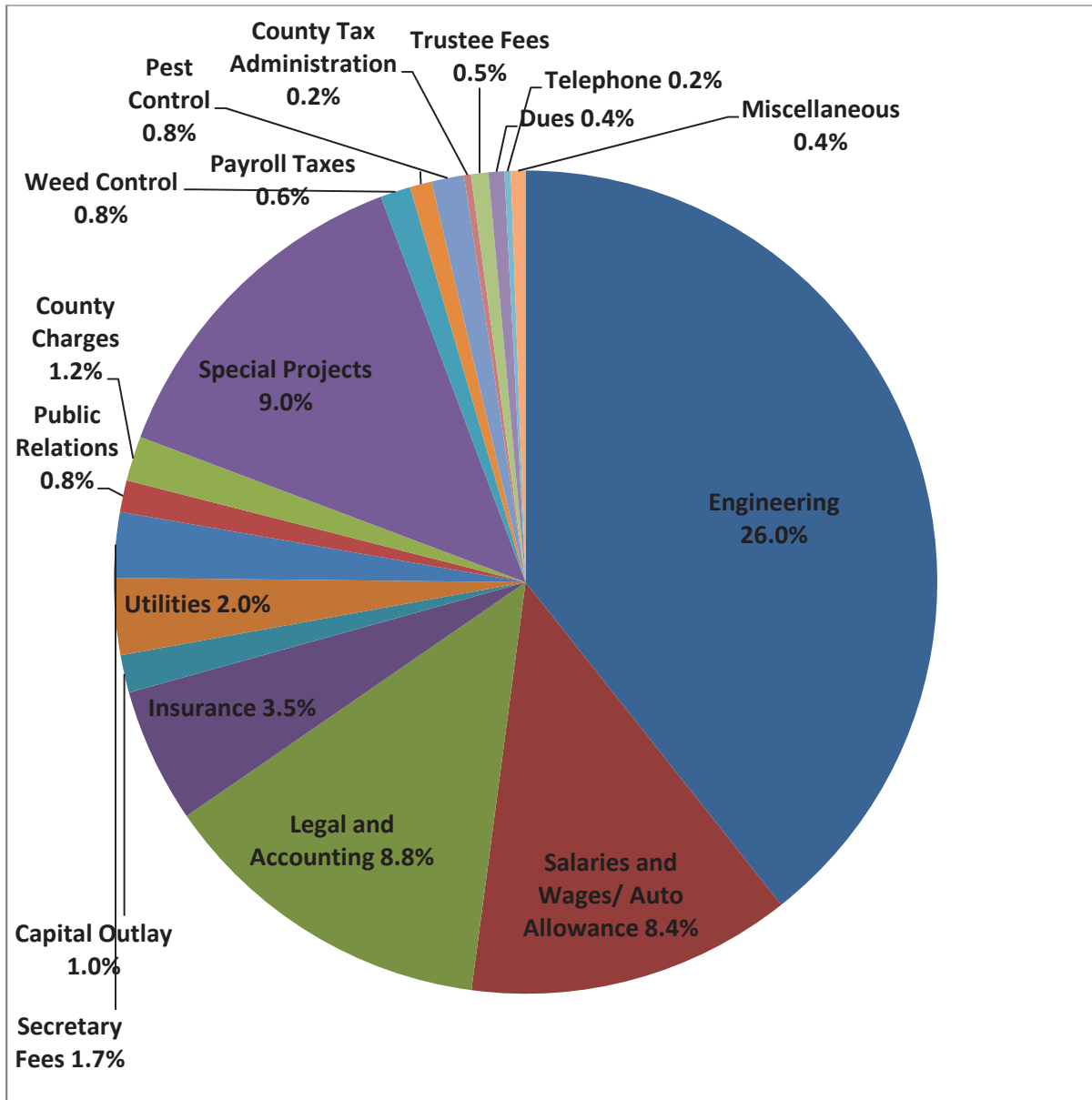
AUDITED FINANCIAL STATEMENTS					
ACCOUNT	FY 10–11	FY 11–12	FY 12–13	FY 13–14	FY 14–15
Total Revenues	\$611,950	\$596,461	\$523,798	\$526,775	\$780,281
Total Expenditures	\$491,013	\$650,716	\$537,563	\$345,985	\$428,353
Revenues over Expenditures	\$120,937	(\$54,255)	(\$13,765)	\$180,790	\$351,928
Fund Balance	\$1,018,929	\$964,674	\$950,909	\$1,184,838	\$1,536,766
Source: RD 1614 Audited Financial Statements					

Exhibit 11-2 shows the allocation of expenditures averaged for five years from FY11 through FY15. Levee repairs and maintenance, engineering, and salaries and wages account for 45%, on average, of District expenses.

In addition to the District’s regular benefit assessment collected from all residents of the District, RD 1614 has been collecting a benefit assessment since FY 15 to replace Pump Station 7 from the parcels draining served by Pump Station 7. The assessment will be collected for 20 years from the date a long-term financing plan is put in place, which is expected to occur in 2018 upon the completion of construction. The Wisconsin pump station assessment rates are shown in Table 11-4.

Some of the landowners within the District who are included in the assessment district for the construction of the Smith Canal floodgate have been paying assessments since FY 15 for the construction of the pump station as well. The capital component of the assessment will be collected for up to 30 years after the completion of the project. The administration and operations and management component of the assessment are to be collected for as long as needed to effectively operate and maintain the facilities. An assessment rate was calculated for each separate parcel within the District. SJAFCA is responsible for the gate construction; the project will be completed by 2018–2019.

Exhibit 11-2: RD 1614 Allocation of Expenditures FY11 through FY 15



Source: RD 1614 Audited Financial Statements

The District’s fund balance is reported in five components: non-spendable, restricted, committed, assigned, and unassigned. The unassigned balance is the only balance that has not been restricted to a specific purpose within the general fund. When both restricted and unrestricted resources are available for use, it is the District’s policy to use restricted resources first, then unrestricted resources as needed. The District Board determines the amount of reserves annually. At the end of FY 14–15, the District had \$1,536,766 in its unrestricted reserve or approximately three years’ worth of its expenditures.

Table 11-4: RD 1614 Benefit Assessment Rates FY 14–15

AVERAGE PARCEL ACRES	ASSESSMENT
Vacant	\$67.32
Multifamily	\$38.38
Government and Utilities	\$22.46
Single Family (parcels under 0.25 acres)	\$25.76
Singe Family (parcels over 0.25 acres)	\$56.41
Commercial	\$563.96
Source: Pump Station No. 7 Assessment District, Engineer’s Report, 2013.	

The District’s capital improvements are financed by either the RDs’ reserves or grants, and by specific program or assistance funds. At the end of FY 15, the District did not have any long-term debt.

DETERMINATIONS

- 11.4.1:** The District’s operations are financed mainly by the benefit assessment and property taxes. The main constraint to the benefit assessment funding source is its dependence on voter approval and the cost of implementation of Proposition 218 elections.
- 11.4.2:** The administrative and financial burden stemming from compliance with government regulations has been a strain on the District. The District is also challenged with the costs of increasing environmental requirements associated with maintenance and rehabilitation. A higher percentage of the District’s budget is being spent on legal compliance overhead as opposed to the levee maintenance and rehabilitation.
- 11.4.3:** In addition to the regular benefit assessment collected from all district residents that supports the District’s operations, RD 1614 also collects benefit assessments for the Smith Canal floodgate and Pump Station 7 replacement projects from select residents who benefit from these respective projects.
- 11.4.4:** The District Board determines the amount of reserves annually. At the end of FY 14–15, the District had \$1,536,766 in unrestricted reserves or approximately three years of its annual expenditures.
- 11.4.5:** At the end of FY 15, the District did not have any long-term debt.
- 11.4.6:** The District’s capital improvements are financed by RDs’ reserves, grants, specific program, or assistance funds.

11.5 - Status and Opportunity for Shared Facilities

RD 1614 collaborates and receives assistance from other agencies to improve services or reduce costs. As was mentioned earlier, the District participates in the Levee Subventions Program. Occasional assistance with levee maintenance is provided by agencies such as DWR and USACE. RD 1614 entered into a project funding agreement with DWR for the preparation of its five-year plan discussed further in the *Government Structure and Accountability* section.

In 2009, SJAFCA partnered with RDs 1614 and 828 on a project to construct a closure structure at the mouth of Smith Canal to protect areas affected by Smith Canal levee decertification.

The District is partnering in the Lower San Joaquin River Feasibility Study with several other reclamation districts, the U.S. Army Corps of Engineers, the State Central Valley Flood Protection Board, and SJAFCA. The results of the study will help identify needed improvements to meet or exceed the 200 year flood protection level.

The District is a signatory to the California Master Mutual Aid Agreement and the San Joaquin Operational Area Agreement. The San Joaquin Operational Area Agreement and San Joaquin County Ordinances have provisions allowing the San Joaquin Operational Area Logistics Section and San Joaquin County Purchasing Agent to acquire and transport, on behalf of the District, resources requested by the District.

Mutual aid requests for technical assistance and services, flood fight crews, supplies and materials, and other resources are made through the San Joaquin Operational Area Logistics Section and/or the Operational Area Public Works Mutual Aid Coordinator. The District also occasionally receives assistance and services from other agencies on an as-needed basis, particularly in case of emergencies. These agencies include Stockton Fire Department, San Joaquin Office of Emergency Services, County Sheriff Department, DWR, and State Office of Emergency Services. In case of an emergency, RD 1614 ensures that proper management and coordination is maintained with (1) other public agencies and jurisdictions operating within the District, (2) neighboring RDs, and (3) the San Joaquin Operational Area.

The District is a member of the Metropolitan Unified Flood Flight Command established by the San Joaquin Operational Area.

RDs 1614, 828, 1608, and 2126 rent a shared storage garage for their records from a storage facility.

DETERMINATIONS

- 11.5.1:** RD 1614 collaborates and receives assistance from other agencies to improve services or reduce costs. The District participates in the Levee Subventions Program. Occasional assistance with levee maintenance is provided by agencies such as DWR and USACE. RD 1614 entered into a project funding agreement with DWR for the preparation of the five-year plan for the District.
- 11.5.2:** In 2009, SJAFCA partnered with RDs 1614 and 828 on a project to construct a closure structure at the mouth of Smith Canal to protect areas affected by Smith Canal levee decertification.
- 11.5.3:** The District is a signatory to the California Master Mutual Aid Agreement and the San Joaquin Operational Area Agreement and a member of the Metropolitan Unified Flood Flight Command established by the San Joaquin Operational Area.
- 11.5.4:** RDs 1614, 828, 1608, and 2126 rent a shared storage garage for their records from a storage facility.

11.6 - Government Structure and Accountability

RD 1614 is governed by a three-member Board of Trustees headed by the President of the Board. Trustees are elected by the landowners to 4-year terms.

The Board meets on the first Monday of every month at 2:00 p.m. at Neumiller & Beardslee at 509 W. Weber Avenue, fifth floor, in Stockton. Agendas are distributed to interested parties and posted on the office window and the website. Meeting minutes are distributed to meeting attendees and available on the District website. The Board of Trustees details are shown in Table 11-5.

Table 11-5: RD 1614 Governing Body

BOARD OF TRUSTEES	
Manner of Selection	Elected
Length of Term	Four years
Board Compensation:	None
Meeting Schedule	On the first Monday of every month at 2:00 p.m.
Meeting Location	Neumiller & Beardslee, 509 W. Weber Ave, 5 th floor, Stockton.
Agenda Distribution	Distributed and posted on the office window and the website.
Minutes Distribution	Distributed with the agenda and posted on the website.

RD 1614 employs one part-time levee superintendent and maintenance personnel as needed. An engineer and a district secretary are employed on a contractual basis.

The District’s management practices consist of maintaining up-to-date financial records, adopting annual budgets before the beginning of every fiscal year, and performing regular financial audits. Additionally, RD 1614 adopted an Emergency Operations Plan last updated in 2016; however, no Capital Improvement Plan is adopted. The District conducts annual employee performance reviews of the levee superintendent and district secretary.

Select RDs participate in the Delta Levees Special Projects Program under which they receive funding to develop and regularly update five-year plans for rehabilitation of their facilities to a desired level of protection and that are also required for districts to receive other project funding. The program only applies to local agencies with project or non-project levees in the primary zone of the Delta or non-project levees in the secondary zone of the Delta.

RD 1614’s non-project levees are located within the secondary zone, and therefore the District is eligible to participate in the program. RD 1614 adopted a five-year plan in 2013.

Concerning governance structure alternatives, no changes to the District’s boundaries or service structure are suggested at this time. RD 1614’s Sphere of Influence was established in 1983. LAFCo will have to update a Sphere of Influence for the District following this MSR process.

DETERMINATIONS

- 11.6.1:** RD 1614 is governed by a three-member Board of Trustees headed by the President of the Board. Trustees are elected by the landowners to 4-year terms.
- 11.6.2:** The District demonstrated accountability and transparency related to its governance by cooperating with the MSR process and publishing agendas for public meetings as legally

required. RD 1614 maintains a website but could improve its transparency by publishing its financial documents online.

- 11.6.3:** RD 1614 employs one part-time levee superintendent and maintenance personnel as needed. An engineer and a district secretary are employed on a contractual basis.
- 11.6.4:** The District's management practices consist of maintaining up-to-date financial records, adopting annual budgets, and performing regular financial audits. RD 1614 adopted an Emergency Operations Plan, which was last updated in 2016, and a 2013 Five-year Plan. While an overall capital improvement plan has not been developed, the Five-year Plan covers infrastructure needs in order to meet 100-year level flood protection as recognized by FEMA.
- 11.6.5:** Maintaining an up-to-date list of all capital improvement needs is considered a best management practice and is recommended for RD 1614.
- 11.6.6:** Concerning the District's governance and service structure, no changes are suggested at this time.

11.7 - Any Other Matter Related to Effective or Efficient Service Delivery as Required by Commission Policy

San Joaquin LAFCo has not adopted any policies identifying any other matters related to effective or efficient service delivery, and no additional issues have been identified.

DETERMINATIONS

- 11.7.1:** San Joaquin LAFCo has not adopted any policies identifying any other matters related to effective or efficient service delivery, and no additional issues have been identified.

11.8 - Key Findings and Issues

1. RD 1614 does not adopt a Capital Improvement Plan. While an overall capital improvement plan has not been developed, the Five-year Plan covers infrastructure needs in order to meet 100-year level flood protection as recognized by FEMA. Well-managed agencies develop a list of infrastructure needs with costs and timeline for short-term and long-term planning purposes.
2. The District's existing levees along the north bank of the Smith Canal are heavily encroached upon and cannot be certified as meeting FEMA standards or the State's Urban Levee Design Criteria (ULDC), placing many people and properties at increased risk from flooding. RDs 1614 and 828 have been collecting assessment fees from their residents to fund the project to restore flood protection to the Smith Canal area. The project will close off Smith Canal during high flow and tide events, allowing existing Smith Canal levees to function as a secondary risk-reduction measure. The floodgate project is likely to be completed by 2018–2019. SJAFCA, which is responsible for the gate construction, is currently collecting statements of qualifications from qualified contractors to provide construction management and inspection services. The completion of the floodgate project will provide 200 year flood protection along Smith Canal. Since the District has no jurisdiction over the Calaveras River levee, 200 hundred year flood protection will be the responsibility of the City and the San Joaquin County Flood Control and Water Conservation District.

3. The District's Pump Station No. 7 is over capacity and is currently at the end of its useful life. The replacement project will be partially financed by the benefit assessment being collected from select residents of RD 1614. The construction of the station is likely to start in 2018 now that the rest of the funding was approved by the State Legislature.
4. According to the Water Code Division 6, Section 12989, the DWR must "inspect non-project levees of local agencies for the purpose of monitoring and ascertaining the degree of compliance with, or progress towards meeting, standards such as those set forth in Section 12984." The frequency of such inspections is not specified in the Code. Therefore, DWR does not conduct regular inspections of non-project levees because of the quantity of work it would require and lack of available resources to perform such inspections. There is a need for the State to standardize the inspection process for all non-project levees.
5. RD 1614's Sphere of Influence was established in 1983. A sphere of influence update is long overdue. It is recommended Commission update the sphere and set it as conterminous with District boundaries.
6. The District is partnering in the Lower San Joaquin River Feasibility Study with several other reclamation districts, the U.S. Army Corps of Engineers, the State Central Valley Flood Protection Board, and SJAFCA. The results of the study will help identify needed improvements to meet or exceed the 200 year flood protection level.

12: RECLAMATION DISTRICT 2042 (BISHOP TRACT)

The District was formed by the landowners of Bishop Tract on June 3, 1919 under Section 50000 of Division 15 of the Water Code. The District was formed primarily for the purpose of reclaiming delta land for farming, operating, and maintaining the levee system. RD 2042 is located within the boundaries of the Central Delta Water Agency and is bordered by Telephone Cut to the north, Bishop Cut to the west, Disappointment Slough and Bear Creek to the south, and I-5 to the east. At the time of formation the District included approximately 2,200 acres. In 1989 an additional 900 acres was annexed to the District for a total acreage of approximately 3,095 acres. The northern most portion of the District extends into the City of Lodi's city limits as shown in Exhibit 12-1.

Table 12-1 provides the general information about the district and services it provides.

Table 12-1: RD 2042 General Information

Agency	RD 2042 (Bishop Tract)
Address	343 East Main Street, Suite 815, Stockton, CA 95202
Principal Act	California Water Code §50000, et seq.
Date Formed	June 3, 1919
Population	5,000
Last SOI Update	1983
Services Provided	Levees, vegetation, flood control and drainage
Contact Person	Dan Forbus, Board Chairman (209) 943-5551
Website	None

RD 2042 is responsible for operating and maintaining the levee system and drainage facilities that provides flood protection for primarily agricultural land, infrastructure, and urban developments. RD 2042 includes a mix of urban and rural uses. The portion in the City of Stockton is developed for residential and commercial uses. The southwest portion of the District includes a Del Webb community. The District also includes a golf course; however, much of the district lands are in agricultural use. Land uses in the District are shown in Table 12-2.

Table 12-2: Land Uses RD 2042

LAND USE	ACREAGE
Agriculture	2,100
Golf Course	300
Developed residential and commercial	700
Source: Kjeldsen Sinnock & Neudeck, Inc.2013	

The District is surrounded by 8.0 miles of levee built to FEMA urban levee standards. Accordingly, RD 2042 urban levees are built at least three feet above the 100-year flood level.

12.1 - Growth and Population Projections

The District population is estimated at approximately 5,000 residents. The portion of the District within the Stockton city limits has been developed. The Dell Webb area is zoned for mixed use and is not completely built out. The area north of Dell Webb is designated for high and medium density residential use. The area north of Eight Mile Road is in agricultural use and includes a golf course. The District does not anticipate expanding its sphere or its boundaries.

To estimate the change in population over the next 30 years, the SJCOG has published population projections for census designated places and the unincorporated county. Since the potential for growth exists in the portion of the District that is in the City of Stockton, we can estimate growth by assuming the growth rate for Stockton. The estimate will provide an upper bound to the estimated population of the District in 2045 as shown in Table 12-3.

Table 12-3: RD 2042 Population Estimates

	2015	2020	2025	2030	2035	2040	2045
Stockton	309,919	329,729	352,239	374,939	401,961	432,627	463,445
% change	—	6.4%	6.8%	6.4%	7.2%	7.6%	7.1%
RD 2042	5000	5320	5683	6049	6485	6980	7477

Source: Eberhardt School of Business, 2016

If all the area in the District that is in the City of Stockton is developed the population of the District will increase by nearly 42 percent in the next thirty years. However, additional development will require compliance with SB 5.

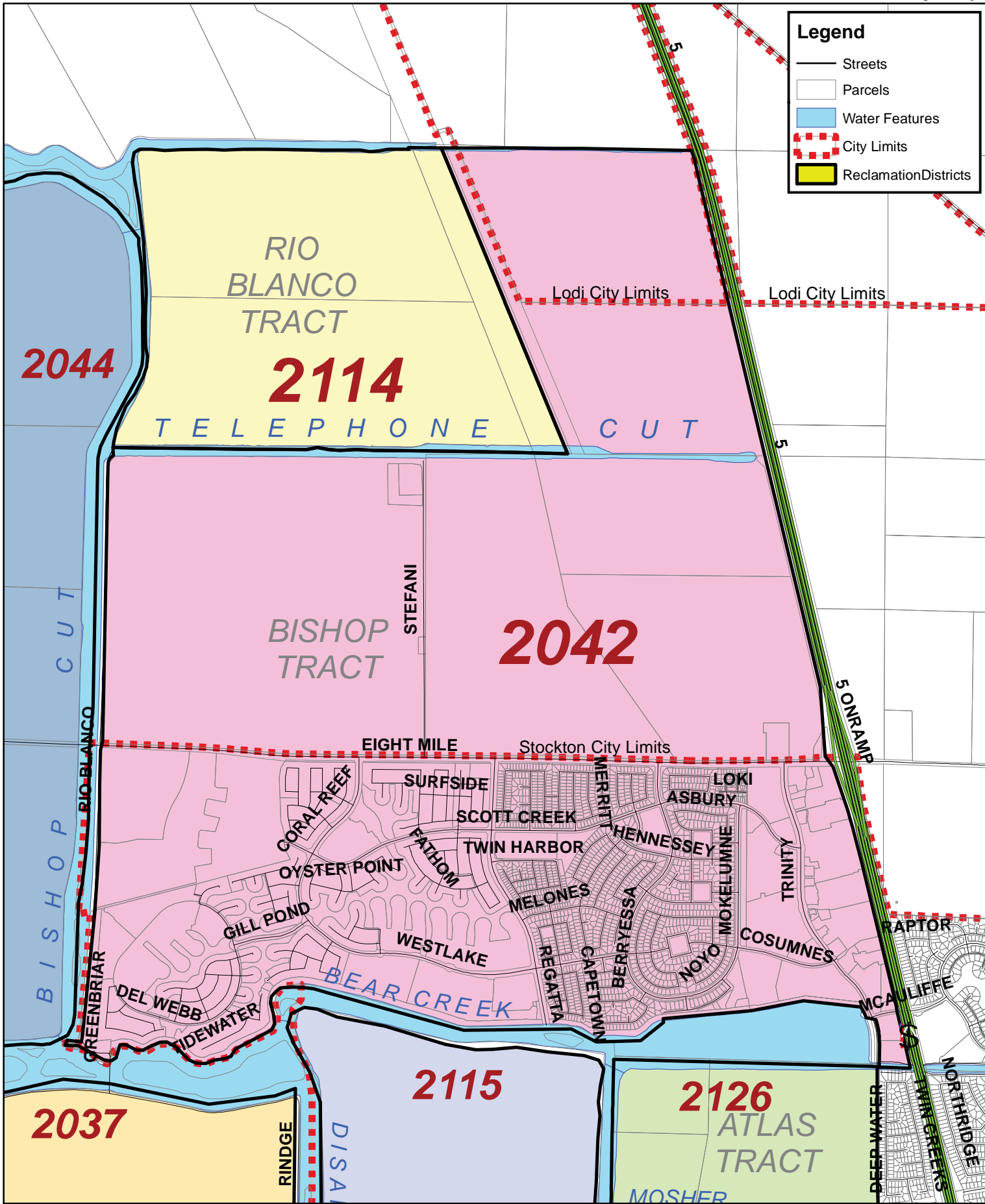
DETERMINATIONS

- 12.1.1:** The District estimates there are currently 5,000 residents in the District.
- 12.1.2:** A large portion of the District is in the City of Stockton. Those areas that have not been developed are designated as mixed use or residential use. Assuming those areas are built out by 2045 the anticipated population of the District will increase to 7477.

12.2 - Disadvantaged Unincorporated Communities

The populated area of the District lies within the City of Stockton. The MHI for that portion of the District is \$ 93,723. The southern portion of the District receives services from the Stockton East Water District and the City of Stockton.

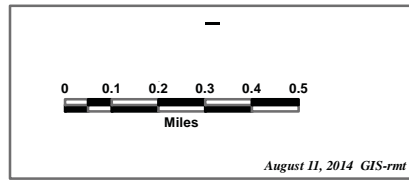
The northern portion of the District is primarily farmland with few residents. The MHI for that portion is \$38,359. The northern portion of the District receives fire services from the Lincoln Rural Fire Protection District to the east which contracts with the City of Stockton. There are no water district services or sewer services in this area. There are no fringe, island or legacy or communities in the northern area as it is primarily farmland. Therefore, there are no DUCs in that portion of the District.



**RECLAMATION DISTRICT 2042
SAN JOAQUIN COUNTY**

San Joaquin County Geographic Information Systems
1810 East Hazelton Avenue, Stockton, CA 95205

The information on this map is based on the most current information available to San Joaquin County Geographic Information Systems. The County of San Joaquin does not warrant its accuracy, completeness, or suitability for any particular purpose. The information on this map is not intended to replace engineering, financial or primary records research.



Determinations

- 12.2.1:** There are no DUCs in RD 2042.

12.3 - Present and Planned Capacity of Public Facilities

The District maintains 8 miles of levees. The system includes five pump stations and a series of canals and ditches to drain the District in case of flood conditions. The District's routine operations and maintenance activities include levee inspection, erosion repair, vegetation and rodent control, levee crown and access road repair, debris removal, encroachment repair and inspections, and periodic surveys to monitor subsidence. They also routinely perform minor core trenching, ditch cleaning, and pump repair and maintenance. Table 12-4 shows an overview of the District levee system.

The District's levee system currently provides a 100-year level of protection and is fully accredited by FEMA as meeting the minimum certification criteria. of Title 44, CFT Section 65.10. Exhibit 12-2 shows the District levee system and the location of the five pump stations.

Within the next 5 years, the District intends to operate and maintain its levee system in a manner to preserve its FEMA certification, continue to comply with USACE requirements to remain active in the PL 84-99 Program where applicable, and improve areas that may require upgrades.

The ultimate goal of the District is to continue to improve and maintain its levee system in order to provide a sustainable level of flood protection, provided that funding is available. The District's desired level of protection is the 200-year level in accordance with the State of California, DWR' Urban Levee Design Criteria (ULDC). They are looking to comply using the Evidence 3, adequate progress, criteria. They are currently working on a plan to remove and replace diversion structures to achieve 200 year protection.

Determinations

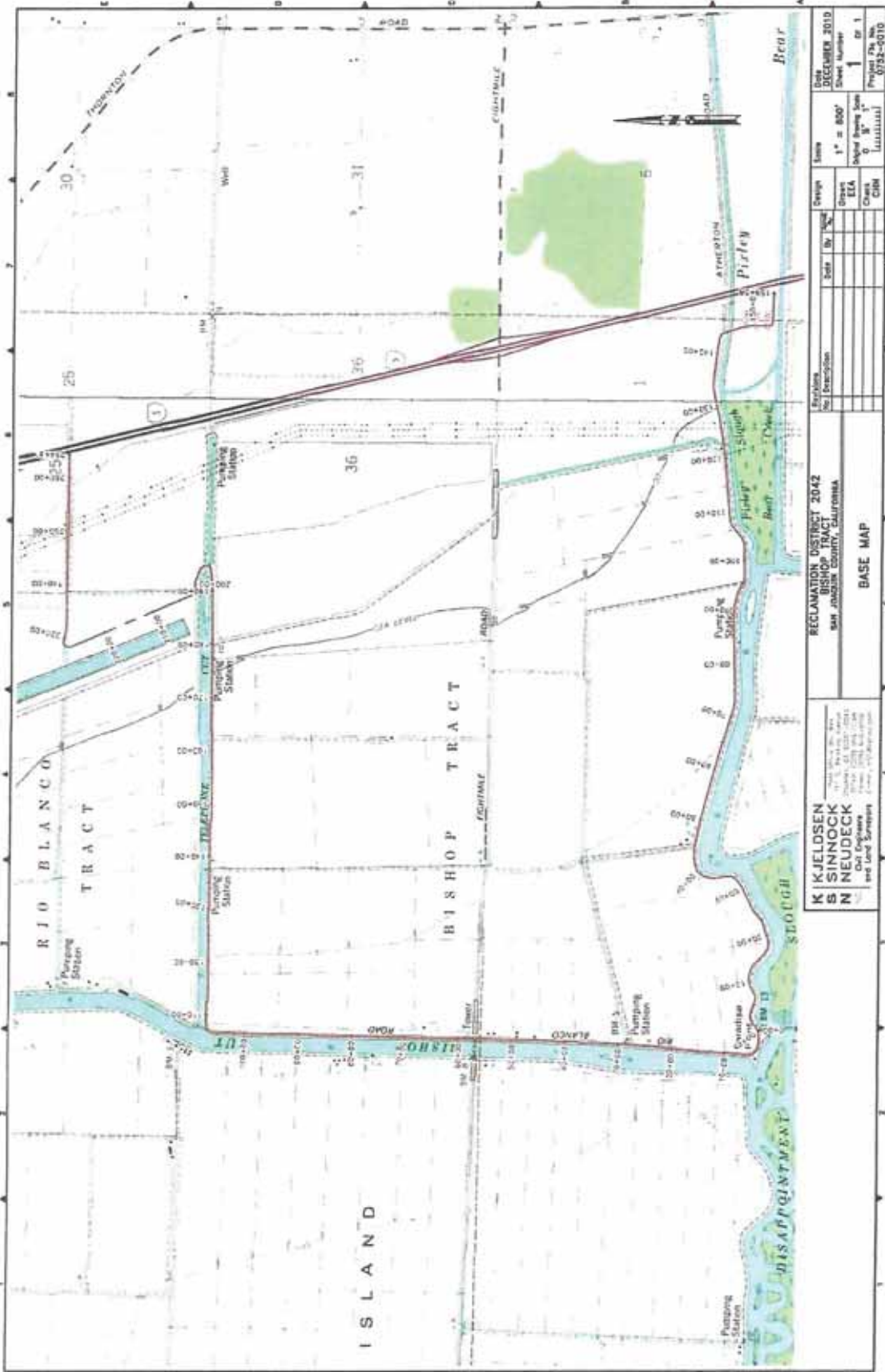
- 12.3.1:** The District maintains 8 miles of levees to urban levee standards. That translates to 3 feet above the 100-year flood level. The District also maintains five pump stations and a series of canals and ditches to drain the District if necessary.
- 12.3.2:** The District's goal is to upgrade the levee system to achieve 200-year flood protection. They are looking to comply using the Evidence 3, adequate progress, criteria. They are currently working on a plan to remove and replace diversion structures to achieve 200 year protection.

Table 12-4: RD 2042 District Overview

RD 2042 FACILITIES			
Total Levee Miles	8	Surface Elevation	N/P
LEVEE MILES BY STANDARD		LEVEE MILES BY TYPE	
No Standard	0.0	Dry Land Levee	0.0
HMP Standard	0.0	Urban Levee	8 Miles
PL 84-99 Standard	0.0	Agricultural Levee	0.0
Bulletin 192-82 Standard	0.0	Other	0.0
FEMA Standard	8.0 Miles		
DISTRICT FACILITIES			
Internal Drainage System	Yes; several drain systems	Pump Station(s)	3
Detention Basins(s)	No	Bridges	No
FLOODPLAIN			
FIRM Designation	Zone X	Base Flood Elevation	10.3' (Vertical Datum NAVD 88)
LEVEE INSPECTION PRACTICES			
Routinely for visual observation; any problems are reviewed by Engineering Consultant			
LEVEE INSPECTION REPORTS			
Most Recent Written Inspection	N/P	Inspection Rating	N/P
LEVEE SEGMENT	DESCRIPTION	CONDITION	
		Vegetation/erosion (field observations)	
		Vegetation/rodent activity (field observations)	
INFRASTRUCTURE NEEDS/DEFICIENCIES			
District levees met the 100-year flood protection standard.			
Notes: NP = Not Provided			

Exhibit 12-2: RD 2042 Levee and Drainage System

Base Map



K KJELSDEN S SINNOCK N NEUDECK Civil Engineers and Surveyors		RECLAMATION DISTRICT 2042 BISHOP TRACT SAN JOAQUIN COUNTY, CALIFORNIA		BASE MAP	
Date DECEMBER 2010	Sheet 1	Scale 1" = 800'	Design GIN	Check GIN	Project No. 0732-0010
Date 1	Sheet 1	Scale 0 3" = 1"	Design GIN	Check GIN	Project No. 0732-0010

12.4 - Financial Ability to Provide Services

The District’s budget averages around \$825,000 annually. Table 12-5 summarizes revenues and expenditures for the period 2010–2015. In 2014, the District expenses were nearly double of previous and succeeding years. The large expenses are associated with a refund of \$846,243 in overpaid assessments.

Table 12-5: RD 2042 Revenues and Expenses 2010–2015

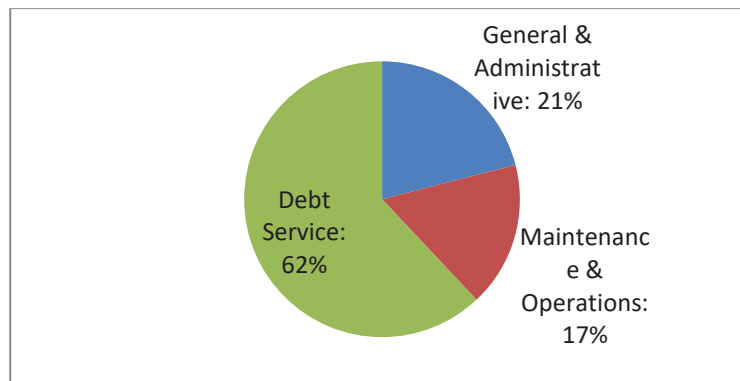
YEAR	TOTAL REVENUES	TOTAL EXPENSES	DIFFERENCE
2010	\$1,189,995	\$880,115	\$309,880
2011	\$1,258,681	\$810,207	\$448,474
2012	\$1,255,457	\$882,958	\$372,499
2013	\$1,248,988	\$841,164	\$407,824
2014	\$1,297,015	\$1,566,717 ¹	\$(269,702)
2015	\$1,216,392	\$820,423	\$395,969

Note:
¹ Includes refund of \$846,243
 Source: State Controller’s Office 2017

Assessments account for most of the District revenues. The District levies an assessment of \$59.94 per acre or \$8.99 per parcel. Residential assessments are assigned an assessment ratio of 5 so the residential rate is \$299.70. The assessment ratio for roadways, the golf course, and agriculture is also set to 10. The assessment for those areas is \$599.40 per acre. The total assessment amounts to \$564,526.55 annually. The District also receives some of its revenues from subvention funds. The amount varies from year to year and in some years the District has received no subvention funds.

Exhibit 12-3 shows the distribution of expenses in FY 14. While the exhibit only shows one year of expenses, it is fairly representative of a typical year. The District spent 62 percent on debt service, 17 percent on maintenance, and 21 percent on administration. The debt service payment originates from refinancing the District’s long-term debt as described in the succeeding section.

Exhibit 12-3: RD 2042 Distribution of Expenses FY 14



Source: Schwartz et al. 2014

In 2014, the District maintained \$2.7 million in its account in the County Treasury, roughly 3 years of expenses.

Long-term Debt

In February 2001, the District issued \$8,245,000 in special tax bonds for community facilities according to the Mello-Roos Community Facilities District Act of 1982. The bonds were refunded during 2013 with an interest rate of 4.2 percent over the remainder of the 30-year term of the bond. The District incurred \$185,812 of expenses to re-fund the bonds to get a better interest rate. The principal balance at June 30, 2014 was \$6,743,943. The debt service payment requirements are shown in Table 12-6. The bonds will be fully repaid in FY 2031.

Table 12-6: RD 2042 Bond Repayment Schedule

YEAR ENDED JUNE 30	PRINCIPAL	INTEREST	TOTAL REQUIREMENTS
2015	\$392,750	\$283,246	\$675,996
2016	284,312	266,750	551,062
2017	298,028	254,809	552,837
2018	311,151	242,292	553,443
2019	323,294	229,223	552,517
2020–2024	1,837,307	929,963	2,767,270
2025–2029	2,255,679	510,322	2,766,001
2030–2031	1,041,422	65,989	1,107,411
Total	\$6,743,943	\$2,782,594	\$9,526,537

Source: Schwartz et al. 2014

Capital Improvements

The District has set a goal of achieving the 200-year level of flood protection in accordance with the State of California, DWR’ Urban Levee Design Criteria (ULDC). The first step toward that goal is an engineering analyses to ascertain the level of ULDC compliance. As of 2013, there were no known 200-year design water surface elevations for the waterways adjacent to Bishop Tract. Until the engineering analyses are completed, the District does not plan to proceed with any major levee improvement construction projects because uncertainty as to the type of projects that are needed. After completion of the engineering analyses, the District expects to be able to identify projects to achieve full ULDC compliance. It is anticipated the District will meet Evidence 3 level of compliance with SB 5 in the near term. The District has a plan to remove and replace diversion structures that will allow them to achieve 200 year flood protection

The estimated cost for the engineering analysis ranges from \$1.6 to \$2.0 million. The District’s assessment based income and the possibility of increasing those assessments is limited. The upgrade of the levee system is expected to be funded by subvention funds. The District anticipates that funding will be available with a 90 percent cost share ratio. In other words, the District would contribute between \$160,000 and \$200,000 toward the full cost. It is also assumed the engineering analyses would require 5 years to complete.

DETERMINATIONS

- 12.4.1:** The District budget averages \$825,000 a year. Revenues are derived primarily from assessments. Expenses are distributed among debt service, maintenance and administration. The District allocates approximately 60 percent of expenses for debt service, 20 percent for administration, and 20 percent for maintenance.
- 12.4.2:** The District refinanced its bond indebtedness in 2014. The total debt as of June 30, 2014 was \$6.7 million. The debt is anticipated to be repaid in FY 2031.
- 12.4.3:** The long-term plan is for the District to upgrade its levee system from the 100-year flood level to the 200-year flood level. The District will not entertain other capital improvements until the engineering study for the 200-year protection level is complete. The engineering study is scheduled for completion by the end of the 2013 Five Year Plan.

12.5 - Status and Opportunity for Shared Facilities

The District works cooperatively with a number of local and state agencies. It works with the Lincoln Rural Fire Protection District and the City of Stockton, as well as the San Joaquin County Office of Emergency Services and the Sheriff's Department on its EOP. It also works with the DWR on levee maintenance and the California Office of Emergency Services on the EOP.

The District has partnered in the Lower San Joaquin River Feasibility Study with several other reclamation districts, the U.S. Army Corps of Engineers, the State Central Valley Flood Protection Board, and SJAFCA. The results of the study will help identify needed improvements to meet or exceed the 200 year flood protection level.

One measure of management efficiencies is whether the District develops and implements plans. The District has completed a Five Year Plan in 2013. The plan identifies capital improvements and other projects the District anticipates for the next 5 years. The District also completed an EOP, which becomes operable during a flood episode. Typically, the EOP identifies key personnel and agencies that need to be contacted and their roles in a flood emergency.

DETERMINATIONS

- 12.5.1:** The District works cooperatively with a number of local, state, and federal agencies to assist with protecting Bishop Tract from flood emergencies.
- 12.5.2:** The District exhibits management efficiencies through planning activities. These include an Emergency Operations Plan and a Five Year Plan. The Five Year Plan, most recently adopted in 2013, documents the goals of the District and identifies capital improvement projects. The District's ultimate goal is to increase levee protection from the 100-year flood level to the 200-year flood level.

12.6 - Government Structure and Accountability

The District's Board of Trustees is made up of five Trustees elected or appointed, if there are an insufficient number of candidates to hold an election. They serve 4-year staggered terms and receive no compensation. They meet on an as-needed basis at the District Office at 10100 Trinity Parkway in Stockton. Meetings are held in accordance with the Brown Act.

The District does not have a website. It communicates with residents as needed via mail.

The focus of District services is maintenance of the levee system. In doing so the District also performs vegetation removal, weed abatement, rodent control, upkeep of the levee access road, flood control, drainage, levee patrol, and subvention. The District has one part-time employee. Most of the activities are accomplished with contractors. The District also hires temporary employees on an as-needed basis to complete maintenance and vegetation control projects. Temporary employees are supervised by contractors, the Superintendent or the District's Engineer.

DETERMINATIONS

- 12.6.1:** The District is governed by a five-member board of trustees elected or appointed, if necessary, to 4-year staggered terms. Trustees receive no compensation. Trustees meet on an as-needed basis at the District office.
- 12.6.2:** The District has no website and communicates with residents via mail as needed.
- 12.6.3:** The District has one part-time employee. Much of the work is completed by contractors. The District also hires temporary employees on an as-needed basis to complete maintenance and vegetation control projects.

12.7 - Any Other Matter Related to Effective or Efficient Service Delivery as Required by Commission Policy

The District is not seeking to expand its boundary, consolidate with a neighboring district, or discontinue service. The only policies that may affect the District operations are the Sphere of Influence policies. San Joaquin LAFCo's Sphere of Influence policy allows for open space or rural lands to be designated in an agencies sphere to preserve the use and character of that territory. While there are rural lands adjacent to the District there is no need to include them in the sphere as they are not likely to need or receive services from the District. San Joaquin LAFCo's Sphere of Influence policy allows for a coterminous sphere. Since the District has no plans for expansion and needs no additional drainage and flood control services, a coterminous sphere would be appropriate for the District. Since the sphere policies are the only applicable policy and the District would seek a coterminous sphere, no additional services would be required and there would be no effect of the policy on service delivery. Therefore, the San Joaquin LAFCo policies will have no effect on service delivery.

DETERMINATIONS

- 12.7.1:** There are no San Joaquin LAFCo policies that would affect service delivery.

12.8 - Key Findings and Issues

1. The District maintains 8 miles of levees that meet the 100-year urban standard. Their goal is to achieve 200-year flood protection.
2. Funding for the long-term goal of achieving 200-year flood protection is limited by assessments and the ability to increase assessments.
3. RD 2042's Sphere of Influence was established in 1983. A sphere of influence update is long overdue. The District has no plans to expand services to areas outside its boundary, nor does it have plans to expand its boundary, nor is there an anticipated need for services outside its existing boundaries, nor is there sufficient information to support inclusion of areas outside the

agency's boundaries in the sphere of influence. It is recommended Commission update the sphere and set it as conterminous with District boundaries

4. The District has partnered in the Lower San Joaquin River Feasibility Study with several other reclamation districts, the U.S. Army Corps of Engineers, the State Central Valley Flood Protection Board, and SJAFCA. The results of the study will help identify needed improvements to meet or exceed the 200 year flood protection level.

13: RECLAMATION DISTRICT 2058 (PESCADERO)

Pescadero RD No. 2058 was formed November 7, 1921 by order of the San Joaquin County Board of Supervisors. The District operates under the Water Code Section 50000 et seq. RD 2058 provides drainage, levee maintenance and the furnishing and distribution of water for the irrigation of land lying within the boundaries of the District. The District holds two licenses for the diversion and use of water. It operates a common diversion and delivery system for approximately 7,800 acres that hold riparian and pre-1914 water rights.

The District is located southwest of the City of Lathrop and the Paradise cut and northeast of the City of Tracy. A small portion of the southeast portion of the District lies within the Tracy city limits. The District is located in the southern portion of the Sacramento-San Joaquin Delta, on the southwesterly side of Paradise Cut. The District consists of roughly 7,800 acres of primarily agricultural land, with a small portion devoted to residences, commercial, and industrial properties, among others. The District has approximately 9 miles of levees (6.8 miles of project levees and 2.2 miles of non-project levees) and is bisected by the Tom Paine Slough that runs east-west through the center of the District. Exhibit 13-1 shows the boundary map of the District while Table 13-1 provides the general information about the District and its services.

Table 13-1: RD 2058 General Information

TABLE 13-1: RD 2058 GENERAL INFORMATION	
Agency	RD 2058 (Pescadero)
Address	3650 W Canal Boulevard Tracy CA 95304
Principal Act	California Water Code §50000, et seq.
Date Formed	November 7, 1921
Population	Estimated 5000
Last SOI Update	1983
Services Provided	Levee maintenance, flood control, drainage, and irrigation
Contact Person	Diane Lopez, District Secretary 209-835-2293 rd.2058@yahoo.com
Website	pescaderoreclamationdistrict2058.yolasite.com

Table 13-2 shows the distribution of the District local land use by general use categories as of 2010.

13.1 - Growth and Population Projections

Most of the District’s population is within the corporate limits of the City of Tracy with a smaller population center in Banta. The southeast portion of the District is in the Sphere of Influence of the City of Tracy where additional industrial development is anticipated, according to the City’s 2011 General Plan. No significant new residential development is anticipated in the District. The City of Tracy General Plan does anticipate development of approximately 140 acres for industrial uses in the Northeast Expansion area east of MacArthur Dr. and north of I-205 that lies within the District boundaries. The City of Tracy 2011 General Plan also anticipates a contraction of its Sphere of Influence amounting to 1,650 acres in the Banta area.

Table 13-2: Land Uses RD 2058

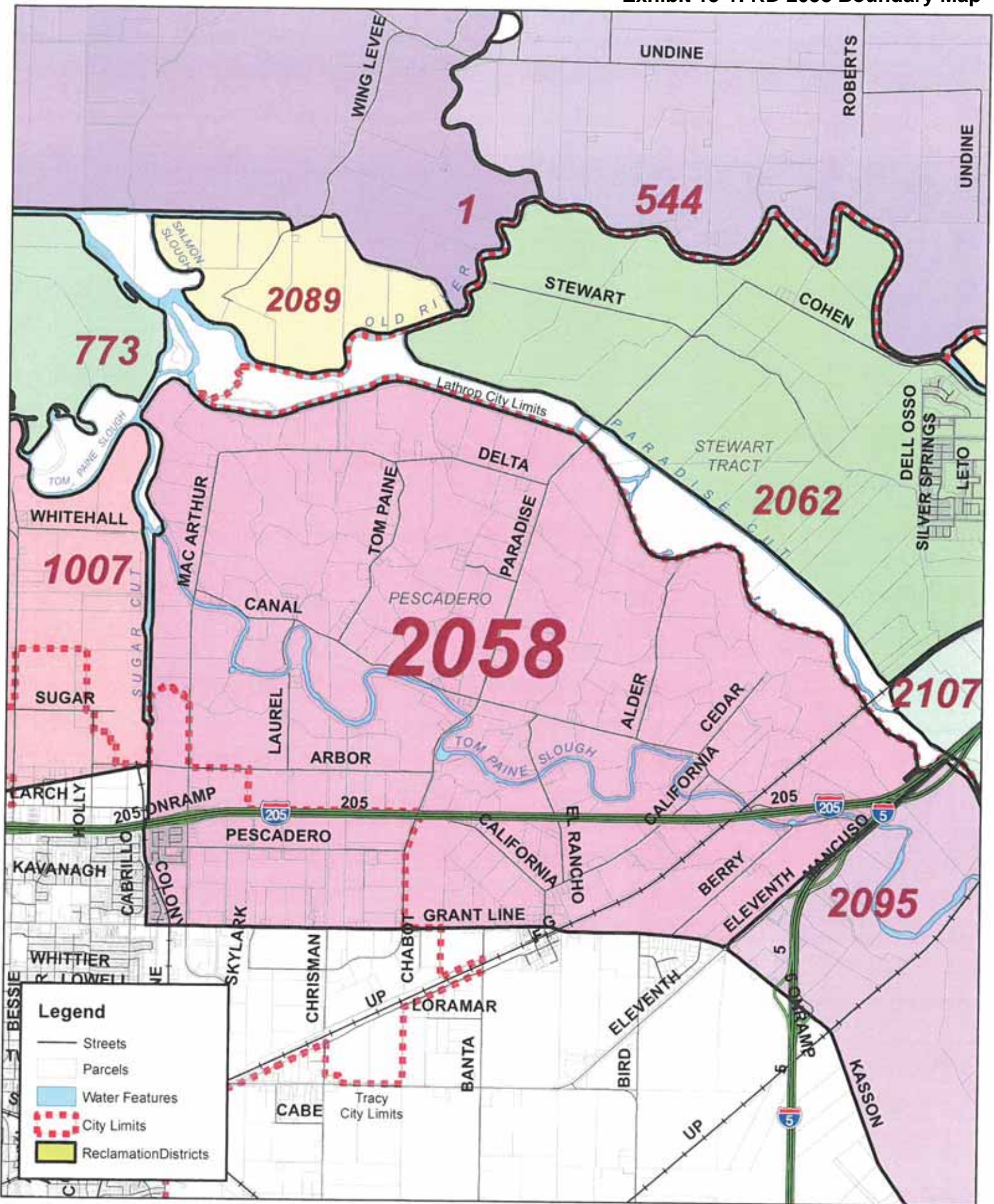
LAND USE	ACRES
Residential (incl. mobile home)	79.3
Rural Residential	229.6
Commercial	150.5
Vacant Land	230.9
Industrial, Manufacturing	149.8
Orchard	20.9
Irrigated Row Crops	3082.2
Irrigated Row Crop with Residential	3221.2
Irrigated Pasture	47.7
Irrigated Pasture with Residence	19.1
Dairy	77
Dairy with Residence	179.7
Poultry Ranch with Residence	9.5
Waste Land	1.1
Recreational Use	116.4
Utility Property	156.4
Total	7,803

There are a total of 239 subdivision homes and 85 houses scattered on agricultural lands. The District estimates a population of roughly 5,000 people. However, based on the number of homes and the county average of 3.16 persons per household the population may be closer to 1,024 residents.

To estimate the change in population over the next 30 years, the SJCOG has published population projections for census designated places and the unincorporated county. Since most of the District lies in the unincorporated county the anticipated growth rate for that portion of the County should give a reasonable estimate of population growth in the District. Table 13-3 shows projected growth for unincorporated portions of the County. The table shows expected growth of approximately 2.5 percent growth over the 30 year period from 2015 to 2045. Based on that assumption, up to 26 additional residents are expected by 2045.

Table 13-3: RD 2058 Census Designated Place Forecast

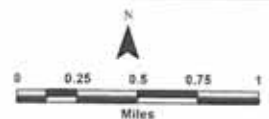
	2015	2020	2025	2030	2035	2040	2045
Rest of the County	70,950	71,184	71,450	71,718	72,038	72,400	72,764
% Change	0.37	0.33	0.37	0.38	0.45	0.50	0.50
Est. Population RD 2058	1,024	1,027	1,031	1,035	1,039	1,045	1,050
Source: Eberhardt School of Business, 2016							



**RECLAMATION DISTRICT 2058
SAN JOAQUIN COUNTY**

San Joaquin County Geographic Information Systems
1810 East Hazelton Avenue, Stockton, CA 95205

The information on this map is based on the most current information available to San Joaquin County Geographic Information Systems. The County will not be liable for any errors or omissions, or for any consequences arising from the use of this information. The information on this map is not intended to replace engineering, logical, or other records research.



DETERMINATIONS

- 13.1.1:** The population of the District is estimated at 1,024 residents based on 324 residences and 3.16 persons per household. Most of the population resides within the corporate limits of the City of Tracy. Additional population is concentrated in the town of Banta. Additional industrial development is anticipated within the area of the District located within the City of Tracy and some scattered home site development is also likely to accommodate up to approximately 26 new residents by 2045 when the District population is expected to reach 1,050.

13.2 - Disadvantaged Unincorporated Communities

In 2015, the California MHI was estimated as \$64,500 by the Department of Finance. By definition, the MHI for a DUC would be \$51,600 or less. The District lies in Census Tract 52.02 where the median household income is \$96,000. Furthermore, there are no fringe communities in the District, nor are there legacy communities or island communities in the District. Therefore, there are no DUCs in RD 2058.

DETERMINATIONS

- 13.2.1:** The District lies in Census Tract 52.02 where the median household income is \$96,000, well above the 80 percent of the California median household income. Furthermore, there are no fringe communities in the District, nor are there legacy communities or island communities in the District. Therefore, there are no DUCs in RD 2058.

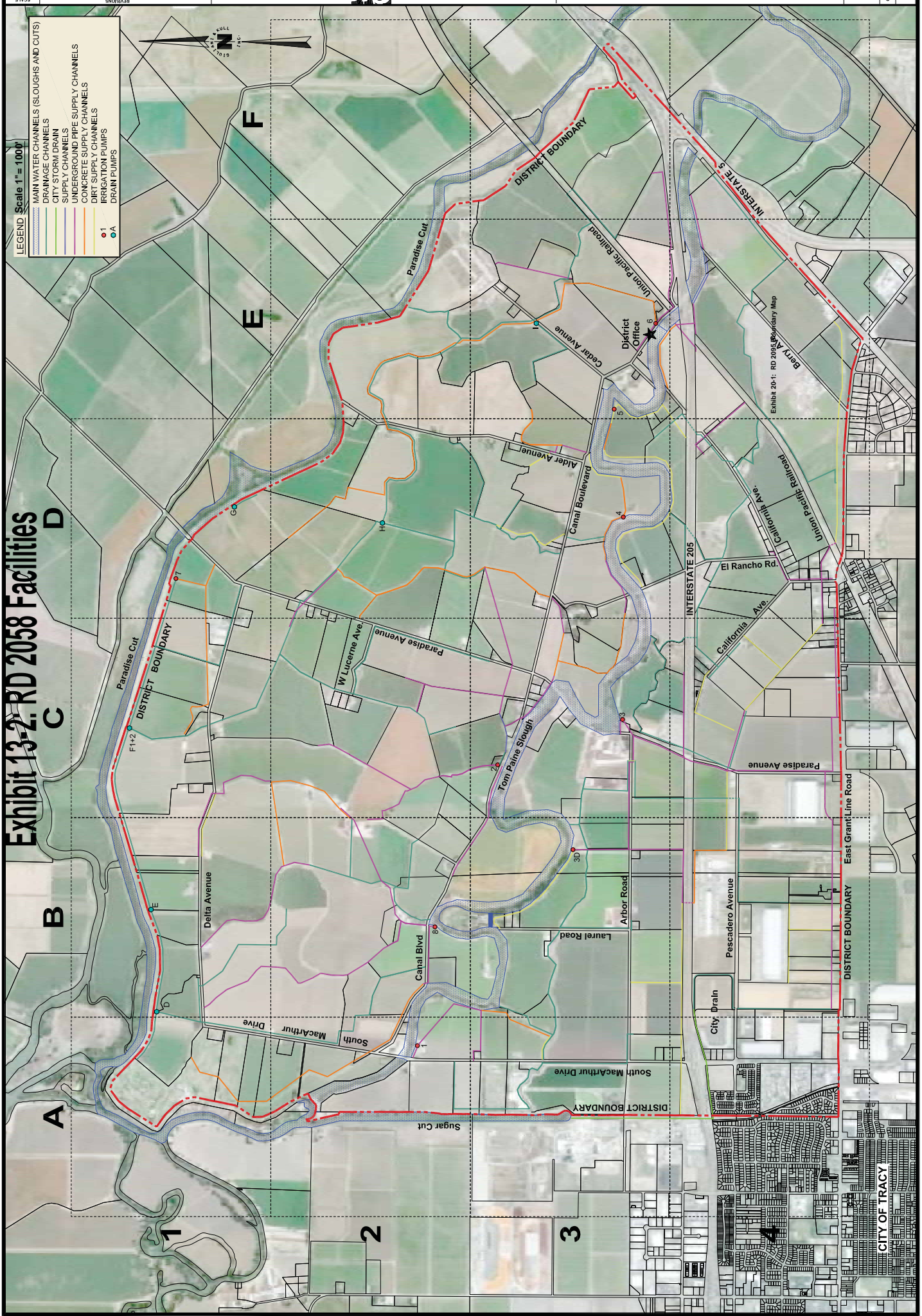
13.3 - Present and Planned Capacity of Public Facilities

The District provides the following services, and improvements:

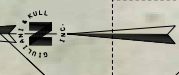
- Levee maintenance
- Levee patrol
- Trimming and removal of vegetation that impairs the visibility of levees and adjacent areas
- Spray pre-emergent herbicides to control weed growth and thus reduce fire risk
- Rodent abatement
- Erosion repairs to levees from high water and runoff
- Resurface levee crowns for all weather access
- Upkeep of levee roads
- Flood prevention
- Equipment maintenance repair and replacement
- Stockpile flood emergency materials
- Routine levee patrols
- Irrigation pumps (nine pump stations) and drainage pumps (seven pump stations)
- Emergency flood response
- Subvention

Exhibit 13-2 shows the levee system and other facilities operated and maintained by the District. The District is protected primarily by the project levees along its northern and eastern boundary (Paradise Cut) and by the non-project levee along its western boundary (Sugar Cut)

Exhibit 13-2: RD 2058 Facilities



- LEGEND Scale 1" = 100'**
- MAIN WATER CHANNELS (SLOUGHS AND CUTS)
 - DRAINAGE CHANNELS
 - CITY STORM DRAIN
 - SUPPLY CHANNELS
 - UNDERGROUND PIPE SUPPLY CHANNELS
 - CONCRETE SUPPLY CHANNELS
 - DIRT SUPPLY CHANNELS
 - IRRIGATION PUMPS
 - DRAIN PUMPS
- 1
● 2
● 3
● 4
● 5
● 6



CITY OF TRACY

The District operates and maintains approximately 9 miles of levees, of which 6.8 miles are project levees and 2.2 miles are non-project levees. By definition, a project levee is a levee system that is part of an authorized flood control system. Project levees are part of the Federal Flood Control Project and are built to higher standards that comply with the guidelines of the U.S. Army Corps of Engineers (USACE). Project levees are required to meet HMP and PL 84-99 standards. The Delta Flood Protection Act of 1988 requires that Delta Levee Subventions projects be compatible with Bulletin 192-82 standards. Non-project levees are constructed and maintained by landowners or local agencies. Non-project levees are eligible for the Delta Levees Maintenance Subventions Program (Subventions Program), which provides the District with reimbursement of up to 75 percent of eligible expense, less \$1,000 per mile of levee, in accordance with program guidelines. The Subventions Program is authorized by the California Water Code and is managed by the Department of Water Resources (DWR) for the Central Valley Flood Protection Board (CVFPB). In order to be eligible to participate in the Subventions Program the District must be in compliance with all requirements of Water Code sections 12980-12995. The District is active in the Subventions Program.

Project levees are subject to USACE certification and inspection. In addition, they are subject to AB 156 inspection and reporting requirements. The levees are inspected four times a year, including by USACE. Under AB 156, the District must report the condition of its levees to DWR, which compiles an annual report to be adopted by the CVFPB. Table 13-4 provides an overview of the District levees.

Between 2013 and 2016 the RD 2058 project levees were rated M. That means that while most sections were acceptable there are some sections of the levee were rated U. There are a few scattered sections with serious seepage problems, totaling 1 mile of the 6.58 miles, and an area of erosion at mile 4.77. The District also reported an exposed pipe and vertical pump as well as the removal and repair of a siphon breaker. In addition, there were elderberry bushes growing on the levee that could not be removed according to USFWS and wild growth vegetation on the levee. In 2017 the system was rated U, unacceptable. In January 2009, the District received habitat guidelines from the USFWS relating to its view that portions of the District's levees contained habitat for Riparian Brush Rabbit. The District's efforts to comply with these guidelines have substantially limited the District's simultaneous effort to comply with DWR levee vegetation limitation guidelines. In 2009 and 2010, the District communicated with both USFWS and DWR to find a solution for maintenance of the District Levee system and remain in compliance with both DWR and USFWS.

The Riparian Brush Rabbit was listed as endangered in 2000 and the Garter Snake in 1993; consequently, extensive modifications to maintenance practices have been required. Much of the vegetation that was routinely controlled in the past could not be controlled due to habitat concerns, resulting in an "unacceptable" rating from DWR in 2009 inspections. It is anticipated that future allowable maintenance practices will pose an increased financial burden on the District.

In 2011, the District received permission from USFWS to test goats on the levee for the purpose of vegetation control. While the goats had a favorable impact and improved the levee rating considerably, the District did not have enough time to complete the entire levee and elevate itself out of an unsatisfactory rating by fall of 2011. Further, the use of goats has proven more expensive for the District than normal vegetation control methods. The District stated that goats would soon begin to graze on the levee to mitigate vegetation issues identified in the inspection.

During the inspection, the District provided a summary of expenses and planned maintenance activities for the levee. Expenses include costs of garbage removal, rodent control, tree trimming, and vegetation control. Total cost for FY 16 is \$46,960.

The levees in the District are classified as Agriculture (A-1) and Infrastructure (I-1). This classification qualifies the District to receive FEMA, disaster assistance for levee repair if a Delta Levee fails based on agreement among the FEMA, State, and Delta RDs after 1983 and 1986 floods. The levees are required to meet the HMP levee standard in order to receive disaster relief funds.

Table 13-4: RD 2058 District Overview

RD 2058 FACILITIES			
Total Levee Miles	6.8 project levee 2.2 non-project levees	Surface Elevation	<u>+10 ft</u>
LEVEE MILES BY STANDARD		LEVEE MILES BY TYPE	
No Standard (below HMP)	2.2	Dry Land Levee	0.0
HMP Standard		Urban Levee	0 Miles
PL 84-99 Standard	6.8	Agricultural Levee	9.0
Bulletin 192-82 Standard	6.2	Other	0
FEMA Standard	0.0 Miles		
DISTRICT FACILITIES			
Internal Drainage System	Tom Paine Slough	Pump Station(s)	9 irrigation 7 drain
Detention Basins(s)	No	Bridges	No
FLOODPLAIN			
FIRM Designation	AE Panel 0595F ad 0615F	Base Flood Elevation	22' – 23'
LEVEE INSPECTION PRACTICES			
Winter/Summer District, Spring/Fall DWR			
LEVEE INSPECTION REPORTS			
Most Recent Written Inspection	2017	Inspection Rating	Unacceptable
LEVEE SEGMENT	DESCRIPTION		CONDITION
LEVEE MAINTENANCE			
Miles Rehabilitated	Selected Areas N/P	Miles Needing Rehabilitation	2.8
% Rehabilitated	N/P %	% Needing Rehabilitation	31%

Rehabilitation Cost per Levee Mile*	N/P	Maintenance Cost per Levee Mile**	0
INFRASTRUCTURE NEEDS/DEFICIENCIES			
District levees met the 100-year flood protection standard.			
Notes: NP = Not Provided ¹ Identified in RD 2058 2012 5 year plan * Rehabilitation cost per levee mile is equal to the expenditure amount on capital improvements in FY 14-15 divided by the number of levee miles rehabilitated in FY 14-15. ** Maintenance cost per levee mile is equal to the expenditure amount on levee maintenance in FY 14-15 divided by the total number of levee miles.			

The District is focused on bringing its project levee to acceptable standards . A recent inspection found there are a few scattered sections with serious seepage problems, totaling 1 mile of the 6.58 miles, and an area of erosion at mile 4.77. RD 2058 is currently involved in to projects with DWR under the Flood Safety Repair Project (FSRP) to address issues of concern noted in recent inspections.

Although compliance with SB 5 rests with the land use authority several districts that protect potentially developable lands are working with the cities and County to improve levees to the 200 year flood protection standard. RD 2058 is focusing on bringing project levees to required standards and is not in the planning stage for 200 year protection.

Water for irrigation is the other key function of the District. The District holds two appropriative rights. The more senior appropriative right dates from March 31, 1921. It entitles the District to divert up to 88.37 cubic feet per second from about May 1 to October 31 of each year to irrigate 7,070 acres (License 832). The more junior appropriative right dates from April 13, 1926. It entitles the District to divert up to 88.37 cubic feet per second from about October 31 to May 1 of each year to irrigate 7,070 acres (License 1285). Both of these appropriative rights are subject to the express condition that the State Water Resources Control Board can regulate use under these rights when water is scarce to prevent interference with more senior water rights. In addition to its licensed rights, the District itself also claims pre-1914 riparian rights to divert water and has filed Statements of Water Diversion and Use in support of its claimed rights. The water comes from Tom Paine Slough and Paradise Cut.

During irrigation season from March 15 to October 15, landowners can order irrigation water 72 hours in advance of when it is needed. Landowners can also order irrigation water in the off season by special arrangements. District rules require payment in advance of water delivery. In addition, District assessments must be current for irrigation applications to be placed on property. The charges for 2017 were \$15.50 per acre per irrigation for flood irrigation and \$45/acre-foot for drip irrigation. The charges for 2018 are \$18.00 per acre per irrigation for flood irrigation and \$55/acre-foot for drip irrigation.

The District also operates irrigation improvements for Tom Paine Slough which include, an intake structure that was built in the late 1920s by the DWR. This structure is used to allow water to pass between Tom Paine Slough and Sugar Cut and consists of two 4-foot x 5-foot concrete box culverts with steel slide gates installed on the Sugar Cut bank. This structure has no means to measure the flows coming into the District for agricultural usage. The District also pumps in river water for irrigation use

with Pump 7, located on the center north end of the District at Paradise Cut. This pump station delivers irrigation water through a pipe that discharges into the District’s open canal system.

The District also operates four 36” siphon pipes at the Tom Paine Slough head gate to supplement the box culvert flows during high demand. There are also eight pump stations within Tom Paine Slough that are used to deliver water throughout the District. Additionally, the District operates eight pump stations for storm water removal from the District.

Vegetation removal is accomplished by contractors and goats. Levee inspections are accomplished by the District in the winter and summer months, and in the spring and fall by DWR. The most recent written inspection was completed in the fall of 2016.

DETERMINATIONS

- 13.3.1:** The District provides four key services for landowners and residents of the District, levee maintenance, flood control, irrigation and drainage.
- 13.3.2:** The District maintains 6.8 miles of project levees (Paradise Cut) and 2.2 miles of non-project levees (Sugar Cut). Project levees are required to meet HMP and PL 84-99 standards. The most recent DWR inspection showed some areas of seepage and an area of erosion on the project levee. Vegetation was an issue that resulted in the District using goats to remove vegetation.
- 13.3.3:** The District also provides irrigation water to land owners during the March 15 to October 15 irrigation season. Landowners can order water 72 hours in advance of when it is needed and must be current with their District assessments. Orders for irrigation water must be paid in advance of delivery. The District currently charges \$18.00 per acre per irrigation for flood irrigation and \$55/acre-foot for drip irrigation. The District maintains sufficient infrastructure to deliver and drain irrigation water.

13.4 - Financial Ability to Provide Service

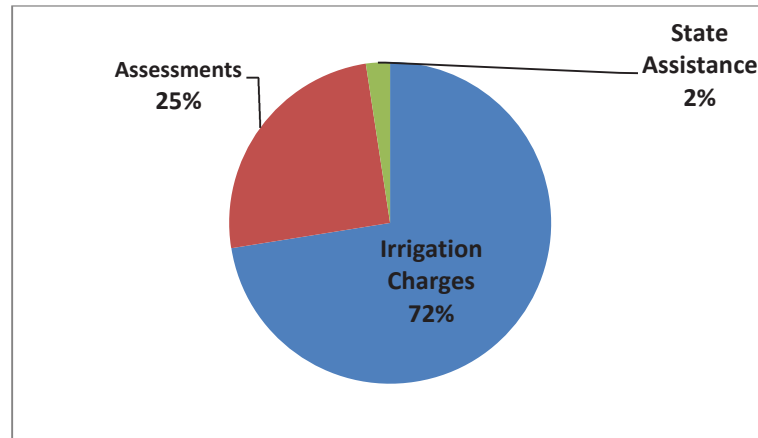
The District has an annual budget of around \$700,000. Table 13-5 shows revenues and expenses for FY 11 through FY 15. The table also shows the fund balance of \$276,274, which is about a third of expenses.

Table 13-5: RD 2058 Revenues and Expenses FY 11 to FY 15 (\$)

ACCOUNT	2010–11	2011–12	2012–13	2013–14	2014–15
Total Revenues	744,726	898,700	847,192	838,118	967,516
Total Expenses	671,525	695,160	909,425	888,746	941,789
Beginning Fund Balance	178,437	231,685	338,497	276,274	221,881
Ending Fund Balance	231,685	338,497	276,274	221,881	251,296
Source: Croce & Company 2013, 2014,2015					

Exhibit 13-3 shows the sources of revenue based on averages of the 5-year period FY 11–FY 15. As shown, irrigation charges constitute the large majority of District revenue, 72 percent, followed by assessments, 25 percent, and a modest amount of State assistance and miscellaneous revenue.

Exhibit 13-3: RD 2058 Revenue Sources FY 11–FY 15



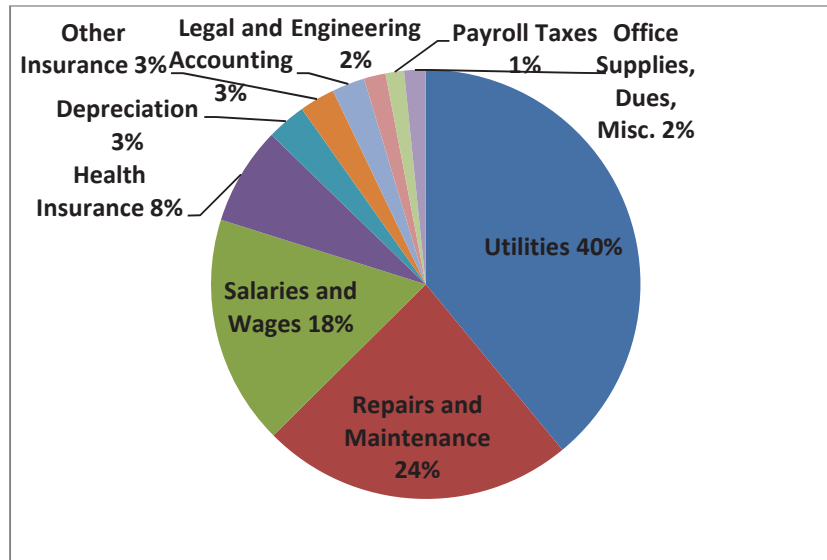
Source: Croce & Company 2013, 2014, 2015

Exhibit 13-4 shows the allocation of expenses for the same period. The exhibit shows the average expenditure in each category in comparison to total expenses. The District budgets annually for maintenance costs for the levees, drainage and irrigation systems.

The District’s Audit does not report programmatic outlays but utility outlays are primarily for irrigation and drainage pumps, 40 percent, while repairs and maintenance likely include most levee maintenance and repair outlays, 24 percent, as well as for that of drainage and irrigation. Since the District does have employees, 18 percent of expenses are for contract salaries and wages.

For many years, despite increasing costs to the District for providing reclamation services to landowners, the District maintained the same assessment rate of \$25.00 per acre regardless of land use type and a flat rate of \$10.00 per residential lot. That assessment rate provided the District with a limited ability to pay for large-scale rehabilitation projects with its current budget and assessment technique. Only approximately 2.2 miles of non-project levee is eligible for the Delta Levee Subventions Program, which receives reimbursement of up to 75 percent of eligible expenses, less \$1,000 per mile of levee, in accordance with the program guidelines. In 2014 the District determined that it could not continue to meet its obligation to provide the lands within its boundaries with the necessary drainage, levee, and flood control services, and related operating services without modifying its annual assessment. Additionally, the District determined that it was unable to compile a reserve fund for unforeseen future emergency projects or anticipated future major repairs. On October 29, 2014, in accordance with Proposition 218, the District held a public hearing concerning the adoption of a new assessment. To address some of its funding issues, the District has prepared a Proposition 218 ballot for the fall of 2017 or early 2018.

Exhibit 13-4: RD 2058 Expense Allocation FY 11–FY 15



Source: Croce & Company 2013, 2014, 2015

Capital Improvements

The District has a Five Year Plan which describes the District’s work plan to improve flood protection infrastructure over the next five years. The current Five Year Plan was adopted in 2012 and identifies the following deficiencies for the Pescadero and Sugar Cut levee:

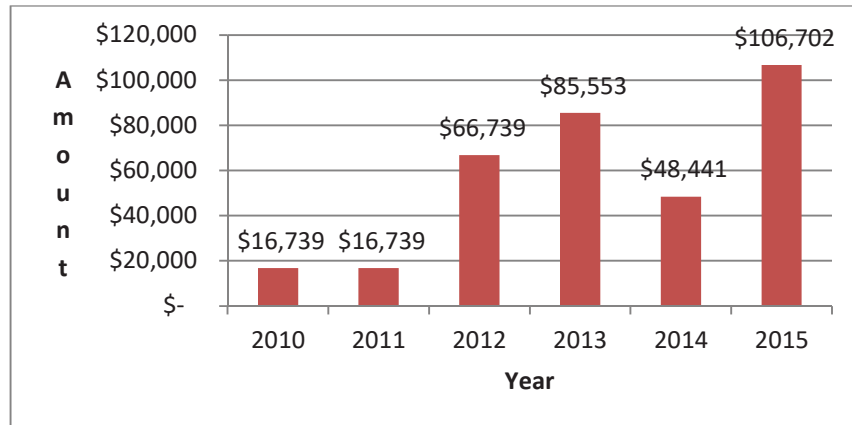
1. An approximately 2,380-foot section of Paradise Cut levee is below the elevation specified by the HMP standard, which equates to about 5 percent of the District’s total levee system.
2. An approximately 393-foot section of Sugar Cut section of levee is below the elevation specified by the HMP standard, which equates to about 0.8 percent of the District’s total levee system.
3. Approximately 6,000 feet of levee crown width is below the width specified by the HMP standard, which equates to about 12 percent of the District’s total levee system.
4. Approximately 6,000 feet of water side levee slope has been eroded below the slope specified by the HMP standard, which equates to about 12 percent of the District’s total levee system.

In accordance with its Five Year Plan the District has raised a 250-foot section of the Sugar Cut levee crown to the HMP standard (2014). The District has also entered into a Project Agreement with DWR under the FSRP program to repair an erosion site and the levee crown width on Paradise Cut (2015). Meanwhile the District continues to work on encroachment issues throughout its levee system in an effort to improve ratings to A or acceptable levels.

Long-term Debt

Non-current long-term debt amounted to \$106,702 in FY 2015. A portion of the debt was acquired as a result of legal action against the District in 1998. The District has a limited ability to pay for large-scale rehabilitation projects with its current budget and assessment technique. To address some of its funding issues, the District recently adopted a new assessment schedule that was approved through the Proposition 218 process. Exhibit 13-5 shows the authorized long-term debt from 2010 to 2015.

Exhibit 13-5: RD 2058 Long-term Debt



Source: State Controller 2017

DETERMINATIONS

- 13.4.1:** The District budget in FY 15 is \$941,789. It includes three components one for levees, one for the irrigation system, and one for operations.
- 13.4.2:** The District obtains the majority of its funding from user fees for irrigation services.
- 13.4.3:** The District has only modest long-term debt.
- 13.4.4:** The District has recently adopted a new assessment to generate funds to be used to provide the necessary drainage, levee, and flood control services, and related operating services to the lands within its boundaries.
- 13.4.5:** The District’s Five Year Plan includes levee improvements to bring all portions of the non-project levees to HMP standards.

13.5 - Status and Opportunity for Shared Facilities

The District works cooperatively with a number of local and state agencies. It works with all local agencies that serve the District in case of a flood including the City of Tracy and the City of Lathrop, as well as the San Joaquin County Office of Emergency Services, and the Sheriff’s Department on its EOP.

Pescadero RD is a member agency of the South Delta Water Agency (SDWA). The District also coordinates with the City of Tracy to the extent that the City and the District’s facilities are located in the same area.

The District works cooperatively with DWR and USACE to maintain and inspect the levee system. The District has a Flood Plain Flood Insurance Rate Map (FIRM) designation of “AE.” The Base Flood Elevation is 22 to 23 feet. RD No. 2058 has also adopted an Emergency Operations Plan Basic Plan (California Water Code Section 9650 Safety Plan), dated November 2015.

One measure of management efficiencies is whether the District develops and implements plans. The District has completed a Five Year Plan in 2012. The plan identifies capital improvements and other projects the District anticipates completing over the next 5 years. The District also completed an EOP,

which becomes operable during a flood episode. Typically, the EOP identifies key personnel and agencies that need to be contacted and their roles in a flood emergency.

DETERMINATIONS

- 13.5.1:** The District works cooperatively with agencies that would provide service during a flood emergency. That includes the San Joaquin County Office of Emergency Services, the California Office of Emergency Services, and FEMA.
- 13.5.2:** The District exhibits management efficiencies by developing a Five Year Plan and an Emergency Operations Plan. In addition, the District produces an annual budget or spending plan for the District.

13.6 - Government Structure and Accountability

The District is governed by a three-member elected board. Members serve 4-year staggered terms. The Board does not receive a stipend but receives partial compensation for insurance costs. The Board meets once a month, January through November, on the first Wednesday of the month at its offices at 3650 W. Canal Blvd. located north of Banta. Meetings are conducted in accordance with the Brown Act.

The District maintains a website at <http://pescaderoreclamationdistrict2058.yolasite.com/about-us.php>. It produces a newsletter, available on its website, and posts public advisories on the website to notify landowners of potential flood dangers. It also communicates with residents via mailers as necessary.

The District does not provide services outside of its boundaries and does not receive services from other agencies.

The District employs three full-time maintenance staff, and one full-time administrative staff. The District contracts for legal, engineering, professional, and other services.

DETERMINATIONS

- 13.6.1:** The District is governed by a three member elected board. Board members serve 4-year terms and receive no stipend. The board meets on the first Wednesday of the month, January through November, at 3650 W. Canal Blvd. Meetings are conducted according to the Brown Act.
- 13.6.2:** The District has four full-time employees. Some maintenance and vegetation control work is contracted out.
- 13.6.3:** The District has a website to communicate with landowners. The website also contains a newsletter published to inform residents and landowners. The District also publishes flood warnings on its website. In addition, the District at times will communicate with residents by mail as needed.

13.7 - Any Other Matter Related to Effective or Efficient Service Delivery as Required by Commission Policy

The District is not seeking to expand its boundary, consolidate with a neighboring district, or discontinue service. The only policies that may affect the District operations are the Sphere of Influence policies. However, since it is not likely that there will be a change in boundaries, it is recommended the Sphere of

Influence be set coterminous with the current boundary. Therefore, the San Joaquin LAFCo policies will have no effect on service delivery.

DETERMINATIONS

13.7.1: There are no San Joaquin LAFCo policies that would affect service delivery.

13.8 - Key Findings and Issues

1. The most recent DWR report rated the levee system as M, marginally acceptable, due to an area of erosion and several areas of seepage, as well as vegetation problems. The District is actively working to correct those problems which should bring the rating up to A, acceptable.
2. The District is working to upgrade all its levees to at least HMP standards and has received a grant from DWR to make repairs to bring project levees up to PL 84-99 standards.
3. RD 2058's Sphere of Influence was established in 1983. A sphere of influence update is long overdue. The District has no plans to expand services to areas outside its boundary, nor does it have plans to expand its boundary, nor is there an anticipated need for services outside its existing boundaries, nor is there sufficient information to support inclusion of areas outside the agency's boundaries in the sphere of influence. Therefore, it is recommended the Commission set a coterminous sphere for the district.

14: RECLAMATION DISTRICT 2062 (STEWART TRACT)

The District was formed on June 3, 1922 pursuant to the California Water code. The District provides flood control and miscellaneous municipal services. The District is located entirely within the City of Lathrop (Exhibit 14-1). The District maintains the levee on the west bank of the San Joaquin River north of the UP railroad track and along the Paradise Cut with the western boundary being the Old River. There is also an interior cross levy that runs north-south across the eastern quarter of the District from the railroad to the confluence of the Old River and the San Joaquin River. The District has FIRM flood plain designation AE and X Levee.

Table 14-1 provides the general information about the district and services it provides.

Table 14-1: RD 2062 General Information

TABLE 14-1: RD 2062 GENERAL INFORMATION	
Agency	RD 2062 (Stewart Tract)
Address	73 West Stewart Rd., Lathrop, CA 95330
Principal Act	California Water Code §50000, et seq.
Date Formed	July 3, 1922
Population	Estimated 600
Last SOI Update	1983
Services Provided	Levees, vegetation, flood control and drainage, lake maintenance, irrigation
Contact Person	Susan Dell’Osso; Board President (209) 879-7900; sdelloso@cambaygroup.com
Website	None

The District currently consists of 4,781 acres of a mix of agricultural land, residential, commercial, office and institutional uses. The District’s boundaries also include the Marina and Lakeside areas. Approximately 150 acres of the District are currently developed with a mix of uses including residences for a population of approximately 600 persons. Over 4,000 acres that are to accommodate 11,000 homes are in the final stages of approval for permits for development of the River Islands at Lathrop master planned community. River Islands is expected to build out over the next 20 to 25 years. Exhibit 14-1 shows the boundary map for the District.

14.1 - Growth and Population Projections

The current District population is estimated at about 600 persons. To estimate the change in population over the next 30 years, the SJCOG has published population projections for the City of Lathrop. The City of Lathrop has also developed buildout projections for sub-areas of the City that correspond reasonably well with the boundaries of RD 2062 and RD 17 that, between them, are anticipated to receive most of the City’s new residential development. As of 2017 the River Islands Development consisted of 500 of a total of 4,000 home sites. Adjacent to River Islands are an additional 7,000 potential lots. Table 14-2 shows projected growth for RD 2062. RD 2062 is expected to accommodate 55 percent of new residential development and population within the City of Lathrop through 2050. The table shows the population of RD 2062 is expected to increase by 30,000 persons between 2015 and 2045.

Table 14-2: City of Lathrop Population Forecast

	2015	2020	2025	2030	2035	2040	2045
City of Lathrop	23,107	28,896	35,475	42,109	50,007	58,969	67,976
RD 2062 New Growth Share % Change	0.55	0.55	0.55	0.55	0.55	0.55	0.55
Estimated Pop. RD 2062	600	3,811	7,460	11,140	15,521	20,492	25,489
Source: Eberhardt School of Business, 2016; City of Lathrop Sphere of Influence Study, 2016.							

New development in RD 2062 is subject to SB 5 restrictions which require 200 year flood protection. The District is working with the City of Lathrop to meet SB 5 requirements. The District is independently pursuing 200 year flood protection which must be in place by 2025. The District already has what they refer to as “Stage 1” levees which are built and designed for the 200 year flood protection. The District is in the process of completing a detailed engineering evaluation of the Stage 1 levees to confirm they comply with the standard. River Islands is in the process of obtaining 200 year flood accreditation. It is anticipated the project will be protected at 200 level and the project will be allowed to proceed.

DETERMINATIONS

- 14.1.1:** The population of the District is estimated at 600 residents. Most of the population is concentrated in the Marina and Lakeside areas in the easternmost portion of the District. Substantial new development is anticipated as a new pending Master Planned development community achieves buildout over the next 30 years causing the population to increase to 25,489 persons in 2045.

14.2 - Disadvantaged Unincorporated Communities

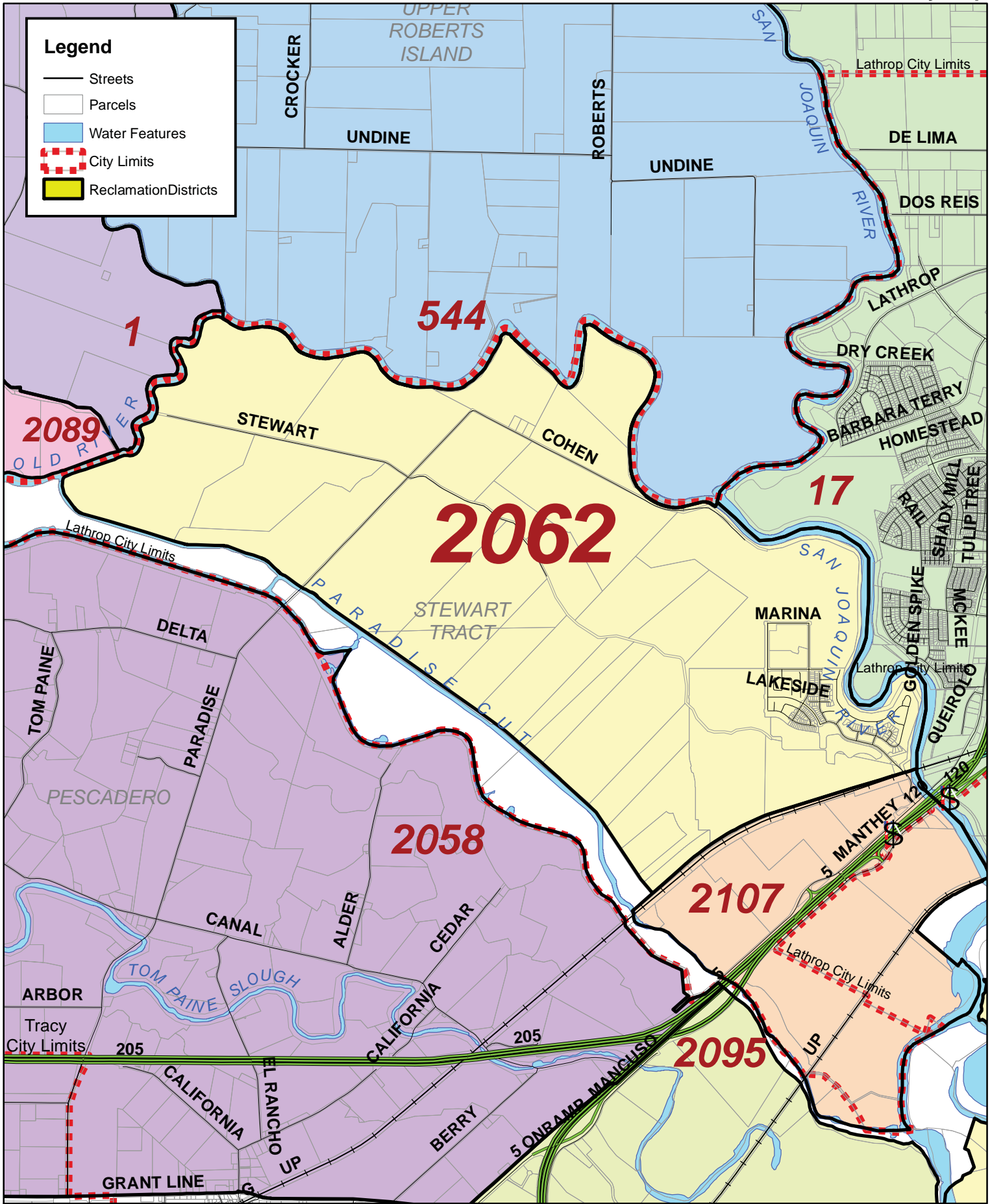
In 2015 the California MHI was estimated as \$64,500 by the Department of Finance. By definition, the MHI for a DUC would be \$51,600 or less. The MHI for this district is \$96,000, which is well above the statewide MHI. The District lies entirely in the City of Lathrop and contains no fringe communities, unincorporated islands or legacy communities. Consequently there are no disadvantaged communities in RD 2062.

DETERMINATIONS

- 14.2.1:** The District lies entirely in the City of Lathrop and contains no fringe communities, unincorporated islands or legacy communities. The MHI for this district is \$96,000, which is well above the statewide MHI. Consequently there are no disadvantaged communities in RD 2062.

14.1 - Present and Planned Capacity of Public Facilities

The District is protected primarily by the project levees around its circumference and has two non-project levees, one an interior levee and one a north-south cross-levy. In the event of a levee break in the District the north-south cross levy would provide protection to the Marina and Lakeside areas. Of the District’s 15.45 levee miles, 3.1 miles are dry land, 5.91 are urban and 9.66 are agricultural. Exhibit 14-2 shows the District’s levee system. Table 14-3 provides an overview of the District’s levee system.



**RECLAMATION DISTRICT 2062
SAN JOAQUIN COUNTY**

San Joaquin County Geographic Information Systems
1810 East Hazelton Avenue, Stockton, CA 95205
The information on this map is based on the most current information available to San Joaquin County Geographic Information Systems.
The County of San Joaquin does not warrant its accuracy, completeness, or suitability for any particular purpose.
The information on this map is not intended to replace engineering, financial or primary records research.

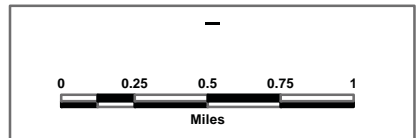


Table 14-3: RD 2062 District Overview

RD 2062 FACILITIES			
Total Levee Miles	12.35 Project/3.1 Non Project	Surface Elevation	<u>6-14 ft</u>
LEVEE MILES BY STANDARD		LEVEE MILES BY TYPE	
No Standard (below HMP)	0	Dry Land Levee	3.1
HMP Standard	0	Urban Levee	5.91
PL 84-99 Standard	15.45	Agricultural Levee	9.66
Bulletin 192-82 Standard	0	Other	0
FEMA Standard	0.0 Miles		
DISTRICT FACILITIES			
Internal Drainage System	Yes	Pump Station(s)	yes
Detention Basins(s)	Yes - Lake System	Bridges	Yes
FLOODPLAIN			
FIRM Designation	AE and X Levee	Base Flood Elevation	20
LEVEE INSPECTION PRACTICES:			
Routine levee patrols and inspections performed regularly during each week. Patrols provide information to District regarding needed maintenance repairs and levee conditions			
LEVEE INSPECTION REPORTS			
Most Recent Written Inspection	2017	Inspection Rating	Minimally Acceptable
LEVEE SEGMENT	DESCRIPTION	CONDITION	
San Joaquin River Levee	Eastern Boundary - Urban	All above PL 84-99	
Dryland Cross Levee	Southern Boundary - Urban	All above PL 84-99	
Dryland Interior Levee	Western Boundary - Urban	All above PL 84-99	
Old River Levee	Northern Boundary	All above PL 84-99	
Paradise Cut Levee	Western Boundary	All above PL 84-99	
LEVEE MAINTENANCE			
Miles Rehabilitated	Selected Areas N/P	Miles Needing Rehabilitation	N/P
% Rehabilitated	N/P %	% Needing Rehabilitation	
Rehabilitation Cost per Levee Mile*	N/P	Maintenance Cost per Levee Mile**	\$1,650
INFRASTRUCTURE NEEDS/DEFICIENCIES			
District levees met the 100-year flood protection standard.			
Notes: NP = Not Provided * Rehabilitation cost per levee mile is equal to the expenditure amount on capital improvements in FY 14-15 divided by the number of levee miles rehabilitated in FY 14-15. ** Maintenance cost per levee mile is equal to the expenditure amount on levee maintenance in FY 143-15 divided by the total number of levee miles.			

The District operates and maintains approximately 15.45 miles of levees, of which 12.35 miles are project levees and 3.1 miles are non-project levees. By definition, a project levee is a levee system that is part of an authorized flood control system. Project levees are subject to USACE certification and inspection. In addition, they are subject to AB 156 inspection and reporting requirements for DWR. The levees are inspected four times a year, including by USACE.

Although compliance with SB 5 rests with the land use authority, because of the River Islands development, the District is working to meet the 200 year flood protection requirement. As described above the District has built super levees and is in the process of determining if they meet the 200 year standards.

In addition, the District operates and maintains an irrigation and drainage system (Exhibit 14-3) that serves much of the western three-quarters of the District. The drainage system is served by two drain pumps and the irrigation system is served by 14 intake pumps. During the irrigation season, the drainage system collects and carries runoff from irrigated properties. During the rainy season, the system collects and carries off stormwater. In the event of a levee break, the system can be used to help remove floodwaters from the District.

Since 2012 the project levees have improved from a rating of U, unacceptable to M, marginally acceptable in 2016 and 2017. The inspection found several areas of serious erosion and one area of serious seepage. The agency reported maintenance activities that included herbicide spraying, roadway maintenance, rodent control, surveying and engineering services, tree trimming and pruning. The District indicated it had spent approximately \$74,000 on maintenance activities.

In addition to those mentioned in the DWR report the District's major operations also include

- Maintenance of water intake and drainage pumps
- Flood control
- Levee patrol
- Lake maintenance
- Irrigation

The District's drainage-related functions include:

- Maintenance of irrigation system, drainage ditches and channels and bridges
- Operation and maintenance of irrigation and drainage pumps and channels.
- Payment of electricity charges to operate irrigation and drainage pumps.

The District has no employees. All functions are carried out by 5 part-time contract maintenance positions. The District does not have a CIP.

Fixed Assets

For this District fixed assets will be defined as assets with an initial, individual cost of more than \$1,000. Capital assets are recorded at historical cost or estimated historical cost if purchased or constructed. The value of fixed assets is depreciated using the straight line method over the estimated useful lives of the assets. To date fixed assets include pumps and equipment, roads, and structures and improvements.

Exhibit 14-2: RD 2062 Levee System

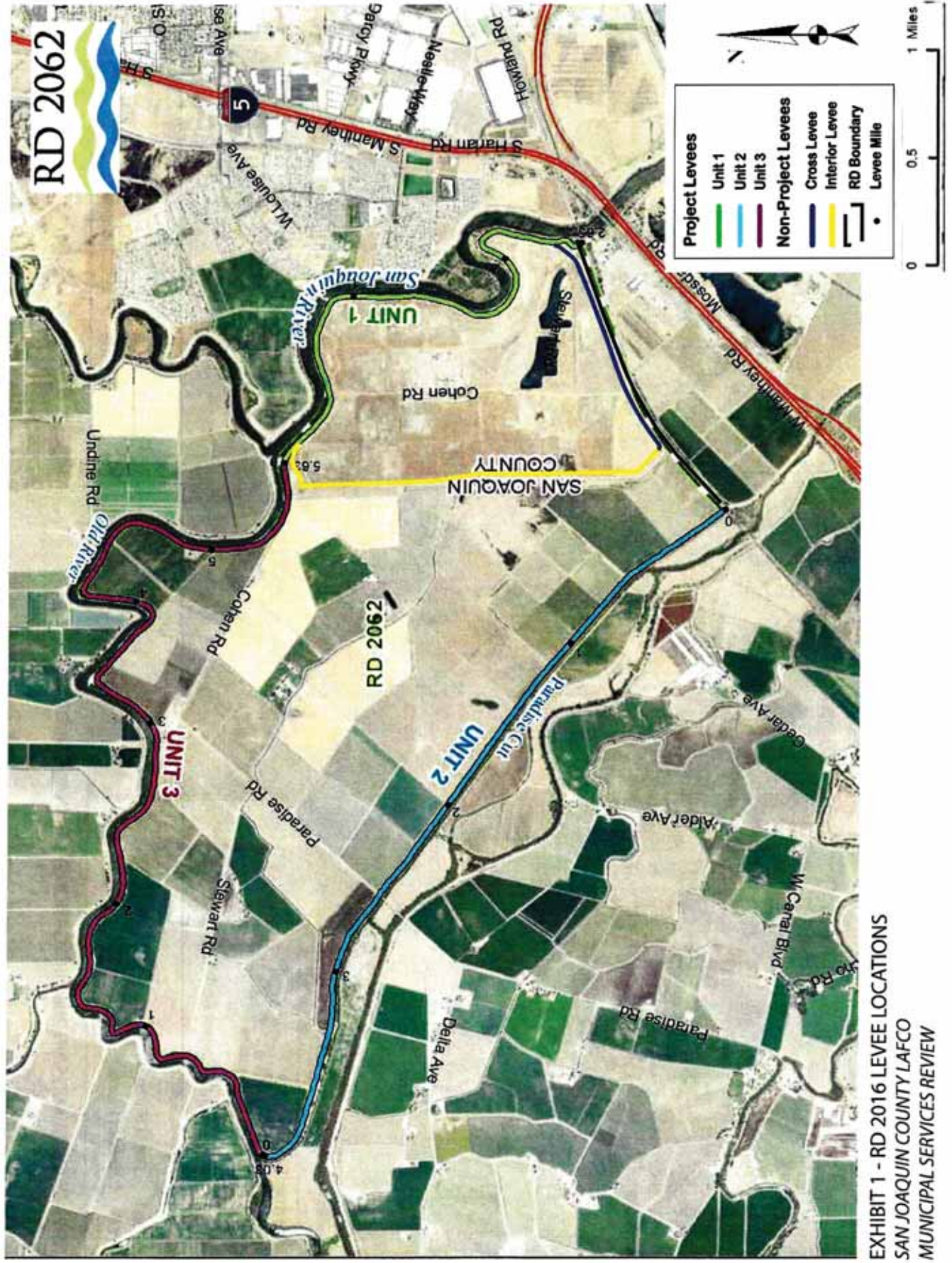


EXHIBIT 1 - RD 2062 LEVEE LOCATIONS
SAN JOAQUIN COUNTY LAFCO
MUNICIPAL SERVICES REVIEW

Exhibit 14-3: RD 2062 Irrigation and Drainage System

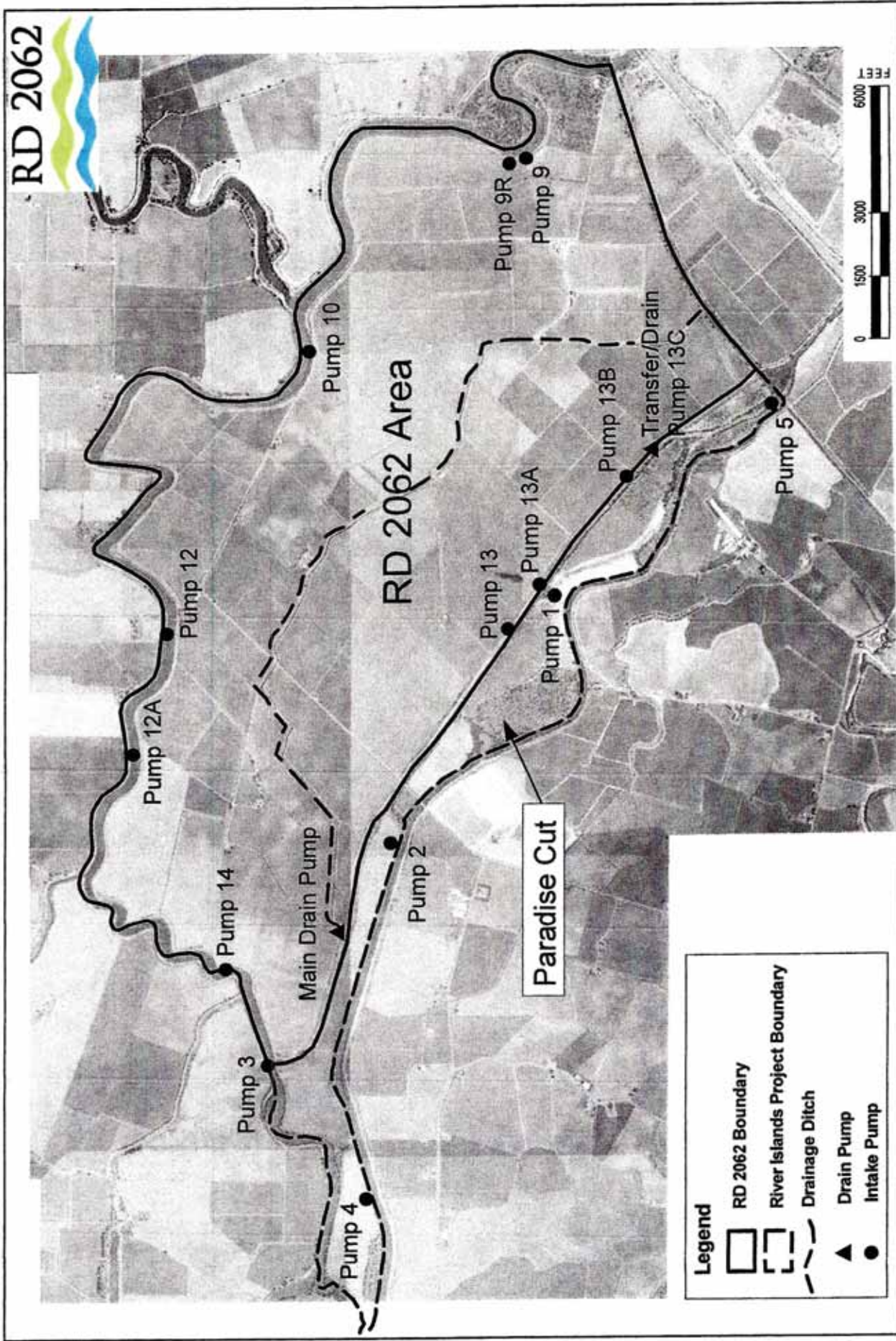


EXHIBIT 2 - RIVER ISLANDS/RD 2062 IRRIGATION & DRAINAGE SYSTEM
SAN JOAQUIN COUNTY LAFCO
MUNICIPAL SERVICES REVIEW

In addition, the District entered into an agreement with the City Lathrop and a construction contractor to construct a bridge over the San Joaquin River. The financing and related expenditures are managed and recorded by River Island Public Financing Authority. The construction of the bridge was completed in 2012 at a cost of \$6.3 million. Development of River Islands has begun and the approaches to the bridge will be completed in 2017. The bridge will become a fixed asset in the fiscal year it is transferred from the Authority and approved by the District’s board of directors.

DETERMINATIONS

- 14.1.1:** The District provides five key services for landowners and residents of the District, levee maintenance, flood control, recreation (Lake), irrigation and drainage.
- 14.1.2:** The District maintains a total of 15.45 miles of levee. Of those 12.35 miles of project levees subject to inspection and reporting under AB 156. All levees are to the PL 84-99 standards. The most recent inspection found the levees are maintained at a marginally acceptable level.

14.2 - Financial Ability to Provide Service

The District budgets annually for maintenance costs for the levees and the drainage system. Revenues are derived primarily from assessments and occasionally from warrants. In FY15 30.8 percent of the total assessment revenue came from Califia LLC and River Islands Development LLC. Table 14-4 shows a summary of the budgets from FY10–11 to FY 15–16.

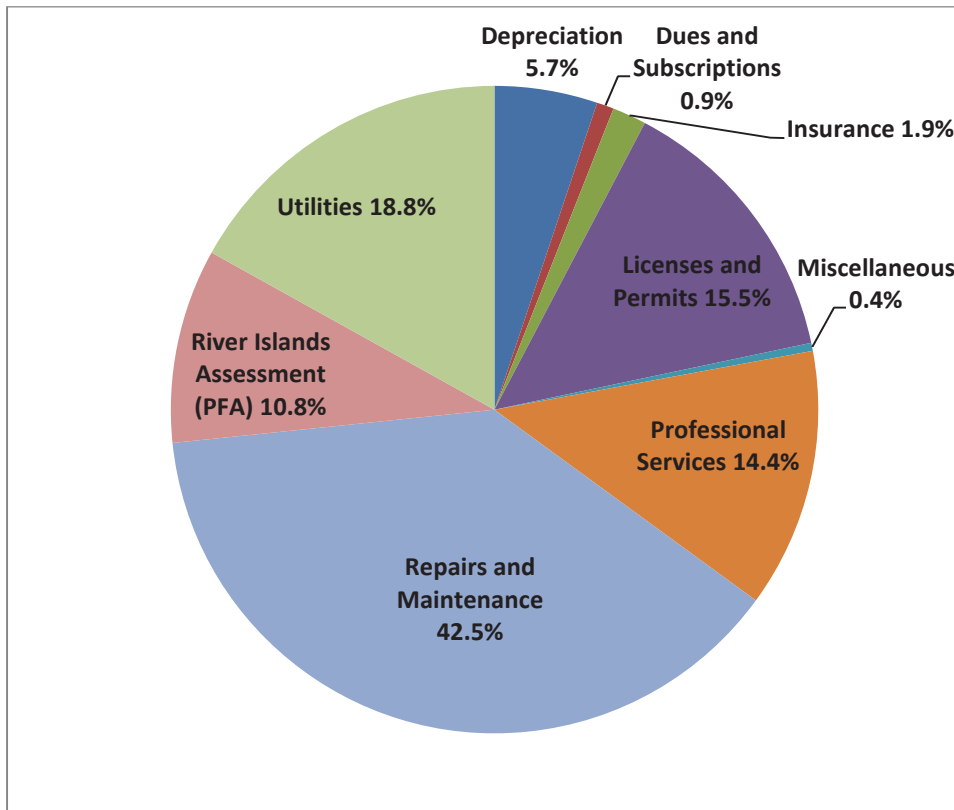
Table 14-4: RD 2062 Revenues and Expenses FY 12–FY 16 (\$)

ACCOUNT	2011–12	2012–13	2013–14	2014–15	2015–16
Total Revenues	175,831	153,300	220,733	457,561	320,379
Total Expenditures	202,234	167,128	207,152	225,650	518,611
Fund Balance, End of Year	513,271	499,433	513,064	744,975	546,987
Source: Perry, Bunch, Battaglia and Johnston, Inc. 2014, 2015, 2016, 2017					

As shown, revenue increased 25.5 percent from FY 2012 to 2014 and another 50 percent in FY 16 as a result of an increase in assessment income. Repairs and maintenance and professional services increased significantly on the expense side. RD 2062 is subject to assessments from the River Island Public Finance Authority (RIPFA), and these contributions can fluctuate annually. The table also shows a fund balance that is comparable to one year’s expenses. As the River Islands development builds out RD 2062’s revenue base and associated expenditure requirements will expand.

Exhibit 14-4 shows the allocation of expenses. The Table represents an average of expenses for FY 12–FY 16. As shown in the exhibit maintenance and repairs account for almost half the expenses. Utilities are 19 percent and the River Islands Assessment accounts for nearly 11 percent.

Exhibit 14-4: RD 2062 Allocation of Expenses FY 12–FY 16



Source: RD 2062 Financial Statements

The District has access to supplemental funding in connection with disaster relief. State and federal agency programs exist to provide support during times of emergency. In recent times the District has not needed to avail itself of these sources.

DETERMINATIONS

- 14.2.1:** The District budget in FY 14 is \$207,152 and increase to \$518,611 in FY 16. On average utilities for irrigation and drainage account for 18.8 percent, followed closely by professional services 14.4 percent. Maintenance is the largest expenditure at 42.5 percent.
- 14.2.2:** The District maintains a substantial fund balance amounting to nearly twice its annual outlays.
- 14.2.3:** The current fee schedule provides adequate funding for levee maintenance, irrigation, drainage and flood control services.

14.3 - Status and Opportunity for Shared Facilities

The District works cooperatively with a number of public and private agencies. The District has joined the Southern Delta Levee Protection and Channel Maintenance Authority JPA with the South Delta Water

Agency. The JPA entered into an agreement with South Delta Water Agency and Califia to allow funding for projects of the District and agencies with South Delta.

The District worked with the City of Lathrop to build a bridge across the San Joaquin River that would serve the River Islands development.

The District works cooperatively with DWR and USACE to maintain and inspect the levee system. The DWR performs inspections two times a year (Spring and Fall) and produces an annual report of their inspection findings. The USACE also provides inspections and reports on a periodic basis.

The District worked with Lathrop Irrigation District (LID) to provide financing for infrastructure and additional maintenance duties outside of the District's obligations with the River Island Public Financing Authority.

The District receives assistance from and works cooperative with the River Island Public Financing Authority (RIPFA) of which the District is a member agency. The Authority was formed for the purpose of providing financing for public improvements within District boundaries. The District pays assessments to the RIPFA.

SB 5 regulations regarding 200-year certification has created additional requirements for flood fighting, evacuation, security and right of way issues. The City of Lathrop will be considering 200-year certification of a portion of the District's levees later this year and the District has responded in coordinating and participating in the process. All of these actions come with added cost. The District is working with the developers of River Islands so that the levees will be accredited to the 200 year protection level allowing the subdivision to be built.

Management efficiencies are reflective of whether the District does planning. RD 2062 has an Emergency Operations Plan that is exercised in case of a flood emergency. The District also adopts an annual budget, which is its spending plan for the upcoming fiscal year.

DETERMINATIONS

- 14.3.1:** The District works cooperatively with a number of public and private organizations including the City of Lathrop, the Lathrop Irrigation District, DWR, USACE the South Delta Water Agency. The District is working with the City to be sure the levees are accredited to comply with SB 5 to allow the River Islands development to be completed.
- 14.3.2:** The District has an Emergency Operations Plan and adopts an annual spending plan.

14.4 - Government Structure and Accountability

The District is governed by a three-member board appointed by the Board of Supervisors to 4-year terms. The current board has two members who have served since 2001 the other began serving in 2008. Trustees are volunteers and receive no stipend. The Board meets as necessary at 73 W. Stewart Road, Lathrop, California. Meetings are held and posted according to the Brown Act.

The District has no full-time paid staff. The Board of Trustees oversees three contract staff that performs maintenance activities. The District contracts for three part-time maintenance staff. The District contracts for maintenance through its superintendent. The contract includes maintenance of levee roads and levees, rodent control, vegetation control, maintenance of water intake pumps and drainage pumps

and similar activities. The contract is administered by the Trustees of the District. The District has no website.

DETERMINATIONS

- 14.4.1:** The District is governed by a three member appointed board. Board members serve 4-year terms and receive no stipend. Meetings are held at 73 W. Stewart Road, Lathrop, California and posted according to the Brown Act.
- 14.4.2:** The District has no full-time employees. Maintenance work is contracted out.
- 14.4.3:** The District has no website. It communicates with residents by mail as needed.

14.5 - Any Other Matter Related to Effective or Efficient Service Delivery as Required by Commission Policy

The District is not seeking to expand its boundary, consolidate with a neighboring district, or discontinue service. The only policies that may affect the District operations are the Sphere of Influence policies. However, since it is not likely that there will be a change in boundaries it is recommended the Sphere of Influence be coterminous with current boundary. Therefore, the San Joaquin LAFCo policies will have no effect on service delivery.

DETERMINATIONS

- 14.5.1:** There are no San Joaquin LAFCo policies that would affect service delivery.

14.6 - Key Findings and Issues

1. There is the potential for a considerable amount of development that creates the challenge of protecting residences from flooding but also provides the District with increased assessment revenue. The District is independently taking measures to be sure that the new development will be protected from a 200 year event.
2. Levee maintenance is of the utmost importance to upgrade the levees to an A or acceptable level of protection.
3. RD 2062's Sphere of Influence was established in 1983. A sphere of influence update is long overdue. The District has no plans to expand services to areas outside its boundary, nor does it have plans to expand its boundary, nor is there an anticipated need for services outside its existing boundaries, nor is there sufficient information to support inclusion of areas outside the agency's boundaries in the sphere of influence. Therefore, it is recommended the Commission set a coterminous sphere for the district.

15: RECLAMATION DISTRICT 2064 (RIVER JUNCTION)

The District was formed April 3, 1923 under section 50000, et seq. of Division 15 of the California State Water Code to provide drainage, irrigation and complete reclamation of land within the District's boundaries. The District also includes the Bret Harte Water Users Association, an agency of the reclamation district, which was formed for the purpose of providing irrigation water to users within the reclamation district boundaries. The District is located east of the San Joaquin River and north of the Stanislaus River that also forms the boundary with Stanislaus County (Exhibit 15-1). The District includes approximately 4,938 acres mostly in agriculture. The District maintains the levee on the east bank of the San Joaquin River south of RD 2075 and on the north side of the Stanislaus River. Table 15-1 provides the general information about the district and services it provides.

Table 15-1: RD 2064 General Information

TABLE 15-1: RD 2064 GENERAL INFORMATION	
Agency	RD 2064 (River Junction)
Address	421 S. El Dorado Street, Suite E, Stockton, CA 95203
Principal Act	California Water Code §50000, et seq.
Date Formed	April 3, 1923
Population	Unknown –very low
Last SOI Update	1983
Services Provided	Levees, vegetation, flood control and drainage
Contact Person	Alan R. Coon; Attorney/Secretary (209) 846-9675; arcoo@arcooanlaw.com
Website	None

15.1 - Growth and Population Projections

The District population is estimated by GIS as 523. No significant change in population is expected over the next 30 years other than through random variation. Table 15-2 shows projected growth for unincorporated portions of the County of approximately 2.9 percent growth over the 30 year period from 2015 to 2045. If we assume the population of the District will follow the change in population of the unincorporated county we can expect up to 13 additional residents by 2045.

Table 15-2: Population Estimates RD 2064

	2015	2020	2025	2030	2035	2040	2045
Unincorporated San Joaquin County	70,950	71,184	71,450	71,718	72,038	72,400	72,764
% Change	0.37%	0.33%	0.37%	0.38%	0.45%	0.50%	0.50%
Est Population RD 2064	523	524	526	528	531	533	536
Source: Eberhardt School of Business, 2016, GIS for population estimates							

DETERMINATIONS

- 15.1.1:** The predominant if not exclusive land use within the District is agricultural with associated buildings and structures.
- 15.1.2:** The population of the District is estimated by GIS as 523. Very little growth is anticipated in the next 30 years. It is estimated the population in the District would grow to 536 by 2045.

15.2 - Disadvantaged Unincorporated Communities

In 2015, the California MHI was estimated at \$64,500 by the Department of Finance. By definition, the MHI for a DUC would be \$51,600 or less. RD 2064 lies in census tract 51.06 with a median household income of \$75,125, which is above the 80 percent threshold. RD 2064 does not include any fringe communities, legacy communities, or an island within an urban area. Therefore, there are no DUCs in RD 2064.

DETERMINATIONS

- 15.2.1** There are no DUCs in RD 2064.

15.3 - Present and Planned Capacity of Public Facilities

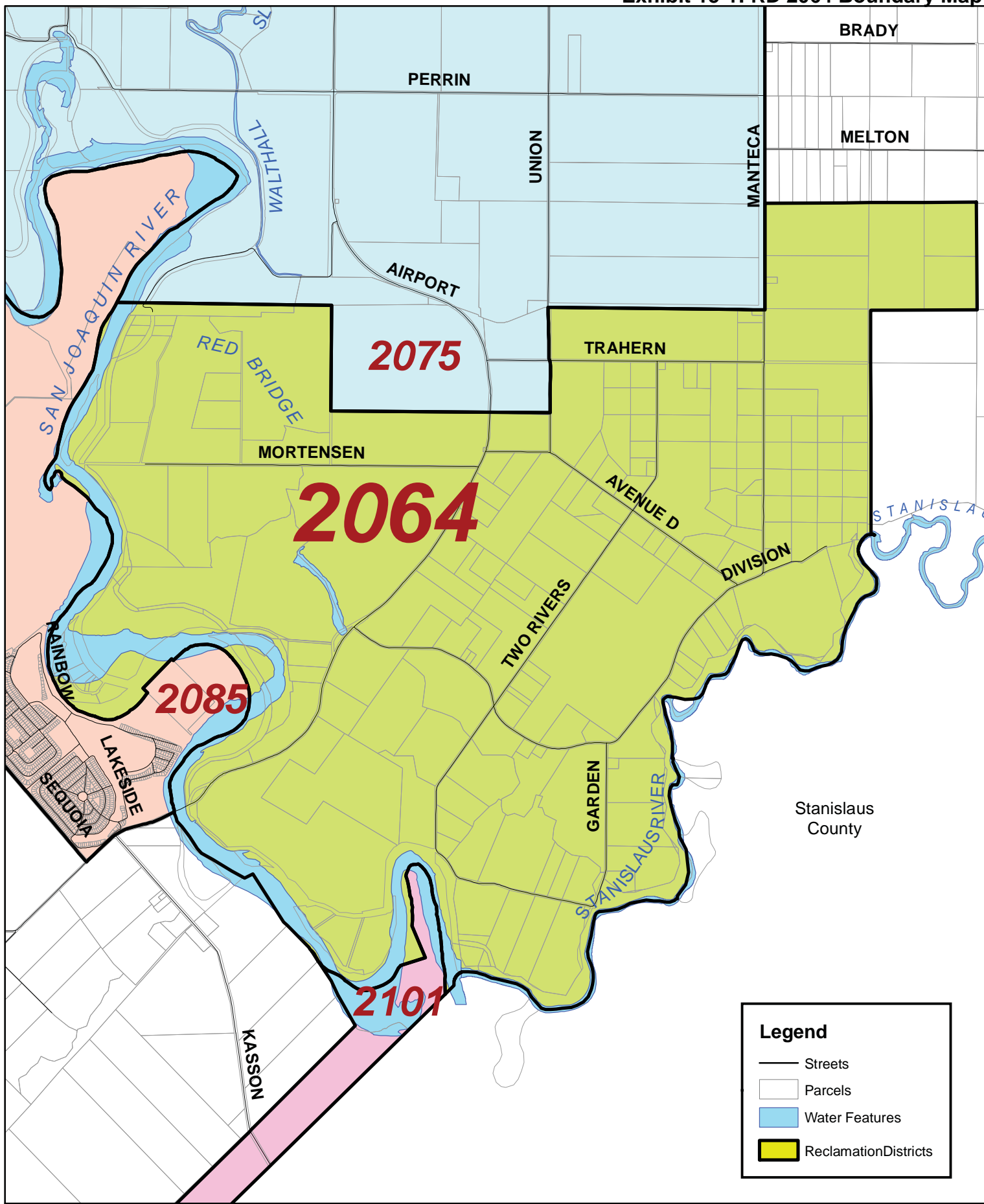
The District operates and maintains approximately 10.2 miles of project levees. Levees meet the HMP standard for agricultural levees. The levees consist of two units: one 5.6 miles along the District's western boundary, the San Joaquin River and a second 4.6 miles along its southern boundary, the Stanislaus River. Table 15-3 provides an overview of the District levee system.

Since RD 2064 includes a project levee, it is subject to AB 156 inspection and reporting requirements by DWR and USACE. DWR completes spring inspections in May, documenting the location, size, type, and rating of maintenance deficiencies while working with the Districts to assist in planning maintenance activities prior to the flood season. DWR completes annual fall inspections in November, verifying the status of previously noted as well as any additional deficiencies that should be corrected to help ensure adequate performance during the flood season. RD 2064 conducts inspections in the winter and summer, completing the requirement to conduct four inspections each year. DWR compiles this information for use by stakeholders and reports to the CVFPB on inspection activities as requested.





The most recent reported inspection in 2015 rated the District's system as 'U', unsatisfactory, because vegetation impacted access and visibility on the levee. The DWR inspection recommended that the District should focus more on controlling vegetation to maintain visibility and access. Following those recommendations the District was able to improve its rating to A, acceptable, in 2017. Exhibit 15-2 shows the District's levee system. The exhibit also shows a segment of 1.4 miles along the Stanislaus River but outside District boundaries.

Although compliance with SB 5 rests with the land use authority several districts that protect potentially developable lands are working with the cities and County to improve levees to the 200 year flood protection standard. RD 2064 is primarily agriculture. There are presently no plans to develop the agricultural area. Any future development in the agricultural area will address the 200 year flood standard at that time.

RD 2064 also operates a single pump station that pumps drainage water from ditches serving agricultural



Legend

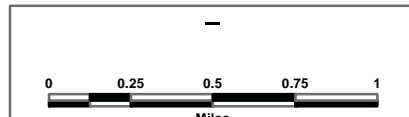
-  Streets
-  Parcels
-  Water Features
-  Reclamation Districts



**RECLAMATION DISTRICT 2064
SAN JOAQUIN COUNTY**

San Joaquin County Geographic Information Systems
1810 East Hazelton Avenue, Stockton, CA 95205

The information on this map is based on the most current information available to San Joaquin County Geographic Information Systems. The County of San Joaquin does not warrant its accuracy, completeness, or suitability for any particular purpose. The information on this map is not intended to replace engineering, financial or primary records research.



properties. Levee patrols are made every one to two weeks and more frequently during high water events. RD 2064 levees are built upon sand deposits and consist mostly of sand.

Table 15-3: RD 2064 District Overview

RD 2064 FACILITIES			
Total Levee Miles	11.65	Surface Elevation	Crown 36.3 to 46.8'
LEVEE MILES BY STANDARD		LEVEE MILES BY TYPE	
No Standard	0.0	Dry Levee	0.0
HMP Standard	11.65 Miles	Urban Levee	0.0
PL 84-99 Standard	0.0	Agricultural Levee	11.65 Miles
Bulletin 192-82 Standard	0.0	Other	0.0
FEMA Standard	0.0 Miles		
DISTRICT FACILITIES			
Internal Drainage System	Yes; several drain systems	Pump Station(s)	1
Detention Basins(s)	Yes	Bridges	No
FLOODPLAIN			
FIRM Designation	AE, A and X Levee	Base Flood Elevation	33' (AE) (Vertical Datum NAVD 88)
LEVEE INSPECTION PRACTICES			
Routinely/bi-weekly for visual observation; any problems are reviewed by Engineering Consultant; 2 per year DWR			
LEVEE INSPECTION REPORTS			
Most Recent Written Inspection	2017	Inspection Rating	Acceptable
LEVEE SEGMENT	DESCRIPTION		CONDITION
Unit 1	West boundary		Above PL 84-99 – Erosion/Seepage
Unit 2	South Boundary		Erosion/Seepage
LEVEE MAINTENANCE			
Miles Rehabilitated	Selected Areas N/P	Miles Needing Rehabilitation	N/P
% Rehabilitated	N/P	% Needing Rehabilitation	N/P
Rehabilitation Cost per Levee Mile*	N/P	Maintenance Cost per Levee Mile**	\$ 4,000.00
INFRASTRUCTURE NEEDS/DEFICIENCIES			
District levees met the 100-year flood protection standard.			
Notes: NP = Not Provided			
* Rehabilitation cost per levee mile is equal to the expenditure amount on capital improvements in FY 14-15 divided by the number of levee miles rehabilitated in FY 14-15.			
** Maintenance cost per levee mile is equal to the expenditure amount on levee maintenance in FY 13-14 divided by the total number of levee miles calculated by the District.			

In addition, the District operates an irrigation water, treatment, transmission and pumping system as a separate fee-supported enterprise fund.

The District also operates and maintains a drainage ditch system, and a pump station that pumps drainage water to the river. During the irrigation season, the system collects and carries runoff from irrigated properties. During the rainy season, the system collects and carries off stormwater.

To meet its service requirements, the District has undertaken a number of activities, including:

- Levee maintenance
- Levee patrol
- Vegetation removal
- Weed abatement
- Vector/rodent control
- Flood control
- Erosion repairs to levees from high water and runoff
- Drainage
- Irrigation

The District's drainage-related functions include;

- Maintenance of drainage ditches and channels
- Operation and maintenance of drainage pumps
- Payment of electricity charges to operate drainage pumps

The District has no staff; the projects listed above are completed by contractors.

DETERMINATIONS

- 15.3.1:** The District provides four key services for landowners and residents of the District: levee maintenance, flood control, drainage and irrigation.
- 15.3.2:** The District maintains 10.2 miles of agricultural levees that meet the HMP standard.
- 15.3.3:** The District operates an irrigation water, treatment, transmission, and pumping system as a separate fee-supported enterprise fund. The operation is through the Bret Harte Water Users.

Exhibit 15-2: RD 2064 Levee System

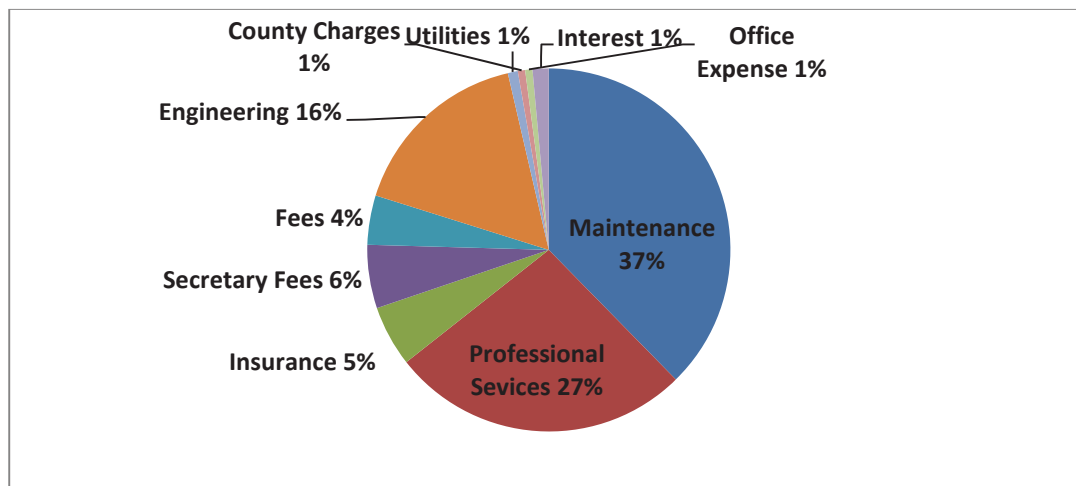


15.4 - Financial Ability to Provide Service

According to the audits, the District has two main activities: government and enterprise. Government activities relate to levee maintenance and flood control, while enterprise activities refer to the provision of irrigation water through the Bret Harte Water Users Association. Revenues for government activities averaged \$168,000 and for enterprise activities averaged \$134,000. Expenses for levee maintenance activities averaged \$92,000 while expenses for irrigation services averaged \$108,000. Averages are based on FY 13, FY 15, and FY 16 actuals.

Revenues sources for levee maintenance are primarily assessments, while for irrigation services are apportioned between irrigation charges (74 percent) and pipe charges (24 percent). Expenses for levee maintenance are shown in Exhibit 15-3, based on averages expenses for FY 13, FY 15, and FY 16.

Exhibit 15-3: RD 2064 Allocation of Expenses for Levee and Reclamation Services

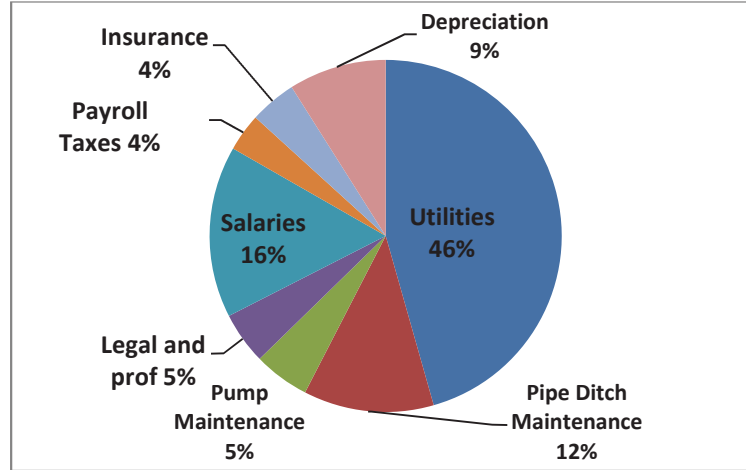


Source: Croce and Company, 2014; Croce, Sanguinetti, & Vander Veen, 2015; Schwartz, Giannini, Lantsberger & Adamson, 2016.

As shown in the exhibit, most of the expenses are for levee maintenance and professional services, which include legal services. The exhibit also shows that engineering services were a significant proportion of total expenses.

Exhibit 15-4 shows the allocation expenses for the irrigation services and the Bret Harte Water Users Association. As with levee service expenses the exhibit is based on an average allocation for three years, FY 13, FY 15, and FY 16. The exhibit shows the largest expenses were utilities, salaries, and ditch maintenance.

Exhibit 15-4: RD 2064 Allocation of Expenses for Irrigation Services



Source: Croce and Company, 2014; Croce, Sanguinetti, & Vander Veen, 2015; Schwartz, Giannini, Lantsberger & Adamson, 2016.

Table 15-4 summarizes revenues and expenditures for government activities and enterprise activities. The activities are separate since it is possible that funds for the two activities must be kept separate because irrigation revenues may be governed by Proposition 218, which mandates that revenues from charges for a particular activity can only be used for that activity. Nevertheless, the table shows that both have a healthy fund balance equal to twice the expenditures for government or levee maintenance and four times expenses for irrigation services.

Table 15-4: RD 2064 Revenues and Expenses

ACCOUNT	2012–13	2013–14	2014–15
GOVERNMENT ACTIVITIES—LEVEE AND FLOOD CONTROL			
Revenues	\$172,350	\$183,060	\$150,296
Expenses	\$58,632	\$87,657	\$130,788
Difference	\$113,718	\$95,403	\$19,508
Ending Fund Balance	\$58,254	\$260,481	\$279,989
ENTERPRISE—IRRIGATION WATER			
Revenues	\$131,863	\$134,042	\$136,591
Expenses	\$97,895	\$117,032	\$110,125
Difference	\$33,968	\$17,010	\$26,466
Ending Fund Balance	\$318,658	\$377,834	\$404,305

Source: Croce and Company, 2014. Croce, Sanguinetti, & Vander Veen, 2015. Schwartz, Giannini, Lantsberger & Adamson, 2016.

The District has a strong financial base, of which assessments contribute nearly 55 percent of revenue and irrigation charges contribute 45 percent of the remainder with less 0.5 percent from other sources. At the end of FY 2014, RD 2064 fund balance was three times its 2014 expenditures, providing it sufficient operating margin and reserves for meeting unexpected expenses and making improvements

Long-term Debt

The District has three outstanding notes, each for \$16,333, for a total of \$48,999. The non-interest bearing notes were for a pipeline. At the beginning of FY 16, the District owed \$87,999 and made payments of \$39,000 to reduce the debt to \$48,999.

DETERMINATIONS

- 15.4.1:** The District spends on average around \$92,000 on levee operations and maintenance and \$108,000 on irrigation water services annually.
- 15.4.2:** The District maintains a healthy fund balance of 2 to four times its expenses.
- 15.4.3:** The current fee schedule provides adequate funding for levee maintenance, drainage, flood control and irrigation services.
- 15.4.4:** The District has three outstanding notes to landowners that currently total \$48,999. The District has been making regular payments so that the notes will be paid off in the near future.

15.5 - Status and Opportunity for Shared Facilities

The District is isolated and there are no real opportunities for shared facilities. The District works cooperatively with a number of water agencies and emergency service providers. The District works cooperatively with DWR and USACE to maintain and inspect the levee system. It also works with the South Delta Water Agency and the County Public Works department on flood control issues. In addition, the District works with neighboring RDs, realizing the levee system is designed to protect the entire region and a failure in one district can lead to flooding in neighboring districts.

DETERMINATIONS

- 15.5.1:** The District has no shared facilities but does work with other state, regional and local agencies on flood control.

15.6 - Government Structure and Accountability

The District has two governing boards. One focuses on levee maintenance and flood control called the RD 2064 Board of Trustees. The other board sets rates and policy for the enterprise functions of providing irrigation water, called the Board of Directors. This arrangement is uncommon but provides a way to keep enterprise functions completely separated from government functions. It is possible that the RD holds the water rights, but charging for irrigation water falls under Proposition 218, which states that revenues collected may only be used for the services they were intended to fund. Revenues collected for irrigation cannot be used to fund levee repairs. The Board of Directors receives no compensation. Apparently, the Bret Harte Water Users Association has part-time employees because they spend funds for salaries and wages.

The Board of Trustees is a three-member board with 4-year terms. Trustees also receive no compensation. The Board meets twice annually on an as-needed basis. Meetings are held in a landowner's garage at 28560 Airport Road, Manteca, California.

The District contracts for services and has one part-time administrative staff and one part-time maintenance staff. The District has no full-time paid staff.

The District has no website. It communicates with residents via mailers and by posting notice of meetings 3 days prior.

DETERMINATIONS

- 15.6.1:** The District is governed by a three-member appointed Board of Trustees. Board members serve 4-year terms and receive no stipend. The board meets twice annually on an as-needed basis in a landowner's garage at 28560 Airport Road, Manteca, California.
- 15.6.2:** The District has no full-time employees. Maintenance work and administrative work is contracted out.
- 15.6.3:** The Bret Harte Water Users Association is governed by a three member Board of Directors appointed to 3-year terms. The Bret Harte Water Users Association has part-time employees.
- 15.6.4:** The District has no website. It communicates with residents by mail and posted notice of meetings as needed.

15.7 - Any Other Matter Related to Effective or Efficient Service Delivery as Required by Commission Policy

The District is not seeking to expand its boundary, consolidate with a neighboring district, or discontinue service. The only policies that may affect the District operations are the Sphere of Influence policies. San Joaquin LAFCo's Sphere of Influence policy allows for a coterminous sphere. Since the District has no plans for expansion and needs no additional drainage and flood control services, a coterminous sphere would be appropriate for the District. Since the sphere policies are the only applicable policy and the District would seek a coterminous sphere, no additional services would be required and there would be no effect of the policy on service delivery. Therefore, the San Joaquin LAFCo policies will have no effect on service delivery.

DETERMINATIONS

- 15.7.1:** There are no San Joaquin LAFCo policies that would affect service delivery.

15.8 - Key Findings and Issues

1. The District failed to report to DWR the results of its inspections in 2016. Therefore, this MSR referenced the evaluation for 2015, which found the maintenance to be U or unsatisfactory because of vegetation that impairs vision and access to the levee. The District should be encouraged to spend more resources on vegetation control.
2. The District should make an effort to provide a better explanation of the role of Bret Harte Water Users Association with respect to RD 2064.
3. RD 2064's Sphere of Influence was established in 1983. A sphere of influence update is long overdue. The District has no plans to expand services to areas outside its boundary, nor does it have plans to expand its boundary, nor is there an anticipated need for services outside its existing boundaries, nor is there sufficient information to support inclusion of areas outside the agency's boundaries in the sphere of influence. Therefore, it is recommended the Commission set a coterminous sphere for the district.

16: RECLAMATION DISTRICT 2074 (SARGENT BARNHART)

The District was formed March 3, 1927 under the Water Code to provide drainage, levee and flood control services. The District is located on the western side of the City of Stockton to the northeast of the San Joaquin River east of Tenmile Slough and south of White Slough on the north. The District maintains the levee along these waterways. The District consists of approximately 1,798 acres of a fully developed urbanized area known as the Brookside Estates development within the City of Stockton. Brookside Estates consists of a mix of commercial, office, institutional, and residential uses, the Brookside Country Club and its golf course. An additional 900 acres of extra-territorial land to the east of the District, also located within the City of Stockton, are protected by the District’s levees.

Table 16-1 provides the general information about the district and services it provides.

Table 16-1: RD 2074 General Information

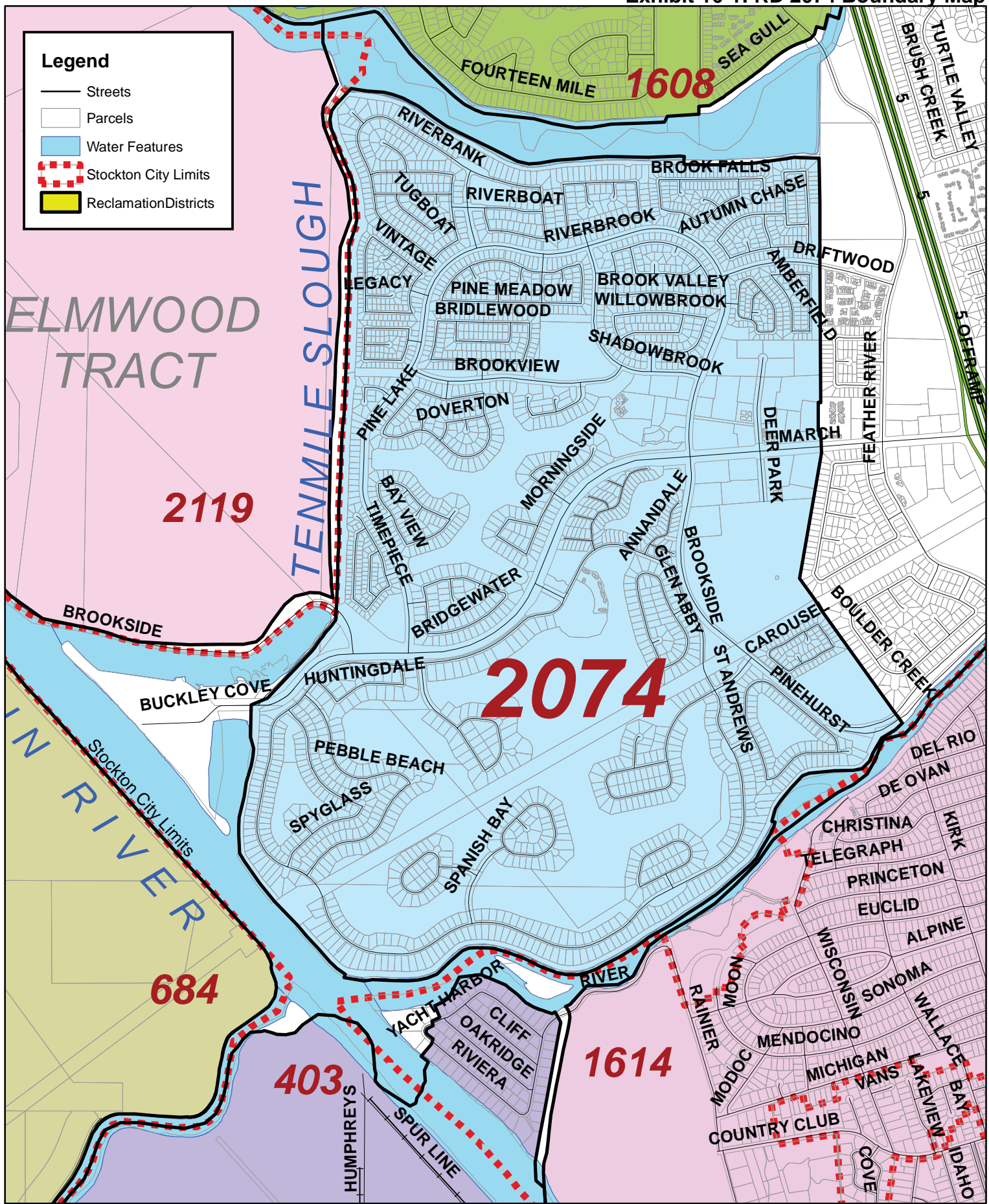
RD 2074 GENERAL INFORMATION	
Agency	RD 2074 (Sargent-Barnhart)
Address	3425 Brookside Road, Stockton, CA 95219
Principal Act	California Water Code §50000 et seq.
Date Formed	1920
Population	Approx. 8,617
Last SOI Update	1983
Services Provided	Levees, access roads, vegetation, flood control
Contact Person	George V. Hartmann, District Counsel; (209) 956-9940; gvhlaw@gmail.com
Website	None

16.1 - Growth and Population Projections

The District’s population is estimated at 8,617 persons residing within 3,094 single-family units and an undetermined but small number of multi-family units. Significant non-residential development includes medical offices, schools, hotels, office and neighborhood retail and a country club and golf course. Because the District is fully developed, no significant change in population is expected over the next 30 years other than through random variation.

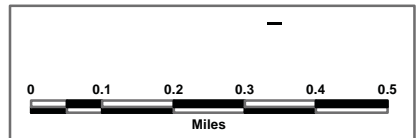
DETERMINATIONS

- 16.1.1:** The District has a mix of urban land uses including single- and multi-family residential, commercial, office and institutional. The population of the District is approximately 8,617. Most of the population resides in the 3,084 single-family homes with an indeterminate number living in multi-family residences.
- 16.1.2:** The District is built out and no significant new development or population growth is expected through 2045.



**RECLAMATION DISTRICT 2074
SAN JOAQUIN COUNTY**

San Joaquin County Geographic Information Systems
1810 East Hazelton Avenue, Stockton, CA 95205
The information on this map is based on the most current information available to San Joaquin County Geographic Information Systems.
The County of San Joaquin does not warrant its accuracy, completeness, or suitability for any particular purpose.
The information on this map is not intended to replace engineering, financial or primary records research.



16.2 - Disadvantaged Unincorporated Communities

The District lies within the City of Stockton and therefore is not in an unincorporated area. Further the MHI for that census tract is \$101,027, well above the statewide MHI. There are no DUCs in RD 2074.

DETERMINATIONS

16.2.1: There are no DUCs in RD 2074 as the District is within the City of Stockton boundaries.

16.3 - Present and Planned Capacity of Public Facilities

The District operates and maintains approximately 4.6 miles of urban levees within the City of Stockton, California and an additional 0.25 mile of City-owned levees outside by adjacent to the District boundaries. Exhibit 16-2 shows the District's levee system. Of the 4.6 levee miles, 1.146 miles are dry-land levees along Ten Mile Sough, and 1.46 miles are project levees along the north bank of the Calaveras River. The remainder are non-project levees that are maintained to PL 84-99 Standard (possibly excluding the dry-land levee). Levees maintained by the District are in six segments. All levees are regularly maintained with 2.13 levee miles being rehabilitated in FY 2012–13 and ongoing repair, restoration and maintenance is constant consistent with a Ten-Year CIP. Table 16-2 provides an overview of the District's levee system.

Although compliance with SB 5 rests with the land use authority several districts that protect potentially developable lands are working with the cities and County to improve levees to the 200 year flood protection standard. The District believes that most of its levees will meet and/or exceed the new standard. However there are six locations totaling 1,500 feet that require additional investigation and potential improvements to meet the new standard. In its 5 year plan the district has outlined the steps needed to meet the standard and estimates a cost of between \$75,000 and \$400,000 to complete the project.

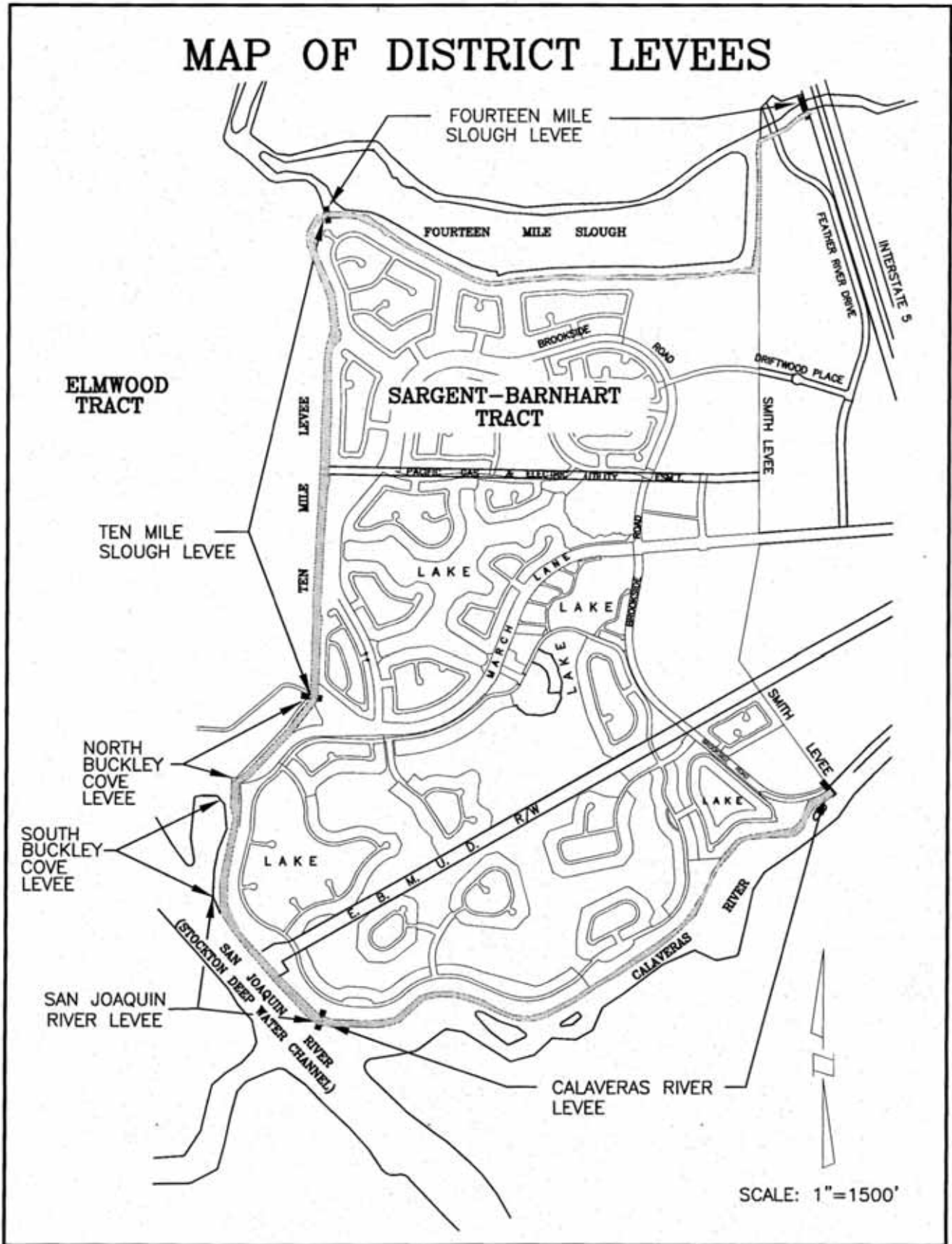
The District also owns a storage yard and a storage container for emergency supplies. In addition, the District has numerous gates and fences to assist in maintenance and operation of the levees.

The District conducts two full levee inspections annually and routine inspections and levee patrol that varies by season, rainfall and flood threats. Semi-annual inspections are for the purpose of identifying encroachment violations and vegetation problems; encroachment standards are rigorously enforced.

The District has a FIRM floodplain designation of Zone X, protected by 100-year levees.

To meet its service requirements the District has undertaken a number of projects, including:

- Levee maintenance,
- Levee patrol,
- Vegetation removal,
- Weed abatement,
- Vector/rodent control,
- Flood control,
- Upkeep of levee access roads,
- Erosion repairs to levees from high water and runoff, and



- Subvention

Table 16-2: RD 2074 Facilities Overview

RD 2074 FACILITIES			
Total Levee Miles	(District says total of 4.64 miles) 4.6	Surface Elevation Crown	N/P
LEVEE MILES BY STANDARD		LEVEE MILES BY TYPE	
No Standard	0.0	Dry Levee	1.14 Miles
HMP Standard	0.0	Urban Levee	3.5 Miles
PL 84-99 Standard	4.6 Miles	Agricultural Levee	0.0
Bulletin 192-82 Standard	0.0	Other	0.0
FEMA Standard	0.0 Miles		
DISTRICT FACILITIES			
Internal Drainage System	None	Pump Station(s)	None
Detention Basins(s)	None	Bridges	No
FLOODPLAIN			
FIRM Designation	X - Levee	Base Flood Elevation	10' (AE) (Vertical Datum NAVD Datum)
LEVEE INSPECTION PRACTICES			
Routinely for visual observation; Semi-annual for any problems such as encroachments and are reviewed by Engineering Consultant.			
LEVEE INSPECTION REPORTS			
Most Recent Written Inspection	Monthly by District Engineer; occasional by DWR, USACE, US F & WS	Inspection Rating	Not rated by DWR; recently re-credited to PL 84-99 by USACE
LEVEE SEGMENT	DESCRIPTION	CONDITION	
Most segments rated	South/Western Boundary	Above PL 84-99	
Ten Mile Slough	Western Boundary 1.14 Miles	Dry land levee	
LEVEE MAINTENANCE			
Miles Rehabilitated	FY 12-13 Selected Areas 2.13 Miles	Miles Needing Rehabilitation	0 Miles
% Rehabilitated	46%	% Needing Rehabilitation	0%
Rehabilitation Cost per Levee Mile*	\$ 77,000	Maintenance Cost per Levee Mile**	\$ 98,000. For FY 2014-15
INFRASTRUCTURE NEEDS/DEFICIENCIES			
District levees met the 100-year flood protection standard.			
Notes: NP = Not Provided * Rehabilitation cost per levee mile is equal to the expenditure amount on capital improvements in FY 12-13 divided by the number of levee miles rehabilitated in FY 14-15. ** Maintenance cost per levee mile is equal to the expenditure amount on levee maintenance in FY 14-15 divided by the total number of levee miles calculated by the District!			

The District has no employees; its administrative, operations and services are provided by contractors. The District Engineer manages subvention funds and also along with Trustees patrols the levees.

The District maintains the Calaveras River project levee by agreement with San Joaquin County as the Levee Maintaining Agency. RD 2074 provides all maintenance for the project levee section without reimbursement by the County.

DETERMINATIONS

- 16.3.1:** The District provides two key services for landowners and residents of the District, levee maintenance and flood control.
- 16.3.2:** The District maintains 4.6 miles of PL 84-99 urban and dry-land levees.
- 16.3.3:** The District maintains the Calaveras River project levee by agreement with the County.

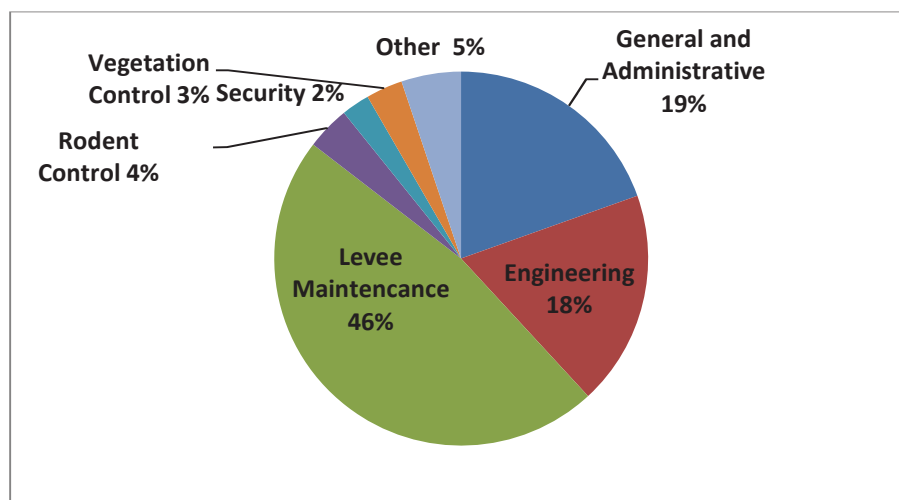
16.4 - Financial Ability to Provide Service

Over the last 5 years the District budgets annually in excess of \$600,000 for maintenance costs for the levees, drainage and irrigation system. Revenues are derived primarily from assessments, 77 percent on average. Assessments are levied by the Proposition 218 process and include a cost of living escalator based on the San Francisco-Oakland Consumer Price Index.

Federal, state, and local reimbursement programs are the other main source of revenues, accounting for 21 percent on average. The District participates in and has received funding from the State’s AB 360 Subventions Program for its eligible non-project levees and capital costs.

Exhibit 16-3 shows the allocation of expenses. As shown nearly half the expenses go for levee maintenance, general administration 19 percent, and engineering 18 percent. As part of levee maintenance, the District allocates funds for vegetation control and rodent control.

Exhibit 16-3: RD 2074 Allocation of Expenses



Source: Schwartz and Gianni, Lantsberger and Adamson, Accountants 2012, 2013, 2014, 2015, 2016

Table 16-3 summarizes revenues and expenses for the last 5 years. As noted in the table, revenues exceed expenses each year, allowing the fund balance to grow to \$2.3 million, which is nearly four times the average annual expenses of \$673,000. The District does have fiscal policies with respect to fund balance. Of the \$2.3 million fund balance, \$1.357 million is assigned, while the remainder, \$947,000, is unassigned. Assigned fund balances are amounts that are constrained by the District’s intent to use them for specific purposes. The Board has designated these funds for a reserve to be used in the event of a future flood fight or unanticipated event. In addition, the District maintains two other reserve funds: the Levee Restoration & Maintenance Fund and Contingency. Unassigned fund balances are not restricted, committed, or assigned to specific purposes.

Table 16-3: RD 2074 Revenues and Expenses FY 12–FY 16

ACCOUNT	2011–12	2012–13	2013–14	2014–15	2015–16
Total Revenues	\$754,039	\$642,381	\$954,627	\$797,855	\$1,044,715
Total Expenses	\$676,729	\$636,425	\$532,117	\$719,377	\$800,911
End of Year Fund Balance	\$1,552,285	\$1,560,304	\$1,982,814	\$2,061,292	\$2,305,096

Source: Schwartz and Gianni, Lantsberger and Adamson, Accountants 2012, 2013, 2014, 2015, 2016

Capital Improvements

The District has a 10-year Capital Improvements Plan. The plan is outlined in the 2012 Five Year Plan that is updated periodically. Capital improvements can be funded by reimbursements from state and federal agencies or use of the unassigned fund balance.

The 2012 Five Year Plan identified four capital improvement projects, summarized in Table 16-4, which indicates priority, cost, and whether habitat mitigation is required. The District has been required in the past to mitigate the loss of habitat. The District does not have any available areas for planting of mitigation habitat. The District may be required to pursue the acquisition of habitat credits in an approved habitat land bank.

Table 16-4: RD 2074 Capital Improvement Projects

PROJECT	COST	PRIORITY	MITIGATION	DESCRIPTION
Ten Mile Slough Levee Armoring	\$4.5M	High	Yes	Prevent significant erosion due to wave action
Calaveras/San Joaquin Rivers Levee Armoring	\$1.2M	High	No	Prevent erosion due to wave wash from deep water shipping channel traffic and seasonal Calaveras River flows
200 Year Freeboard Compliance	\$75,000 to \$400,000	Low	Unknown	Upgrade 1,500 lineal feet of levee to meet the 200-year level of flood protection standard, which becomes effective in 2017. All other levees already meet this standard.
Ten Mile Slough Levee East Bank Erosion Protection	\$300,000	Medium	No	Prevent erosion caused by winter storms by applying gravel surfacing.

Source: Siegfried 2012

DETERMINATIONS

- 16.4.1:** Over the last 5 years, expenses ranged from \$532,000 to \$800,000. Over the same period revenues ranged from \$642,000 to \$1.04 million, leaving a fund balance of \$2.3 million. The fund balance is nearly four times the expenses.
- 16.4.2:** The District's revenue sources are primarily assessments augmented by state and federal reimbursements. The assessments are annually adjusted based upon a cost-of-living inflator. Average expenses are primarily maintenance, 46 percent; administration, 19 percent; and engineering, 18 percent.
- 16.4.3:** The current fee schedule provides adequate funding for the District's operations and functions.
- 16.4.4:** The District has a capital improvement plan consisting of four projects designed to add protection from erosion and to comply with the 200-year level of flood protection standards.

16.5 - Status and Opportunity for Shared Facilities

The District works cooperatively with SJAFCA, San Joaquin County, FEMA, USACE, CDFW and a number of other federal, state, regional and local agencies.

An example is the Calaveras River Levee, a project levee. The levee is the responsibility of the County, but the District has assumed, through an agreement, the Levee Maintaining Agency (LMA) responsibility. RD 2074 provides all the maintenance for that project levee section without reimbursement from the County.

The District also works with the City of Stockton. The District does not maintain drainage facilities. All drainage and pumping are provided by the City.

In addition, the District works with the CVFPB and the California Water Quality Control Board. The District works with these agencies to obtain permits for work on the levees.

As noted in a previous section the District participates in the Delta Levee Subventions Program. Reimbursements from the program are an essential part of the revenue stream that allows the District to maintain the levees.

The District is partnering in the Lower San Joaquin River Feasibility Study with several other reclamation districts, the U.S. Army Corps of Engineers, the State Central Valley Flood Protection Board, and SJAFCA. The results of the study will help identify needed improvements to meet or exceed the 200 year flood protection level.

The District exhibits management efficiencies through its planning process. The District develops a Five Year Plan. The most recent 2012 will be updated in 2017. As part of the Five Year Plan, the District has a capital improvement plan that is implemented as funding becomes available. The District also produces and Emergency Operations Plan which has received praise from the DWR.

DETERMINATIONS

- 16.5.1:** The District works cooperatively with a number of federal, state, regional, and local agencies. The District participates in the Delta Levee Subventions Program, and it has

worked with the County to help maintain a section of the Calaveras River Levee. The District relies on the City of Stockton for drainage and pumping.

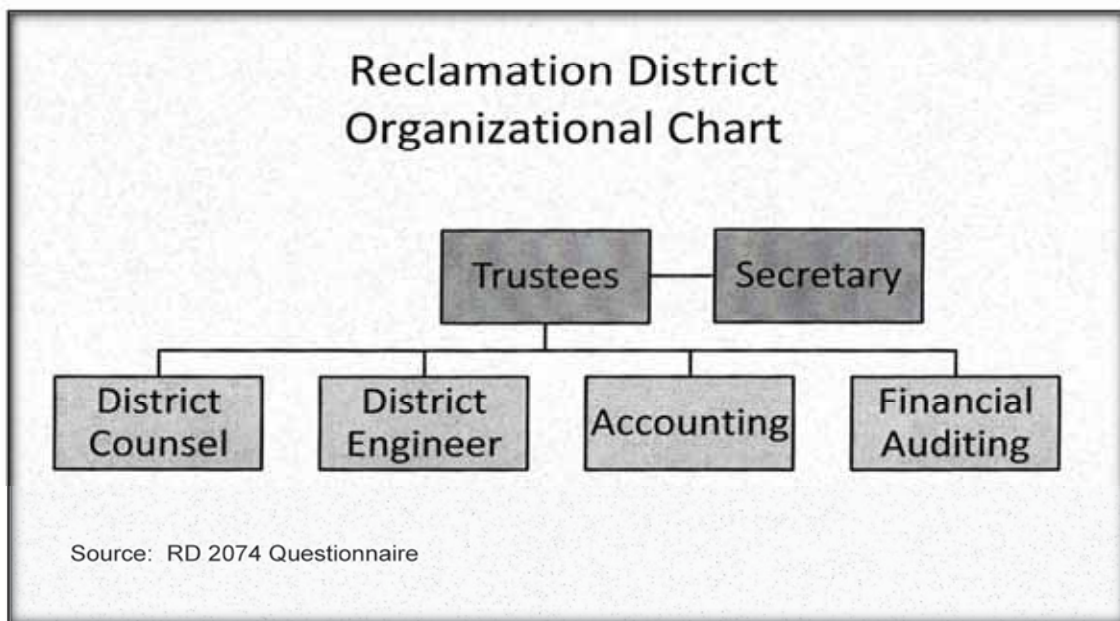
- 16.5.2:** The District exhibits management efficiencies through its Five Year Plan that identifies capital improvement projects. The District also produces an Emergency Operations Plan.

16.6 - Government Structure and Accountability

The District is governed by a three-member board that serves 4-year staggered terms. Trustees receive a stipend of \$99.99 per meeting. The Trustees meet the 2nd Thursday of the month at 8:30 am at 3425 Brookside Road, Suite A, Stockton, California.

Exhibit 16-4 shows the District’s organizational chart. Other than the Trustees, the positions shown on the chart are for contractors since the District has no paid staff. The Engineer and the Trustees take on the levee inspection activities. The Engineer also is responsible for implementation of the Delta Levee Subvention Program.

Exhibit 16-4: RD 2074 Organizational Chart



The District has no website. It communicates with residents via mailers and by posting notice of meetings and by email.

Recently, the SJAFCA conducted a governance study to determine whether consolidation of urban RDs or some of their functions would be feasible. The study concluded that the primary functions of the various districts (i.e., first responders to flood threats) could not be consolidated for a number of reasons. Each of the participating RDs is unique in character and configuration and would not lend themselves to consolidation. This is particularly true of the Brookside area of RD 2074 given the permitted uses of the levee by landowners for amenities and landscaping.

DETERMINATIONS

- 16.6.1:** The District is governed by a three-member appointed board. Board members serve 4-

year terms. Trustees receive a stipend of \$99.99 per meeting. The Trustees meet the 2nd Thursday of the month at 8:30 am at 3425 Brookside Road, Suite A, Stockton, California.

16.6.2: The District has no full-time employees. Maintenance work and administrative work is contracted out.

16.6.3: The District has no website. It posted notice of meetings as needed and further communicates by email.

16.7 - Any Other Matter Related to Effective or Efficient Service Delivery as Required by Commission Policy

Like other reclamation districts the sphere of influence was established in 1983 and has not been updated. The sphere should be updated every five years and a requires an MSR to support it. This MSR will serve to support an updated sphere. Since the District has no plans for expanding its service territory the sphere should be coterminous with existing boundaries. San Joaquin LAFCO's sphere policy would apply.

DETERMINATIONS

16.7.1: The District needs to update its sphere which was established in 1983, San Joaquin LAFCO's sphere policy would apply. It is recommended the commission set a coterminous sphere so there would be no effect on service delivery.

16.8 - Key Findings and Issues

4. The District lies in a fully developed section of the City of Stockton so no significant additional population is expected in the next thirty years.
5. The District is adequately funded to provide service. It maintains a healthy fund balance that is nearly four times annual expenses. The District has set aside in reserve accounts funds for a flood fight or other emergencies.
6. The District appears to be well managed and has a Five Year Plan, EOP and a Capital Improvement Plan.
7. The District would like to expand its boundary to include an additional section of levee along 14 Mile Slough.
8. The District has no interest in consolidating with other RDs.
9. The District has expressed concerns about the costs of complying with and dealing with the effects of SB-5 and other state and federal regulatory requirements.
10. RD 2074's Sphere of Influence was established in 1983. A sphere of influence update is long overdue. It is recommended Commission update the sphere and set it as conterminous with District boundaries.
11. The District is partnering in the Lower San Joaquin River Feasibility Study with several other reclamation districts, the U.S. Army Corps of Engineers, the State Central Valley Flood Protection Board, and SJAFCA. The results of the study will help identify needed improvements to meet or exceed the 200 year flood protection level.

17: RECLAMATION DISTRICT 2075 (MCMULLIN)

The District was formed on March 21, 1927 under Section 50000, et seq. of Division 15 of the California Water Code to provide drainage, irrigation and complete reclamation of lands within district boundaries. The District is located along the east bank of the San Joaquin River in the Lower San Joaquin River Region. The District is bordered by the San Joaquin River to the west, RD 2064 to the south, RD 2094 to the north, and unincorporated San Joaquin County to the east. The District includes an area of approximately 5,930 acres and is protected by approximately 7.5 miles of project levee. Exhibit 17-1 shows the boundary map for the District, while Table 17-1 provides the general information about the district and services it provides.

Table 17-1: RD 2075 General Information

RD 2075 GENERAL INFORMATION	
Agency	RD 2075 (McMullin)
Address	343 E. Main Street, Suite 815, Stockton, CA 95202
Principal Act	California Water Code §50000, et seq.
Date Formed	March 1927
Population	37 landowners and estimated population of 100
Last SOI Update	1983
Services Provided	Levees, flood control and drainage
Contact Person	Robert Brown at Al Warren Hoslett, Esq. (209) 943-5551
Website	None

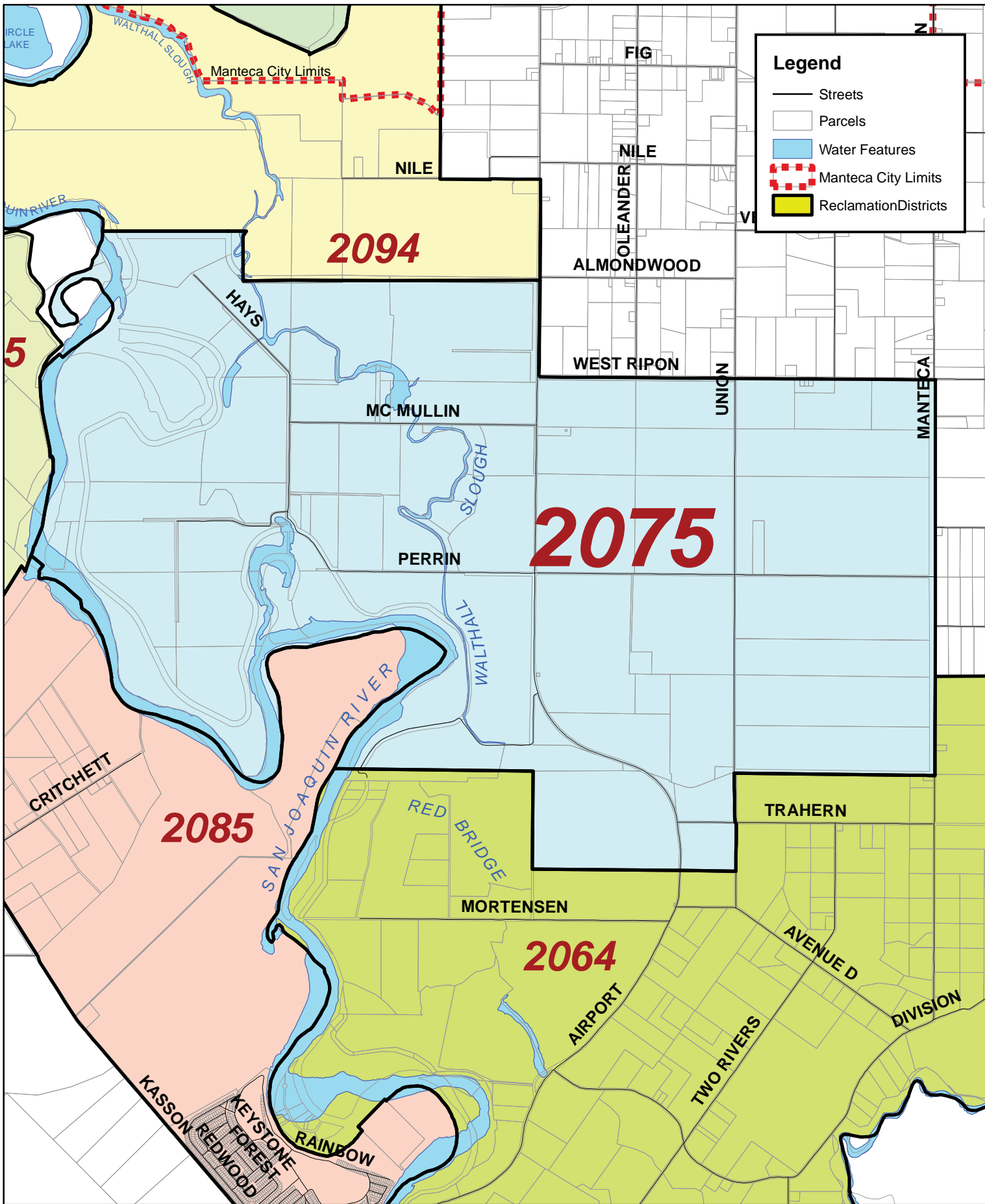
The District is primarily in agriculture. The soil in the District is of two types: Hanford loam in the bottom lands and Fresno loam in the uplands. The soils support alfalfa, beans, corn, row crops, and orchards.

17.1 - Growth and Population Projections

The District population has been estimated at less than 100 and includes 37 landowners. To estimate the change in population over the next 30 years, the SJCOG has published population projections for census designated places and the unincorporated county. Table 17-2 shows projected growth for unincorporated portions of the County. The table shows expected growth of approximately 2.5 percent over the 30 year period from 2015 to 2045. Assuming the population of the District will follow the change in population of the unincorporated county, up to two additional residents are expected by 2045. There is no anticipated development within the District.

Table 17-2: RD 2075 Population Projections

	2015	2020	2025	2030	2035	2040	2045
Rest of the County	70,950	71,184	71,450	71,718	72,038	72,400	72,764
% Change	0.37	0.33	0.37	0.38	0.45	0.50	0.50
Est. Population RD 2075	100	100	101	101	101	102	102
Source: Eberhardt School of Business, 2016.							



Legend

- Streets
- ▭ Parcels
- Water Features
- - - Manteca City Limits
- Reclamation Districts



**RECLAMATION DISTRICT 2075
SAN JOAQUIN COUNTY**

San Joaquin County Geographic Information Systems
1810 East Hazelton Avenue, Stockton, CA 95205
The information on this map is based on the most current information available to San Joaquin County Geographic Information Systems.
The County of San Joaquin does not warrant its accuracy, completeness, or suitability for any particular purpose.
The information on this map is not intended to replace engineering, financial or primary records research.

0 0.15 0.3 0.45 0.6 0.75
Miles

August 13, 2014 GIS-rm

DETERMINATIONS

- 17.1.1:** The population of the District is estimated at 100 residents. There is no anticipated development as the projected population in 2045 is expected to be 102.

17.2 - Disadvantaged Unincorporated Communities

The District is in Census Tract 51.06. The total population of the census tract is approximately 6,000; thus, RD 2075 only accounts for less than 2 percent of the population. The number of housing units in the tract is 665 and RD 2075 makes up only a handful of those units. There are no municipal sewer or water services provided in the District. It is assumed all the homes have septic systems. Fire services are by Lathrop Manteca Fire Protection District. The median household income for the census tract is \$75,125, which is in excess of the statewide median household income. Therefore, there are no DUCs in RD 2075.

DETERMINATIONS

- 17.2.1:** The estimated median household income for the District is likely to exceed 80 percent of the state MHI, the threshold of a DUC. Therefore, there are no DUCs in RD 2075.

17.3 - Present and Planned Capacity of Public Facilities

The District maintains approximately 7.5 miles of project levees. The District performs several tasks to avoid a breach to the levee system. They include inspection on a routine basis to comply with AB 156. The District receives two inspection reports, one in the spring and one in the fall from the CVFPB. The District supplies a report to the CVFPB in winter and summer. In effort to control rodents the District implements a baiting and grounding program. The District also implements vegetation control and weed abatement programs, provides drainage service and the semi-annual joint inspection of levees with state inspectors. The District provides many of these services by hiring outside contractors. Levee patrol is conducted by landowners and the District Engineer. If problems are found as a result of the inspection the District's Engineering consultant is notified to perform additional inspections. Table 17-3 provides an overview of the District's levees.

By definition, a project levee is a levee system that is part of an authorized flood control system. Project levees are subject to USACE certification and inspection. In addition, they are subject to AB 156 inspection and reporting requirements. The levees are inspected four times a year, including by USACE. Under AB 156, the District must report the condition of its levees to the DWR, which compiles an annual report.

The 2016 inspection of the levees gave the levees an overall rating of U, unacceptable, due to vegetation and serious seepage at the sites shown in Exhibit 17-2. According to the District Engineer, many of the levees are too narrow to facilitate all-weather access, and have steep slopes. The primary risk of flooding for the District is from seepage along the San Joaquin River due to the sandy soils RD 2075 is built upon. According to RD 2075, the sedimentation into the river has significantly decreased its capacity and could potentially increase the flooding risk. In 2017 the District was able to bring its levees to an acceptable level or A rating.

Several levee breaches have occurred on the RD 2075 levee system. In 1950, there was a levee breach near levee mile 5.5 and another break in 1952, 300 feet wide, at approximately levee mile 5.25.

Table 17-3: RD 2075 Facilities Overview

RD 2075 FACILITIES			
Total Levee Miles	7.45	Surface Elevation	N/P
LEVEE MILES BY STANDARD		LEVEE MILES BY TYPE	
No Standard	0.0	Dry Land Levee	0.0
HMP Standard	0.0	Urban Levee	0.0
PL 84-99 Standard	7.45	Agricultural Levee	7.45
Bulletin 192-82 Standard	0.0	Other	0.0
FEMA Standard			
DISTRICT FACILITIES			
Internal Drainage System	None	Pump Station(s)	None
Detention Basins(s)	No	Bridges	No
FLOODPLAIN			
FIRM Designation		Base Flood Elevation	Less than 1-foot
LEVEE INSPECTION PRACTICES			
Routinely for visual; Four Times per Year with State and US Corps. Personnel			
LEVEE INSPECTION REPORTS			
Most Recent Written Inspection	2017	Inspection Rating	Acceptable
LEVEE SEGMENT	DESCRIPTION		CONDITION
San Joaquin River on west	7.45 miles river bank		Vegetation and erosion issues (field observations)
LEVEE MAINTENANCE			
Miles Rehabilitated	N/P	Miles Needing Rehabilitation	2.13 miles per last Inspection in 2016 for seepage
% Rehabilitated 0 %		% Needing Rehabilitation	
Rehabilitation Cost per Levee Mile*		28 %	
INFRASTRUCTURE NEEDS/DEFICIENCIES			
District levees met the 100-year flood protection standard in 2009; No major rehabilitation done above basic maintenance.			
Notes: NP = Not Provided * Rehabilitation cost per levee mile is equal to the expenditure amount on capital improvements in FY 14-15 divided by the number of levee miles rehabilitated in FY 14-15. ** Maintenance cost per levee mile is equal to the expenditure amount on levee maintenance in FY 14-15 divided by the total number of levee miles.			

In 1955, a 300-foot-wide levee breach occurred at about levee mile 4.0. In 1997, a levee breach occurred at approximately levee mile 4.75, a 1,000-foot-wide break.

RD 2075 is threatened primarily from river floods along the San Joaquin River. There is some tidal effect up the San Joaquin River along the District levees but this is not a significant factor for flood water elevations.

The District focuses a significant amount of time on vegetation control and ditch maintenance. The 2016 DWR report also mentioned significant efforts to mitigate river erosion and seepage in approximately 3 miles of the 7.5 miles of project levees. The District has no staff and hires contractors for maintenance and repair activities.

Exhibit 17-2: RD 2075 Levees 2016



Source: DWR 2016

Although compliance with SB 5 rests with the land use authority several districts that protect potentially developable lands are working with the cities and County to improve levees to the 200 year flood protection standard. For districts that are built out or in agricultural use with no foreseeable development the 200 year flood standard is of low priority and not being addressed. RD 2075 is primarily in agriculture and there is no anticipated development that would require the 200 year flood protection. There are presently no plans to address the 200 year flood standard.

The District does not own or maintain pumping stations for internal drainage control. No culverts or through levee pipes exist in the District.

DETERMINATIONS

- 17.3.1:** The District provides three key services for landowners and residents of the District, levee maintenance, flood control, and drainage. The District maintains 7.45 miles of project levees.
- 17.3.2:** The District focuses a significant amount of time on vegetation control and ditch maintenance. The District levees are too narrow in places to allow for all-weather access. The sandy soils in RD 2075 contribute to seepage problems. The 2016 DWR report also mentioned significant efforts to mitigate river erosion and seepage in approximately 3 miles of the 7.5 miles of project levees. The 2016 inspection of the condition of the levees found several areas of serious seepage, resulting in an unacceptable rating. By 2017 the District was able to bring the levee system up to acceptable, or A rating.

17.4 - Financial Ability to Provide Service

The District budgets annually for maintenance costs for the levees and the drainage system. Revenues are derived primarily from assessments, 98 percent over the 5-year period from 2010–2014. Table 17-4 shows a summary of the revenues and expenses from 2010–2015. The table shows insufficient revenues were collected in 2010–2012. An assessment increase in 2012 brought revenues in line with expenses. The 2014 audit reported a fund balance of \$42,343 at the end of 2014. Based on recent expenses, the fund balance represents nearly 1 year of expenses.

Table 17-4: RD 2075 Summary of Revenues and Expenses 2010–2014

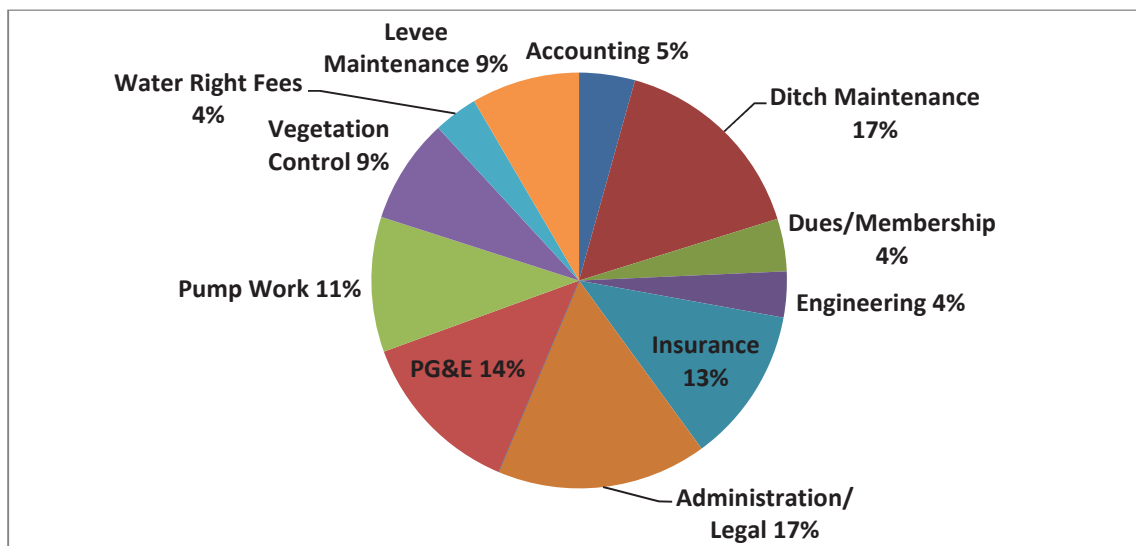
YEAR	REVENUES	EXPENSES	DIFFERENCE
2010	\$41,662	\$75,772	\$(34,110)
2011	\$40,230	\$59,483	\$(19,253)
2012	\$59,246	\$60,738	\$(1,492)
2013	\$63,466	\$51,379	\$12,087
2014	\$66,112	\$55,565	\$10,547
2015	\$61,101	\$49,278	\$11,823

Source: California State Controller, 2017

The allocation of expenses is shown in Exhibit 17-3. The allocation represents an average of expenses over the 5-year period. The exhibit shows that the top expense line items are legal and administration,

17 percent; ditch maintenance, 17 percent; PG&E, 14 percent; and insurance, 13 percent. Levee maintenance and vegetation control account for approximately 18 percent each of annual expenses.

Exhibit 17-3: RD 2075 Expense Allocation 2010–2014



Source: Croce, Sanguinetti, & Vander Veen. 2015

The District has access to supplemental funding in connection with disaster relief. State and federal agency programs exist to provide support during times of emergency. However, the extent of reimbursement and timing in which it will be received (if eligible) is extremely difficult to predict. In many cases, the District must have matching funding. The District does not participate in either the Delta Levee Subventions Program or the Delta Levee Special Flood Control Project program. Additional funding may be required to widen the levee road to make it all-weather accessible to facilitate inspections. Based on the data in Table 17-4, the District appears to have sufficient revenues. For the past several years, the assessments are \$15.75 per \$100.00 of assessed value per year as determined by the District. The assessment is split into two; billing \$11.70 is due in February and \$4.05 is due by the end of the year. Given the additional revenues derived from its new rate structure, the District should make an effort to tap into the Delta Levee Subventions program and the Delta Levee Special Funds program.

DETERMINATIONS

- 17.4.1:** The District receives approximately \$62,000 in assessment revenue to offset \$58,000 in estimated annual expenses. The fund balance at the end of 2014 was reported at \$42,000.
- 17.4.2:** The District increased its fees in 2012 because funding was insufficient to provide services. The current fee schedule provides adequate funding for levee maintenance, drainage, and flood control services.
- 17.4.3:** Additional funding may be required to widen the road to make it all-weather accessible to facilitate inspections. Given the additional revenues derived from its new rate structure, the District should make an effort to tap into the Delta Levee Subventions program and the Delta Levee Special Funds program.

17.5 - Status and Opportunity for Shared Facilities

The District shares administrative facilities and administration services with 10 other RDs in San Joaquin and Contra Costa counties. It also shares engineering services with RDs 1, 2, 554, 2042, 2089, and 2090.

The District works cooperatively with a number of water agencies and emergency service providers. The District works with DWR and USACE to maintain and inspect the levee system and the State Office of Emergency Services. The District works with the County Department of Emergency Services, the fire district and the County Sheriff's Office. They participate in developing an emergency operations plan. It also works with the South Delta Water Agency and the County Public Works department on flood control issues. The District also works with neighboring RDs, realizing the levee system is designed to protect the entire region and a failure in one district can lead to flooding in neighboring districts.

DETERMINATIONS

- 17.5.1:** The District shares administrative facilities and administration services with 10 other RDs in the area. It also shares engineering services with RD 1, RD 2, RD 554, RD 2042, 2089, and 2090.
- 17.5.2:** The District completed an Emergency Operations Plan in 2015 and works cooperatively with state and local emergency services departments.

17.6 - Government Structure and Accountability

The District is governed by a five-member board elected by landowners to 4 year staggered terms. Often there is only one person nominated for the trustee position so no election is held and the trustees are appointed by the Board of Supervisors. Trustees are volunteers and receive no stipend. The Board meets on an as-needed basis at the District Office at 343 E. Main St. Suite 815 in Stockton or at a location within the District boundaries. Meetings are posted according to the Brown Act.

The District has no full-time paid staff. The District has temporary employees to complete maintenance and vector control projects on an as-needed basis. The temporary employees are supervised by contractors or the District Engineer.

The District has no website. It communicates with residents via mailers as necessary.

The District does not anticipate expanding its boundaries or its Sphere of Influence. In addition, the District does not feel the District may be served more efficiently by another agency.

DETERMINATIONS

- 17.6.1:** The District is governed by a five-member board that often run unopposed. Board members serve 4-year terms and receive no stipend.
- 17.6.2:** The board meets on an as-needed basis at the District Office in Stockton or within District boundaries. Meetings are conducted according to the Brown Act.
- 17.6.3:** The District has no full-time employees. Maintenance work is contracted out.
- 17.6.4:** The District has no website. It communicates with residents by mail as needed.

17.7 - Any Other Matter Related to Effective or Efficient Service Delivery as Required by Commission Policy

The District is not seeking to expand its boundary, consolidate with a neighboring district, or discontinue service. The only policies that may affect the District operations are the Sphere of Influence policies. San Joaquin LAFCo's Sphere of Influence policy allows for a coterminous sphere. Since the District has no plans for expansion and needs no additional drainage and flood control services, a coterminous sphere would be appropriate for the District. Since the District would likely seek a coterminous sphere, no additional services would be required and there would be no effect of the policy on service delivery. Therefore, the San Joaquin LAFCo policies will have no effect on service delivery.

DETERMINATIONS

17.7.1: There are no San Joaquin LAFCo policies that would affect service delivery.

17.8 - Key Findings and Issues

1. Until 2012 the District did not have sufficient funding. However after 2012 with the new rate increase the District has managed to build a small fund balance. With the fund balance the District should apply to the Delta Levee Subventions Program and the Delta Levee Special Fund Program for additional assistance to fund maintenance and repairs of the levees.
2. The District finds the cost to implement Prop 218 elections is an ongoing constraint in increasing revenues. They find there is considerable resistance in the agricultural community to increase assessments.
3. According to the District the District finds that increased costs related to having to deal with several layers of government have increased overhead costs associated with various and often overlapping jurisdictions of federal, state, and local agencies.
4. The District is also concerned about increasing environmental requirements associated with maintenance and rehabilitation in regards to compliance, permitting, mitigation, enhancement have become both difficult and expensive.
5. Overall the District expressed concerns about a higher percentage of the District's budget that is being spent on bureaucratic overhead and not on levee maintenance and rehabilitation.
6. RD 2075's Sphere of Influence was established in 1983. A sphere of influence update is long overdue. It is recommended Commission update the sphere and set it as conterminous with District boundaries.
7. Between 2013 and 2016 the AB 156 inspection rating have gone from A, acceptable in 2013 to U, unacceptable in 2016. The District should consider ways to improve the levee system. Perhaps grants from the Delta Levee Subventions Program and the Delta Levee Special Fund Program could help achieve that goal.

18: RECLAMATION DISTRICT 2085 (KASSON)

The District was formed on April 11, 1949 under the Reclamation District Act of the California Water Code to provide drainage, levee and flood control services. The District is located south of the City of Manteca and east of the City of Tracy. The District maintains the levee on the west bank of the San Joaquin River between Airport Way and the Banta Carbone Intake, with the western boundary being Kasson Road. Approximately 80 percent of the District’s properties are in the 100-year flood zone, with the remaining properties being in the 500-year flood zone. The District currently consists of 2,030 acres of primarily agricultural land, with a smaller portion devoted to residences. The District’s boundaries also include the San Joaquin River Club—a 300-acre parcel with a clubhouse, recreation facilities and 350 home sites. Exhibit 18-1 shows the boundary map for the District, while Table 18-1 provides the general information about the district and services it provides.

Table 18-1: RD 2085 General Information

RD 2085 GENERAL INFORMATION	
Agency	RD 2085 (Kasson)
Address	30000 Kasson Rd., Tracy, CA 95304
Principal Act	California Water Code §50000, et seq.
Date Formed	April 11, 1949
Population	860
Last SOI Update	1983
Services Provided	Levees, flood control and drainage
Contact Person	Jennifer Spaletta, Spaletta Law PC, PO Box 2660, Lodi, CA 95241
Website	None

Table 18-2 shows land uses in RD 2085. As shown in the table, the District is for the most part pasture land, orchards, and row crops. There are a total of 34 parcels and approximately 23 rural residences along with the 350 home sites in the San Joaquin River Club.

Table 18-2: Land Use RD 2085

LAND USE	LAND USE CODE	ACRES	NO OF PARCELS
Rural Residential	51	24.93	8
Orchard	400	28.64	1
Orchard w/Residential	401	230.12	1
Row Crop	450	289.59	8
Pasture w/Residential	451	1148.45	14
Rec Center w/Residential	461	300.6	1
Total		2044.07	34
Source: Giuliani & Kull, Inc. 2011			

18.1 - Growth and Population Projections

The District population has been estimated at between 800 and 860. To estimate the change in population over the next 30 years, the SJCOG has published population projections for census designated places and the unincorporated county. Table 18-3 shows projected growth for unincorporated portions of the County. The table shows expected growth of approximately 2.5 percent growth over the 30 year period from 2015 to 2045. If we assume the population of the District will follow the change in population of the unincorporated county we can expect up to 20 additional residents by 2045.

Table 18-3: RD 2085 Census Designated Place Population Forecast

	2015	2020	2025	2030	2035	2040	2045
Rest of the County	70,950	71,184	71,450	71,718	72,038	72,400	72,764
% Change	0.37	0.33	0.37	0.38	0.45%	0.50	0.50
Est. Population RD 2085	860	862	866	869	873	878	882
Source: Eberhardt School of Business, 2016							

Most of the 860 residents reside in the San Joaquin River Club, which includes 350 single-family homes or about 860 residents. There is no anticipated development within the District. No additional homes can be built since a building moratorium imposed in 1979 prohibits new septic systems. The lower bound would be no growth or a population in 2045 of approximately 860.

DETERMINATIONS

- 18.1.1:** The population of the District is estimated at 860 residents. Most of the population resides in the San Joaquin River Club, which contains approximately 350 single-family homes. A building moratorium has been in place since 1979 due to lack of suitable septic sites. There is no anticipated development because the projected population in 2045 is expected to be 860.

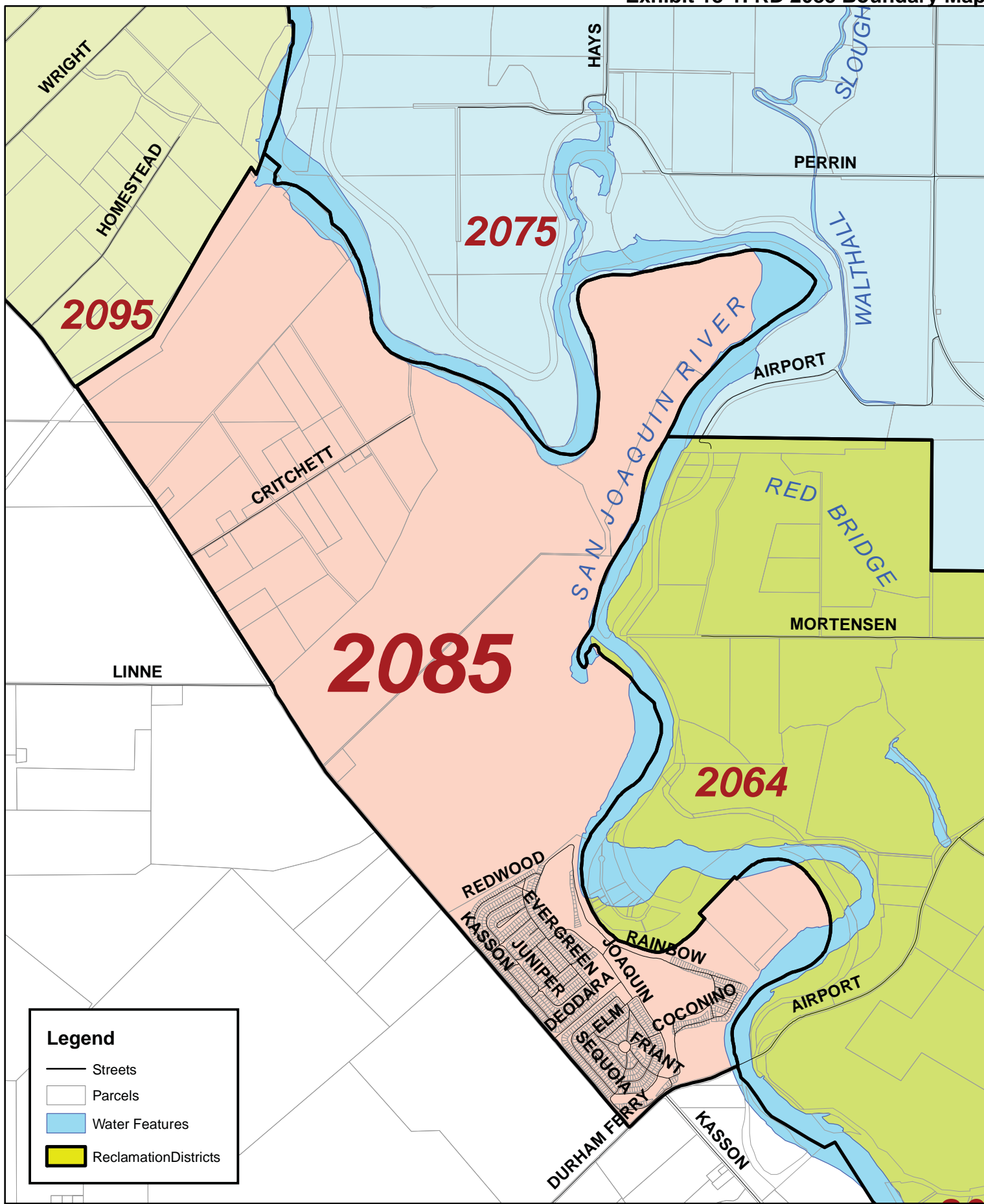
18.2 - Disadvantaged Unincorporated Communities

The San Joaquin River Club may be defined as a legacy community in unincorporated San Joaquin County. The San Joaquin River club is a private club founded in 1938. New arrivals must have sponsors from the club to be able to purchase one of the homes. The Club acts as a homeowners association and maintains the roads, provides drinking water through a single well, and numerous recreational and social activities. All the homes have septic systems. Fire services are provided by Tracy Rural Fire Protection District.

In 2015, the California MHI was estimated as \$64,500 by the Department of Finance. By definition, the MHI for a DUC would be \$51,600 or less. The census tract that includes the District and the San Joaquin River Club reported a median household income of \$51,938, which is just above the threshold. Therefore, there are no DUCs in RD 2085.

DETERMINATIONS

- 18.2.1:** While the San Joaquin River Club can be considered a legacy community with an estimated median household income below the median household income of the state but above the 80 percent threshold of a DUC. Therefore, there are no DUCs in RD 2085.



Legend

- Streets
- Parcels
- Water Features
- Reclamation Districts



**RECLAMATION DISTRICT 2085
SAN JOAQUIN COUNTY**

San Joaquin County Geographic Information Systems
1810 East Hazelton Avenue, Stockton, CA 95205

The information on this map is based on the most current information available to San Joaquin County Geographic Information Systems. The County of San Joaquin does not warrant its accuracy, completeness, or suitability for any particular purpose. The information on this map is not intended to replace engineering, financial or primary records research.

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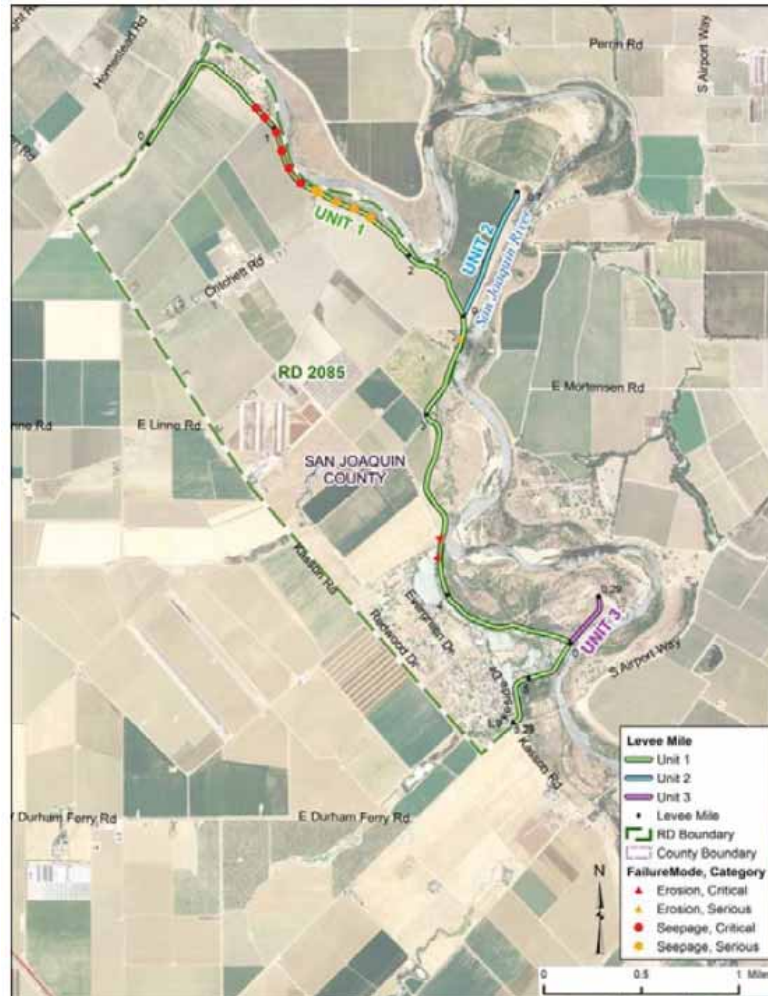
0 0.1 0.2 0.3 0.4 0.5
Miles

August 13, 2014 GIS-rm

18.3 - Present and Planned Capacity of Public Facilities

The District maintains approximately 6.18 miles of project levees. By definition, a project levee is a levee system that is part of an authorized flood control system. The project levees lie along its northern and eastern boundary of the District. Exhibit 18-2 shows the location of the levee system.

Exhibit 18-2: RD 2085 Project Levees



Source: DWR 2016

In addition to the project levees, the San Joaquin River Club is protected by a wing levee on the north. The Club is the upstream most property in the District and maintains its own drainage system by gravity flow into ponds that then drain back into the river. In the event of a levee break in the District the wing levee would provide the Club some flood protection even though the wing levee is lower than the District levees. Table 18-4 provides an overview of the District’s levee system.

Table 18-4: RD 2085 District Facilities Overview

RD 2085 FACILITIES			
Total Levee Miles	6.18	Surface Elevation	30-35 feet
LEVEE MILES BY STANDARD		LEVEE MILES BY TYPE	
No Standard	0.0	Dry Land Levee	0.0
HMP Standard	0.0	Urban Levee	0.0
PL 84-99 Standard	6.18 Miles	Agricultural Levee	6.18 Miles
Bulletin 192-82 Standard	0.0	Other	0.0
FEMA Standard			
DISTRICT FACILITIES			
Internal Drainage System	Yes	Pump Station(s)	Yes – 1 with 2 pumps
Detention Basins(s)	No	Bridges	No
FLOODPLAIN			
FIRM Designation	100 year	Base Flood Elevation	32 feet
LEVEE INSPECTION PRACTICES			
District monthly; DWR two times per Year			
LEVEE INSPECTION REPORTS			
Most Recent Written Inspection	2017	Inspection Rating	M- Marginally Acceptable
LEVEE SEGMENT	DESCRIPTION		CONDITION
Agricultural Levee – San Joaquin River	District Levee		Meets PL 84-99 Standard
LEVEE MAINTENANCE			
Miles Rehabilitated	0 Miles Selected Areas	Miles Needing Rehabilitation	.17 mile
% Rehabilitated	0 %	% Needing Rehabilitation	2.7 %
Rehabilitation Cost per Levee Mile*	N/A	Maintenance Cost per Levee Mile**	\$6,971.86
INFRASTRUCTURE NEEDS/DEFICIENCIES			
District levees met the 100-year flood protection standard in 2014			
Notes: NP = Not Provided * Rehabilitation cost per levee mile is equal to the expenditure amount on capital improvements in FY 14-15 divided by the number of levee miles rehabilitated in FY 14-15. ** Maintenance cost per levee mile is equal to the expenditure amount on levee maintenance in FY 14-15 divided by the total number of levee miles.			

Since RD 2085 includes a project levee, it is subject to AB 156 inspection and reporting requirements by DWR and USACE. DWR completes spring inspections in May, documenting the location, size, type, and rating of maintenance deficiencies while working with the Districts to assist in planning maintenance activities prior to the flood season. DWR completes annual fall inspections in November, verifying the status of previously noted as well as any additional deficiencies that should be corrected to help ensure adequate performance during the flood season. Districts conduct inspections in the winter and summer, completing the requirement to conduct four inspections each year. DWR compiles this information for use by stakeholders and reports to the CVFPB on inspection activities as requested.

DWR reported in 2015 and 2016 that RD 2085 project levees received an overall rating of M. Exhibit 18-2 also shows areas where the District needs focus its maintenance activities. The exhibit shows there are areas in unit 1 where seepage and erosion are of concern. In 2017 the rating did not change.

With regard to compliance with the 200 year flood protection required by SB 5, compliance with SB 5 rests with the land use authority. For districts that are built out or in agricultural use with no foreseeable development, the 200 year flood standard is of low priority and not being addressed. There is no anticipated development within RD 2085. No additional homes can be built since a building moratorium imposed in 1979 prohibits new septic systems. There are presently no plans to address the 200 year flood standard, however the District should work with the City of Manteca and the County to determine how to provide 200 year flood protection to residents of the San Joaquin River Club.

In addition, the District operates and maintains a drainage ditch system that serves all but five parcels, and a pump station that pumps drainage water through siphon pipes to the river. During the irrigation season, the system collects and carries runoff from irrigated properties. During the rainy season, the system collects and carries off stormwater. In the event of a levee break, the system can be used to help evacuate floodwaters from the District. The five parcels that are not part of the drainage system have their own system with their own pumps. To meet those service requirements the District has undertaken a number of projects, including:

- Trimming vegetation that impairs the visibility of levees and adjacent areas where boils, seepage or other signs of levee distress can be observed
- Spray pre-emergent herbicides to control weed growth and reduce fire risk
- Rodent abatement
- Erosion repairs to levees from high water and runoff
- Resurface levee crowns for all weather access
- Flood season prevention
- Equipment maintenance and repair
- Stockpile flood emergency materials
- Routing levee patrols
- Emergency flood response

The District's drainage-related functions include:

- Maintenance of drainage ditches and channels

- Operation and maintenance of drainage pumps and siphon pipes
- Payment of electricity charges to operate drainage pumps

The District has no staff so all the projects listed above are completed by contractors.

DETERMINATIONS

- 18.3.1:** The District provides three key services for landowners and residents of the District, levee maintenance, flood control, and drainage. The District maintains 6.28 miles of project levees. An additional levee protects the San Joaquin River Club.
- 18.3.2:** The levees are inspected four times a year and reported to DWR. The most recent inspection graded the project levees as marginally acceptable. They noted some areas of erosion and seepage.
- 18.3.3:** The District also operates and maintains a drainage ditch system that serves all but five parcels, and a pump station that pumps drainage water through siphon pipes to the river.
- 18.3.4:** The District has no staff; maintenance is completed by contractors.

18.4 - Financial Ability to Provide Service

The District budgets annually for maintenance costs for the levees and the drainage system. Table 18-5 shows a summary of the revenues and expenses from 2010 to 2015.

Table 18-5: RD 2085 Summary of Revenues and Expenses 2010–2015

YEAR	REVENUES	EXPENSES	DIFFERENCE
2010	\$19,664	\$18,972	\$692
2011	\$18,487	\$65,782	\$(47,295)
2012	\$90,253	\$56,728	\$33,525
2013	\$86,884	\$77,004	\$9,880
2014	\$91,784	\$88,024	\$3,760
2015	\$85,759	\$52,140	\$33,619

Source: State Controller, 2017

In 2010, the District found it could not meet its obligations in providing the lands within the District’s boundaries with the necessary drainage, levee, and flood control services and related operating services. At that time, expenses exceeded revenues by 40 percent. The District also faced a downgraded levee evaluation from the DWR as a result of deferred maintenance. DWR also identified a critical erosion site on the water side of the levee that needed repair. Finally, the District discovered that the siphon pumps that transport drainage water out of the District were corroded and the levee area where the pipes exist was badly eroded. The siphon pipe site needed immediate repair before the 2010–11 flood season. The estimated cost of the siphon pipe site repair project was \$55,000. The District had to borrow money from the Bank of Stockton to complete the siphon pipe repair project.

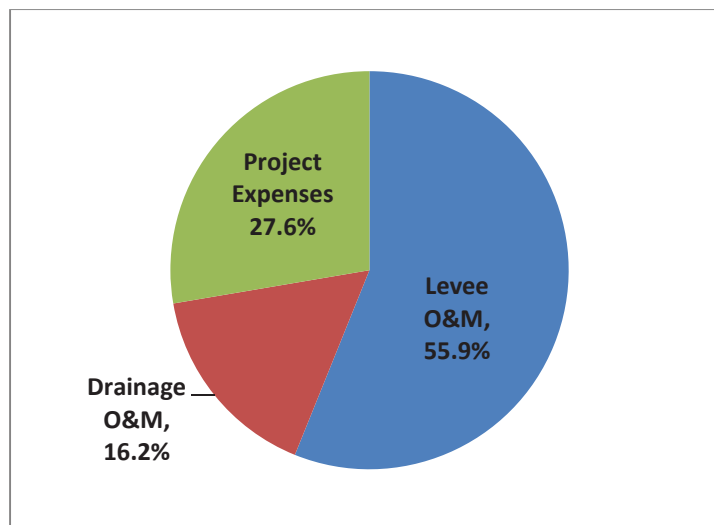
In 2010, assessments were increased to confront the crisis. The new assessment had a base rate of \$18 per acre for levee benefits and \$7 per acre for drainage benefits. For rural residences and the San Joaquin River Club residents the benefits were estimated as 20 times and 5 times the agricultural benefits for levees, and drainage was estimated for irrigated land at four times that of non-irrigated land.

As shown in the table, revenues increased by a factor of 4, allowing the District to provide adequate maintenance to the levees and the drainage system. As a result, the District had a fund balance in 2014/15 of \$69,000, which is adequate to cover potential shortfalls in the future.

The revenues shown in the table are derived primarily from assessments. The District occasionally uses warrants to produce additional revenues.

Distribution of expenses is shown in Exhibit 18-3 for 2011–2015. A majority of expenses are allocated for levee maintenance and a good portion for projects.

Exhibit 18-3: Distribution of Expenses 2011-2015



Source: Schwartz et al 2013, 2014

Each year, the District's budgets for capital improvement projects. Sometimes these projects are funded by warrants. The District has an \$80,000 line of credit for warrants with the Bank of Stockton. In the FY 14–15 budget \$40,000 was allocated to match DWR funds for critical erosion site repair.

DETERMINATIONS

- 18.4.1:** In 2014, the District approved a budget of \$125,759 for FY 14–15. It includes three components one for levees, one for the drainage system, and one part for capital improvement projects.
- 18.4.2:** The District maintains a line of credit so that it can fund capital improvements as needed. The line of credit of \$80,000, approximately one year of funding, is used to repay warrants used for specific projects.
- 18.4.3:** The District increased its fees in 2010 because funding was insufficient to provide services. The current fee schedule provides adequate funding for levee maintenance,

drainage, and flood control services. The District has adequate finances to provide essential levee services.

18.5 - Status and Opportunity for Shared Facilities

The District is isolated and there are no real opportunities for shared facilities. The District works cooperatively with a number of water agencies and emergency service providers. The District works cooperatively with DWR and USACE to maintain and inspect the levee system. The District collaborates with a number of agencies on its Emergency Operations Plan such as the San Joaquin County Office of Emergency Services, the CVFPB, the County Sheriff and the Tracy Rural Fire Protection District. It also works with the South Delta Water Agency and the County Public Works department on flood control issues. In addition the District works with neighboring RDs, realizing the levee system is designed to protect the entire region and a failure in one district can lead to flooding in neighboring districts.

DETERMINATIONS

- 18.5.1:** The District works with a number of San Joaquin County, state, and federal agencies on flood control and its Emergency Operations Plan.
- 18.5.2:** The District also works with neighboring RDs, realizing the levee system is designed to protect the entire region and a failure in one district can lead to flooding in neighboring districts.

18.6 - Government Structure and Accountability

The District is governed by a five-member board appointed by the Board of Supervisors to 4-year terms. The current board has three members who have served since 2001 the other two were appointed in 2003 and 2009 respectively. Trustees are volunteers and receive no stipend. The Board meets on the first Tuesday of August, November, February, and May of each year. Meetings begin at 5 p.m. and are held at 30000 S. Kasson Road in Tracy. Meetings are held and posted according to the Brown Act.

The District contracts for legal services and one part-time administrative staff with Spaletta Law. The District has no full-time paid staff.

The District has no website. It communicates with residents via mailers as necessary.

DETERMINATIONS

- 18.6.1:** The District is governed by a five-member appointed board. Board members serve 4-year terms and receive no stipend. The board meets on the first Tuesday of February, May, August, and November at 5 p.m. at 30000 S. Kasson Road Meetings are conducted according to the Brown Act.
- 18.6.2:** The District has no full-time employees. Maintenance work is contracted out.
- 18.6.3:** The District has no website. It communicates with residents by mail as needed.

18.7 - Any Other Matter Related to Effective or Efficient Service Delivery as Required by Commission Policy

The District is not seeking to expand its boundary, consolidate with a neighboring district, or discontinue service. The only policies that may affect the District operations are the Sphere of Influence policies. San Joaquin LAFCo's Sphere of Influence policy allows for open space or rural lands to be designated in an

agencies sphere to preserve the use and character of that territory. While there are rural lands adjacent to the District, there is no need to include them in the sphere since they are not likely to need or receive services from the District. San Joaquin LAFCo's Sphere of Influence policy allows for a coterminous sphere. Since the District has no plans for expansion and needs no additional drainage and flood control services, a coterminous sphere would be appropriate for the District. Since the sphere policies are the only applicable policy and the District would likely seek a coterminous sphere, no additional services would be required and there would be no effect of the policy on service delivery. Therefore, the San Joaquin LAFCo policies will have no effect on service delivery.

DETERMINATIONS

18.7.1: There are no San Joaquin LAFCo policies that would affect service delivery.

18.8 - Key Findings and Issues

1. There appear to be issues with erosion and seepage in the levee that the District is addressing.
2. The District appears have sufficient funds to provide essential services, but additional funding is needed to improve the levees to the acceptable levels.
3. RD 2085's Sphere of Influence was established in 1983. A sphere of influence update is long overdue. It is recommended Commission update the sphere and set it as conterminous with District boundaries.

19: RECLAMATION DISTRICT 2094 (WATHAL)

The District was formed in 1959 under the Reclamation District Act of the California Water Code to provide levee maintenance services. The District is located on the east side of the San Joaquin River. It borders the east side of Circle Lake and the City of Manteca. Part of the District is in the southwest portion of the City. The District currently consists of 17 parcels covering approximately 1,900 acres of primarily agricultural land. Exhibit 19-1 shows the boundary map for the District, while Table 19-1 shows general information about the district and services it provides.

Table 19-1: RD 2094 Background Information

RD 2094 GENERAL INFORMATION	
Agency	RD 2094 (Wathal)
Address	29050 Ahern Rd., Tracy, CA 95304
Principal Act	California Water Code §50000, et seq.
Date Formed	1959
Population	40 permanent residents & farmworkers
Last SOI Update	1983
Services Provided	Levees, flood control and drainage
Contact Person	Albert Boyce, PO Box 1870, Manteca, CA 95336 albertboyce@gmail.com
Website	None

The District has been labeled inactive since the 1990s. RD 2094 has not reported revenues and expenses in quite some time so it was declared inactive in the State Controller’s report. However, the landowners have been able to maintain 3.23 miles of project levees to an acceptable level. They still maintain the structure of a district with a board of trustees that meets to determine maintenance activities and expenses each year. They are in the process of updating an outdated EOP. The District levees assessments every 5 years. While the District may be considered inactive because it no longer sends financial reports to the State Controller’s Office it still exists and does provide essential services at a high level.

19.1 - Growth and Population Projections

The District population currently is approximately 40, based on census block data. However, the District is primarily agriculture and does not anticipate any new development or substantial growth. To estimate the change in population over the next 30 years, the SJCOG has published population projections for census designated places and the unincorporated county. Table 19-2 shows projected growth of approximately 2.5 percent over the 30-year period from 2016 to 2045 for unincorporated portions of the County. If it is assumed that the population of the District will follow the change in population of the unincorporated county, 2.5 percent can be considered an upper limit of any potential growth and results in an estimated population of 41 in 2045.

Table 19-2: Estimated Population RD 2094

	2016	2020	2025	2030	2035	2040	2045
Unincorporated County	70,950	71,184	71,450	71,718	72,038	72,400	72,764
% Change	0.37	0.33	0.37	0.38	0.45%	0.50	0.50
Est Population RD	40	40	40	40	40	41	41
Source: Eberhardt School of Business, 2016							

DETERMINATIONS

19.1.1: The District anticipates no growth or very little growth. Considering the estimated population growth for areas in the unincorporated County outside of census designated places is expected to increase by 2.5 percent in the next 30 years. At 2.5 percent growth the population would remain at approximately 40 in 2045.

19.2 - Disadvantaged Unincorporated Communities

The census tract that includes the District has a median household income of \$75,125. In 2015, the California MHI was estimated as \$64,500 by the Department of Finance. By definition, the MHI for a DUC would be \$51,600 or less. Since the MHI for this district exceeds the threshold, there are no DUCs in RD 2094.

DETERMINATIONS

19.2.1: In 2015 the California MHI was estimated as \$64,500 by the Department of Finance. By definition, the MHI for a DUC would be \$51,600 or less. The census tract that includes the District has a median household income of \$75,125. Therefore, there are no DUCs in RD 2094.

19.3 - Present and Planned Capacity of Public Facilities

The District operates and maintains approximately 3.23 miles of project levees according to the most recent DWR report. By definition, a project levee is a levee system that is part of an authorized flood control system. Project levees are subject to USACE certification and inspection. In addition, they are subject to AB 156 inspection and reporting requirements. Under AB 156, the District must report the condition of its levees to the DWR, which compiles an annual report.

To meet those service requirements the District has undertaken a number of projects including

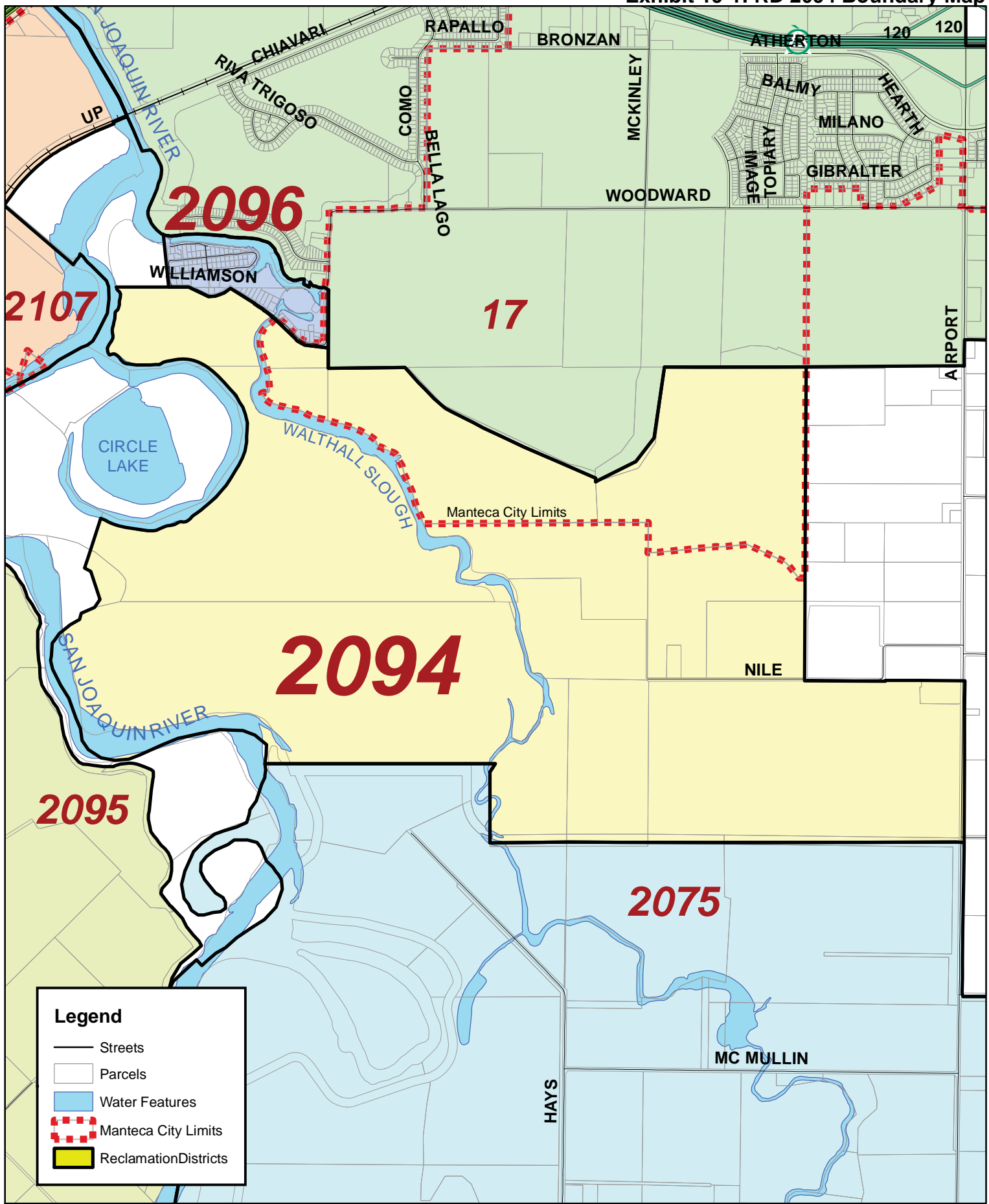
- Roadway maintenance, graveling, and grading
- Rodent control
- Slope dragging
- Levee patrolling
- Excavation and compaction
- Vegetation control
- Erosion repairs to levees from high water and runoff

- Resurface levee crowns for all weather access
- Drainage

The District has no staff. The projects listed above are completed by contractors. Table 19-3 provides an overview of the District’s levee system.

Table 19-3: RD 2094 District Overview

RD 2094 FACILITIES			
Total Levee Miles	4.86	Surface Elevation	30 +/- feet
LEVEE MILES BY STANDOUT		LEVEE MILES BY TYPE	
No Standard	0.0	Dry Land Levee	0.0
HMP Standard	0.0	Urban Levee	0.0
PL 84-99 Standard	4.86	Agricultural Levee	4.86 miles
Bulletin 192-82 Standard	0.0	Other	0.0
FEMA Standard			
DISTRICT FACILITIES			
Internal Drainage System	Yes	Pump Station(s)	Yes - 1
Detention Basins(s)	No	Bridges	No
FLOODPLAIN			
FIRM Designation	Unknown	Base Flood Elevation	29 +/- feet Less than 1-foot
LEVEE INSPECTION PRACTICES			
Routinely for visual; Four Times per Year with State and US Corps. Personnel			
LEVEE INSPECTION REPORTS			
Most Recent Written Inspection	2017	Inspection Rating	Acceptable
LEVEE SEGMENT	DESCRIPTION		CONDITION
Banta Carbona Lift Canal	0.4 mile canal bank		(field observations)
San Joaquin River	2.98 miles river bank		Vegetation/erosion (field observations)
Paradise Cut	1.45 miles canal bank		Vegetation (field observations)
Notes: NP = Not Provided			



Legend

- Streets
- Parcels
- Water Features
- - - Manteca City Limits
- Reclamation Districts



**RECLAMATION DISTRICT 2094
SAN JOAQUIN COUNTY**

San Joaquin County Geographic Information Systems
1810 East Hazelton Avenue, Stockton, CA 95205

The information on this map is based on the most current information available to San Joaquin County Geographic Information Systems. The County of San Joaquin does not warrant its accuracy, completeness, or suitability for any particular purpose. The information on this map is not intended to replace engineering, financial or primary records research.

0 0.1 0.2 0.3 0.4 0.5
Miles

August 13, 2014 GIS-rrt

Exhibit 19-2 shows the project levees for RD 2094. It also shows that there are no portions of the levees that need additional attention because of potential failure.

Exhibit 19-2: RD 2094 Project Levees



Source: DWR 2016

Table 19-4 shows the DWR rating for levee maintenance from 2008 through 2017. It also shows the estimated expenses to maintain the levee at an acceptable level. As seen in the table the District has maintained the levees at an acceptable level since 2008.

Table 19-4: RD 2094 Maintenance and Expenses

YEAR	LEVEL OF MAINTENANCE	ESTIMATED COST
2008	A	\$8,400
2009	A	\$5,368
2010	A	\$8,411
2011	A	\$12,030
2012	A	\$4,275
2013	A	\$12,600
2014	A	\$4,560
2015	A	\$5,200
2016	A	\$7,930
2017	A	\$43,352

Source: DWR 2008, 2009, 2010, 2011, 2012,2013, 2014, 2015, 2016,2017

With regard to compliance with the 200 year flood protection required by SB 5, compliance with SB 5 rests with the land use authority. For districts that are built out or in agricultural use with no foreseeable development the 200 year flood standard is of low priority and not being addressed. RD 2094 consists of 17 agricultural parcels. There is no known anticipated development within the RD 2094 as the district has been labeled inactive and little information is available. There are presently no known plans to address the 200 year flood standard.

DETERMINATIONS

- 19.3.1:** The District maintains 3.23 miles of project levees. Through activities such as levee patrol, road maintenance, vegetation control, and rodent control, the District has been able to maintain the levees at an acceptable level since 2008.

19.4 - Financial Ability to Provide Service

The District has been labeled inactive and does not have a budget. Apparently the District levees an assessment every 5 years to cover costs of insurance and maintenance. The assessment is collected by the County and held in a separate account by the Treasurer. The assessment is \$2.50 per \$100 of assessed valuation.

At the beginning of the FY 16/17 fiscal year the account balance was at \$368.66. The District is in the process of collecting this year’s assessment. As of the end of February 2017 they collected an additional \$22,863.50.

In addition to \$7,000 in average annual maintenance costs, the other major expense is the cost of insurance, which is \$2,400 per year. The District has also hired KSN Engineers to update their Emergency

Operations Plan. Additional funds may be forthcoming as assessments are still being received. With a total assessed value of \$ 8,922,222, it is anticipated the District will receive \$223,000 total. That is likely to be sufficient to maintain the levees for an additional 5 years.

The District is not required to adopt a budget and does not do so. However, the Trustees do meet to determine the level of maintenance needed to keep the levees at an acceptable level.

Even though the District is labeled inactive and not dissolved it has access to supplemental funding in connection with disaster relief. State and federal agency programs exist to provide support during times of emergency. However, the extent of reimbursement and timing of when it will be received (if eligible) is extremely difficult to predict. In addition, in many cases, the District must have matching funding.

Since the District is collecting assessments and expending funds for levee maintenance it should resume submitting data to the State Controller and engage in annual audits.

DETERMINATIONS

- 19.4.1:** The District has been termed inactive, which may be due to the fact it has not reported transactions to the State Controller's office in quite some time. The District does levee assessments approximately every 5 years and funds are held in the County Treasury. The District expends funds for levee maintenance and insurance. The District has also contracted with KSN Engineers to update their Emergency Operations Plan. Since the District is collecting assessments and expending funds for levee maintenance it should resume submitting data to the State Controller and engage in annual audits.
- 19.4.2:** The District is in the process of collecting additional assessment this year. The District also is responsible for insurance costs. Additional assessments are being collected, with a total based on assessed value expected to reach approximately \$223,000. Funding is sufficient for at least two years of operations.

19.5 - Status and Opportunity for Shared Facilities

The District works cooperatively with a number of water agencies and emergency service providers. The District works cooperatively with DWR and USACE to maintain and inspect the levee system. The District also works with the South San Joaquin Irrigation District.

DETERMINATIONS

- 19.5.1:** The District works with DWR and USACE to maintain its project levees.

19.6 - Government Structure and Accountability

The District has been inactive for several years but there is a three member board. Trustees have been on the Board for several years. The Board does meet on an as-needed basis to determine the level of maintenance required to keep the levees at an acceptable level. The District has no full-time paid staff but has contracted with KSN Engineers to update their Emergency Operations Plan.

The District has no website. It communicates with residents via mailers as necessary.

DETERMINATIONS

- 19.6.1:** The District is governed by a three member appointed board. Board members receive no stipend. The board meets as needed to determine the costs of maintain the levees at acceptable level.
- 19.6.2:** The District has no full-time employees. Maintenance work is contracted out.
- 19.6.3:** The District has no website. It communicates with residents by mail as needed.

19.7 - Any Other Matter Related to Effective or Efficient Service Delivery as Required by Commission Policy

The District is not seeking to expand its boundary, consolidate with a neighboring district, or discontinue service. Since the District has no plans for expansion and no need for additional drainage and flood control services, a coterminous sphere would be appropriate for the District. Since the sphere policies are the only applicable policy and the District would seek a coterminous sphere, no additional services would be required and there would be no effect of the policy on service delivery. Therefore, the San Joaquin LAFCo policies will have no effect on service delivery.

DETERMINATIONS

- 19.7.1:** There are no San Joaquin LAFCo policies that would affect service delivery.

19.8 - Key Findings and Issues

1. Although termed inactive the District does maintain three plus miles of project levees at an acceptable level.
2. It levies an assessment approximately every 5 years, which is collected and held by the County Treasurer. The District spends \$4,000 to \$12,000 each year on levee maintenance each year. The District does appear to be active because it provides levee maintenance services.
3. The District has a Board of Trustees that has been in place for quite some time. There is a Board of Supervisors agenda item from 1999 making an appointment to the Board of Trustees.
4. Because the District is providing services and collecting assessments, it should file its required paperwork to be re-activated for the sake of transparency of local governments. Trustees should be reappointed and finances should be reported to the State Controller, budgets and audits should be completed.
5. RD 2094's Sphere of Influence was established in 1983. A sphere of influence update is long overdue. It is recommended Commission update the sphere and set it as conterminous with District boundaries.

20: RECLAMATION DISTRICT 2095 (PARADISE JUNCTION)

The Paradise Junction Reclamation District 2095 was formed around 1965. The District is located 5 miles southwest of the City of Manteca and 5 miles east of the City of Tracy. The District provides levee maintenance and levee patrol services. The District maintains the levee on the left (west) bank of the San Joaquin River between the Banta Carbona Intake and the State Route 205 and I- 5 intersections, with the western boundary being Kasson Road. The District currently consists of approximately 3,567 acres of primarily agricultural land. Exhibit 20-1 shows the boundary map for the District, while Table 20-1 shows the general information about the district and services it provides.

Table 20-1: RD 2095 General Information

TABLE 20-1: RD 2095 GENERAL INFORMATION	
Agency	RD 2095 (Paradise Junction)
Address	1005 Parker Avenue, Tracy, CA 95376
Principal Act	California Water Code §50000, et seq.
Date Formed	1965
Population	4,033
Last SOI Update	1983
Services Provided	Levees, flood control and drainage
Contact Person	Roseanna P. Silva, Field Operations Manager, (209) 241-6793
Website	None

The Deuel Vocational Institution (23500 Kasson Road, Tracy, CA 95304) is located in the midsection of the District and borders the Union Pacific railroad to the north and Kasson Road to the west. The Duel Vocational Institution currently houses approximately 2,266 prisoners and 880 employees.

20.1 - Growth and Population Projections

The current population of the District is estimated at 4,033. The District lies outside the boundaries of any census designated place; thus, it is assumed that the population changes are similar to the change in the unincorporated portions in the County and not located inside a census designated place.

Table 20-2: RD 2095 Population Forecast

	2015	2020	2025	2030	2035	2040	2045
Unincorporated County	70,950	71,184	71,450	71,718	72,038	72,400	72,764
% increase		0.33%	0.37%	0.38%	0.45%	0.50%	0.50%
Estimated population	4,033	4,046	4,061	4,077	4,095	4,115	4,136
Note: CDP = census designated place Source: Eberhardt School of Business, 2016							

Table 20 -2 shows there is very little anticipated growth in the District as each cell in the table estimates the change in population for a 5-year period. Using this methodology, the estimated population of the District in 2045 would be 4,136, an increase of 100 over the 30-year period from 2015 to 2045.

DETERMINATIONS

- 20.1.1:** The current population of the District stands at 4,033. Very little growth is anticipated in the next 30 years. If we assume the population will increase as the population in the unincorporated portions of San Joaquin County outside a CDP then in 2045 the estimated population could range up to 4,133.

20.2 - Disadvantaged Unincorporated Communities

The population other than the Deuel Vocational Institution is dispersed throughout the District, the District can be assessed for the purposes of this section as one community. In 2015 the California MHI was estimated as \$64,500 by the Department of Finance. By definition, a DUC would have an MHI of \$51,600 or less. The census tract that includes the District reported a median household income of \$51,938, which is just above the threshold. Therefore, there are no DUCs in RD 2095.

DETERMINATIONS

- 20.2.1:** There are no DUCs in RD 2095.

20.3 - Present and Planned Capacity of Public Facilities

Table 20-3 provides an overview of the District's levee system. The District operates and maintains approximately 4.86 miles of Project Levee. By definition, a project levee is a levee system that is part of an authorized flood control system. The District provides these services in conjunction with RD 2058, which maintains the levees on the opposite side of the San Joaquin River. The levee system is separated in to three sections:

- Approximately 0.4 mile of levee along the right bank of the Banta Carbona Lift Canal, between the pumping station and the San Joaquin River
- Approximately 2.98 miles of levee along the left bank of the San Joaquin River, between the Banta Carbona Canal and the Paradise Dam
- Approximately 1.45 miles of levee along the left bank of Paradise Cut, between the Paradies Dam and the State Route 205 and 5 intersections

The Deuel Vocational Institution maintains a 2-mile dry-land levee along the southern and western boundary, with the Union Pacific Rail Road acting as a levee on the north side of the site.

The tail end of the Tom Paine Slough terminates in the north of the District, ending with a drain pump station. Various smaller drainage ditch systems throughout the District end in pump stations that remove the water to the river.

Table 20-3: RD 2095 District Overview of Facilities

RD 2095 FACILITIES			
Total Levee Miles	4.86	Surface Elevation	30 +/- feet
LEVEE MILES BY STANDOUT		LEVEE MILES BY TYPE	
No Standard	0.0	Dry Land Levee	0.0
HMP Standard	0.0	Urban Levee	0.0
PL 84-99 Standard	4.86	Agricultural Levee	4.86 miles
Bulletin 192-82 Standard	0.0	Other	0.0
FEMA Standard			
DISTRICT FACILITIES			
Internal Drainage System	Yes	Pump Station(s)	Yes - 1
Detention Basins(s)	No	Bridges	No
FLOODPLAIN			
FIRM Designation	Unknown	Base Flood Elevation	29 +/- feet Less than 1-foot
LEVEE INSPECTION PRACTICES			
Routinely for visual; Four Times per Year with State and US Corps. Personnel			
LEVEE INSPECTION REPORTS			
Most Recent Written Inspection	2017	Inspection Rating	Acceptable
LEVEE SEGMENT	DESCRIPTION	CONDITION	
Banta Carbona Lift Canal	0.4 mile canal bank	(field observations)	
San Joaquin River	2.98 miles river bank	Vegetation/erosion (field observations)	
Paradise Cut	1.45 miles canal bank	Vegetation (field observations)	
INFRASTRUCTURE NEEDS/DEFICIENCIES			
Notes: NP = Not Provided			

Typically, the District performs the following tasks to maintain the levees and prepare for a flooding incident:

- President inspects District levees on a routine basis.
- Ongoing baiting and grouting program for ground rodents
- Ongoing vegetation control program
- Annual inspection and inventory of District flood fight supplies, based on the DWR “Advanced Preparation for Floods and Patrolling” and “Flood Fight Checklist”

- Semi-annual joint inspection of levees with State inspectors
- Periodic joint inspection of levees with Federal inspectors
- Annual inspection and maintenance of access control gates on levees
- Annual inspection and maintenance of all pumping stations or other facilities owned and operated by the District
- The District does not provide drainage services; however, the District does operate one pumping station to return seepage or flood water into Paradise Cut.

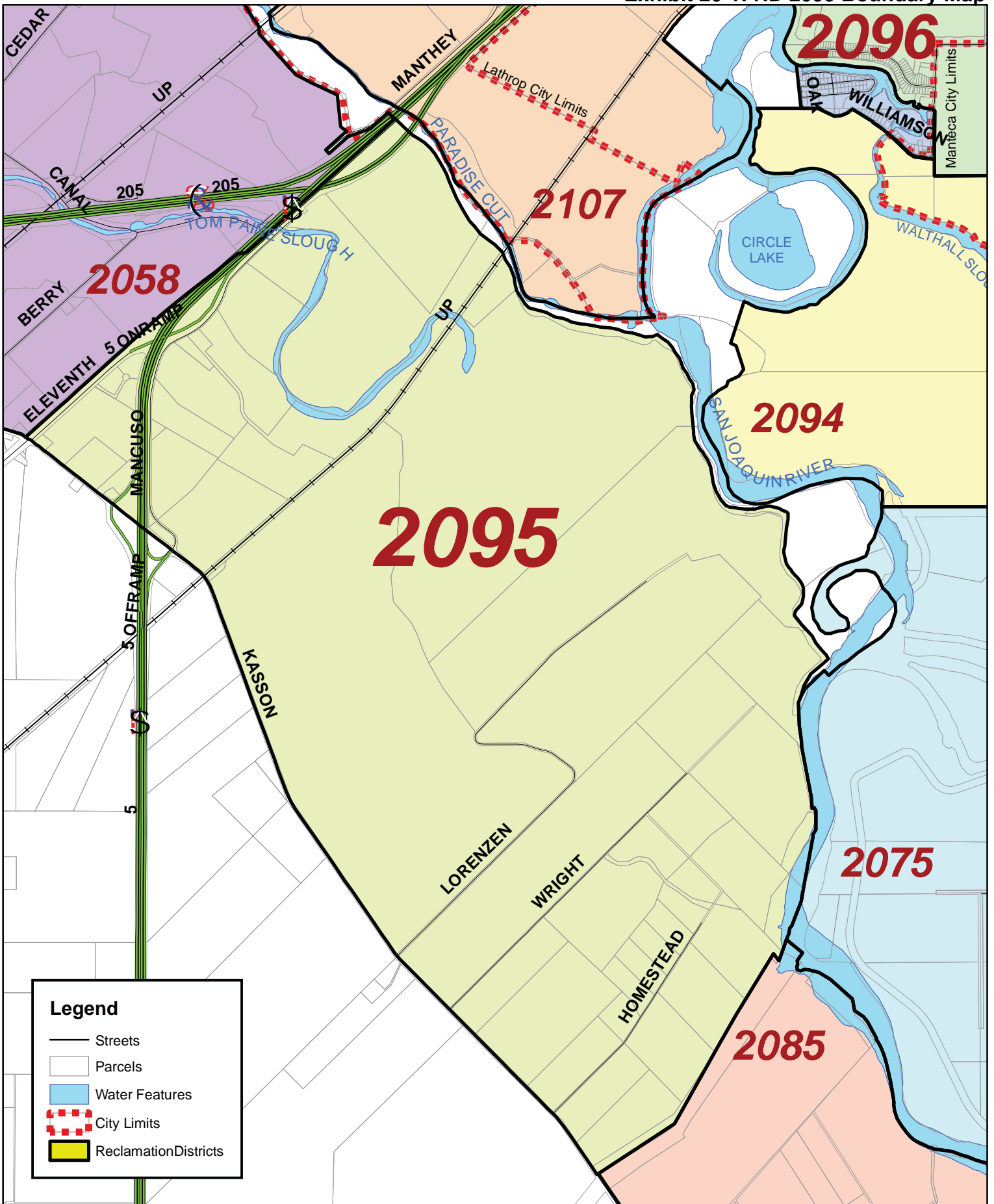
All services are performed by contractors on an as-needed basis.

While the DWR inspection ratings in 2015 were acceptable, in 2016 the inspection found several areas of concern to give an unacceptable rating. More specifically, the DWR inspection found vegetation that significantly impacts access and visibility and that there are several areas of erosion along the San Joaquin River. Exhibit 20-2 shows the areas of erosion. The DWR inspection report recommended the District should focus on controlling vegetation and repairing erosion sites. In 2017 following those recommendations the District was able to bring project levees back to an acceptable rating.

With regard to compliance with the 200 year flood protection required by SB 5, compliance with SB 5 rests with the land use authority. For districts that are built out or in agricultural use with no foreseeable development the 200 year flood standard is of low priority and not being addressed. RD 2095 is an agricultural district. Very little growth is anticipated in RD 2095 in the next 30 years. There are presently no known plans to address the 200 year flood standard.

DETERMINATIONS

- 20.3.1:** The District provides three key services for landowners and residents of the District, levee maintenance, flood control, and drainage. The District maintain 4.86 miles of project levees on the west side of the San Joaquin River.
- 20.3.2:** The District services include routine inspection, vegetation control, and rodent control. The District does not provide drainage services; however, the District does operate one pumping station to return seepage or flood water into Paradise Cut.
- 20.3.3:** While the DWR inspection ratings in 2015 were acceptable, in 2016 the inspection found several areas of concern to give an unacceptable rating. More specifically, the DWR inspection found vegetation that significantly impacts access and visibility and that there are several areas of erosion along the San Joaquin River. The DWR inspection report recommended the District should focus on controlling vegetation and repairing erosion sites. In 2017 the District was able to bring project levees back to an acceptable rating.
- 20.3.4:** The District employs contractors for operation and maintenance on an as needed basis.



RECLAMATION DISTRICT 2095 SAN JOAQUIN COUNTY

San Joaquin County Geographic Information Systems
1810 East Hazelton Avenue, Stockton, CA 95205

The information on this map is based on the most current information available to San Joaquin County Geographic Information Systems. The County of San Joaquin does not warrant its accuracy, completeness, or suitability for any particular purpose. The information on this map is not intended to replace engineering, financial or primary records research.

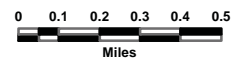
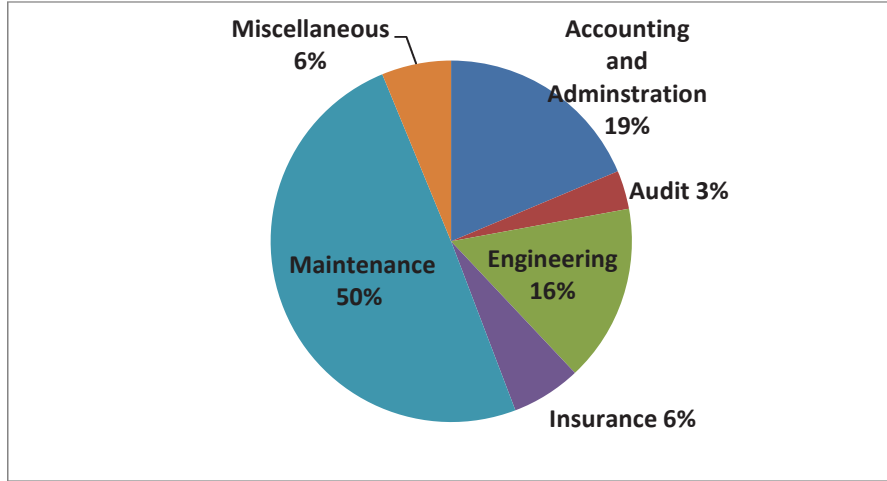


Exhibit 20-3: RD 2095 Expense Allocation 2015–2016.



Source: Schwartz et al. 2015, 2016

Table 20-4 shows revenues and expenses from FY 2010 through FY 2016. The table shows for the most part revenues are sufficient for services. However, there are occasional large maintenance expenses. Should expenses exceed revenues, the District relies on the unrestricted fund balance to make up the difference. As of June 30, 2016, the District had a fund balance of \$116,126, which is approximately 2 to 3 years of average expenses.

Table 20-4: RD 2095 Revenues and Expenses 2011–2016

FISCAL YEAR	REVENUES	EXPENSES	DIFFERENCE
2010	\$52,365	\$45,012	\$7,353
2011	\$46,162	\$40,284	\$5,878
2012	\$46,807	\$28,237	\$18,570
2013	\$54,487	\$28,606	\$25,881
2014	\$47,565	\$69,006	\$(21,441)
2015	\$49,539	\$45,012	\$4,527
2016	\$48,819	\$40,284	\$8,535

Source for 2015 and 2016: Schwartz et al., 2015,2016; State Controller’s Reports, 2017.

As discussed earlier the DWR levee inspection determined that the levees were rated U, unacceptable. The DWR recommended the District should focus on controlling vegetation and repairing erosion sites. The District should allocate some of its fund balance to suggested repairs to bring the levees back to an acceptable rating.

DETERMINATIONS

20.4.1: The District derives revenues primarily from assessments. Occasionally the District receives grants from federal and state sources. The County Treasurer collects

assessments and maintains District funds in the County Treasury. Fifty percent of expenses are due to maintenance of the levee system.

- 20.4.2:** In general revenues are sufficient to cover expenses and allow the District to provide adequate maintenance services. The occasional shortfall is filled from the unrestricted fund balance. As of June 30, 2016, the District maintained a fund balance of \$116,126, nearly 3 years of operating expenses.
- 20.4.3:** The District should allocate some of its fund balance to suggested repairs to bring the levees back to an acceptable rating.

20.5 - Status and Opportunity for Shared Facilities

The District has no shared facilities but works cooperatively with neighboring RDs, realizing the levee system is designed to protect the entire region and a failure in one district can lead to flooding in neighboring districts. RD 2095 and RD 2085 have a Joint Routine Maintenance Agreement with CDFW.

One measure of management efficiency is whether the District produces plans that can guide the provision of services. As discussed above, the District does make an annual budget that in essence is a financial plan for the coming year.

The District works cooperatively with a number of water agencies and emergency service providers. The District works cooperatively with DWR and USACE to maintain and inspect the levee system.

Like most RDs, the District does produce an Emergency Operations Plan. The District circulates the plan to the San Joaquin Office of Emergency Services, the DWR Flood Operations Branch and the CVFPB, the City of Tracy, the Tracy Rural Fire Protection District, and the County Sherriff . It also circulates the plan to the San Joaquin County Sheriff's Office and the Deuel Vocational Institution.

DETERMINATIONS

- 20.5.1:** The District has no shared facilities but works cooperatively with their neighbors, DWR, and USACE. RD 2095 and RD 2085 have a Joint Routine Maintenance Agreement with CDFW.
- 20.5.2:** The District does produce and Emergency Operations Plan and works with county flood control agencies, the City of Tracy, the County Sherriff, the Tracy Rural Fire Protection District, as well as state agencies such as DWR, CVFPB, and San Joaquin County agencies. The plan is also circulated to the Joaquin County Sheriff's Office and the Deuel Vocational Institution.

20.6 - Government Structure and Accountability

The Board of Trustees is made up of three landowners of the District. Often no candidates file for the Trustee positions, so the Board of Supervisors makes appointments. The Trustees serve 4-year staggered terms and receive no compensation.

The Board meets every three months at 1005 Parker Avenue in Tracy. Meetings are noticed according to the Brown Act.

The District contracts for legal services with Spaletta Law. The District has no full-time paid staff, however, it contracts for a Field Operations Manager and Board Secretary. Levee maintenance is conducted by contractors. The Board President also participates in levee inspections.

The District has no website. RD 2095 communicates with residents via mailers as necessary.

About five or so years ago the District engaged in discussions with RD 2085 about consolidation of the two districts. However, they were deterred by the lengthy process and high costs and are no longer considering the change of organization. The district is no longer interested in changing its boundaries.

DETERMINATIONS

- 20.6.1:** The Board of Trustees serves 4-year staggered terms and was appointed by the San Joaquin Board of Supervisors since no nominees filed for the position. Trustees receive no compensation.
- 20.6.2:** The Board meets every three months in Tracy. Meetings are noticed according to the Brown Act.
- 20.6.3:** The District has no full-time employees. They contract for Field Operations Manager and Board Secretary. Maintenance work is also contracted out.
- 20.6.4:** The District has no website. It communicates with residents by mail as needed.

20.7 - Any Other Matter Related to Effective or Efficient Service Delivery as Required by Commission Policy

The District is not seeking to expand its boundary, consolidate with a neighboring district, or discontinue service. The only policies that may affect the District operations are the Sphere of Influence policies. San Joaquin LAFCo's Sphere of Influence policy allows for open space or rural lands to be designated in an agencies sphere to preserve the use and character of that territory. While there are rural lands adjacent to the District there is no need to include them in the sphere as they are not likely to need or receive services from the District. San Joaquin LAFCo's Sphere of Influence policy allows for a coterminous sphere. Since the District has no plans for expansion and no need for additional drainage and flood control services, a coterminous sphere would be appropriate for the District. Since the sphere policies are the only applicable policy and the District would seek a coterminous sphere, no additional services would be required and there would be no effect of the policy on service delivery. Therefore, the San Joaquin LAFCo policies will have no effect on service delivery.

DETERMINATIONS

- 20.7.1:** There are no San Joaquin LAFCo policies that would affect service delivery.

20.8 - Key Findings and Issues

1. The District's primary function is the maintenance of the 4.86 miles project levees.
2. The District prepares an annual budget that is usually sufficient for operations. If expenses exceed revenues the District relies on the undesignated fund balance to address the shortfall. The current fund balance is sufficient for 2 to 3 years of operating expenses. The District also has access to state and federal funds in case of emergency.

3. The District has indicated it is not interested in consolidation because consolidation would be too expensive.
4. The District is unlikely to want to expand its boundaries or Sphere of Influence because “limited funds and high permitting costs prevent the District from completing any repairs to the levee and the levee slopes.”
5. RD 2095’s Sphere of Influence was established in 1983. A sphere of influence update is long overdue. It is recommended Commission update the sphere and set it as conterminous with District boundaries.

21: RECLAMATION DISTRICT 2096 (WETHERBEE LAKE)

RD 2096 was formed in December of 1963 to provide drainage, flood control, and complete reclamation of lands within the District’s boundaries. Table 21-1 lists RD 2096 services.

Table 21-1: RD 2096 General Information

GENERAL INFORMATION	
Agency	RD 2096 (Wetherbee)
Address	770 Wetherbee Avenue, Manteca, CA 95337
Principal Act	California Water Code §50000, et seq.
Date Formed	December 1963
Population	Approx. 350
Last SOI Update	1983
Services Provided	Levees, access road, vegetation, flood control
Contact Person	Randy Barker, Board President; (209) 401-6741; barker770@comcast.net
Website	None

The boundaries for RD 2096 are shown in Exhibit 21-1. The District, which is about 67 acres or 0.1 square miles in size, occupies the entirety of Wetherbee Island and is primarily a mobile home park (Islander Trailer Park) and the community of Wetherbee Lake with 80 homes. The right bank levee along the San Joaquin River is treated as one system from the Stanislaus River downstream to French Camp Slough.

RD 2096’s Sphere of Influence was established in 1983. LAFCO will have to update a Sphere of Influence for the District following this MSR process.

21.1 - Growth and Population Projections

RD 2096 is located outside and adjacent to the City of Manteca. Based on the District’s estimates, the population of RD 2096 is approximately 350 people. It was reported by the District that there are approximately 80 existing residences and a mobile home park within the District along with some farming operations. While there is anticipated growth for the City of Manteca, no further growth in the way of new development is expected within the district boundaries. Therefore the population is expected to remain unchanged for the next 10 and 30 years at 350.

DETERMINATIONS

- 21.1.1:** The District estimated population of RD 2096 is approximately 350 people.
- 21.1.2:** RD 2096 is located outside and adjacent to the City of Manteca. However, no new growth from new development is anticipated within the District’s boundaries. The population for the next 10 and 30 years is expected to remain at approximately 350.

21.2 - Disadvantaged Unincorporated Communities

LAFCO is required to evaluate DUCs as part of this service review, including the location and characteristics of any such communities. A DUC is defined as any area with 12 or more registered voters,

or as determined by commission policy, where the MHI is less than 80 percent of the statewide annual median income.

Since a DUC in San Joaquin County would have an MHI of \$51,600 or less and the census tract containing the District has an MHI of \$75,125, there are no DUCs within RD 2096.

DETERMINATIONS

21.2.1: There are no DUCs within RD 2096.

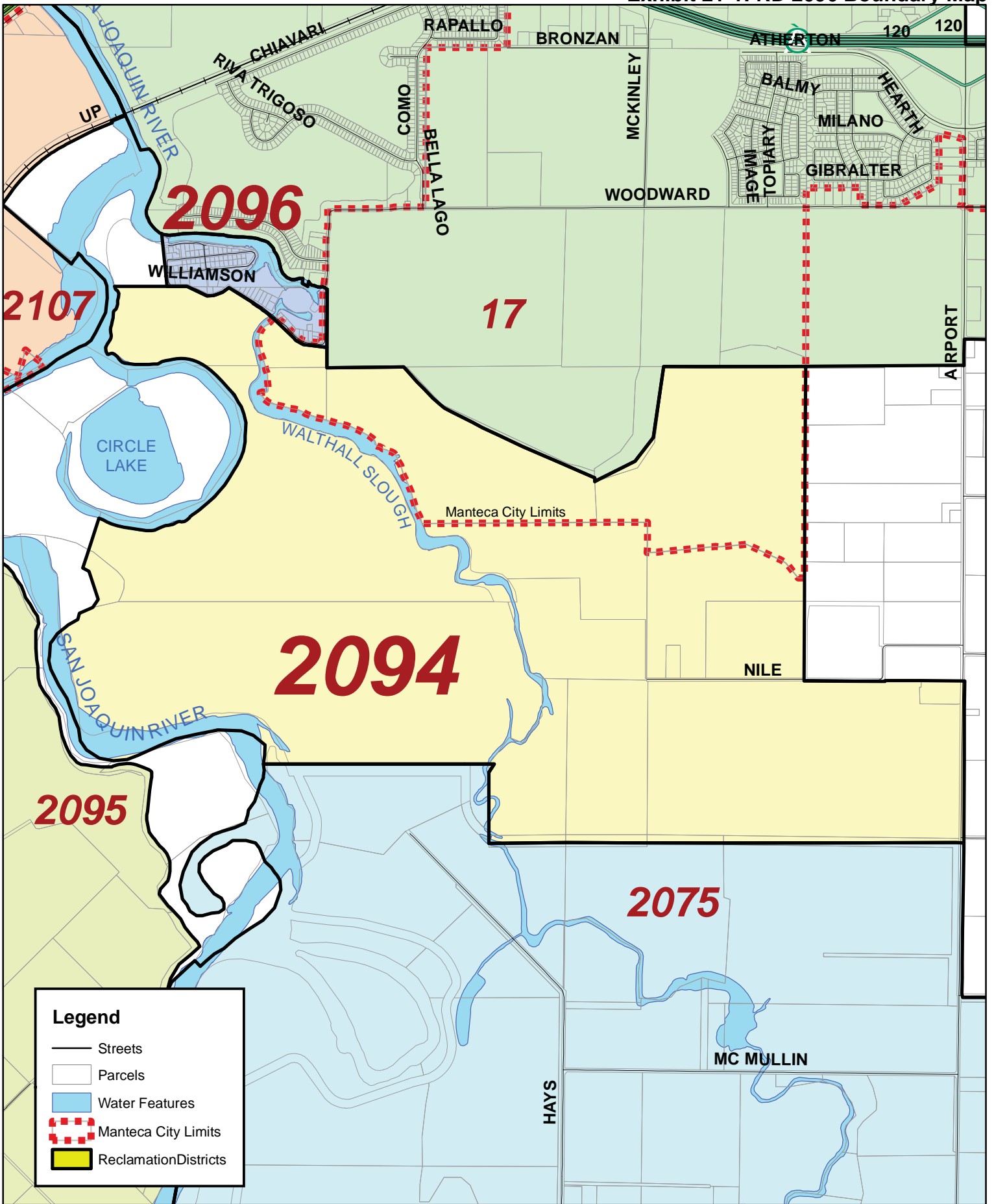
21.3 - Present and Planned Capacity of Public Facilities

The District operates and maintains approximately 0.16 mile of levees, all of which are project levees. Additionally, RD 2096 also operates and maintains a pumping station and a floodgate. Table 21-2 summarizes the district's facilities.

Project levees are subject to USACE certification and inspection. In addition, they are subject to AB 156 inspection and reporting requirements. The levees are inspected four times a year by DWR and by USACE. Under AB 156, the District must report the condition of its levees to DWR, which compiles an annual report.

DWR notes that routine levee maintenance inspections by the local agency are necessary to ensure that adequate maintenance is being carried out and that dangerous or unusual conditions are discovered early. The DWR recommends that, at a minimum, levees should be inspected (1) once by September 15 to allow time to correct dangerous conditions; (2) once in April to provide information to plan annual maintenance and repair; and (3) during and after periods of high water and high winds that can accelerate wave erosion.

Each year, DWR and USACE inspect project levees. DWR completes spring inspections in May, documenting the location, size, type, and rating of maintenance deficiencies while working with the Districts to assist in planning maintenance activities prior to the flood season. DWR completes annual fall inspections in November, verifying the status of previously noted, as well as any additional, deficiencies that should be corrected to help ensure adequate performance during the flood season. Districts conduct inspections in the winter and summer, completing the requirement to conduct four inspections each year. DWR compiles this information for use by stakeholders and reports to the CVFPB on inspection activities as requested. According to the fall 2016 and the 2017 DWR inspection report, the District's overall LMA rating was A, acceptable.



**RECLAMATION DISTRICT 2096
SAN JOAQUIN COUNTY**

San Joaquin County Geographic Information Systems
1810 East Hazelton Avenue, Stockton, CA 95205
The information on this map is based on the most current information available to San Joaquin County Geographic Information Systems.
The County of San Joaquin does not warrant its accuracy, completeness, or suitability for any particular purpose.
The information on this map is not intended to replace engineering, financial or primary records research.

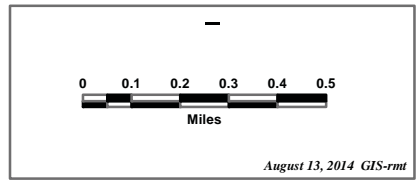


Table 21-2: RD 2096 Facilities and Overview

RD 2096 FACILITIES			
Total Levee Miles	0.16	Surface Elevation Crown	N/P
LEVEE MILES BY STANDOUT		LEVEE MILES BY TYPE	
No Standard	0.0	Dry Levee	.08 Mile
HMP Standard	0.0	Urban Levee	.08 Mile
PL 84-99 Standard	0.16	Agricultural Levee	0.0
Bulletin 192-82 Standard	0.0	Other	0.0
FEMA Standard	0.16 Miles		
DISTRICT FACILITIES			
Internal Drainage System	None	Pump Station(s)	1
Detention Basins(s)	None	Floodgate	1
FLOODPLAIN			
FIRM Designation	N/P	Base Flood Elevation	N/P
LEVEE INSPECTION PRACTICES			
Routinely for visual observation; Once per month for any problems and they are reviewed by Engineering Consultant.			
LEVEE INSPECTION REPORTS			
Most Recent Written Inspection	2017	Inspection Rating:	Acceptable
LEVEE SEGMENT	DESCRIPTION		CONDITION
Lower San Joaquin River	Western Boundary		Fair
Walthall Slough	Southern Boundary to RD 2094		Fair
LEVEE MAINTENANCE			
Miles Rehabilitated	FY 12-13 Selected Areas	Miles Needing Rehabilitation	0 Miles
% Rehabilitated		% Needing Rehabilitation	0%
Rehabilitation Cost per Levee Mile*	N/P	Maintenance Cost per Levee Mile**	N/P
INFRASTRUCTURE NEEDS/DEFICIENCIES			
District levees met the 100-year flood protection standard.			
Notes: NP = Not Provided * Rehabilitation cost per levee mile = the expenditure amount on capital improvements in FY 12-13 divided by the number of levee miles rehabilitated in FY 14-15. ** Maintenance cost per levee mile is equal to the expenditure amount on levee maintenance in FY 14-15 divided by the total number of levee miles calculated by the District!			

The USACE conducts two inspection programs, including routine inspections and periodic inspections. Both programs evaluate the condition of levees less frequently but more thoroughly than DWR. The USACE also determines overall levee ratings by systems, which is also different from DWR. The USACE defines systems as being comprised of levees that protect a common area. This can include multiple units or multiple districts. The USACE uses the overall ratings from these inspections to determine eligibility in its Rehabilitation and Inspection Program, which is also known as PL 84-99.

In addition, the District inspects its levees once a month, unless there is a danger of flood, in which case additional inspections are performed.

With regard to compliance with the 200 year flood protection required by SB 5, compliance with SB 5 rests with the land use authority. For districts that are built out or in agricultural use with no foreseeable development the 200 year flood standard is of low priority and not being addressed. RD 2096 is built out and is primarily a mobile home park (Islander Trailer Park) and the community of Wetherbee Lake. No growth is anticipated in RD 2096 in the next 30 years. There are presently no known plans to address the 200 year flood standard. The District should work with the County and the City of Manteca to provide residents 200 year flood protection.

The District's other facilities and infrastructure consist of a shack and a storage box. No infrastructure needs have been identified.

RD 2096 has identified a number of challenges that it faces in its service provision. For instance, one of the main problems is silt buildup in the sump area of Wetherbee Lake that occurs primarily due to agricultural runoff from the areas surrounding the District. Another potential threat comes from possible flooding caused by the levees maintained by RDs north of RD 2096, as had previously occurred in 1997. Such flooding further causes damage to the District's pumps and increases its costs for maintenance and repairs.

DETERMINATIONS

- 21.3.1:** The District operates and maintains approximately 0.16 mile of project levees, one pumping station, and a floodgate. The District's other facilities and infrastructure consist of a shack and a storage box. No infrastructure needs have been identified.
- 21.3.2:** The District inspects its levees once a month, unless there is a danger of flood, in which case additional inspections are performed.
- 21.3.3:** According to the fall 2016 DWR inspection report, the District's overall LMA rating was A (Acceptable).
- 21.3.4:** The District's challenges include silt buildup in the sump area and potential flooding.

21.4 - Financial Ability to Provide Services

The District's operations are financed primarily through property taxes. The District does not participate in any state financial assistance programs.

In FY 14-15 the District collected \$23,237 in property taxes, which was 98 percent of the total revenues for that fiscal year. Revenues and expenditures for the last five fiscal years are shown in Table 21-3. During three out of five fiscal years reviewed, the District's expenditures exceeded its revenues mostly

due to slight fluctuations in regular expenditures. RD 2096 has lowered its expenditures over time by reducing its utility expenses.

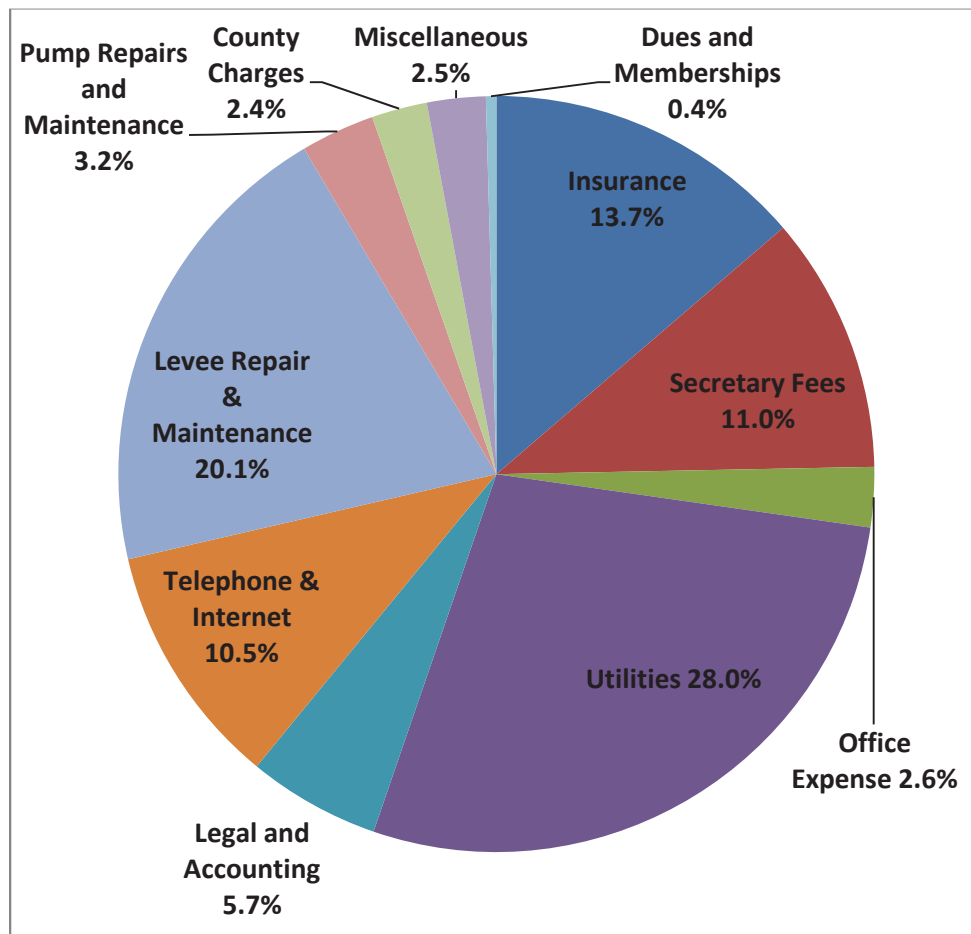
Table 21-3: RD 2096 Revenues and Expenditures FY11 through FY15

ACCOUNT	FY 10–11	FY 11–12	FY 12–13	FY 13–14	FY 14–15
Total Revenues	\$23,611	\$22,208	\$23,886	\$22,699	\$23,759
Total Expenditures	\$42,435	\$29,560	\$20,703	\$23,529	\$20,388
Revenues over Expenditures	(\$18,824)	(\$7,352)	\$3,183	(\$830)	\$3,371
Fund Balance	\$111,657	\$104,305	\$107,488	\$106,658	\$110,029

Source: RD 2096 Audited Financial Statements

Exhibit 21-2 shows the allocation expenses averaged from FY11 through FY15. If pump repairs and maintenance are considered part of levee maintenance then 23% of average annual expenses goes for levee maintenance.

Exhibit 21-2: RD 2096 Allocation of Expenditures FY11 through FY 15



Source: RD 2096 Audited Financial Statements

The District's fund balance is reported in five components, including nonspendable, restricted, committed, assigned, and unassigned. The unassigned balance is the only balance that has not been restricted to a specific purpose within the general fund. When both restricted and unrestricted resources are available for use, it is the District's policy to use restricted resources first, then unrestricted resources as needed.

The District tries to stay within its budget and keep the remainder of its annual revenues for emergencies. These unrestricted funds are used in case of flooding or for repairs to the pumping station and the floodgate. At the end of FY 14–15, the District had \$110,029 in its emergency reserve, which is equal to over 4 years of its regular expenditures.

The District's capital improvements are financed through the District's reserves. No current infrastructure needs were reported. At the end of FY 14–15, the District did not have any long-term debt.

DETERMINATIONS

- 21.4.1:** The District's operations are financed almost entirely by property taxes.
- 21.4.2:** The District tries to stay within its budget and keep the remainder of its annual revenues for emergencies. These unrestricted funds are used in case of flooding or repairs to the pumping station and the floodgate. At the end of FY 14–15, the District had \$110,029 in its emergency reserve, which is equal to over 4 years of its regular expenditures.
- 21.4.3:** At the end of FY 14–15, the District did not have any long-term debt.
- 21.4.4:** The District's capital improvements are financed through the District's reserves. No current infrastructure needs were reported.

21.5 - Status and Opportunity for Shared Facilities

The District participates in the California Special District Association (CSDA) that provides legislative advocacy, education, and member services for all special districts.

RD 2096 collaborates with and receives assistance from other agencies to improve services or reduce costs. Examples of such agencies include neighboring RDs and the City of Manteca.

Additionally, the District occasionally receives services and assistance from other agencies, especially in case of emergencies. For example, RD 2096 accepted help from RD 17 during the 1997 flood with electrical work at the pump station located at the northwest corner of the District. RD 2096 also got assistance from the Hazard Mitigation Grant funds after the 1997 flood.

No other facility sharing or collaborative opportunities have been identified by the District.

DETERMINATIONS

- 21.5.1:** The District participates in the California Special District Association (CSDA).

21.5.2: RD 2096 collaborates with and receives assistance from other agencies to improve services or reduce costs. Examples of such agencies include neighboring RDs and the City of Manteca.

21.6 - Government Structure and Accountability

RD 2096 is governed by a five-member Board of Trustees headed by the President of the Board. Trustees are appointed by the County Board of Supervisors to 4-year terms.

The Board meets on the second Saturday of every month at 8:00 a.m. at 900 Wetherbee Avenue in Manteca. Meeting agendas are sent to board members and distributed at the meetings. Meeting minutes are available at the following meeting. The Board of Trustees details are shown in Table 21-4.

Table 21-4: Reclamation District 2096 Governing Body

BOARD OF TRUSTEES	
Manner of Selection	Appointed by the County Board of Supervisors.
Length of Term	Four years.
Board Compensation:	None
Meeting Schedule	2 nd Saturday of the month.
Meeting Location	900 Wetherbee Avenue, Manteca, CA 95337.
Agenda Distribution	Distributed at the meetings.
Minutes Distribution	Available at the meetings.

Administrative functions are performed by the president of the Board on a full-time basis. Additional administrative assistance is provided by one part-time employee who typically takes minutes at Board meetings. All of the trustees are engaged in maintenance activities along with one or two maintenance employees hired on an as-needed basis.

The District’s management practices consist of maintaining up-to-date financial records and performing biennial financial audits. Budgeting is performed at Board meetings by trustees. However, annual budgets or even informal lists of anticipated revenues and expenses are not adopted as required by law. Although not required to adopt a budget the District is required to have an audit and submit revenues and expenses to the State Controller. RD 2096 similarly does not adopt a Capital Improvement Plan or an Emergency Operations Plan.

Select RDs participate in the Delta Levees Special Projects Program under which they receive funding to develop and regularly update five-year plans for rehabilitation of their facilities and to meet requirements to receive other project funding. The program only applies to local agencies with project or non-project levees in the primary zone of the Delta or non-project levees in the secondary zone of the Delta. RD 2096 does not have any of its project levees within the primary zone and is therefore not eligible for program participation. The District, thus, has not adopted a five-year plan.

Concerning the governance structure alternatives, no changes to the District’s boundaries are suggested. The District is a residential area surrounded by agricultural areas that have different needs; therefore, no consolidation options are considered at this time.

DETERMINATIONS

- 21.6.1:** RD 2096 is governed by a five-member Board of Trustees headed by the President of the Board. Trustees are appointed by the County Board of Supervisors to 4-year terms.
- 21.6.2:** The District demonstrated accountability and transparency related to its governance by cooperating with the MSR process. Agendas for Board meetings should be published in a public place at least 72 hours ahead of the meetings as legally required by the Brown Act.
- 21.6.3:** Administrative functions are performed by the president of the Board on a full-time basis. Additional administrative assistance is provided by one part-time employee. All of the trustees are engaged in maintenance activities along with one or two maintenance employees hired on an as-needed basis.
- 21.6.4:** The District's management practices consist of maintaining up-to-date financial records and performing biennial financial audits. RD 2096 does not adopt formal or informal annual budgets, a Capital Improvement Plan, or an Emergency Operations Plan.
- 21.6.5:** Adopting an annual budget before the beginning of every fiscal year, maintaining an online presence, and maintaining an up-to-date list of capital improvement needs are considered best management practices and are recommended for RD 2096.
- 21.6.6:** Concerning the District's governance structure, no changes are suggested at this time.

21.7 - Any Other Matters Related to Effective or Efficient Service Delivery As Required by Commission Policy

San Joaquin LAFCo has not adopted any policies identifying any other matters related to effective or efficient service delivery, and no additional issues have been identified.

DETERMINATIONS

- 21.7.1:** San Joaquin LAFCo has not adopted any policies identifying any other matters related to effective or efficient service delivery, and no additional issues have been identified.

21.8 - Key Findings and Issues

1. According to the questionnaire the agendas are distributed at the Board meetings. The District needs to distribute agendas 72 hours in advance in addition to the actual meeting so as not to violate the Brown Act.
2. The District does not adopt a budget or a list of anticipated revenues and expenses before the beginning of a fiscal year, which is considered to be a best management practice. The 2013–2014 San Joaquin County Grand Jury report contains a recommendation that all RDs that do not adopt annual operating budgets prepare a framework for an annual budget and utilize it for all subsequent fiscal years.
3. RD 2096 does not maintain a website or any other form of online presence. Well-managed and governed agencies share their information and provide public outreach through websites or social media.
4. RD 2096 does not adopt a Capital Improvement Plan. The District should develop a list of infrastructure needs with costs and timeline for short-term and long-term planning purposes. Adoption of an EOP is similarly encouraged for adequate planning purposes.

5. RD 2096's Sphere of Influence was established in 1983. A sphere of influence update is long overdue. It is recommended Commission update the sphere and set it as conterminous with District boundaries.

22: RECLAMATION DISTRICT 2107 (MOSSDALE)

RD 2107 (Mossdale) was formed around 1972 under Section 50000, et seq. of Division 15 of the California Water Code. In 1974, trustees were appointed to conduct the business of the District. During the fall inspection, the trustees expressed an interest in beginning a maintenance program to comply with federal and state levee maintenance regulations. The District now provides levee maintenance services for 4.21 miles of agricultural levee designed for PL 84-99 standards. The District covers approximately 1,031 acres. Much of the District lies within the City of Lathrop city limits.

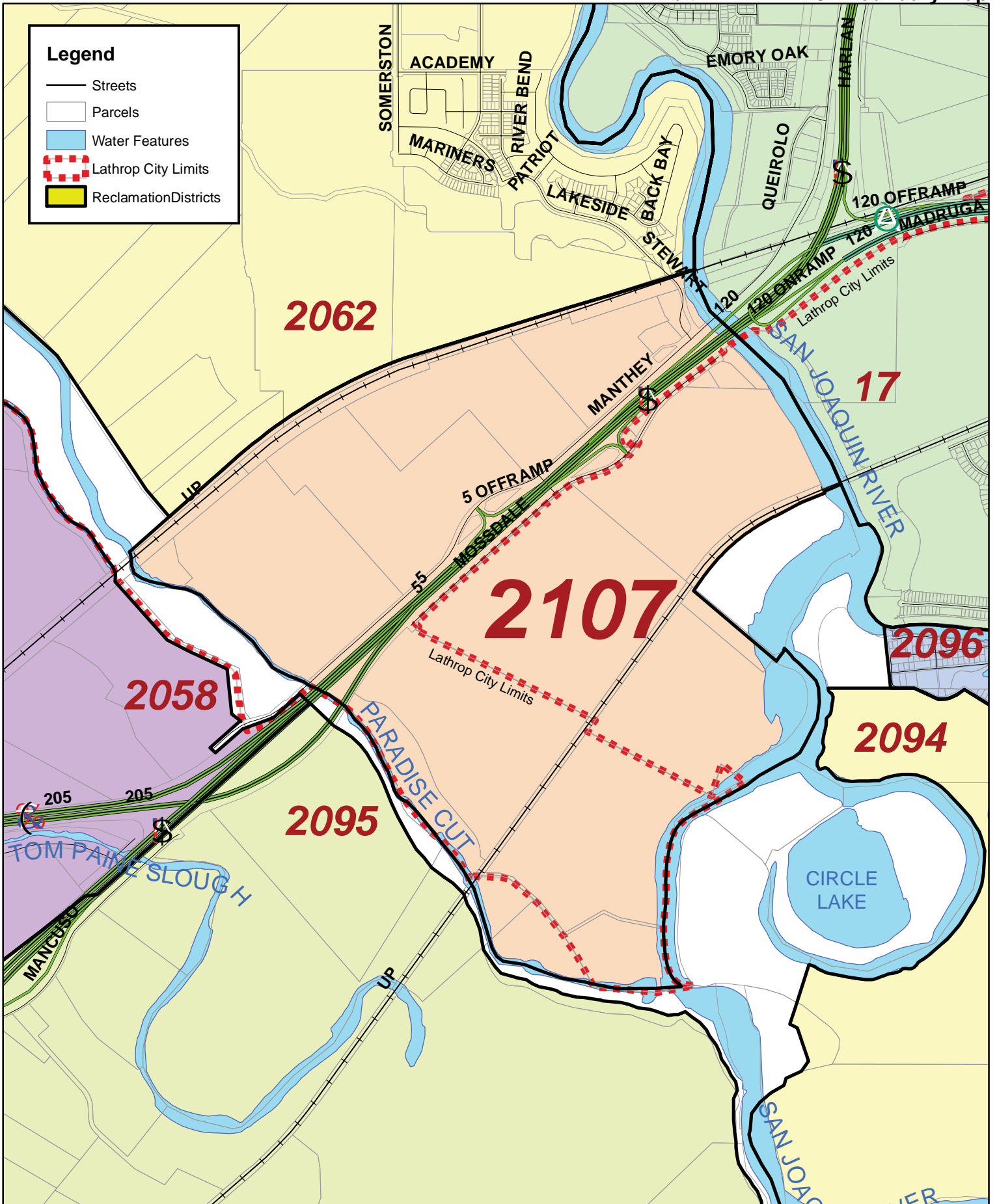
Exhibit 22-1 shows the boundary map for the District. As shown, the District is bounded to the east by the San Joaquin River, to the north by RD 2062, and to the southwest by Paradise Cut. The northern boundary is the Union Pacific Railroad right of way, adjacent to RD 2062, which forms an integral physical part of the tract. As a result, the USACE and DWR view RD 2062 and RD 2107 as one flood protection system. Access to the District is from I-5 on the north side. Table 22-1 provides the general information about the district and services it provides.

Table 22-1:RD 2107 General Information

GENERAL INFORMATION	
Agency	RD 2107 (Mossdale)
Address	343 E. Main Street, Suite 815, Stockton, CA 95202
Principal Act	California Water Code §50000, et seq.
Date Formed	1972
Population	14 permanent residents & farmworkers
Last SOI Update	1983
Services Provided	Levees, flood control and drainage
Contact Person	Al Warren Hoslett, Esq.
Website	None

22.1 - Growth and Population Projections

The current population of the District is 14 according to the 2010 Census with 16 landowners. The land use is primarily agriculture with a few agricultural related structures. The District lies outside the boundaries of any census designated place; thus, it is assumed that the population changes is similar to the change in the unincorporated portions in the County located outside a census designated place. It is estimated that over the next 30 year the population of the unincorporated county will increase by 2.5 percent. However, the District does not anticipate any significant development in the foreseeable future. In RD 2107, that means the population will remain at 14, as shown in Table 22-2.



RECLAMATION DISTRICT 2107 SAN JOAQUIN COUNTY

San Joaquin County Geographic Information Systems
1810 East Hazelton Avenue, Stockton, CA 95205

The information on this map is based on the most current information available to San Joaquin County Geographic Information Systems. The County of San Joaquin does not warrant its accuracy, completeness, or suitability for any particular purpose. The information on this map is not intended to replace engineering, financial or primary records research.

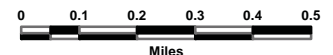


Table 22-2: RD 2107 Census Designated Place Forecast

	2015	2020	2025	2030	2035	2040	2045
Pop of areas not in a CDP	70,950	71,184	71,450	71,718	72,038	72,400	72,764
% increase		0.33%	0.37%	0.38%	0.45%	0.50%	0.50%
Estimated population	14	14	14	14	14	14	14
Note: CDP = census designated place Source: Eberhardt School of Business, 2016							

DETERMINATIONS

22.1.1: The District comprises 16 landowners and a population based on the 2010 census of 14. Growth in the unincorporated portion of San Joaquin County is estimated at 2.5% over the next 30 years. With no anticipated development, the population in 2045 can be expected to remain at 14.

22.2 - Disadvantaged Unincorporated Communities

RD 2107 lies primarily within the City of Lathrop. The portions of the District outside the City might be considered a fringe community but are considered uninhabited. Therefore, the District does not include any DUCs.

DETERMINATIONS

22.2.1: There are no DUCs in RD 2107.

22.3 - Present and Planned Capacity of Public Facilities

RD 2107 is threatened by flooding from the San Joaquin River and its tributaries in the area. Delta high tidal events were found to have minimal effect around the District as Paradise Cut carries flows of the San Joaquin River when water elevations exceed the height of a weir placed at the mouth or Paradise Cut. Table 22-3 provides an overview of the District’s levee system.

The District is protected by 4.15 miles of project levees, which it operates and maintains. By definition, a project levee is a levee system that is part of an authorized flood control system. Project levees are subject to USACE certification and inspection. In addition, they are subject to AB 156 inspection and reporting requirements. To comply, the levees are inspected four times a year. Under AB 156, the District must report the condition of its levees to the DWR, which compiles an annual report.

District levees meet PL 84-99 standards. The most recent DWR inspection ratings in 2016 and 2017 were considered acceptable overall, however, there were a couple areas where seepage was critical or severe. These areas are shown in Exhibit 22-2.

Table 22-3: RD 2107 District Overview

RD 2107 FACILITIES			
Total Levee Miles	(District says 4.21 miles) 4.15	Surface Elevation	NAVD 88 feet
LEVEE MILES BY STANDOUT		LEVEE MILES BY TYPE	
No Standard	0.0	Dry Land Levee	0.0
HMP Standard	0.0	Urban Levee	0.0
PL 84-99 Standard	4.15 Miles	Agricultural Levee	4.21 miles
Bulletin 192-82 Standard	0.0	Other	0.0
FEMA Standard			
DISTRICT FACILITIES			
Internal Drainage System	No – private systems	Pump Station(s)	No
Detention Basins(s)	No	Bridges	No
FLOODPLAIN			
FIRM Designation	AE	Base Flood Elevation	Less than 1-foot
LEVEE INSPECTION PRACTICES			
Routinely for visual; Four Times per Year with State and US Corps. Personnel			
LEVEE INSPECTION REPORTS			
Most Recent Written Inspection	2017	Inspection Rating	Acceptable
LEVEE SEGMENT	DESCRIPTION		CONDITION
San Joaquin River	2.15 miles of river bank		Vegetation/erosion (field observations)
Paradise Cut	2 miles canal bank		Vegetation (field observations)
LEVEE MAINTENANCE			
Miles Rehabilitated Selected Areas	N/P	Miles Needing Rehabilitation	N/P
% Rehabilitated	N/P %	% Needing Rehabilitation	N/P
Rehabilitation Cost per Levee Mile*	N/P	Maintenance Cost per Levee Mile**	N/P
INFRASTRUCTURE NEEDS/DEFICIENCIES			
District levees met the 100-year flood protection standard in 2009.			
Notes: NP = Not Provided * Rehabilitation cost per levee mile is equal to the expenditure amount on capital improvements in FY 14-15 divided by the number of levee miles rehabilitated in FY 14-15. ** Maintenance cost per levee mile is equal to the expenditure amount on levee maintenance in FY 143-15 divided by the total number of levee miles.			

There is also a question about compliance with the 200 year flood protection required by SB 5. Compliance with SB 5 rests with the land use authority. For districts that are built out or in agricultural use with no foreseeable development the 200 year flood standard is of low priority and not being addressed. RD 2107 is in agriculture and no growth is anticipated in the next 30 years. There are presently no known plans to address the 200 year flood standard.

Maintenance activities in 2016 included engineering services, inspections, patrolling, rodent control, and spraying of herbicides. More specifically, the District has undertaken a number of projects, including:

- District Trustees, landowners, and District Engineer inspects District levees on a routine basis.
- Ongoing baiting program for ground rodents
- Ongoing vegetation control program
- Annual inspection and inventory of District flood fight supplies, based on the DWR “Advanced Preparation for Floods and Patrolling,” and “Flood Fight Checklist”
- Semi-annual joint inspection of levees with State inspectors
- Periodic joint inspection of levees with Federal inspectors
- Annual inspection and maintenance of access control gates on levees
- Periodic update of District emergency contact information

The District does not own, operate, or maintain pumping stations or other facilities for internal drainage control. Existing drainage pumps are owned, maintained, and operated by individual landowners.

The District has no staff; the projects listed above are completed by contractors. Levee patrol is conducted by district landowners in conjunction with MBK Engineers.

Determinations

22.3.1 The District maintains approximately 4.15 miles of project levees. Maintenance activities in 2016 included engineering services, inspections, patrolling, rodent control, and spraying of herbicides.

22.3.2 Project levees are subject to reporting by AB 156 to DWR. In 2016, DWR found the levees were overall acceptable level of maintenance with a couple areas of seepage that needed attention by the District.

Exhibit 22-2: RD 2107 DWR Inspection Results



Source: DWR 2016

22.4 - Financial Ability to Provide Service

Reclamation 2107 does not adopt a formal budget and RDs are not required to adopt a budget by law. However, they do prepare an annual budget and receive an annual audit. The District budgets are fairly simple. The District's primary source of operating revenue is the assessment of property taxes collected from property owners.

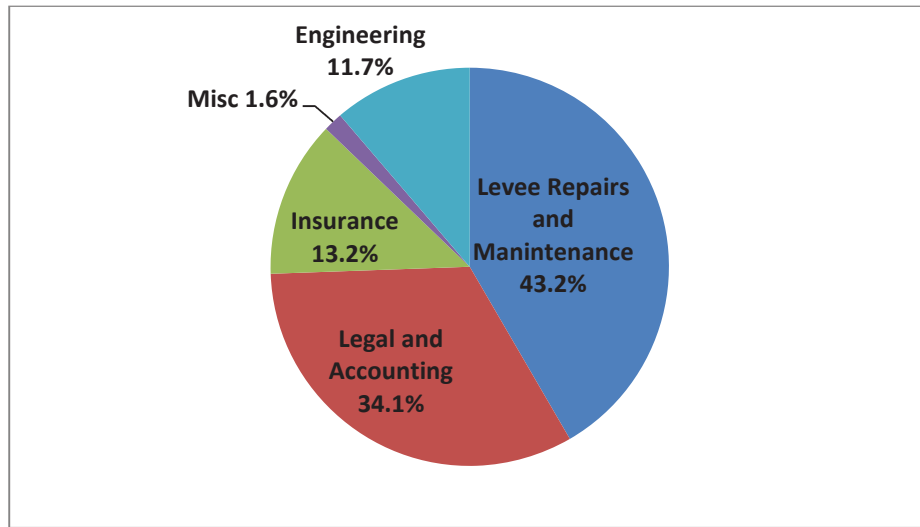
Assessments are levied at the discretion of the board. For the past several years the assessment has been \$32 per \$100 of assessed value as determined by the District. Assessments are billed in two phases: \$27 in February and the remaining \$5 due at the end of the year if needed. Under Proposition 218, the District can levy up to \$75 per year. Approximately 78 percent of the total assessment valuation is concentrated with three landowners. The District is also authorized to issue demand warrants under the California State Water Code but has not done so in the last 5 years.

The District also receives funding from government sponsored cost sharing/reimbursement programs. The District’s cash is held in the County Treasury and is pooled with other agencies for investment purposes. The pool has an established oversight committee to monitor and review the management of public funds held in the pool. The District does not maintain a formal investment policy.

Expenses include levee maintenance and repair, legal and administrative services, insurance, and engineering. Exhibit 22-3 shows the allocation of expenses.

As shown, nearly half of the expenses are for maintenance and repair, while approximately one-third is used for legal and administrative services.

Exhibit 22-3: Reclamation District 2107 Expense Allocation 2013–15



Source: Croce, Sanguinetti & Vander Veen 2013, 2014, 2015.

A summary of revenues and expenses for the last 5 years is shown in Table 22-4. The table shows that expenses often exceed revenues by as much as 20 to 50 percent. The difference is made up by use of the unrestricted fund balance. The current fund balance represents approximately 18 months of expenses.

Table 22-4: Reclamation District 2107 Revenues and Expenses 2010–2015

FISCAL YEAR	REVENUES	EXPENSES	DIFFERENCE
2010	\$23,062	\$34,493	\$(11,431)
2011	\$23,478	\$28,200	\$(4,722)
2012	\$23,136	\$32,297	\$(9,161)
2013	\$24,920	\$25,216	\$(296)
2014	\$24,973	\$29,377	\$(4,404)
2015	\$24,846	\$28,376	\$(3,530)

Source: State Controllers Reports, 2017.

The fund balance is approximately \$50,000. The data suggest that the fund balance could be depleted in 5 to 10 years. The data suggest the District should consider a small increase in assessments or a reduction in expenses.

DETERMINATIONS

- 22.4.1:** The District is funded primarily by assessments that are collected by the County. The County also acts to pool the District's revenues for investment and interest earned is credited to the District.
- 22.4.2:** Expenses fall into four main categories levee maintenance 43 percent, legal and administration 34 percent, insurance 13 percent and engineering 12 percent.
- 22.4.3:** During the period from 2010 to 2015, expenses have exceeded revenues. The shortfall is filled by the undesignated fund balance. Current fund balance equates to approximately 18 months of expenses. However, the continued shortfalls suggest the District should consider reducing expenses or a small increase in assessments.

22.5 - Status and Opportunity for Shared Facilities

The District shares administrative facilities and administrative services with ten other RDs in San Joaquin and Contra Costa counties. It also shares engineering services with RD 756, RD 2028, RD 2025, RD 2026, and RD 2137. Sharing with other agencies, particularly administrative facilities results in cost savings.

The District does not participate in any Joint Powers Authorities (JPAs). The District works cooperatively with a number of water agencies and emergency service providers. The District works cooperatively with DWR and USACE to maintain and inspect the levee system.

One measure of management efficiency is whether the District produces plans that can guide the provision of services. As discussed above the District does make an annual budget, which in essence is a financial plan for the coming year.

Like most RDs, the District does have an Emergency Operations Plan. The District circulates the plan to the San Joaquin Office of Emergency Services, the City of Lathrop, the Lathrop-Manteca Fire District, Lathrop Police Department, the DWR Flood Operations Branch, and the CVFPB.

It also works with the South Delta Flood Fight Command and the County Public Works Department on flood control issues. In addition, the District works with neighboring RDs, realizing the levee system is designed to protect the entire region and a failure in one district can lead to flooding in neighboring districts.

DETERMINATIONS

- 22.5.1:** The District shares administrative facilities and administrative services with ten other RDs. The District also shares engineering services with a number of other RDs in San Joaquin County and Contra Costa County.
- 22.5.2:** The District works cooperatively with DWR and USACE to inspect and maintain levees.

- 22.5.3:** The District works with a number of agencies to develop and emergency operation plan, including the San Joaquin Office of Emergency Services, the City of Lathrop, the Lathrop-Manteca Fire District, Lathrop Police Department, the DWR Flood Operations Branch, and the CVFPB.
- 22.5.4:** In addition to the Emergency Operations Plan, the District produces an annual budget or fiscal plan.

22.6 - Government Structure and Accountability

Section 50741 of the California Water Code states that when no election is held according to Section 50740 of the California Water Code, the Board of Supervisors shall appoint those nominated for positions of trustee and if no person has been nominated, the Board of Supervisors shall appoint any qualified person to the position of trustee. Since the Districts often cannot afford an election the Board of Trustees of RD 2107 was appointed by the Board of Supervisors.

The Board of Trustees is made up of three landowners of the District appointed to 4-year staggered terms. Trustees have a great degree of experience directing the operations of a reclamation district. Two of the three trustees held seats on the board for over 35 years, while the third was appointed in 2009. Trustees are not compensated for service on the Board.

The District has no full-time staff. It contracts for legal services and one part-time administrative staff with the Law Offices of Al Warren Hoslett, and it contracts with MBK Engineers for engineering services. Levee maintenance is conducted by contractors.

The District meets on an as-needed basis in the District office at 343 E. Main Street, Suite 815 in Stockton. Meetings are noticed according to the Brown Act.

The District has no website. It communicates with residents via mailers as necessary.

DETERMINATIONS

- 22.6.1:** The District is governed by a three member board of trustees appointed to 4-year staggered terms. The Trustees receive no compensation.
- 22.6.2:** Meetings are held on an as-needed basis at the District office at 343 E. Main Street, Suite 815 in Stockton. Meetings are noticed according to the Brown Act.
- 22.6.3:** The District has no full-time employees. Maintenance work, legal services, and engineering are contracted out. Levee inspection is conducted by landowners working with the District Engineer.
- 22.6.4:** The District has no website. It communicates with residents by mail as needed.

22.7 - Any Other Matters Related to Effective or Efficient Service Delivery As Required by Commission Policy

The District is not seeking to expand its boundary, consolidate with a neighboring district, or discontinue service. The only policies that may affect the District operations are the Sphere of Influence policies. San Joaquin LAFCo's Sphere of Influence policy allows for open space or rural lands to be designated in an

agencies sphere to preserve the use and character of that territory. While there are rural lands adjacent to the District there is no need to include them in the sphere as they are not likely to need or receive services from the District. San Joaquin LAFCo's Sphere of Influence policy allows for a coterminous sphere. Since the District has no plans for expansion and needs no additional drainage and flood control services, a coterminous sphere would be appropriate for the District. Since the sphere policies are the only applicable policy and the District would seek a coterminous sphere, no additional services would be required and there would be no effect of the policy on service delivery. Therefore, the San Joaquin LAFCo policies will have no effect on service delivery.

DETERMINATIONS

22.7.1: There are no San Joaquin LAFCo policies that would affect service delivery.

22.8 - Key Findings and Issues

1. The District is primarily agriculture with 17 landowners and 14 residents. Seventy-eight percent of the revenues come from three landowners.
2. During the period from 2010 to 2015, expenses have exceeded revenues. The shortfall is filled by the undesignated fund balance. Current fund balance equates to approximately 18 months of expenses. However, the continued shortfalls suggest the District should consider reducing expenses or a small increase in assessments. According to the District's questionnaire the District currently assesses \$32 per \$100 of assessed value. According to the District they can levy up to \$75 per assessed value. If accurate the Trustees can increase assessments to meet expenses without going through a Proposition 218 vote.
3. The District trustees are concerned that the cost to implement the Proposition 218 process may make it difficult to increase assessments. One of the concerns is that there is limited ability for the agricultural community to generate reliable funding from year to year, and therefore is often resistant to raising assessments.
4. RD 2107's Sphere of Influence was established in 1983. A sphere of influence update is long overdue. It is recommended Commission update the sphere and set it as conterminous with District boundaries.

23: RECLAMATION DISTRICT 2115 (SHIMA TRACT)

Reclamation District (RD) 2115 was organized on April 19, 1983 as an independent special district to improve, operate, and maintain reclamation works, including levee, drainage, and irrigation systems on property known as the Shima Tract. Table 23-1 provides the general information about the district and services it provides.

Table 23-1: RD 2115 Overview and Services

OVERVIEW AND SERVICES	
Agency	RD 2115 (Shima Tract)
Address	711 N. Pershing Avenue, Stockton, CA 95203
Principal Act	California Water Code §50000 et seq.
Date Formed	April 19, 1983
Population	20
Last SOI Update	1983
Services Provided	Levees, access road, vegetation, flood control, drainage
Contact Person	Christopher H. Neudeck, District Engineer; (209) 946-0268; cneudeck@ksninc.com
Website	None

Additionally, the District receives services and assistance from other agencies. During high flood emergencies, local, state and/or federal agencies may provide physical or financial emergency flood control assistance. Such agencies may also provide physical and/or financial aid with restoration or rehabilitation of the District’s levees after such emergencies. These agencies include San Joaquin County, San Joaquin County Office of Emergency Services, Stockton Police, the California DWR, and the State Office of Emergency Services.

RD 2115 is located entirely within the boundaries of the City of Stockton. The RD encompasses 1,806 acres. RD 2115 is bounded to the north by Bear Creek, Mosher Slough and Disappointment Slough; to the west by Fourteen Mile Slough; to the east by the City of Stockton; and to the south by Fourteen Mile Slough and Five Mile Slough (Exhibit 23-1). The RD maintains 6.6 miles of non-project levees. Bordering the east side of the District is a north-south running urban levee that is not maintained by RD 2115. The protected area is entirely agricultural with a few residences.

RD 2115’s Sphere of Influence was established in 1983. LAFCO will have to update a Sphere of Influence for the District following this MSR process.

23.1 - Growth and Population Projections

As reported by the District, there are four residential structures with approximately 20 full-time residents living within RD 2115 as of 2017. The District is mostly agricultural with a few homes and agricultural related structures.

Land use in RD 2115 comprises the production of agricultural crops, and orchards. Currently, the highly productive and fertile land produces primarily wheat and alfalfa, with a minor production from walnut orchards.

The area within the District is planned to be developed as a mixed-use community called The Sanctuary. The Sanctuary Master Development Plan outlines plans for a walkable community with a mixed-use core. Approximately 7,070 dwelling units, 483,984 square feet of offices, 208,272 square feet of retail, and 100 hotel rooms are planned on the site, along with three lakes, a marina, a private River Club, religious facilities, four schools, orchards, vineyards, a small winery, and extensive recreational open space. The entire Sanctuary property, which extends into the surrounding sloughs, totals 1,967 acres; however, approximately 1,839-acres make up the total land area including the adjacent levee. Furthermore, approximately 1,728-acres of the total 1,839-acres of land are considered developable; the remaining 111 acres consists of the Levee Walk. Project construction will include improvements to the existing levees. The Stockton City Council approved the Sanctuary Master Development Plan on November 18, 2008. The Development has not yet begun construction.

Should The Sanctuary be fully developed by 2045, then there would be a substantial increase in population within the District. Based on the population projections outlined in the Public Facilities Financing Plan for the Sanctuary, the area is anticipated to have a population of 21,152 at buildout.

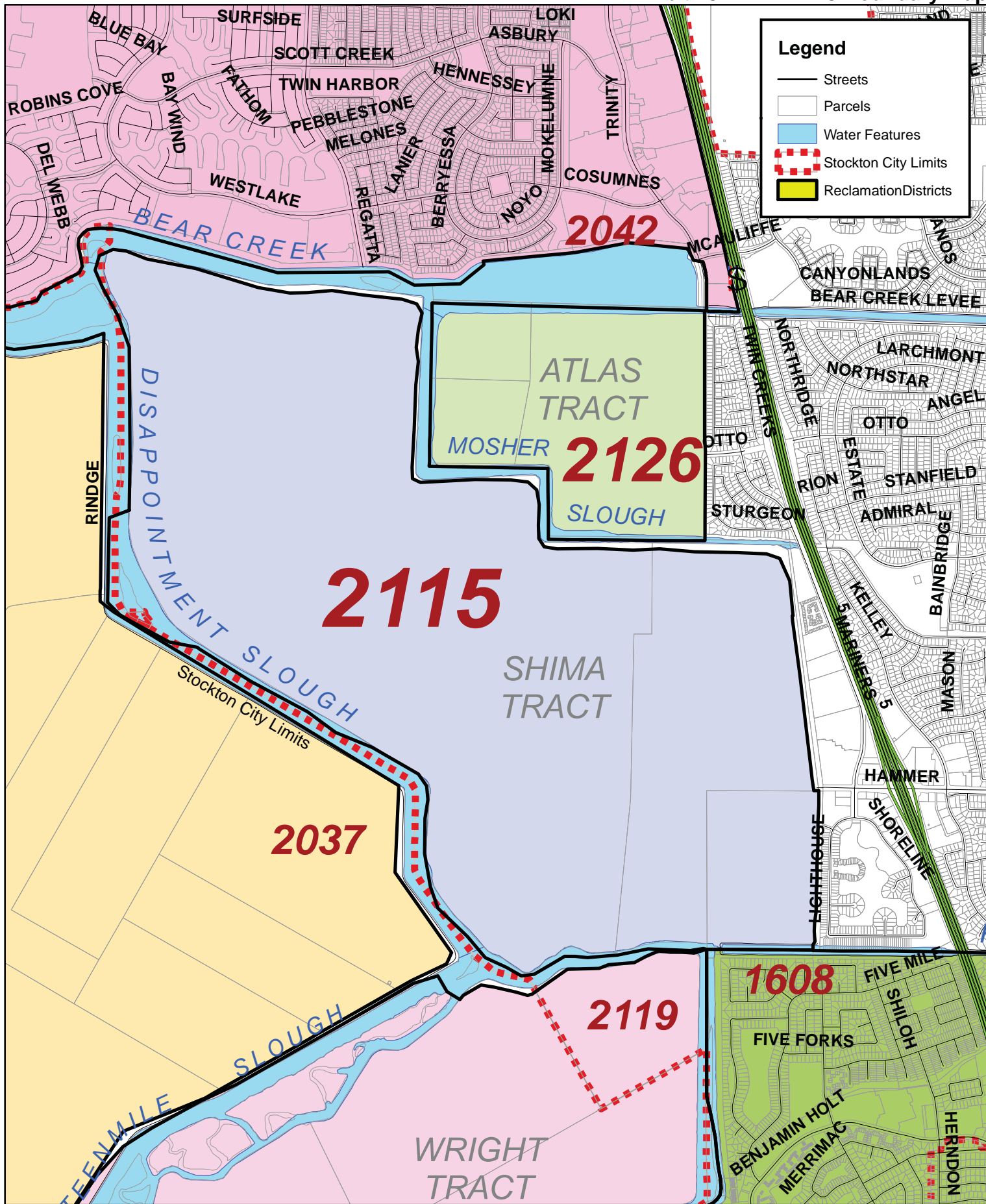
DETERMINATIONS

- 23.1.1:** There were 20 residents of RD 2115 as of 2017.
- 23.1.2:** Land uses within the District are primarily agricultural with a few residences and related agricultural structures.
- 23.1.3:** A master-planned community called The Sanctuary has been approved for development by the City of Stockton City Council. The development has not yet started construction. Should The Sanctuary reach full development, it is anticipated there would be approximately 21,152 residents of RD 2115.
- 23.1.4:** The levees are incorporated in The Sanctuary plan with 111 acres dedicated to the Levee Walk. Project construction also includes improvements to the existing levees and would require levees to be constructed to comply with the 200 year protection standard.

23.2 - Disadvantaged Unincorporated Communities

LAFCO is required to evaluate DUCs as part of this service review, including the location and characteristics of any such communities.

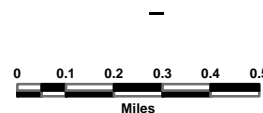
The California DWR has developed a mapping tool to assist in determining which communities meet the disadvantaged communities median household income definition. According to the DWR mapping tool, RD 2115 is not within a Census Block Group that is considered disadvantaged. Additionally, the District is fully within the City of Stockton, and the area is not unincorporated; therefore, the territory within the RD does not meet the definition of a DUC as defined for LAFCO's purposes. However, RD 2115 is abutted by Census Block Group 060770039001 to the south and west that is designated as a DUC with a population of 1,135 and median household income of \$33,289.



**RECLAMATION DISTRICT 2115
SAN JOAQUIN COUNTY**

San Joaquin County Geographic Information Systems
1810 East Hazelton Avenue, Stockton, CA 95205

The information on this map is based on the most current information available to San Joaquin County Geographic Information Systems. The County of San Joaquin does not warrant its accuracy, completeness, or suitability for any particular purpose. The information on this map is not intended to replace engineering, financial or primary records research.



Determinations

23.2.1: RD 2115 is located entirely within the City of Stockton; therefore, there are no DUCs within the District's boundaries.

23.3 - Present and Planned Capacity of Public Facilities

The District operates and maintains approximately 6.6 miles of levees, all of which are considered non-project levees, which means they were privately constructed and are maintained by a private landowner or local district. (Table 23-2). These levees are not required by law to be maintained to any particular standard. In some cases, however, the standards set for project levees serve as a guide to the owners or local agencies.

As none of the levees maintained by the District are classified as federal project levees, no portion of the District's levees are inspected by the USACE. Additionally, the District does not take part in the annual DWR inspections that project levees undergo, and the District is not covered in DWR's annual report on levee condition. However, according to Water Code Division 6 Part 9 Section 12989, DWR is directed to "inspect non-project levees of local agencies for the purpose of monitoring and ascertaining the degree of compliance with, or progress toward meeting, standards . . ." The Code does not outline the minimum requirements for when or how often these inspections are to occur. DWR reported that there is no regular schedule for inspection of non-project levees and no plans to implement one in the near term.

There are several standards that the levees in the Delta must meet in order to remain eligible for certain state and federal disaster assistance programs. These include the HMP criteria and the Public Law 84-99 Flood Control and Coastal Emergency Act (PL 84-99) Standard for agricultural levees. RD 2115 strives to maintain its levees to the Public Law 84-99 Standard to remain eligible for federal rehabilitation funding assistance.

The most recent levee survey performed by DWR, conducted in 2007, using Light Detection and Ranging methods, found that 36 percent of the District's non-project levees met or exceeded FEMA HMP levee criteria for agricultural levees in the Delta, and 20 percent of the District's levees meet or exceed the PL 84-99 Standard for agricultural levees in the Delta.

In 1983, RD 2115 had an occurrence of overtopping of a levee when excess water accumulated at the edge of a field and was collected and discharged via the RD's drainage system. Specific flood frequency analysis for RD 2115 has not been performed.

The District constantly maintains and upgrades its levees. These activities are financed by the landowner on an as-needed basis. Regular maintenance of the levees is generally provided by the landowner's staff. The entire RD 2115 levee system is inspected daily by the supervisors, Trustees, and/or district staff who are familiar with all aspects of its functions. The District Engineer typically performs inspections at the request of the District, or more frequently when warranted. During high water or severe weather events, inspection frequency is increased to meet the demand. Types of work performed on a routine basis include erosion repairs, road repairs, debris removal, minor core trenching, ditch cleaning, pump repair and maintenance, vegetation control, and rodent control.

Table 23-2: RD 2115 Facilities

RD 2115 FACILITIES			
Total Levee Miles	6.6 Mile	Surface Elevation Crown	N/P
LEVEE MILES BY STANDOUT		LEVEE MILES BY TYPE	
No Standard	2.8 Miles	Dry Levee	0.0
HMP Standard	6.6 Miles	Urban Levee	0.0
PL 84-99 Standard	1.33 Miles	Agricultural Levee	6.6 Miles
Bulletin 192-82 Standard		Other	
0.0		0.0	
FEMA Standard	0.0 Miles		
DISTRICT FACILITIES			
Internal Drainage System		Pump Station(s)	
None		1	
Detention Basins(s)		Bridges	
None		No	
FLOODPLAIN			
FIRM Designation		Base Flood Elevation	
A/E		10.0 – 10.2' (NAVD 88)	
LEVEE INSPECTION PRACTICES			
Routinely for visual observation; Once per month for any problems and they are reviewed by Engineering Consultant.			
LEVEE INSPECTION REPORTS			
Most Recent Written Inspection	N/P	Inspection Rating	Not rated by DWR
LEVEE SEGMENT	DESCRIPTION	CONDITION	
Lower San Joaquin River	Western Boundary	Fair	
Walthall Slough	Southern Boundary to RD 2094	Fair	
LEVEE MAINTENANCE			
Miles Rehabilitated FY 12-13	Selected	Miles Needing Rehabilitation	0.0 Miles
Areas	0.0		
% Rehabilitated		% Needing Rehabilitation	
Rehabilitation Cost per Levee Mile*	N/P	Maintenance Cost per Levee Mile**	N/P
INFRASTRUCTURE NEEDS/DEFICIENCIES			
District undertook levee rehabilitation projectw raise levees to minimum HMP criteria in 2015-16. They state they have a Five-Year Plan August 2013			
Notes:			
NP = Not Provided			
* Rehabilitation cost per levee mile is equal to the expenditure amount on capital improvements in FY 12-13 divided by the number of levee miles rehabilitated in FY 14-15.			
** Maintenance cost per levee mile is equal to the expenditure amount on levee maintenance in FY 14-15 divided by the total number of levee miles calculated by the District!			

The District performs its own regular inspections. As previously reported, RD 2115 does not have any levees designated as project levees, and the DWR and USACE do not perform regular inspections of the District’s levees. The District undertook a levee rehabilitation project which raised levees to minimum HMP standards in 2015-2016.

In 2013, the District developed a five-year plan with cost estimates to bring the levees up to the minimum PL 84-99 Standard within 5 years, assuming adequate funding is available to fund the design and construction of the recommended improvements. The scope of improvements described in the plan is beyond the financial capability of this District to fund without significant financial assistance from other sources. The actual implementation schedule for the Plan will be longer than 5 years. The implementation schedule is impacted by the availability of a reasonable and reliable outside source of supplemental funds. The total cost to achieve the ultimate desired level of protection as detailed within the 5-year scope of the plan was estimated to be approximately \$7,151,100. Likely sources are the State Subventions Fund and Special Projects Fund. Following completion of the above projects, the District intends to maintain compliance with PL 84-99 standards and improve areas that may require additional improvements to address, including seepage, geotechnical issues, settlement, erosion, vegetation issues, etc. In addition, the District plans to address legacy vegetation issues to comply with updated levee vegetation standards. In addition should there be an interest in development projects the developer will likely finance improvements to achieve the 200 year flood protection requirements as part to the development plan.

DETERMINATIONS

- 23.3.1:** The District operates and maintains approximately 6.6 miles of levees, all of which are non-project levees.
- 23.3.2:** RD 2115 provides levee maintenance with landowner staff. Inspections of the levees reportedly occur on a daily basis. If carried out as described, these efforts are considered sufficient for protection of an entirely agricultural area.
- 23.3.3:** The requirements for levee inspections by the DWR are vague for non-project levees, and as such, RD 2115 has not undergone an inspection in at least the last 10 years. Responsibility for the inspections lies with DWR, and the need for a standardized schedule of inspection of non-project levees and making inspection results available to the public would need to be addressed by the State.
- 23.3.4:** The District undertook a levee rehabilitation project which raised levees to HMP standards in 2015-2016.

23.4 - Financial Ability to Provide Services

The District's operations are financed almost entirely by an assessment on landowners. The only other source of revenue is from interest. Additional variable sources fluctuate in availability and include funding provided through the Delta Levee Subventions Program, a joint levee project with DWR, and/or state or federal disaster funds in case of a natural disaster.

As reported by RD 2115, the District's benefit assessment is the only consistent and reliable source of funding. The single landowner of the District provides funding as needed. The amount assessed in any given year is variable depending on necessary maintenance and improvements. The primary financial challenge reported by RD 2115 is the administrative burden stemming from compliance with the various regulations and governmental agencies. The District encompasses an entirely agricultural area, and the many regulatory requirements are a strain on the District. Overall a higher percentage of the District's budget is being spent on legal compliance and environmental requirements and not on levee maintenance and rehabilitation.

In FY 14-15, the District had a total of \$88,437 in revenues. In that fiscal year, the District collected \$61,500 in assessments on the property owner. The District's board assesses its fund balance on a

quarterly basis and then requests funds from the property owner if needed. The District also received \$26,030 in revenues from the State for a work agreement. The only other revenue source in FY 14–15 was \$907 from interest income.

The District’s expenditures in FY 14–15 totaled \$51,419, and consisted primarily of levee improvements and special projects (\$25,189), legal and accounting services (\$16,379), and professional fees for engineering services (\$9,778). Miscellaneous expenses comprised the remainder. Revenues exceeded expenses by \$37,081 in FY 14–15, which substantially increased the District’s fund balance into FY 15–16.

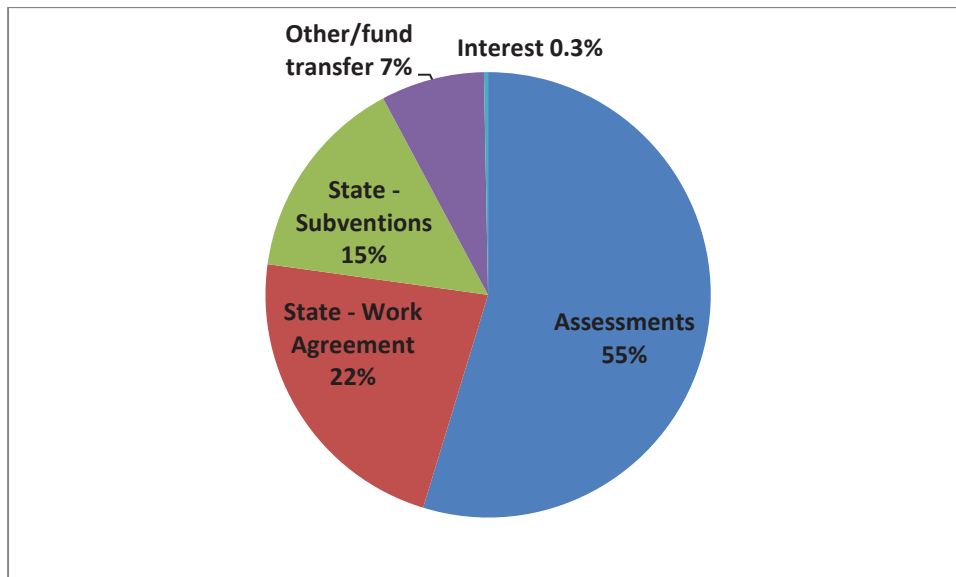
Revenues and expenditures for the last five fiscal years are shown in Table 23-3.

Table 23-3: RD 2115 Revenues and Expenditures FY 11 to FY 15

REVENUES	FY 10–11	FY 11–12	FY 12–13	FY 13–14	FY 14–15
Total Revenues	\$73,091	\$66,448	\$61,438	\$75,987	\$88,437
Total Expenditures	\$56,891	\$37,352	\$82,440	\$86,156	\$51,419
Revenues over Expenditures	(\$18,800)	\$29,096	(\$21,045)	(\$10,169)	\$37,018
Fund Balance	\$641	\$29,737	\$3,984	(\$6,184)	\$30,834
Note: Adjusted from previously reported end of fiscal year fund balance of \$8,692 for change in accounting basis. Source: RD 2115 Audited Financial Statements					

Assessments are the primary source of revenues, averaging 55 percent. Revenues are supplemented by grants from the State in the form of work agreements, 22 percent on average; subvention funds, 15 percent; and other government agencies, 7 percent (Exhibit 23-2).

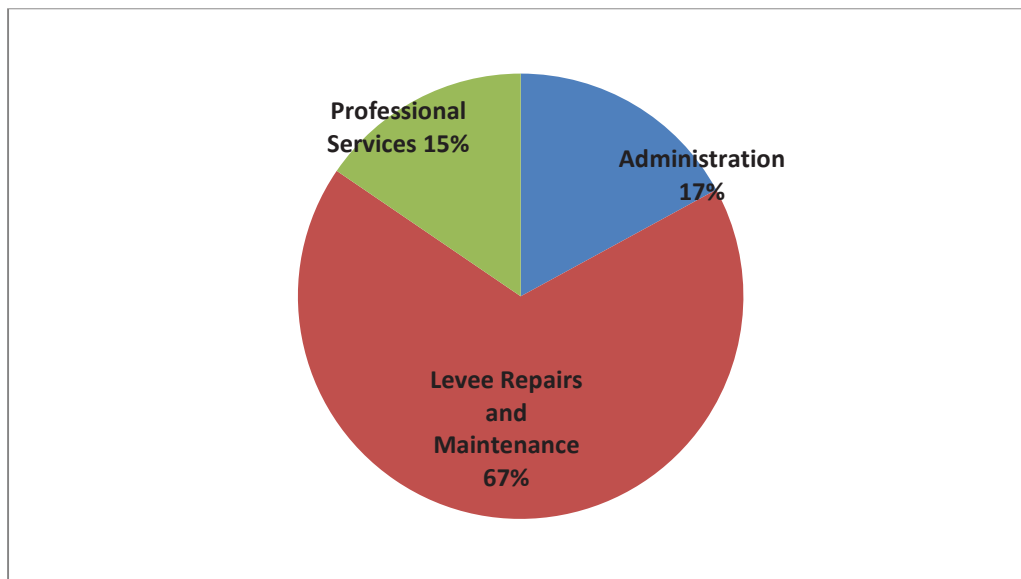
Exhibit 23-2: RD 2115 Revenue Sources FY 11 to FY 15



Source: RD 2115 Audited Financial Statements

Average expenditures are primarily for maintenance and repairs, 67 percent; administration, 17 percent; and professional services, 15 percent (Exhibit 23-3). With state assistance the fund balance is positive, approximately 60 percent of expenses.

Exhibit 23-3: Reclamation District 2115 Expense Allocation 2011–15



Source: RD 2115 Audited Financial Statements

The District annually determines the level of reserves that it desires to maintain. There is no formal policy regarding the level of reserves that must be maintained. At the end of FY 14–15, the District had an unassigned fund balance of \$30,834, which is equivalent to approximately seven months of operating expenditures.

At the end of FY 14–15, the District did not have any long-term debt.

The District’s capital improvements are financed by either the RD’s annual assessment, reserves, or specific program or assistance funds. To plan for capital needs, RD 2115 has developed a five-year plan that outlines necessary capital improvements to the levees to reach a certain level of protection.

The District has, in the past, participated in a cost-sharing agreement with SJAFCA and various RDs to fund the Lower San Joaquin River Feasibility Study.

DETERMINATIONS

- 23.4.1:** The District’s operations are financed primarily by the assessment collected from the single land owner. The assessment varies from year to year depending on the levee maintenance needs.
- 23.4.2:** State work agreement and subvention funds have contributed approximately 37 percent of the District’s revenues over the last five fiscal years. Given the substantial amount contributed by the State to the maintenance of the District’s levees, a regular inspection schedule of the levees would be fitting.

- 23.4.3:** According to the District their primary financial challenge reported by RD 2115 is the administrative burden stemming from compliance with the various regulations and governmental agencies. The District encompasses an entirely agricultural area, and the many regulatory requirements are a strain on the District.
- 23.4.4:** At the end of FY 14–15, RD 2115 had the equivalent of seven months of operating expenditures in its unassigned fund balance. Over the last five fiscal years, the District has struggled to maintain a consistent fund balance.
- 23.4.5:** RD 2115 has planned for necessary capital improvements in its Five-Year Plan.

23.5 - Status and Opportunities for Shared Facilities

Because of the limited scope of RD 2115's levee system, with no stretches of project levees, surrounding undeveloped agricultural lands, the District makes limited efforts to collaborate with or receive assistance from other agencies to improve services or reduce costs. However, as was previously mentioned, one of the District's collaborative practices includes participation in the Delta Levee Subventions Program.

Mutual aid requests for technical assistance and services, flood fight crews, supplies and materials, and other resources are made through the San Joaquin Operational Area Logistics Section and/or the Operational Area Public Works Mutual Aid Coordinator.

While not a facility, but certainly resource sharing, the District makes use of the same legal counsel and engineer as several other RDs in the area. In addition, as mentioned, the District has participated in a cost-sharing agreement with SJAFCA and various RDs to fund the Lower San Joaquin River Feasibility Study.

The District has partnered in the Lower San Joaquin River Feasibility Study with several other reclamation districts, the U.S. Army Corps of Engineers, the State Central Valley Flood Protection Board, and SJAFCA. The results of the study will help identify needed improvements to meet or exceed the 200 year flood protection level.

DETERMINATIONS

- 23.5.1:** RD 2115 works cooperatively with DWR through the Delta Levee Subventions Program.
- 23.5.2:** For emergency response and technical assistance, the District makes requests through the San Joaquin Operational Area Logistics Section and/or the Operational Area Public Works Mutual Aid Coordinator.
- 23.5.3:** RD 2115 shares legal counsel and engineer services with several other RDs, and has participated in joint financing of the Lower San Joaquin River Feasibility Study.
- 23.5.4:** The District participates in the Delta Levee Special Flood Control Project programs.

23.6 - Government Structure and Accountability

RD 2115 is governed by a three-member Board of Trustees. Because there is a single owner of the property within the District, legal representatives are elected by the landowner to 4-year terms. When the Board falls below a quorum, sufficient trustees to comprise a quorum are appointed by the landowner and confirmed by the City of Stockton City Council. Upon appointment of a quorum, the two members appoint the third member themselves.

The Board meets twice a year at the Neumiller and Beardslee office. Agendas are distributed to board members and others by request, and posted at the office. Meeting minutes are reportedly distributed to meeting attendees and with meeting agendas. The Board of Trustees details are shown in Table 23-4.

Table 23-4: RD 2115 Governing Body

BOARD OF TRUSTEES	
Manner of Selection	Elected by the landowner.
Length of Term	Four years.
Board Compensation:	Not provided.
Meeting Schedule	1 st Tuesday of April and October at 8:00 am
Meeting Location	Neumiller and Beardslee 509 W. Weber Avenue Suite 500 Stockton, CA 95203
Agenda Distribution	Agendas are posted at office/meeting location.
Minutes Distribution	Distributed with the meeting agendas.

RD 2115 contracts for services, including secretarial, legal, and engineering services. The District contracts for maintenance and improvement project personnel, if the projects are beyond the capacity of the landowner’s staff.

The District’s management practices consist of maintaining up-to-date financial records and performing regular financial audits. The District has a Five Year Plan to address capital planning needs.

Concerning the District’s governance structure, RD 2115 believes that its existing boundaries are logical and consistent with the levee service area at present. There is reportedly no need at present for a change in the District’s boundaries. It is recommended that a Sphere of Influence representing the need for no changes in the District’s boundaries be adopted for RD 2115 following the completion of this MSR.

DETERMINATIONS

- 23.6.1:** RD 2115 is governed by a three-member Board of Trustees headed by the President of the Board. Because there is a single owner of the property within the District, legal representatives are appointed by the landowner to 4-year terms.
- 23.6.2:** The District demonstrated accountability and transparency related to its governance by cooperating with the MSR process and publishing agendas for public meetings as legally required.
- 23.6.3:** RD 2115 contracts for services as needed, including secretarial, legal, and engineering services.
- 23.6.4:** The District’s management practices consist of maintaining up-to-date financial records and performing regular financial audits. Capital improvements are planned for in the District’s Five-Year Plan.
- 23.6.5:** RD 2115’s boundaries appear to be appropriate to its service area. No governance structure options were identified.

23.7 - Any Other Matters Related to Effective or Efficient Service Delivery, As Required by Commission Policy

San Joaquin LAFCo has not adopted any policies identifying any other matters related to effective or efficient service delivery, and no additional issues have been identified.

DETERMINATIONS

- 23.7.1:** San Joaquin LAFCo has not adopted any policies identifying any other matters related to effective or efficient service delivery, and no additional issues have been identified.

23.8 - Key Findings and Issues

1. There is a general lack of regular inspections of non-project levees by the DWR. RD 2115's levees were last inspected by the DWR approximately 10 years ago. While RD 2115 levees protect an entirely agricultural area with few residents, the District's levees are a layer of protection for the urban levee to the east of the District. Inspection results of non-project levees are not readily available in an annual report format like those of the project levees. While the Water Code requires DWR to conduct inspections of non-project levees, it does not state how often inspections are to occur. There is a need for the State to standardize the inspection process for all non-project levees.
2. RD 2115 does not maintain a website or any other form of online presence. Well-managed and governed agencies share their information and provide public outreach through websites or social media.
3. RD 2115's Sphere of Influence was established in 1983. A sphere of influence update is long overdue. It is recommended Commission update the sphere and set it as conterminous with District boundaries.
4. The District is currently a rural district with only 20 residents. Should there be a proposal to develop the District the City or the County must work with the District and perspective developers to provide 200 year flood protection.
5. The District has partnered in the Lower San Joaquin River Feasibility Study with several other reclamation districts, the U.S. Army Corps of Engineers, the State Central Valley Flood Protection Board, and SJAFCA. The results of the study will help identify needed improvements to meet or exceed the 200 year flood protection level.

24: RECLAMATION DISTRICT 2119 (WRIGHT-ELMWOOD)

RD 2119 was formed May 22, 1984 under Division 15 of the Water Code of 1984 to maintain levees and provide drainage services landowners within the boundaries of the District. The District is a 2,200 acre triangular shaped island adjoining the western boundary of the City of Stockton city limits. A small portion of the District’s northeastern-most acreage is located within Stockton city limits.

The District is bounded by the San Joaquin River to the south and west, Tenmile slough to the east and Fourteen Mile Slough to the north and west. The District maintains the levees along these waterways and provides drainage services to landowners. The levee along Tenmile slough is a dryland levee. Exhibit 24-1 shows the District’s boundaries, while Table 24-1 shows the general information about the district and services it provides.

Table 24-1: RD 2119 General Information

TABLE 24-1: RD 2119 GENERAL INFORMATION	
Agency	RD 2119 (Wright–Elmwood)
Address	PO Box 1461, Stockton, CA 95219
Principal Act	California Water Code §50000, et seq.
Date Formed	May 22, 1984
Population	Est. 10
Last SOI Update	1983
Services Provided	Levees, access road, vegetation, flood control, drainage
Contact Person	Dante John Nomellini, Sr.(209) 465-5883; ngmpics@pacbell.net
Website	None

The City of Stockton owns parcels and ROW easements within RD 2119 that are part the City’s sanitary sewer outfall system. Additional ROW easements are owned by the Western Area Power Administration (WAPA) and PG&E for their high power transmission lines.

Aside from the City and utility-owned parcels the remainder of the District’s 2,200 acres is in agricultural, open space and/or habitat use.

24.1 - Growth and Population Projections

There are approximately 27 parcels occupying 2,155 acres and 20 easement parcels occupying 59.9 acres in RD 2119 for a total of 47 parcels. Most of the parcels are devoted to agriculture.

Brookside Road, a San Joaquin County road, is located on the crown of the RD 2119 levee. The road is used by landowners for access to and from the District. It was previously used by the public for access to the adjoining waterways, hiking, biking and other recreational uses. Illegal dumping, camping, and homeless occupation along the road has crated serious problems.

The District’s population is estimated to be less than 10, which by definition makes it uninhabited for CKH purposes. No additional or new development is expected within the District over the 30-year period from 2015 to 2045.

DETERMINATIONS

- 24.1.1:** Land uses within the District consist primarily of agricultural, public utility and open space. The population of the District is estimated at less than ten persons. No additional development or population is expected to occur within the District through 2045.

24.2 - Disadvantaged Unincorporated Communities

The District lies within Stockton's Sphere of Influence; in fact, a portion of the District lies in the City. However, with fewer than ten residents and fewer than ten dwelling units, the District does not meet the definition of a DUC. Therefore, there are no DUCs in RD 2119.

DETERMINATIONS

- 24.2.1:** There are no DUCs in RD 2119.

24.3 - Present and Planned Capacity of Public Facilities

The District operates and maintains approximately 7.07 miles of levees on an island immediately west of the City of Stockton, California. A portion of the levee along Tenmile Slough is a dryland levee, which is a common levee with the adjoining RD 2074 (Sargent Barnhart Tract). Of the 7.07 levee miles, 4.27 miles are at PL 84-99 standard and all are at HMP standards and above. Exhibit 24-2 shows a map of the levee system and Table 24-2 provides an overview of the levee system.

The District has a FIRM floodplain designation of Zone AE. The entire floor of the island is between 5 to 12 feet below sea level. Some areas experience near-constant seepage. Seepage is captured by ditches at the toe of the levee and the main drain canal. Water collected in the main canal drains to a pumping station that returns the water to the river. The District maintains drains, a drainage canal and operates three pumping stations. Exhibit 24-3 shows a map of the drainage and pump system maintained by the District.

The District's levees are patrolled at least weekly by trustees who are involved in agricultural operations on the island. The District Engineer also conducts an inspection at least annually. Inspections are coordinated with DWR and DFW as per requirements of their levee assistance programs. During high water events the patrols are accelerated, sometimes hourly as needed.

To meet its service requirements the District has undertaken a number of activities, including:

- Levee maintenance and patrol
- Vegetation removal
- Weed abatement
- Vector/rodent control
- Flood control
- Drainage
- Upkeep of levee access roads
- Erosion repairs to levees from high water and runoff
- Subvention

Table 24-2: RD 2119 District Facilities Overview

RD 2119 FACILITIES			
Total Levee Miles (District says total of 7.07 Mile)	7.07 Miles	Surface Elevation Crown	-5 to -12 ft. BSL
LEVEE MILES BY STANDOUT		LEVEE MILES BY TYPE	
No Standard		Dry Levee	0.0
HMP Standard	2.8 Miles	Urban Levee	0.0
PL 84-99 Standard	4.27 Miles	Agricultural Levee	7.07 Miles
Bulletin 192-82	Standard 0.0	Other	0.0
FEMA Standard	0.0 Miles		
DISTRICT FACILITIES			
Internal Drainage System	Open drains	Pump Station(s)	3
Detention Basins(s)	None	Bridges	No
FLOODPLAIN			
FIRM Designation	Zone A/E	Base Flood Elevation	10.0 - (NAVD 88)
LEVEE INSPECTION PRACTICES			
Routinely weekly for visual observation; Annually by Engineering Consultant.			
LEVEE INSPECTION REPORTS			
Most Recent Written Inspection	N/P	Inspection Rating	Not rated by DWR
LEVEE SEGMENT	DESCRIPTION		CONDITION
San Joaquin River	South Boundary		Good
Fourteen Mile Slough	North Boundary		Good to Fair
LEVEE MAINTENANCE			
Miles Rehabilitated FY 12-13 Selected Areas	N/P	Miles Needing Rehabilitation	1.53 Miles Planned
% Rehabilitated		% Needing Rehabilitation	21.6 %
Rehabilitation Cost per Levee Mile*	N/P	Maintenance Cost per Levee Mile**	N/P
INFRASTRUCTURE NEEDS/DEFICIENCIES			
District reported they have a Five-Year Plan August 2013			
Notes: NP = Not Provided * Rehabilitation cost per levee mile is equal to the expenditure amount on capital improvements in FY 12-13 divided by the number of levee miles rehabilitated in FY 14-15. ** Maintenance cost per levee mile is equal to the expenditure amount on levee maintenance in FY 14-15 divided by the total number of levee miles calculated by the District!			

The levee is patrolled by trustees at least weekly and by the District Engineer at least annually. During high water, inspections are accelerated and occur sometimes hourly. The District has no employees; its administrative, operations, and maintenance services are provided by part-time contractors.

Compliance with SB 5 rests with the land use authority. For districts that are in agricultural use with no foreseeable development the 200 year flood standard is of low priority. The District is primarily farmland. No additional population or development is anticipated over the next 30 years. There are presently no known plans to address the 200 year flood standard.

DETERMINATIONS

- 24.3.1:** The District provides three key services for landowners and residents of the District, levee maintenance, drainage and flood control.
- 24.3.2:** The District maintains 7.07 miles of levees. All meet the HMP standard and 4.27 miles are at PL 84-99 standard.
- 24.3.3:** The District maintains the Tenmile Slough levee in conjunction with RD 2074 that shares the levee with the District.

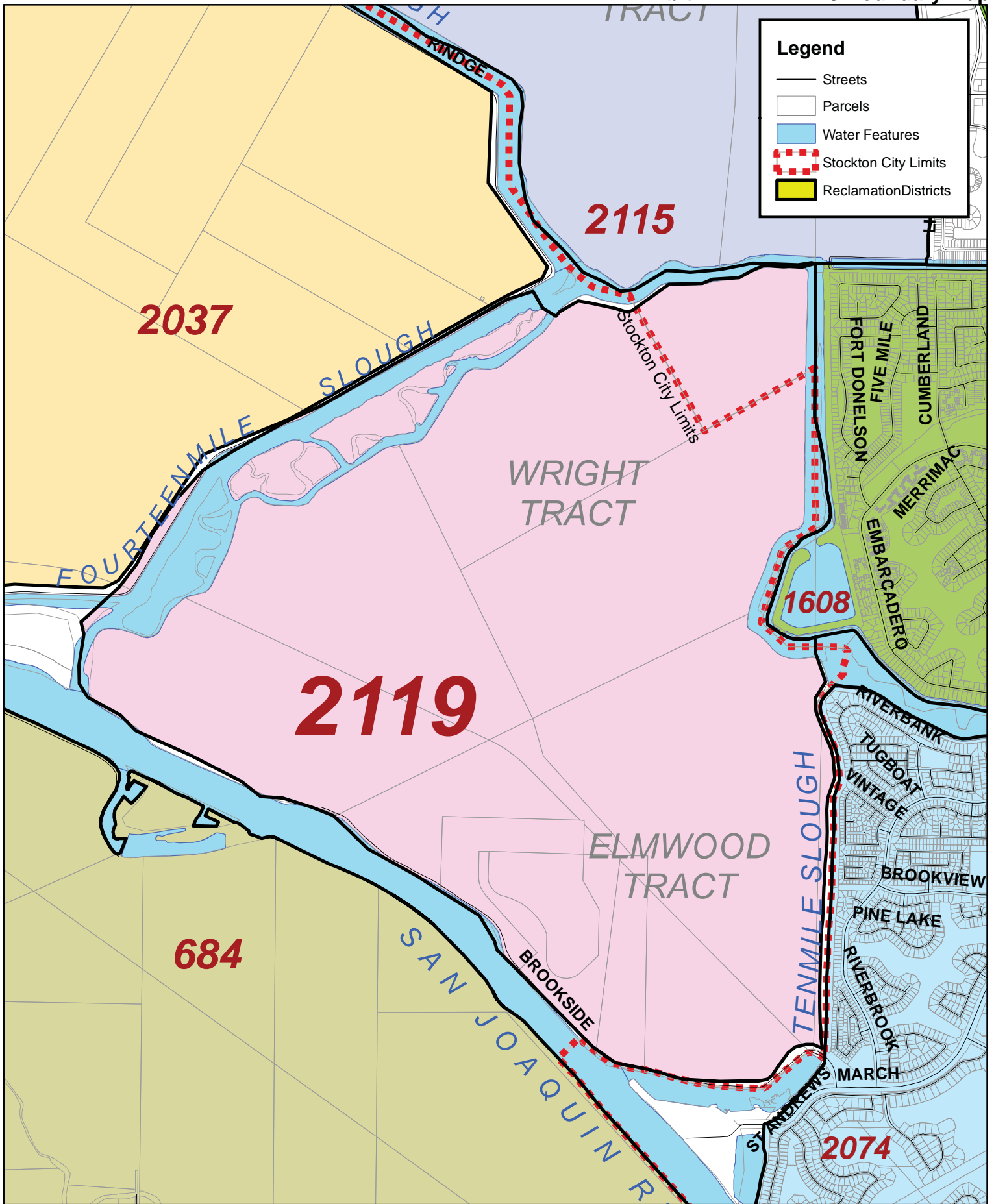
24.4 - Financial Ability to Provide Service

The District budgets annually for operations and maintenance costs associated with its levees and drainage system. Table 24-3 shows a summary of actual revenues and expenses for the period 2010–2015. The table shows with the combination of sources the District has been able to maintain a positive fund balance. The District has a sizable fund balance equivalent to 2.35 times its operating expenditures in FY 2013–2014.

Table 24-3: Reclamation District 2119 Revenues and Expenses 2010–2015

ACCOUNT	2010	2011	2012	2013	2014	2015
REVENUES						
Taxes & Assessments	\$378,951	\$330,640	\$446,266	\$383,100	\$383,100	\$303,161
Interest	\$465	\$588	\$171	\$348	\$360	\$1,404
State	\$152,399	\$421,827	\$124,852	\$102,424	\$32,675	\$69,939
Other	\$60,481	\$98,210	\$30,409	\$30,125	\$362,797	—
Warrants	\$385,144	\$265,566	\$155,334	\$251,670	\$122,522	
Total Revenues	\$977,440	\$1,116,831	\$757,032	\$767,667	\$901,454	\$374,504
EXPENSES						
Salaries	\$27,455	\$25,082	\$8,248	\$17,573	\$20,019	\$9,889
Services and Supplies	\$358,907	\$237,896	\$146,181	\$236,589	\$182,667	\$204,305
Debt Service	\$509,359	\$796,505	\$574,258	\$508,470	\$307,750	0-
Total Expenses	\$895,721	\$1,059,483	\$728,687	\$762,632	\$510,436	\$214,194
<i>Difference</i>	<i>\$81,719</i>	<i>\$57,348</i>	<i>\$28,345</i>	<i>\$5,035</i>	<i>\$391,018</i>	<i>\$160,310</i>

Source: State Controllers Reports 2017



Legend

- Streets
- Parcels
- Water Features
- Stockton City Limits
- Reclamation Districts



**RECLAMATION DISTRICT 2119
SAN JOAQUIN COUNTY**

San Joaquin County Geographic Information Systems
1810 East Hazelton Avenue, Stockton, CA 95205

The information on this map is based on the most current information available to San Joaquin County Geographic Information Systems. The County of San Joaquin does not warrant its accuracy, completeness, or suitability for any particular purpose. The information on this map is not intended to replace engineering, financial or primary records research.

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Miles

August 12, 2014 GIS-rm

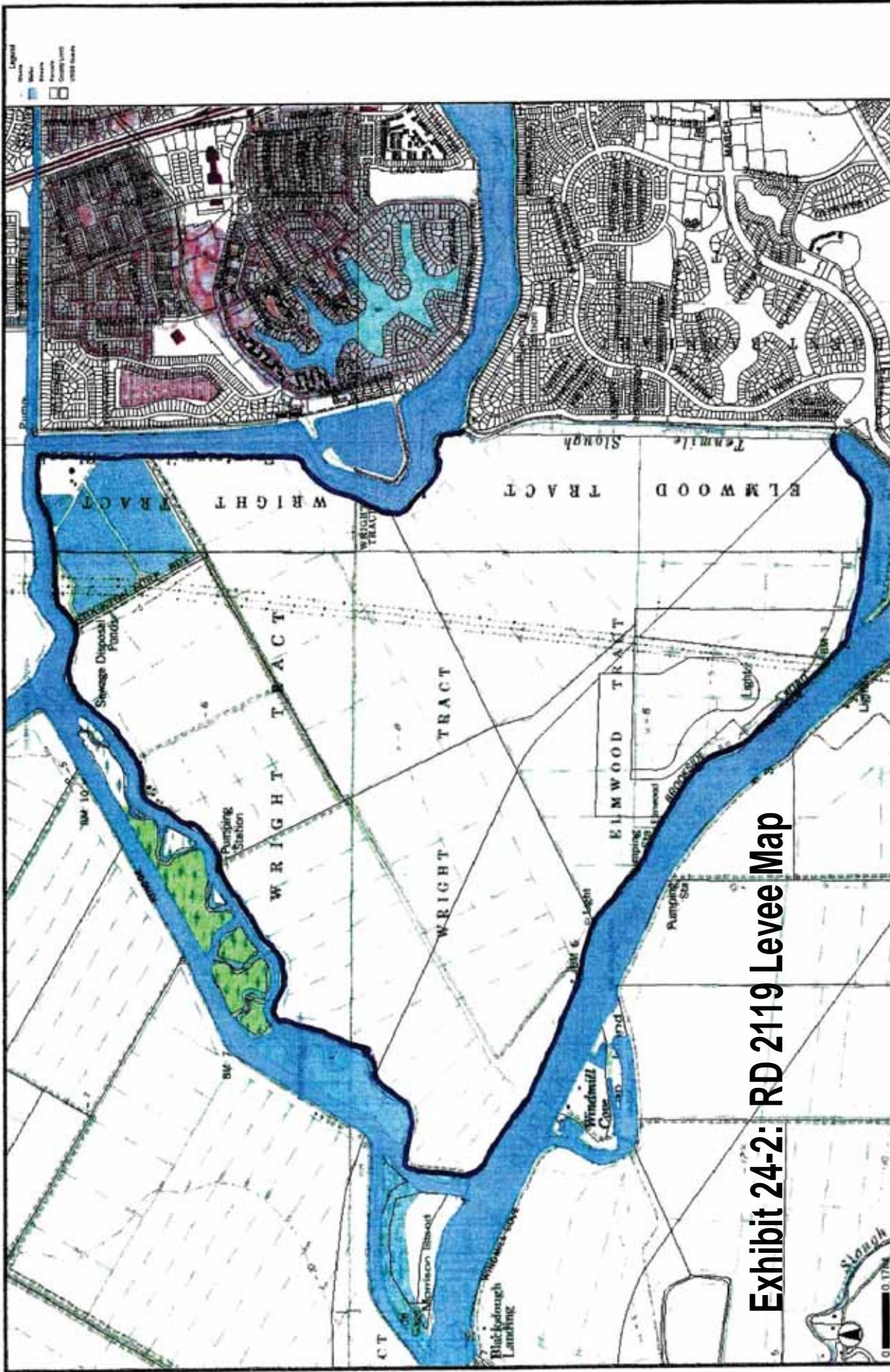


Exhibit 24-2: RD 2119 Levee Map



Reclamation District No 2119 LEVEES
 San Joaquin County Geographic Information Systems

1810 East Hazelton Avenue, Stockton, California 95205



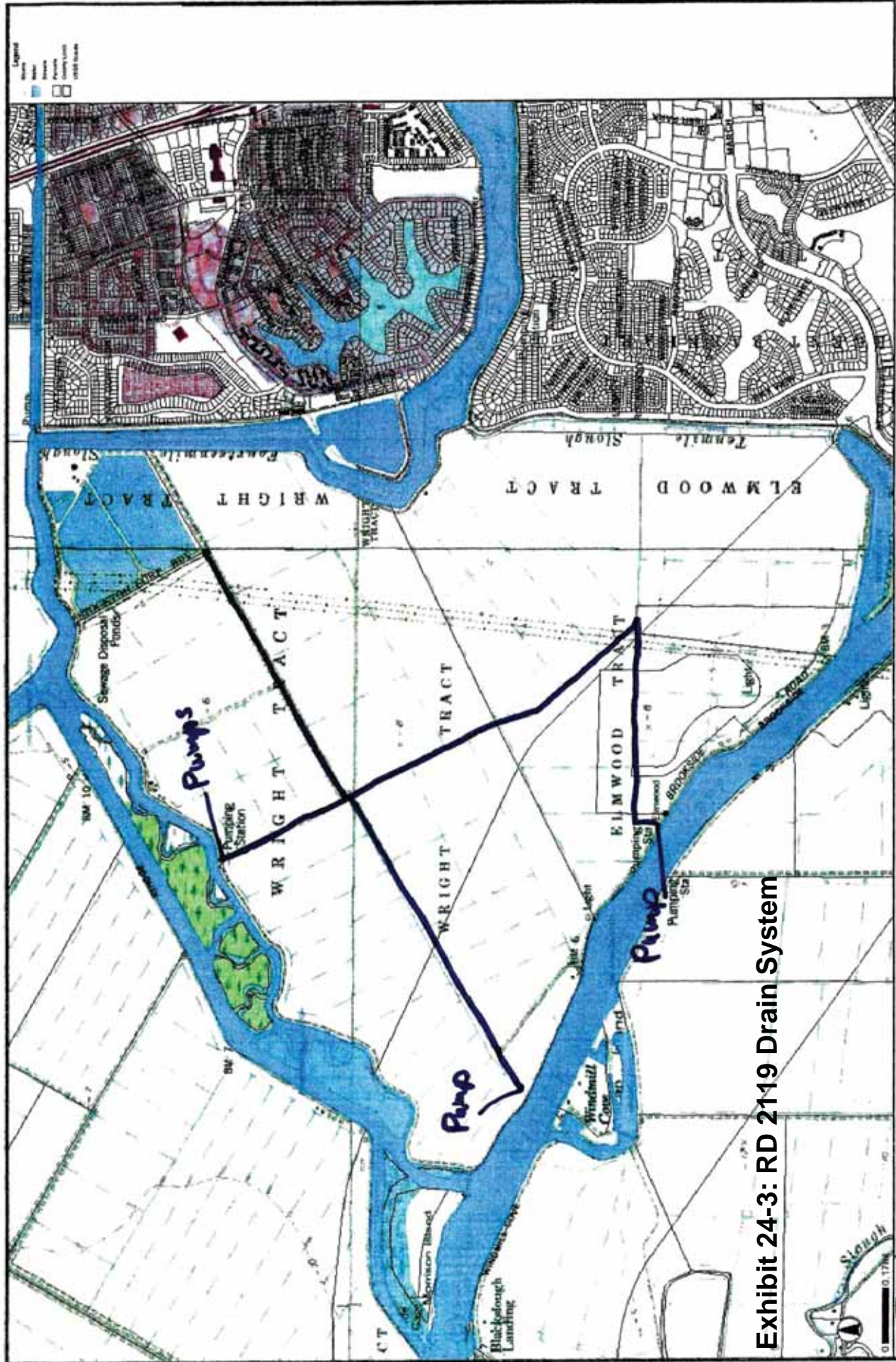


Exhibit 24-3: RD 2119 Drain System

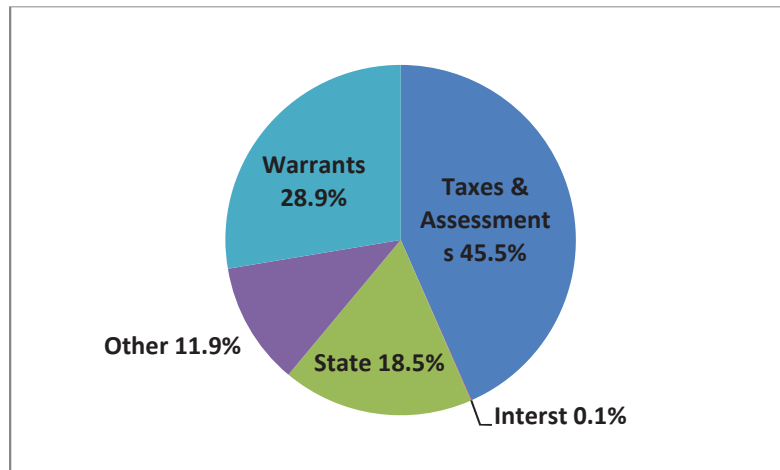


Reclamation District No 2119 DRAINS
San Joaquin County Geographic Information Systems

1810 East Hazelton Avenue, Stockton, California 95205

Revenues are derived primarily from assessments, DWR Subventions and special project funds, fees for service, and warrants. Exhibit 24-4 shows the allocation of revenue sources. The District has a strong financial and real property base as taxes and assessments represent nearly 46 percent of revenues. They are supplemented by State Subventions and special project funds, at 18 percent, as well as warrants as needed, sometimes accounting for up to 30 percent.

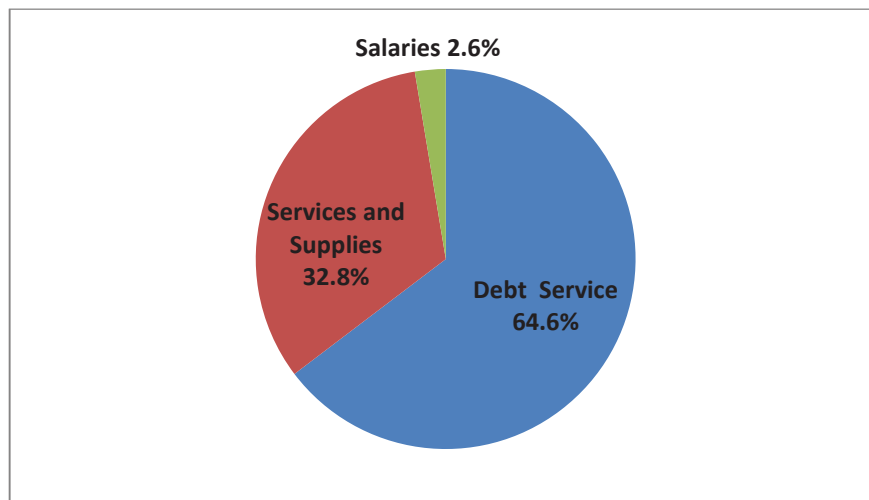
Exhibit 24-4: Reclamation District 2119 Revenue Sources



Source: State Controller's Reports 2017

Exhibit 24-5 shows the allocation of expenses. In recent years, the District has used warrants to fund salaries, services and supplies until it receives assessment and DWR funds. It uses those revenues to pay off the warrants. A good portion of expenses is allocated for paying down the warrants. Services and Supplies is further broken down, based on budgets, as 75 percent for maintenance and 25 percent for administration. Occasionally, the District will hire part-time employees for levee patrol and maintenance projects. The Salaries expenses are for part-time workers. They are hired on an as-needed basis.

Exhibit 24-5: Reclamation District 2119 Expense Allocation 2010–2015



Source: State Controller's Reports 2017

The District's major capital improvement project is to upgrade its levees to Bulletin 192-82 standards. That activity is supported by funds from DWR from either the Subventions fund or Special Projects fund. The District has a capital improvement plan, part of its Five Year Plan, that is implemented as funds become available.

The level of the fund balance is one measure of the financial ability to provide service. As shown in Table 24-1, the District in the last 5 years has taken in more revenue than it has spent. In the 3 years from FY 12 to FY 14, the District has maintained a fund balance in excess of 30 percent of expenses. The FY 2014 audit reported the unrestricted fund balance of \$153,435 with a restricted fund balance designated for projects of \$338,023. The total fund balance represents 2.3 times expenses for that year.

DETERMINATIONS

- 24.4.1:** The District budget in FY 11–12 is \$754,039, which is close to the average of \$695,000 from 2010 to 2015. Revenues are primarily assessments and state subvention and special project funds. In recent years, the District has issued warrants to cover expenses until assessment are collected. The District then repays the warrants. Maintenance and operations represent 75 percent of the services and supply expenses.
- 24.4.2:** The District maintained a healthy fund balance of 2.3 times its FY 2014 expenses. For three recent years FY 12–FY 14 the District maintained a fund balance that was at least 30 percent of expenses.
- 24.4.3:** The current fee schedule provides adequate funding for the District's operations and functions.
- 24.4.4:** The fees are not adjusted based upon a cost-of-living inflator.
- 24.4.5:** The District hires part-time employees as needed based upon conditions to complete projects.
- 24.4.6:** No major capital projects are anticipated. The District has a rehabilitation plan that is implemented as funds are available.

24.5 - Status and Opportunity for Shared Facilities

The District shares a levee with RD 2074 on its eastern boundary along Tenmile Slough. The District periodically enters into SAAs with the CDFW for work performed along the waterside of its levee slopes. The District has an annual routine levee maintenance SAA that is ongoing and does not expire. For activities that fall outside of the SAA, separate SAA are obtained for specific projects. These project-based SAA are not typically renewed or reviewed because the work is completed soon after and well before the standard 5-year term of such permits.

The District also periodically receives financial assistance from DWR for levee maintenance, rehabilitation and improvements. During high water/flood events local, state, and/or federal agencies may provide emergency crews, and assistance. They also may assist with restoration or rehabilitation of levees after emergency events.

The District has a number of plans that exhibit management efficiency. Each year, the District adopts a budget, although as a reclamation district it is not required to do so. It also has a Five Year Plan for

capital improvements and an Emergency Operations Plan to deal with a flood event. The EOP describes the interaction of a number of state and local emergency agencies.

DETERMINATIONS

- 24.5.1:** The District shares maintenance a levee on Tenmile Slough with RD 2074.
- 24.5.2:** The District works cooperatively with DWR and receives financial assistance for levee maintenance, rehabilitation, and improvements.
- 24.5.3:** The District enters into Streambed Alternation Agreements with the DFW.
- 24.5.4:** The District works with other local, state, and federal agencies during high water/flood emergencies.

24.6 - Government Structure and Accountability

The District is governed by a three-member elected board that serves 4-year terms. Board members are appointed if there are not enough candidates to hold an election. Trustees are volunteers and receive no stipend. The Board meets once a year or as needed at 235 E. Weber Avenue, Stockton, CA 95202.

The District has no paid full-time staff. The District administrative staff consists of its attorney and its secretary, who is responsible for bookkeeping. It contracts with an engineering firm that performs engineering services for the District. Part time employees and contractors are used for maintenance activities as needed.

The District has no website. It communicates with residents via mailers, by email, and by posting notice of meetings.

The District is not seeking to expand its boundary, consolidate with a neighboring district, or discontinue service. With that in mind a coterminous sphere is appropriate.

DETERMINATIONS

- 24.6.1:** The District is governed by a three-member appointed board. Board members serve 4-year terms and receive no stipend. The Board meets once a year or as needed at 235 E. Weber Avenue, Stockton, CA 95202.
- 24.6.2:** The District has no full-time employees. Maintenance and administrative work is contracted out.
- 24.6.3:** The District has no website. The Board agenda is posted on the door of the District office. Minutes are available to all attendees and upon request.
- 24.6.4:** The District is not seeking to expand its boundary, consolidate with a neighboring district, or discontinue service; therefore, a coterminous sphere is appropriate.

24.7 - Any Other Matters Related to Effective or Efficient Service Delivery As Required by Commission Policy

The District is not seeking to expand its boundary, consolidate with a neighboring district, or discontinue service. The only policies that may affect the District operations are the Sphere of Influence policies. San Joaquin LAFCo's Sphere of Influence policy allows for open space or rural lands to be designated in an agencies sphere to preserve the use and character of that territory. San Joaquin LAFCo's Sphere of

Influence policy allows for a coterminous sphere. Since the District has no plans for expansion and needs no additional drainage and flood control services, a coterminous sphere would be appropriate for the District. Since the sphere policies are the only applicable policy, the District would likely seek a coterminous sphere and no additional services would be required, there would be no effect of the policy on service delivery. Therefore, the San Joaquin LAFCo policies will have no effect on service delivery.

DETERMINATIONS

- 24.7.1:** The District is not seeking to expand its boundary, consolidate with a neighboring district, or discontinue service. There are no San Joaquin LAFCo policies that would affect service delivery.

24.8 - Key Findings and Issues

1. The District is primarily farmland with less than 10 residents. As a result, there are no DUCs in RD 2119.
2. The District maintains a fund balance equal to one year of expenses. The District is able to offset expenses through grants and warrants.
3. The District has upgraded all of its levees to HMP standards and is working to meet Bulletin 192-82 standards.
4. The District believes the Bay Delta Conservation Plan, if adopted, would be detrimental to the District by impeding continuation of agricultural activities within the District.
5. RD 2119's Sphere of Influence was established in 1983. A sphere of influence update is long overdue. It is recommended Commission update the sphere and set it as conterminous with District boundaries.

25: RECLAMATION DISTRICT 2126 (ATLAS TRACT)

RD 2126 was formed in 1989 as an independent special district to provide levee maintenance services. Table 25-1 gives an overview of RD 2126.

Table 25-1: RD 2126 Services and General Information

RD 2126 GENERAL INFORMATION	
Agency	RD 2126 (Atlas Tract)
Address	711 N. Pershing Avenue, Stockton, CA 95203
Principal Act	California Water Code §50000, et seq.
Date Formed	March 7, 1989
Population	0
Last SOI Update	1983
Services Provided	Levees, access road, vegetation, flood control
Contact Person	Christopher H. Neudeck, District Engineer; (209) 946-0268; cneudeck@ksninc.com
Website	None

RD 2126 is located entirely within the boundaries of the City of Stockton. The RD encompasses 360 acres or about 0.6 square mile. The Alex and Faye Spanos Family Trust is the sole owner of all the land within RD 2126. The RD is bounded by Mosher Slough to the west and south, Bear Creek to the north, and a dryland levee to the east. The District is surrounded by 3.08 miles of levees. The protected area is entirely agricultural. The boundaries for RD 2126 are shown in Exhibit 25-1.

25.1 - Growth and Population Projections

There are three parcels within RD 2126 with one zoned residential and two vacant, but all actual land use is currently vacant. The highly productive and fertile lands within RD 2126 are currently used for agricultural production of small grains and hay.

As reported by the District, there were no residents living within RD 2126 as of 2017. Because RD 2126 is unpopulated, there are fewer than 10 people overall within the District at a given time. Additionally, as it is solely dry-farmed, with no irrigation or drainage work underway, agricultural workers are seldom present.

It is anticipated that there will continue to be no residents within the District, at least in the short term. The District's Five-year Plan alludes to plans for some urban development, with no specifics given. In 2014, there are references to the potential development of 1,400 lots within RD 2126's service area. It is unknown where in the planning process the proposed development may be; however, the District continues to work toward a level of levee protection appropriate for a developed urban area.

DETERMINATIONS

- 25.1.1:** There were no residents of RD 2126 as of 2017.

25.1.2: It is anticipated that there will continue to be no residents in the District within the short term; however, a large-scale development has been proposed in the area with the potential for 1,400 lots with a population of 4,200.

25.1.3: Land uses within the District are entirely agricultural.

25.2 - Disadvantaged Unincorporated Communities

LAFCo is required to evaluate DUCs as part of this service review, including the location and characteristics of any such communities. A DUC is defined as any area with 12 or more registered voters, or as determined by commission policy, where the MHI is less than 80 percent of the statewide annual median income. A DUC in San Joaquin County would have an MHI of \$51,600 or less.

Since the district is uninhabited and within the Stockton City limits it does not qualify as a DUC. Therefore there are no DUC's in RD 2126.

Determinations

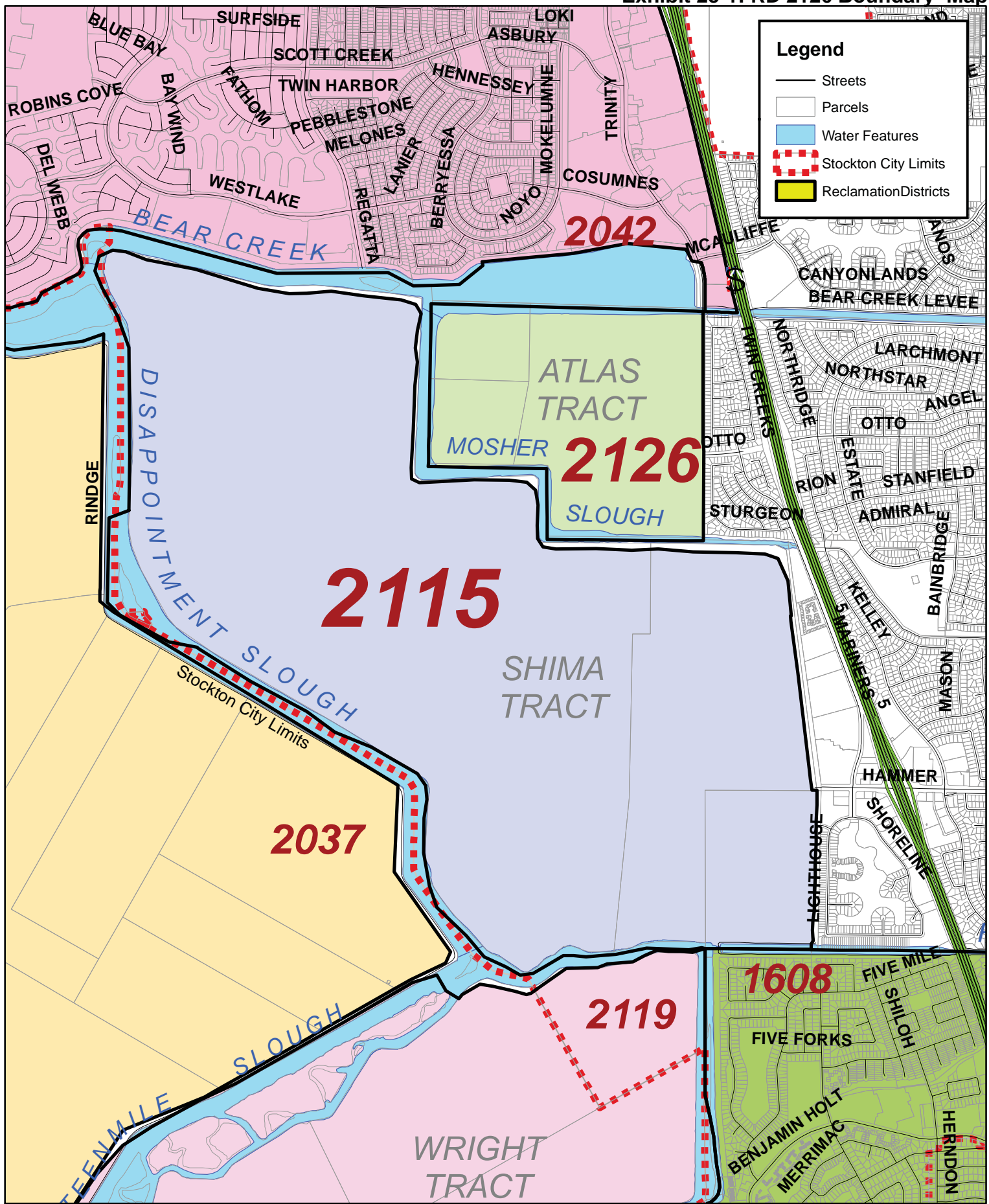
25.2-1: RD 2126 is located entirely within the City of Stockton; therefore, there are no DUCs within or immediately adjacent to its boundaries.

25.3 - Present and Planned Capacity of Public Facilities

The District operates and maintains approximately 3.08 miles of levees. Regular maintenance of the levees is generally provided by the landowner's staff. The dry-land eastern levee extends 0.81 mile and is a FEMA-approved levee providing protection for the adjacent Twin Creeks Estates Subdivision. Table 25-2 lists the District's facilities.

The eastern dry land levee is categorized as a project levee, while the remaining levees are all non-project levees. Project levees are subject to the USACE certification and inspection. In addition, they are subject to AB 156 inspection and reporting requirements. Project levees are inspected four times a year including by USACE. Under AB 156, the District must report the condition of its levees to the DWR, which compiles an annual report. Non-project levees are levees that were privately constructed and are maintained by a private landowner or a local district. These levees are not required by law to be maintained to any particular standard. However, there are several standards that the levees in the Delta must meet in order to remain eligible for certain state and federal disaster assistance programs. These include the HMP criteria and PL 84-99 standard for agricultural levees. In review of the PL 84-99 guidelines, the District received acceptable grades for under-seepage, slope stability, through seepage, erosion, and its overall score.

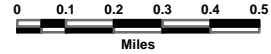
RD 2126 has no recorded history of its performance during flood events, and interviews with the District Engineer corroborate that there have been no major flood events that have affected the performance of the District's levees since the District was reclaimed. The levees are completely rocked around the entire perimeter of the District.



**RECLAMATION DISTRICT 2126
SAN JOAQUIN COUNTY**

San Joaquin County Geographic Information Systems
1810 East Hazelton Avenue, Stockton, CA 95205

The information on this map is based on the most current information available to San Joaquin County Geographic Information Systems. The County of San Joaquin does not warrant its accuracy, completeness, or suitability for any particular purpose. The information on this map is not intended to replace engineering, financial or primary records research.



While project levees are typically subject to regular inspections by DWR and USACE, the District's section of project levee has not yet undergone regular inspection by either agency. The project levee was relocated in 2006–2007 to allow adequate right-of-way for the parkway to the east, and at that time became part of the project levee system. However, there is still some formal arrangements to be made regarding the transfer of easements, which has stalled the state and federal agencies from beginning regular inspections. Upon finalization of the transfer of easements, the levee will be subject to reporting and inspection requirements.

At present, DWR does not conduct annual inspections on the District that project levees undergo, and the District is not covered in DWR's annual report on levee condition. However, according to Water Code Division 6 Part 9 Section 12989, DWR is directed to "inspect non-project levees of local agencies for the purpose of monitoring and ascertaining the degree of compliance with, or progress toward meeting, standards . . ." The Code does not outline the minimum requirements for when or how often these inspections are to occur. DWR reported that there is no regular schedule for inspection of non-project levees and no plans to implement one in the near term.

In 2005, the District contracted with an engineering firm to conduct a thorough geotechnical evaluation of the District's levees to provide documentation to be removed from the area designated as being within the 100-year floodplain by FEMA. The evaluation found that there is low potential for adverse seepage gradients and very low potential for levee failure due to lateral spread. The report made several recommendations to address the geotechnical conditions of the levees at that time.

The District constantly maintains and upgrades its levees. These activities are financed by the landowner on an as-needed basis.

According to the RD 2126 Emergency Operations Plan, the District performs the following routine preparedness actions:

- Inspect district levees once a week on a routine basis;
- Ongoing and routine baiting and grouting program for ground rodents;
- Ongoing and routine vegetation control program;
- Annual inspection and inventory of District flood fight supplies;
- Ongoing and routine vegetation control program;
- Annual inspection and inventory of District flood fight supplies;
- Semi-annual joint inspection of levees with State inspectors;
- Periodic joint inspection of levees with Federal inspectors; and
- Annual inspection and maintenance of access control gates on levees.

Table 25-2: Reclamation District 2126 Facilities

RD 2126 FACILITIES			
Total Levee Miles (leves)	3.08 (0.81 mile are project levees)	Surface Elevation Crown	N/P
LEVEE MILES BY STANDOUT		LEVEE MILES BY TYPE	
No Standard	0.0	Dry Levee	0.81
HMP Standard	3.08	Urban Levee	0.0
PL 84-99 Standard	3.08	Agricultural Levee	2.27
Bulletin 192-82 Standard	0.0	Other	0.0
FEMA Standard	0.0 Miles		
DISTRICT FACILITIES			
Internal Drainage System Network of agricultural drains		Pump Station(s) 1	
Detention Basins(s) None		Bridges No	
FLOODPLAIN			
FIRM Designation Zone X		Base Flood Elevation 8' (NAVD 88)	
LEVEE INSPECTION PRACTICES			
Routinely for visual observation; Any problems are reviewed by Engineering Consultant.			
LEVEE INSPECTION REPORTS			
		Inspection Rating Not rated by DWR	
LEVEE SEGMENT	DESCRIPTION	CONDITION	
Bear Creek	N/P	N/P	
Mosher Slough	N/P	N/P	
INFRASTRUCTURE NEEDS/DEFICIENCIES			
Notes: NP = Not Provided			

While the Emergency Operations Plan reports semi-annual inspections by the State and periodic inspections by federal inspectors, this does not appear to be the case. The District reported that the most recent state inspection occurred approximately 10 years ago. It is anticipated that regular inspections will begin once the levee easements are finalized.

The District monitors and analyzes water conditions, elevations, and forecasts for waterways affecting district levees throughout the flood season for the purpose of promptly identifying heightened threats to the integrity of its levee systems. The objective of this monitoring effort is to identify conditions that warrant additional actions beyond routine flood season preparedness activities.

The District uses the Venice Island gauge to monitor tidal conditions and use visual reference as information sources in its monitoring effort. The Mossdale gauge (SJ River) and Benson’s Ferry (Mokelumne River) gauges are used as secondary monitoring sources.

The District performs its own regular inspections. As previously reported, DWR and USACE do not perform regular inspections of the District's levees. Flood system challenges identified for RD 2126 include continued placement of riprap to address erosion caused by wave action in the adjacent waterways. Additionally, a permanent power supply for the only pump station on the District is needed.

Since 2011, the District's levees have been designated as meeting FEMA's 100-year flood criteria. The District intends to operate and maintain its levee system through 2018 in a manner that will preserve its FEMA certification, continue to comply with USACE requirements to remain active in the PL 84-99 Program, and improve areas that may require additional improvement. The ultimate goal of the District is to continue to improve and maintain its levee system in order to attain a 200-year level of flood protection. The District has conducted a Five Year Plan to make improvements towards the goal of meeting 200-year flood protection within the District. In a recent discussion with the District engineer the District now meets the 200 flood protection requirement.

DETERMINATIONS

- 25.3.1:** The District operates and maintains approximately 3.08 miles of levees, 0.81 mile of which are project levees.
- 25.3.2:** RD 2126 provides levee maintenance with landowner staff. Inspections of the levees reportedly occur on a weekly basis. If carried out as described, these efforts are considered sufficient for protection of an entirely agricultural area.
- 25.3.3:** The requirements for levee inspections by the DWR are vague for non-project levees, and as such, RD 2126 has not undergone an inspection in at least the last 10 years. Responsibility for the inspections lie with DWR, and the need for a standardized schedule of inspection of non-project levees and making inspection results available to the public would need to be addressed by the State.
- 25.3.4:** Because inspections of the levees have not been carried out by outside agencies, the condition of the District's levees was unable to be corroborated. However, because FEMA designated the area as meeting 100-year flood criteria in 2011, it is inferred that the levees meet at least the minimally acceptable standards. In a recent discussion with the District engineer the District now meets the 200 flood protection requirement.

25.4 - Financial Ability to Provide Services

The District's operations are financed almost entirely by an assessment on the landowner. The only other source of revenue is from interest income. Additional variable sources fluctuate in availability and include funding provided through the Delta Levee Subventions Program, through a joint levee project with DWR, and/or funding provided through state or federal disaster funds in case of a natural disaster.

As reported by RD 2126, the District's benefit assessment is the only consistent and reliable source of funding. The single landowner of the District provides funding as needed. The amount assessed in any given year is variable depending on necessary maintenance and improvements. The primary financial challenge reported by RD 2126 is the administrative burden stemming from compliance with the various regulations and governmental agencies. The District encompasses a small agricultural area, and the many regulatory requirements are a strain on the District.

In FY 14-15, the District had a total of \$86,950 in revenues. In that fiscal year, the District collected \$35,000 in assessments from the property owners. The District's board assesses its fund balance on a

quarterly basis and then requests funds from the property owner if needed. The District also received \$16,748 in revenues from the State for assistance through the Delta Levee Subventions Program. This program provides state financial assistance to local agencies responsible for maintenance of non-project levees in the Sacramento-San Joaquin Delta. In addition, RD 2126 entered into a project funding agreement with DWR for preparation of a five-year plan for the District. Unique to FY 14–15 was income of \$35,155 attributed to proceeds from the disposal of assets. The only other revenue source in FY 14–15 was \$47 from interest income.

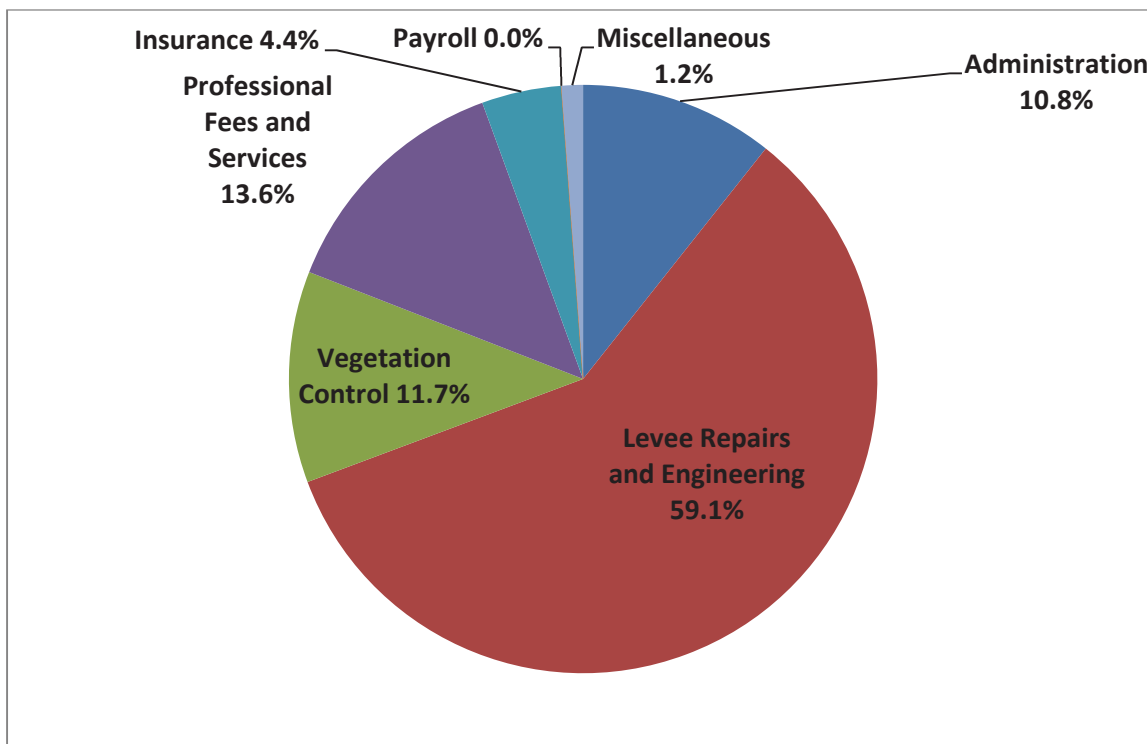
Exhibit 25-2 shows the average allocation of expenses from FY11 to FY15. The District’s expenditures in FY 14–15 totaled \$40,329, and consisted primarily of engineering and levee improvements (\$14,679), legal and accounting services (\$13,249), secretary fees (\$5,050), superintendent services (\$3,165), and insurance (\$2,997). The remaining expenses consisted of equipment repairs and maintenance, office expenses, and storage. Revenues exceeded expenses by \$46,621 in FY 14–15, which substantially increased the District’s fund balance carryover into FY 15–16.

Revenues and expenditures for the last five fiscal years are shown in Table 25-3.

Table 25-3: Reclamation District 2126 Revenues and Expenditures FY11 to FY15

AUDITED FINANCIAL STATEMENTS					
ACCOUNT	FY 10–11	FY 11–12	FY 12–13	FY 13–14	FY 14–15
Total Revenues	\$115,382	\$104,090	\$25,096	\$31,335	\$86,950
Total Expenditures	\$106,049	\$96,742	\$42,447	\$54,599	\$40,329
Revenues over Expenditures	\$9,333	\$7,348	(\$17,351)	(\$23,264)	\$46,621
Fund Balance	\$50,025	\$57,373	\$44,443	\$21,179	\$67,800
Note: Fund balance reported at end of FY 12–13 was originally \$40,022 and then later adjusted to \$44,443 because of a change in accounting basis. Source: RD 2126 Audited Financial Statements					

Exhibit 25-2: Reclamation District 2126 Expense Allocation 2010–2015



Source: RD 2126 Audited Financial Statements

The District annually determines the level of reserves that it desires to maintain. There is no formal policy regarding the level of reserves that must be maintained. At the end of FY 14–15, the District had \$67,800 in unrestricted assets, equivalent to 1.7 years of operating expenditures.

At the end of FY 14–15, the District did not have any long-term debt.

The District’s capital improvements are financed by the RDs annual assessment, reserves, or specific program or assistance funds. RD 2126 has not yet adopted a formal capital improvement plan. The District has conducted a five-year plan, which plans for engineering studies to assess necessary improvements, and will make a plan prioritizing the necessary improvements and find funding after the studies have been completed.

DETERMINATIONS

- 25.4.1:** The District’s operations are financed primarily by the assessment collected from the single landowner. The assessment varies from year to year depending on the levee maintenance needs.
- 25.4.2:** State work agreement and subvention funds have contributed approximately 37 percent of the District’s revenues over the last five fiscal years.
- 25.4.3:** The primary financial challenge reported by RD 2126 is the administrative burden stemming from compliance with the various regulations and governmental agencies. The District encompasses a small agricultural area, and the many regulatory requirements are a strain on the District.

- 25.4.4:** At the end of FY 14–15, RD 2126 had the equivalent to 1.7 years of operating expenditures in its unrestricted reserves. Over the last five fiscal years, the District has been able to maintain a healthy fund balance from year to year to cover contingencies.
- 25.4.5:** While RD 2126 has not yet adopted a formal capital improvement plan, the District is conducting engineering studies to assess necessary improvements, and will determine schedule and funding sources after the studies have been completed.

25.5 - Status and Opportunity for Shared Facilities

Because of the limited scope of RD 2126’s levee system, which surrounds undeveloped agricultural lands, the District has limited options for collaboration with other agencies to improve services or reduce costs. However, as was previously mentioned, one of the District’s collaborative practices includes participation in the Delta Levee Subventions Program.

Mutual aid requests for technical assistance and services, flood fight crews, supplies and materials, and other resources are made through the San Joaquin Operational Area Logistics Section and/or the Operational Area Public Works Mutual Aid Coordinator.

Additionally, the District works with other agencies during flood emergencies. Local, state and/or federal agencies may provide physical or financial emergency flood control assistance. Such agencies may also provide physical and/or financial aid with restoration or rehabilitation of the District’s levees after such emergencies. These agencies include Stockton Police, San Joaquin County Office of Emergency Services, the County Sheriff’s Office, the California DWR, and the State Office of Emergency Services.

The District has partnered in the Lower San Joaquin River Feasibility Study with several other reclamation districts, the U.S. Army Corps of Engineers, the State Central Valley Flood Protection Board, and SJAFCA. The results of the study will help identify needed improvements to meet or exceed the 200 year flood protection level.

RD 2126 practices facility sharing with several other RDs, by renting a storage garage at a storage facility for records retention. While not a facility, but certainly resource sharing, the District makes use of the same legal counsel and engineer as several other RDs in the area.

DETERMINATIONS

- 25.5.1:** RD 2126 works cooperatively with DWR through the Delta Levee Subventions Program.
- 25.5.2:** For emergency response and technical assistance, the District makes requests through the San Joaquin Operational Area Logistics Section and/or the Operational Area Public Works Mutual Aid Coordinator.
- 25.5.3:** RD 2126 shares a storage facility, legal counsel, and engineer with several other RD’s.

25.6 - Government Structure and Accountability

RD 2126 is governed by a three-member Board of Trustees. Because there is a single owner of the property within the District, legal representatives are elected by the landowner to 4-year terms. When the Board falls below a quorum, sufficient trustees to comprise a quorum are appointed by the landowner and confirmed by the Stockton City Council. Upon appointment of a quorum, the two members appoint the third member themselves.

The Board meets quarterly at the A.G. Spanos Corporation office at 10100 Trinity Parkway in Stockton. Agendas are distributed to board members and others by request, and posted on the District’s office door off of Trinity Parkway. Meeting minutes are reportedly distributed to meeting attendees and with meeting agendas. The Board of Trustees details are shown in Table 25-4.

Table 25-4: Reclamation District 2126 Governing Body

BOARD OF TRUSTEES	
Manner of Selection	Elected by the landowner
Length of Term	Four years.
Board Compensation:	None.
Meeting Schedule	1 st Tuesday of January, April, July, October
Meeting Location	A.G. Spanos Corp., 10100 Trinity Parkway, 5 th Floor, Stockton, CA
Agenda Distribution	Agendas are distributed to board members and others by request, and posted on the District’s office door.
Minutes Distribution	Distributed with the meeting agendas.

RD 2126’s Sphere of Influence was established in 1983. LAFCo will have to update a Sphere of Influence for the District following this MSR process.

RD 2126 contracts for services as needed. Contract personnel include secretary, legal, superintendent, and engineering services. The District contracts for maintenance and improvement project personnel, if the projects are beyond the capacity of the landowner’s staff.

The District’s management practices consist of maintaining up-to-date financial records and performing regular financial audits. However, annual budgets or even informal lists of anticipated revenues and expenses are not adopted. The District does submit financial reports to the State Controller and performs an annual audit. The District is in the process of compiling a formal capital improvement plan.

Concerning the District’s governance structure, RD 2126 believes that its existing boundaries are logical and consistent with the levee service area at present. There is reportedly no need at present for a change in the District’s boundaries. It is recommended that a Sphere of Influence representing the need for no changes in the District’s boundaries be adopted for RD 2126 following the completion of this MSR.

DETERMINATIONS

- 25.6.1:** RD 2126 is governed by a three-member Board of Trustees headed by the President of the Board. Because there is a single owner of the property within the District and there are no residents of the property, legal representatives are elected by the landowner to 4-year terms.
- 25.6.2:** The District demonstrated accountability and transparency related to its governance by cooperating with the MSR process and publishing agendas for public meetings as legally required.
- 25.6.3:** RD 2126 contracts for services as needed, including secretarial, legal, superintendent, and engineering services.

- 25.6.4:** The District’s management practices consist of maintaining up-to-date financial records and performing regular financial audits. However, legally required annual formal or informal budgets are not adopted. The District does submit financial reports to the State Controller and performs an annual audit. RD 2126 has not adopted a formal capital improvement plan.
- 25.6.5:** Adopting an annual budget before the beginning of every fiscal year, compiling a formal capital improvement plan, and maintaining an online presence are considered best management practices and are recommended for RD 2126.
- 25.6.6:** RD 2126’s boundaries appear to be appropriate to its service area. No governance structure options were identified.

25.7 - Any Other Matters Related to Effective or Efficient Service Delivery As Required by Commission Policy

San Joaquin LAFCo has not adopted any policies identifying any other matters related to effective or efficient service delivery, and no additional issues have been identified.

DETERMINATIONS

- 25.7.1:** San Joaquin LAFCo has not adopted any policies identifying any other matters related to effective or efficient service delivery, and no additional issues have been identified.

25.8 - Key Findings and Issues

1. There is a general lack of regular inspections of non-project levees by the DWR. RD 2126’s levees were last inspected by the DWR approximately 10 years ago. While RD 2126 levees protect an agricultural area with no residents, the dry land levee protects a subdivision so failure of the other levees could impact the function of the dry land levee, which has the potential to have a fairly significant impact on the residents of the area. Inspection results of non-project levees are not readily available in an annual report format like those of the project levees. To further protect residents when the dry land levee is upgraded the District should consider upgrading to the 200 year flood protection level. While the Water Code requires DWR to conduct inspections of non-project levees, it does not state how often inspections are to occur. There is a need for the State to standardize the inspection process for all non-project levees.
2. The District does not adopt a budget or even a list of anticipated revenues and expenses as required by law. Well-managed public agencies compile and adopt annual budgets as one of the main financial planning tools.
3. RD 2126 does not maintain a website or any other form of online presence. Well-managed and governed agencies share their information and provide public outreach through websites or social media.
4. RD 2126’s Sphere of Influence was established in 1983. A sphere of influence update is long overdue. It is recommended Commission update the sphere and set it as conterminous with District boundaries.
5. The District has partnered in the Lower San Joaquin River Feasibility Study with several other reclamation districts, the U.S. Army Corps of Engineers, the State Central Valley Flood

Protection Board, and SJAFCA. The results of the study will help identify needed improvements to meet or exceed the 200 year flood protection level.

6. The District has expressed concerns about the difficulty and costs to comply with environmental requirements and a Proposition 218 vote to increase assessments.

26: COMPARITIVE ANALYSIS

This section provides a summation and comparative analysis of the 21 reclamation districts (RD) reviewed in this report, including an overall explanation of service configuration amongst and within the districts, an assessment of standard compliance for each of the districts, identification of the capacity of each of the agencies to provide reclamation services, a brief summary of infrastructure needs, and benchmarking of each district's financial strength and ability to finance services.

26.1 - Service Provider Overview

Of the 52 reclamation districts within San Joaquin County, 21 are included for review in this MSR. These 21 RDs are responsible for the improvement, maintenance, and general upkeep of levees. For a brief summary of each district refer to Section 2.4 of this report, and for a more detailed description of the district and the services it provides refer to the respective district's chapter.

The services offered by each RD are shown in Table 26-1. Levee maintenance, vegetation maintenance, weed abatement, vector and rodent control, levee road upkeep and flood control are all self-explanatory services that are focused on the maintenance and upkeep of the levees themselves and are generally provided by most of the reclamation districts. A majority of the districts provide drainage services and levee patrol services, while only three of the districts (RDs 2058, 2062, and 2096) provide irrigation water. RD 2119 is the only RDs that provide ferry operations. Subvention services indicates that the district takes part in the Delta Levee Subventions Program.

The service configuration varies greatly amongst the agencies, with some districts providing the service directly via hired staff and several providing services through agreements with other agencies or private contractors or any combination thereof. Very few of the districts employ staff for services, but instead rely on some combination of contract providers. Many of the districts make use of the same contracting firms and agencies for services, such as engineering and management. Four of the districts (RDs 17, 348, 2058, and 2119) maintain full-time staff to provide services. Four districts (RDs 404, 1608, 1614, and 2096) hire part-time staff to provide services, and the remaining 13 districts do not employ staff, but instead rely entirely on contract providers.

The services provided by the reclamation districts vary depending on several factors, including available funding, mandatory standards of maintenance for the type of levee maintained (project or non-project), location in the Delta (primary or secondary zones), the land use for the property protected, and the value of infrastructure on the protected property. For example, an area that is uninhabited and largely agricultural in use will necessitate lower maintenance standards than a residential subdivision where loss of life is a concern should levee failure occur.

Table 26-1: Reclamation District Service Configuration

DISTRICT	NAME	LEVEE MAINTENANCE	VEGETATION MAINTENANCE	WEED ABATEMENT	VECTOR/RODENT CONTROL	LEVEE ROAD UPKEEP	FLOOD CONTROL	DRAINAGE	IRRIGATION WATER	LEVEE PATROL	FERRY OPERATIONS	SUBVENTION
RD 17	Mossdale	✓	✓	✓	✓	✓	✓	X	X	O	X	O
RD 348	New Hope	O	O	O	O	O	O	O	X	O	X	O
RD 404	Boggs Tract	✓	✓	✓	✓	✓	✓	X	X	☐	X	☐
RD 828	Weber Tract	✓	✓	✓	✓	✓	✓	✓	X	☐	X	Δ
RD 1007	Pico & Nagle	Δ	Δ	Δ	Δ	Δ	X	X	X	☐	X	X
RD 1608	Smith Tract	✓	✓	✓	✓	✓	✓	✓	X	O	X	Δ
RD 1614	Smith Tract	✓	✓	✓	✓	✓	✓	✓	X	Δ	X	Δ
RD 2042	Bishop Tract	✓	✓	✓	✓	✓	✓	✓	X	Δ	X	Δ
RD 2058	Pescadero	O	Δ	O	O	O	O	O	O	O	X	O
RD 2062	Stewart Tract	O	O	O	O	O	O	O	O	☐	X	O
RD 2064	River Junction	Δ	Δ	Δ	✓	Δ	✓	✓	X	O	X	O
RD 2074	Sargent-Barnhart	✓	Δ	Δ	Δ	Δ	✓	X	X	O	X	O
RD 2075	Mc Mullin	✓	✓	✓	✓	✓	✓	✓	X	✓	X	X
RD 2085	Kasson	O	Δ	Δ	Δ	O	O	O	X	O	X	X
RD 2094	Wathal	O	O	O	O	O	O	O	X	O	X	X
RD 2095	Paradise	Δ	Δ	Δ	Δ	Δ	Δ	X	X	Δ	X	X
RD 2096	Wetherbee	✓	O	O	O	O	O	O	O	O	X	X
RD 2107	Mossdale	Δ	Δ	Δ	Δ	Δ	Δ	X	X	Δ	X	X

DISTRICT	NAME	LEEVE MAINTENANCE	VEGETATION MAINTENANCE	WEED ABATEMENT	VECTOR/RODENT CONTROL	LEEVE ROAD UPKEEP	FLOOD CONTROL	DRAINAGE	IRRIGATION WATER	LEEVE PATROL	FERRY OPERATIONS	SUBVENTION
RD 2115	Shima Tract	✓	✓	✓	✓	✓	✓	✓	X	<input type="checkbox"/>	X	✓
RD 2119	Wright-Elmwood	✓	✓	✓	✓	✓	✓	✓	X	O	O	O
RD 2126	Atlas Tract	✓	✓	✓	✓	✓	✓	✓	X	Δ	X	Δ

✓ Service provided by the district and various contractors
 X Service not provided
 Service provided by the district with assistance from other public agencies
 Δ Service is provided by a contractor
 O Service is provided by the district

The type of land use and population protected by each RD is shown in Table 26-2. As shown, six districts serve entirely agricultural land uses with minimal residents, seven districts serve urban and residential land uses with higher density development, and eight of the districts serve mixed use areas, but which are predominantly agricultural in use.

Table 26-2: Protected Land Use and Population (2015), by District

DISTRICT	NAME	PROTECTED LAND USES	POPULATION 2015	POPULATION 2045
RD 17	Mossdale	Mixed use - urban and ag.	43,500	66,092
RD 348	New Hope	Primarily agricultural with some urban	1,400	1,731
RD 404	Boggs Tract	Urban	15,026	15,410
RD 828	Weber Tract	Urban	6,203	~6,200
RD 1007	Pico & Nagle	Primarily agricultural with some urban	~400	410
RD 1608	Lincoln Village West	Urban	8,926	~8,900
RD 1614	Smith Tract	Urban	14,730	~14,700
RD 2042	Bishop Tract	Urban	5,000	7,477
RD 2058	Pescadero	Primarily agricultural with some urban	~5,000	5,128
RD 2062	Stewart Tract	Mixed use - urban and ag.	~600	25,489
RD 2064	River Junction	Primarily agricultural with some urban	523	536
RD 2074	Sargent-Barnhart	Urban	8,617	~8,600
RD 2075	Mc Mullin	Agricultural	~100	~102
RD 2085	Kasson	Primarily agricultural with some residential	860	860
RD 2094	Wathal	Agricultural	40	40
RD 2095	Paradise	Primarily agricultural and institutional	4,033	4,133
RD 2096	Wetherbee	Residential	~350	~543
RD 2107	Mossdale	Agricultural	14	14
RD 2115	Shima Tract	Agricultural	20	21,152
RD 2119	Wright-Elmwood	Agricultural	<10	<10
RD 2126	Atlas Tract	Agricultural	0	42,000

Some of the levees in the Delta are known as project levees, built by the federal government and turned over to the State for maintenance as part of the state plan of flood control. Project levees are part of the Federal Flood Control Project and are built to higher standards that comply with USACE guidelines. Most Delta levees, however, are non-project levees built privately and maintained by local RDs. Over half the approximately 980 miles of levees currently being maintained within the Delta are in San Joaquin County. Fewer than 30 percent of the project levees, but over 70 percent of the non-project levees, are located in the County. The non-project levees are the focus of most concerns about Delta levee integrity. Exhibit

26-1 provides a breakdown of each district's levees by project and non-project levees. Eight of the districts maintain only non-project levees, while seven districts maintain only project levees. The remaining districts maintain a combination of project and non-project levees.

26.2 - Disadvantaged Unincorporated Communities

The term "Disadvantaged Unincorporated Community" was broadly defined by the legislation as inhabited territory, as defined by § 56046, or as determined by commission policy, that constitutes all or a portion of a "disadvantaged community" as defined by § 79505.5 of the Water Code. A disadvantaged unincorporated community (DUC) consists of at least 10 dwelling units with at least 12 registered voters in a fringe, island, or legacy community in which the median household income (MHI) is 80 percent or less of the statewide MHI. According to the U.S. Census Bureau, 2015 American Community Survey 1-Year Estimates, the MHI in California in 2015 was \$64,500. Therefore, a DUC in San Joaquin County would have an MHI of \$51,600 or less.

It further defines an unincorporated fringe community as any inhabited and unincorporated territory that is within a city's Sphere of Influence. An unincorporated island community is defined as 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. An unincorporated legacy community means a geographically isolated community that is inhabited and has existed for at least 50 years.

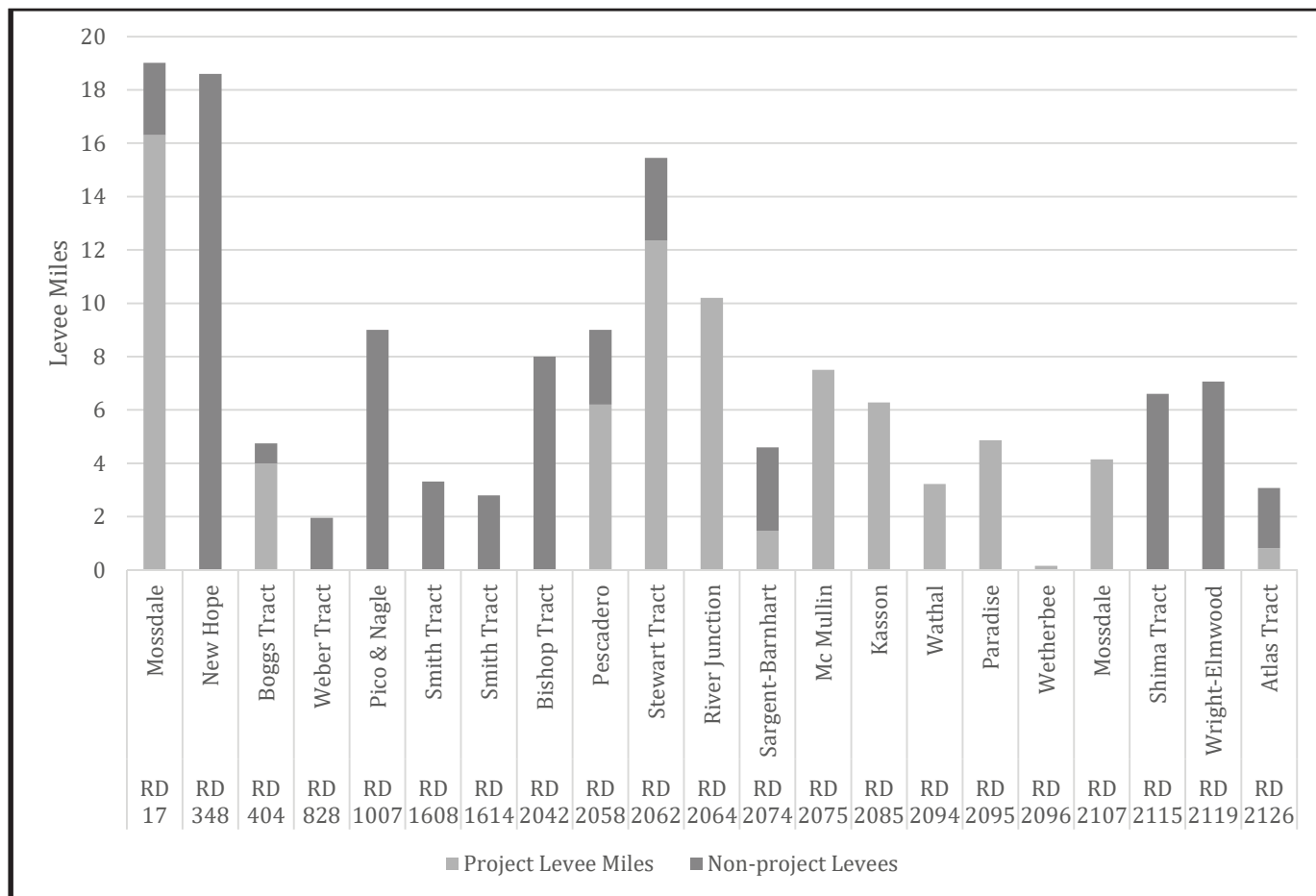
For the most part there are no disadvantaged communities in the 21 districts primarily because many are in incorporated areas or the MHI exceeds the threshold. However, there are three, in RD 348 the town of Thornton meets the criteria; in RD 404 there is an unincorporated island; and in RD 1614 there are two.

Thornton receives fire protection from the Thornton Rural Fire Protection District and water from CSA 12. Most residents are on septic systems, however the San Joaquin County Housing Authority provides wastewater services to approximately 30% of the residents. In RD 404 the San Joaquin County Housing Authority provides wastewater services to approximately 30% of the residents.

RD 404 is mostly within the City of Stockton, however it includes an unincorporated island with a median household income that qualifies as a DUC. The island receives water from Cal Water a private company and fire protection from the Boggs Fire Protection District which has a contract with the Stockton Fire Department. There is no sewer service so residents are on septic systems.

In RD 1614 there are two communities (the entirety of Census Tract 11.02 and a portion of Census Tract 10) within RD 1614 that are considered disadvantaged for LAFCo purposes. The unincorporated area lies within the Country Club Fire District, which is served by the Stockton Fire Department. Water is provided by Cal Water and sewer service by Pacific Gardens Sanitary District.

Exhibit 26-1: Project and Non-project Levees



26.3 - Service Capacity and Infrastructure Needs and Deficiencies

Compliance

Project levees are subject to USACE certification and inspection. In addition, they are subject to AB 156 inspection and reporting requirements. For those districts with stretches of levees with different standards, compliance for each standard was assessed. Compliance for each district is shown in Table 26-3. The table also shows the percentage of expenses that go toward levee maintenance. The value is a five year average that includes maintenance, vegetation and rodent control, as well as engineering since repairs often require some engineering analysis.

As shown in the table, two districts (RDs 1007, and 2115) have stretches of levees totaling up to 11 miles that are not meeting the minimum HMP standards. RD 1007 does not meet HMP standards because there is no passable levee road to allow for inspection around the entire system. This means should these levees fail, then the district will not be eligible for federal disaster assistance. All of these districts have prioritized improvements to the levees, as funding allows, to facilitate meeting HMP standards at a minimum for all levees.

Five districts’ levees (RDs 17, 1608, 2042, 2096, and 2126) are certified as providing protection against 100-year flood events, while three districts (RDs 404, 828, and 1614) are working to regain this

designation. Once the flood gate to address non-compliance issues on the Smith Canal levees is completed in 2018-2019, it is anticipated that RDs 828 and 1614 will regain their accreditation.

Four districts (RDs 404, 2064, 2075, and 2095) received Unacceptable ratings in the DWR assessment in 2016, which indicates a struggle meeting standards. Concerns cited in the DWR reports were seepage, erosion, and vegetation. It should be noted that two districts (RDs 404 and 2095) went from Acceptable and Minimally Acceptable ratings in 2015 to Unacceptable ratings in 2016, and so had, until recently, been in compliance with standards. In 2017 RD 17, RD 2064, RD 2075, and RD 2095 improved to Acceptable ratings.

Some districts face issues of balancing environmental requirements, levee standards, and costs. For example, RD 2058 is working to address vegetation concerns while at the same time meeting USFWS habitat guidelines. Negotiations for a mitigated management plan are currently underway. It is anticipated that future allowable maintenance practices will pose an increased financial burden on the District.

As previously mentioned, it is challenging to determine compliance of non-project levees to the associated standards, due to the dearth of recent inspection results from a regulatory agency. Non-project levees do not take part in the annual DWR inspections that project levees undergo, and the districts are not covered in DWR's annual report on levee condition. However, according to Water Code Division 6 Part 9 Section 12989, DWR is directed to "inspect non-project levees of local agencies for the purpose of monitoring and ascertaining the degree of compliance with, or progress toward meeting, standards . . ." The Code does not outline the minimum requirements for when or how often these inspections are to occur. DWR reported that there is no regular schedule for inspection of non-project levees and no plans to implement one in the near term.

The requirements for levee inspections by the DWR are vague for non-project levees, and as such, most districts with only non-project levees have not undergone an inspection in at least the last 10 years. Responsibility for the inspections lie with DWR, and the need for a standardized schedule of inspection of non-project levees and making inspection results available to the public would need to be addressed by the State.

AB 156 inspection and reporting requirements. Project levees are inspected four times a year including by USACE. Under AB 156, the districts must report the condition of levees to the DWR, which compiles an annual report. Non-project levees are not required by law to be maintained to any particular standard. However, there are several standards that the levees in the Delta must meet in order to remain eligible for certain state and federal disaster assistance programs. These include the HMP criteria and PL 84-99 standard for agricultural levees. Due to the less frequent and irregular inspections of non-project levees, it is difficult to gauge an RD's compliance with certain levee standards at any specific time. For the purposes of this report, levee standard compliance is based on each district's most recent available DWR levee rating (where an Acceptable (A) or Minimally Acceptable (M) rating is considered compliance and an Unacceptable (U) rating is partial or non-compliance with the standard in question) or a change in FEMA overall flood level.

Table 26-3: Compliance by Levee Standard

DISTRICT	NAME	PROJECT LEVEE RATING 2016	HIMP	PL 84-99	192-82	FEMA	% OF EXPENSES FOR MAINTENANCE
RD 17	Mossdale	A				F	21
RD 348	New Hope		F	P			82
RD 404	Boggs Tract	U	F			F	88
RD 828	Weber Tract					F	34
RD 1007	Pico & Nagle		N	N	N	N	57
RD 1608	Smith Tract					F	56
RD 1614	Smith Tract					F	28
RD 2042	Bishop Tract					F	17
RD 2058	Pescadero	U	F	P	P		26
RD 2062	Stewart Tract	M		F			43
RD 2064	River Junction	A	F				53
RD 2074	Sargent-Barnhart			F			71
RD 2075	Mc Mullin	A		P			50
RD 2085	Kasson	M		F			56
RD 2094	Wathal	A		F			0
RD 2095	Paradise	A		P			66
RD 2096	Wetherbee	A	P	F		F	23
RD 2107	Mossdale	A		F			55
RD 2115	Shima Tract		F	P			67
RD 2119	Wright-Elmwood		F	P			33
RD 2126	Atlas Tract		F	F		F	71

Notes:

A= acceptable M=moderately acceptable U= unacceptable
 F= full compliance P=partial compliance N= non-compliance

Senate Bill 5 (SB 5)

Future development and growth of the Delta is substantially affected by Senate Bill (SB) 5 that applies to all areas within the FEMA 500-year and 100-year floodplains. It requires cities and counties to establish substantial evidence that certain development and projects are protected from a 200-year flood event before approval can be granted. The requirements for substantial evidence are provided in the Urban Levee Design Criteria (ULDC) and the Urban Level of Protection (ULOP) documents developed by DWR. This also applies to in-fill development.

The burden of enforcement of the SB 5 requirement is on the land use authorities (cities and counties) not the reclamation districts. Table 26-4 shows the land use authority that has jurisdiction within each of the reviewed districts. Some of the districts, such as RD 17, encompass land within multiple municipalities.

Table 26-4: Reclamation District Associated Land Use Authority

DISTRICT	NAME	LAND USE AUTHORITY				
		STOCKTON	LATHROP	MANTECA	TRACY	COUNTY
RD 17	Mossdale	✓	✓	✓		✓
RD 348	New Hope					✓
RD 404	Boggs Tract	✓				✓
RD 828	Weber Tract	✓				
RD 1007	Pico & Nagle				✓	✓
RD 1608	Smith Tract	✓				✓
RD 1614	Smith Tract	✓				✓
RD 2042	Bishop Tract	✓				
RD 2058	Pescadero				✓	✓
RD 2062	Stewart Tract		✓			
RD 2064	River Junction			✓		✓
RD 2074	Sargent-Barnhart	✓				
RD 2075	Mc Mullin					✓
RD 2085	Kasson			✓		✓
RD 2094	Wathal			✓		✓
RD 2095	Paradise					✓
RD 2096	Wetherbee			✓		✓
RD 2107	Mossdale		✓			✓
RD 2115	Shima Tract	✓				
RD 2119	Wright-Elmwood	✓				✓
RD 2126	Atlas Tract	✓				

A number of local agencies, including several reclamation districts that are part of this review, are working with the U.S. Army Corps of Engineers on the Lower San Joaquin River Feasibility Study. The study is a multi-year \$10 million study that will help determine improvements needed to reach or exceed the 200-year level of flood protection. The Lower San Joaquin Feasibility Study will reach the part of San Joaquin County along the San Joaquin River up to and through Stockton including the Lodi Waste Water Treatment Plant. In addition the study includes the watersheds east of Stockton and covers nearly 140 miles of levees.

Several districts may be required to meet the 200 year flood protection requirement because of anticipated development or development that is in progress. Table 26-5 shows the status of these districts toward meeting that goal.

Table 26-5: Status of Districts Meeting 200 Year Flood Protection

DISTRICT	STATUS
RD 17	In progress have \$2M ULDC grant working with Manteca and Lathrop
RD 404	Fully built out - RD 404 is trying to get 100 year certification and is not addressing the 200 year standard at this time. The City of Stockton should assist.
RD 828	Fully built out - working on Smith Floodgate when complete will offer 200 yr protection
RD 1007	Trying to meet HMP standard, not addressing 200 year protection. City of Tracy should assist.
RD 1608	Fully built out affords 100 year flood protection but has no present plans to address the 200 year protection
RD 1614	Fully built out - working on Smith Floodgate when complete will offer 200 year protection
RD 2042	Conducting an engineering study to determine capital improvement projects needed to comply.
RD 2058	Focusing on bringing project levees to required standards and planning for 200 year protection
RD 2062	River Islands Development in process - will be accredited for 200 year protection
RD 2074	Meets or exceed PI 84-99 standards. Most levees meet or exceed 200 year protection. Only 1500 lineal feet will need to be upgraded. Upgrade is in 5 year plan.
RD 2115	Rural district - Grupe is looking to develop if they do they will meet 200 year protection requirement as part of development plan
RD 2126	Meets 200 year protection
Source: Neudeck 2017, Pritchard 2017, Siegfried Engineering 2012	

DWR developed the ULOP criteria to assist affected cities and counties within the Sacramento-San Joaquin Valley in making the findings related to an urban level of flood protection before approving certain land use entitlements in accordance with the 2007 California Flood Legislation. ULOP does not require levy improvements to withstand 200-year flood; ULOP can be accomplished through four mechanisms:

- That the flood management systems are in place that protect the property to the urban level of flood protection;

- That conditions imposed by the local community on a property, development project, or subdivision are sufficient to protect the property to the urban level of flood protection;
- That the LFMA has made “Adequate Progress” on the construction of a flood protection system that will provide the necessary urban level of flood protection for the location of the proposed development; or
- That property in an undetermined risk area has met the urban level of flood protection based on substantial evidence in the record.

Municipalities subject to SB 5 had until July 2, 2015 to incorporate its requirements into their General Plan and had until July 2, 2016 to adjust local zoning regulations. Thus, in July 2016, areas that had not achieved compliance with SB 5 requirements would essentially be banned from permitting new development or issuing discretionary permits that would significantly change or intensify the use of existing structures. SB 5 does not specify any review, approval, or enforcement authority by any State agency, but instead relies on the due diligence of cities and counties to incorporate flood risk considerations into floodplain management and planning in compliance with the general plan amendment requirements (Government Code §65302.9). Once local general plan and zoning amendments to achieve consistency with SB 5 have been completed, other provisions in SB 5 become effective, such as provisions relating to certain land use decisions and required findings that the land use decisions satisfy an Urban Level of Flood Protection or the national FEMA standard for flood protection.

After July 2016, SB 5 substantially limits the ability of urban communities to approve development projects (residential), unless 200-year flood protection has been provided, or the community is making adequate progress toward achieving 200-year flood protection. All of the land use authorities with territory in the RDs reviewed here, consisting of the cities of Stockton, Lathrop, Manteca, and Tracy and San Joaquin County, have complied with the General Plan and zoning amendment requirements as outlined in SB 5.

The Urban Level of Flood Protection Criteria document requires, prior to development approval, the presentation of substantial evidence to support a finding of “adequate progress” on the construction of a flood protection system that will result in providing an urban level of flood protection to an urban area. Such a finding by a local agency shall be based, at a minimum, on the following:

1. A report prepared by the local flood management agency demonstrating adequate progress as defined in California Government Code §65007(a).
2. A report prepared by a professional civil engineer registered in California to document the data and analyses for demonstrating the property, development project, or subdivision will have an urban level of flood protection at the time when the flood protection system is completed.
3. A report by an Independent Panel of Experts on the review of the report prepared by the Professional Civil Engineer.
4. A response by the Professional Civil Engineer to the comments from the Independent Panel of Experts.
5. The most recent annual report prepared by the local flood management agency that was submitted to the Central Valley Flood Protection Board documenting the efforts in working toward completion of the flood protection system.

6. Any additional data and information that cities or counties use to make the finding.

California Government Code §65007(a) defines adequate progress as all of the following:

- (1) The total project scope, schedule, and cost of the completed flood protection system have been developed to meet the appropriate standard of protection.
- (2) (A) Revenues that are sufficient to fund each year of the project schedule developed in paragraph (1) have been identified and, in any given year and consistent with that schedule, at least 90 percent of the revenues scheduled to be received by that year have been appropriated and are currently being expended.

(B) Notwithstanding subparagraph (A), for any year in which state funding is not appropriated consistent with an agreement between a state agency and a local flood management agency, the Central Valley Flood Protection Board may find that the local flood management agency is making adequate progress in working toward the completion of the flood protection system.
- (3) Critical features of the flood protection system are under construction, and each critical feature is progressing as indicated by the actual expenditure of the construction budget funds.
- (4) The city or county has not been responsible for a significant delay in the completion of the system.
- (5) The local flood management agency shall provide the Department of Water Resources and the Central Valley Flood Protection Board with the information specified in this subdivision sufficient to determine substantial completion of the required flood protection. The local flood management agency shall annually report to the Central Valley Flood Protection Board on the efforts in working toward completion of the flood protection system.

The first Adequate Progress Report by the local flood management agency and the associated finding by the city is due to DWR and the CVFPB by July 1, 2016, with a progress report due annually thereafter.

A 200-year floodplain map has been developed for the City of Stockton area that shows the anticipated depth of flooding throughout the Stockton metropolitan area; it includes a significant portion of the western side of the City near Interstate 5 and some areas in the central and eastern side of the City that would experience flooding during a 200-year flood event. The City of Stockton adopted changes to its General Plan in June 2015. Building and zoning code changes became applicable to all permits issued after July 2, 2016. These changes include increased building setbacks for flood fighting along levees and requirements to elevate buildings above the floodplain or use flood resistant building materials for development in areas identified as flood hazard zones on federal flood maps, while streamlining the process of making specific findings for development of residential and commercial land uses. As the City does not have imminent plans to develop in the areas inside the 200-year flood plain, it has not moved forward with making findings of adequate progress. While Stockton is part of the MOU to increase flood protection levels in the RD 17 Basin, the Cities of Lathrop and Manteca have spearheaded this effort as discussed below. The City of Stockton is participating in the Lower San Joaquin River Feasibility Study which will help determine

needed improvements for future flood protection systems in an effort to reach or exceed the future 200-year level of flood protection.

The City of Lathrop is working in conjunction with the City of Manteca to meet SB 5 requirements. The two cities conducted flood mapping efforts together and are jointly planning for needs in areas of mutual concern. Most of the City of Lathrop is exposed to potential flooding from the San Joaquin River, and from Old River and Paradise Cut, which surround Stewart Tract. Existing 100-year flood protection is provided to much of this area by levees certified by FEMA; the levees are maintained by RDs 17, 2062 and 2107. RDs 17 and 2062 provide flood protection to urban and urbanizing portions of Lathrop. RD 17 also provides flood protection in portions of Manteca immediately adjacent to Lathrop and an area of the City of Stockton. The cities and the County are jointly seeking protection from 200-year flooding by 2025 for the area in the RD 17 Basin through an MOU and joint planning efforts. RD 2062 is independently pursuing 200-year flood protection for Stewart Tract, initially for Phase 1 of the River Islands project, which is under construction. The City of Lathrop amended its General Plan in June 2015 to meet SB 5 requirements, and a final report demonstrating “adequate progress” in the RD 17 Basin was finalized in June 2016. Also in 2016, the City of Lathrop came to an “adequate progress” finding for the River Islands Stage 1 Area (a subsection of the River Islands master planned community) within RD 2062. And in 2017, came to another finding of adequate progress for the entirety of the River Islands Phase 1 Area. The City will be required to come to another finding of adequate progress to move forward with future development of River Islands Phase 2.

Based on the City of Manteca’s 200-year composite floodplain map, a majority of the City is outside of the 200-year floodplain, with the exception of the area in the southwest of the City within the RD 17 Basin. As mentioned, the City is working with the City of Lathrop and RD 17 to provide urban levels of flood protection in that area. The City of Manteca amended its General Plan and zoning on June 21, 2016 to meet SB 5 requirements, and a final report demonstrating “adequate progress” in the RD 17 Basin was finalized in June 2016.

A majority of the City of Tracy is located outside of the 200-year floodplain and as such is not substantially affected by the SB 5 requirements. The only areas that are within the 200-year flood plain are the very northern portion of the city limits and the northern portion of the City’s SOI and a small area to the south of the City. The 2011 General Plan anticipated the changes to State law, and it included a brief discussion related to the provisions of SB 5. In 2016, the City adopted edits to its General Plan and simultaneously adjusted zoning regulations to address SB 5 requirements. The City of Tracy is in compliance with this particular requirement of SB 5. The City is not in the process of making any further findings regarding SB 5 as there is no proposed development in the 200-year floodplain at present. As future development is considered, the City will make its findings for individual or groups of new development projects based on studies or assessments that will be required to be provided by the project proponents.

A majority of San Joaquin County to the east of Interstate 5 and north of Interstate 205 lies within a 100-year floodplain. The County reported that it has been working in conjunction with SJAFCA to develop a strategy to meet SB 5 requirements. This includes a long-term strategy aimed at providing 200-year level of flood protection for the urban areas of the County, as well as a short-term strategy that addresses permitting of development projects in accordance with SB 5 requirements. As part of this strategy, the County is working to identify its roles and responsibilities for implementation. The County incorporated State requirements for SB 5 in its recent General Plan Update and developed 200-year floodplain maps for the Stockton metropolitan area. Although the County incorporated SB 5 content in its General Plan Policy Document, the County identified a continued need to complete General Plan and zoning code

updates to meet additional requirements of SB 5. The County is part of the MOU with RD 17 and the Cities of Lathrop, Stockton, and Manteca to provide increased flood protection for the RD 17 Basin.

Infrastructure Needs and Deficiencies

As demonstrated by non-compliance with relevant levee standards by some of the districts, as well as the desire by several districts to attain a higher levee standard, there are significant capital needs and plans for improvements in the San Joaquin Delta levee system. Specific levee needs and deficiencies were identified over the course of this review via self-reporting by the districts, capital improvement plans or five-year plans, and inspection reports carried out by the respective regulatory agency. Table 26-5 summarizes the infrastructure needs of each district. For more detail on the needs of a specific district, refer to its respective chapter.

Table 26-6: Infrastructure Needs by District

DISTRICT	NAME	INFRASTRUCTURE NEEDS
RD 17	Mossdale	100-year seepage repair project consists of three phases and currently under way. Some of the key issues for the District are erosion repair and encroachment enforcement.
RD 348	New Hope	The District’s main concern is to improving levees to meet the PL 84-99 standard to prevent overtopping. The District has been approved to start work on the South Fork Mokelumne Setback project. They will begin permitting and design this year and hope to begin construction in 2019.
RD 404	Boggs Tract	The main deficiencies identified were vegetation and animal control. RD 404 reported that encroachment enforcement also remained an ongoing process. The District is working to meet FEMA 100-year protection status.
RD 828	Weber Tract	Flood gate to address non-compliance issues is to be constructed by 2018-2019.
RD 1007	Pico & Nagle	Some slopes on the river side of the levee have eroded and are in need of repair. The upgrade of the levee road will allow for improved inspection and maintenance of the levee.
RD 1608	Smith Tract	None identified.
RD 1614	Smith Tract	The pump station needs to be replaced. Flood gate to address non-compliance issues is to be constructed by 2018-2019.
RD 2042	Bishop Tract	The District has set a goal of achieving the 200-year level of flood protection by upgrading levees.
RD 2058	Pescadero	Scattered sections with serious seepage problems, totaling 1 mile of the 6.58 miles, and an area of erosion at mile 4.77. The District is working to address vegetation concerns while at the same time meeting USFWS requirements. The District’s capital improvement plan outlines plans to meet HMP standards on all levees when funding is available.
RD 2062	Stewart Tract	The 2016 inspection found several areas of serious erosion and one area of serious seepage.
RD 2064	River Junction	The DWR inspection recommended that the District should focus more on controlling vegetation to maintain visibility and access.
RD 2074	Sargent-Barnhart	The District identified ongoing maintenance and erosion prevention as its most significant needs. In addition, the District would like to achieve 200-year FEMA compliance.
RD 2075	Mc Mullin	Generally moderate risk of failure due in most part to seepage and erosion

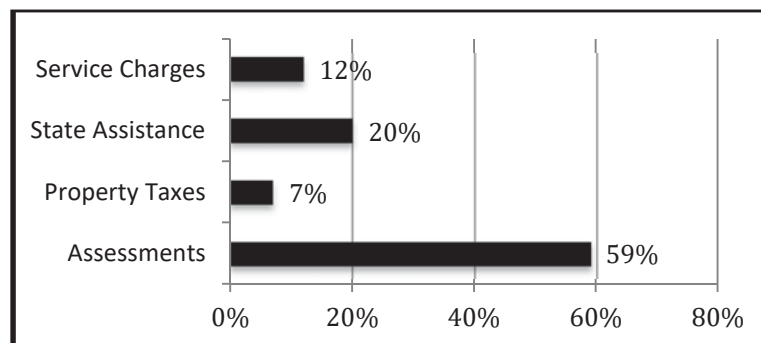
DISTRICT	NAME	INFRASTRUCTURE NEEDS
		concerns. The 2016 inspection of the condition of the levees found several areas of serious seepage, resulting in an unacceptable rating. Many of the levees are too narrow to facilitate all-weather access, and have steep slopes.
RD 2085	Kasson	There appear to be issues with erosion and seepage in the levee that the District is working to address.
RD 2094	Wathal	None identified.
RD 2095	Paradise	The DWR inspection found vegetation that significantly impacts access and visibility and that there are several areas of erosion along the San Joaquin River. DWR recommended the District should focus on controlling vegetation and repairing erosion sites.
RD 2096	Wetherbee	None identified.
RD 2107	Mossdale	The 2016 inspection identified a couple areas where seepage was critical or severe.
RD 2115	Shima Tract	Based on the 2007 inspection results, the District's levees are in need of substantial improvements to meet the desired protection level. The District is in the process of a levee rehabilitation project to ensure that all levees met the minimum HMP criteria.
RD 2119	Wright-Elmwood	All the Districts levees now meet HMP standards. The district is striving to meet 192-82 standards.
RD 2126	Atlas Tract	Levee needs include continued placement of riprap to address erosion caused by wave action in the adjacent waterways. Additionally, a permanent power supply for the only pump station on the District is needed. The ultimate goal of the District is to continue to improve and maintain its levee system in order to attain a 200-year level of flood protection.

26.4 - Financial Ability to Provide Services

Financing Sources

Operations of San Joaquin reclamation districts are financed for the most part only by a few funding sources that consist of benefit assessments, property taxes, and assistance from the State of California, with assessments being by far the largest funding source, as shown in Exhibit 26-2.

Exhibit 26-2: Main Revenue Sources, FY 14-15



Only seven districts out of 21 reviewed collect property tax income, as shown in Table 26-6. Out of all the reviewed districts only three collect service charges, including RDs 2058, 2064, and 2074. RDs

2058 and 2064 charge their district' residents for the provision of irrigation services; RD 2074 assesses fees and charges for benefits and services rendered in lieu of ad valorem assessments as permitted by the California Water Code. Other minor funding sources that constitute the remaining two percent of the collective revenues include interest income, homeowner's tax relief, and other miscellaneous sources.

Table 26-7: Main Revenue Sources by District, FY 14-15

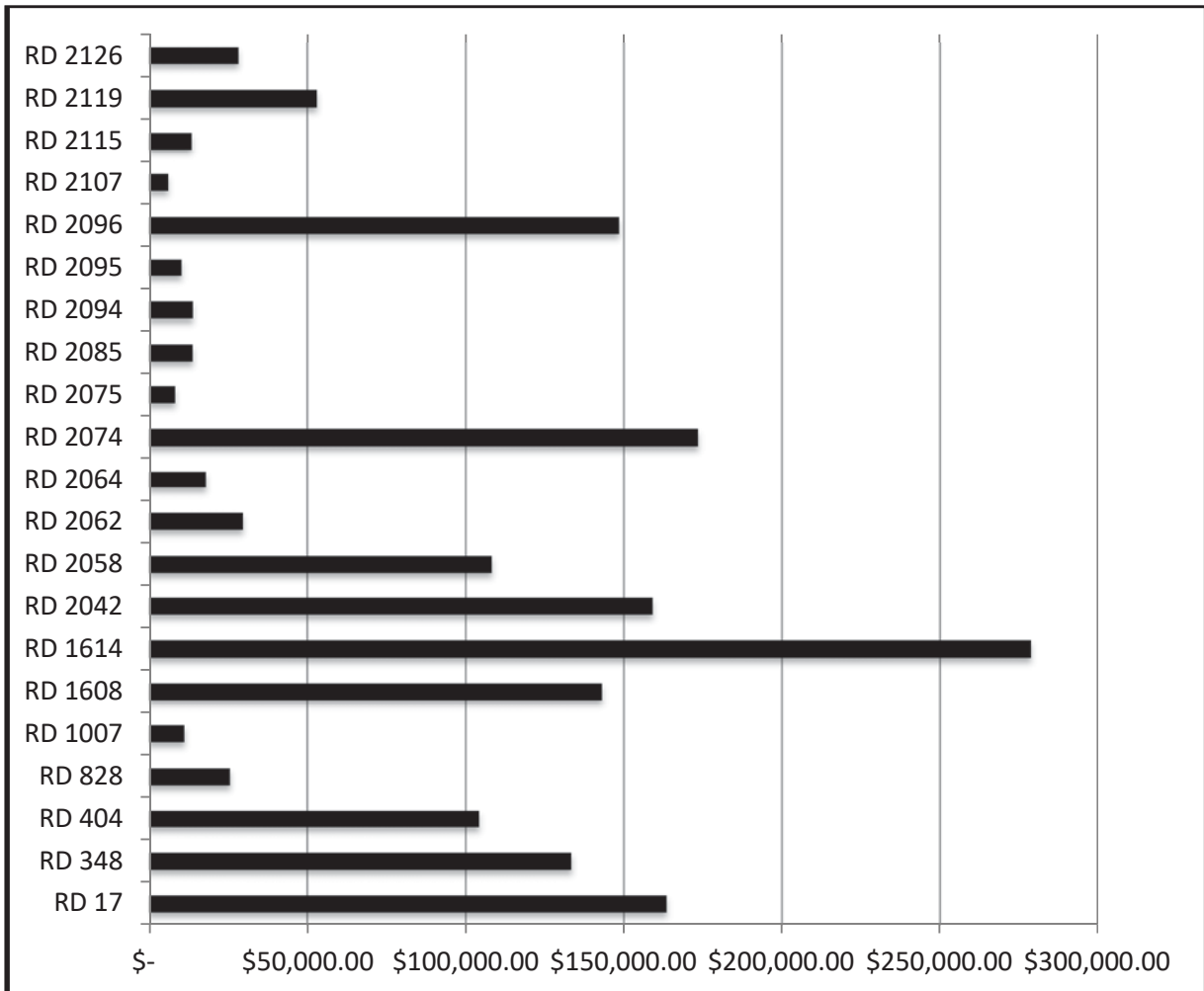
DISTRICT	NAME	ASSESSMENTS	PROPERTY TAXES	STATE ASSISTANCE	SERVICE CHARGES
RD 17	Mossdale	91%	8%	—	—
RD 348	New Hope	17%	2%	80%	—
RD 404	Boggs Tract	95%	3%	1%	—
RD 828	Weber Tract	97%	—	—	—
RD 1007	Pico & Nagle	100%	—	—	—
RD 1608	Smith Tract	61%	38%	—	—
RD 1614	Smith Tract	61%	14%	24%	—
RD 2042	Bishop Tract	96%	—	—	—
RD 2058	Pescadero	29%	—	1%	69%
RD 2062	Stewart Tract	99%	—	—	—
RD 2064	River Junction	58%	—	—	42%
RD 2074	Sargent-Bar	—	—	16%	83%
RD 2075	Mc Mullin	100%	—	—	—
RD 2085	Kasson	100%	—	—	—
RD 2094	Wethall*	100%	—	—	—
RD 2095	Paradise	99%	—	—	—
RD 2096	Wetherbee	—	98%	—	—
RD 2107	Mossdale	100%	—	—	—
RD 2115	Shima Tract	70%	—	29%	—
RD 2119	Wright-Elmwood	—	81%	19%	—
RD 2126	Atlas Tract	40%	—	19%	—

As is seen in Exhibit 26-3, the amount of revenue per levee mile varies greatly between the 21 reviewed districts. The revenue per levee mile ratio for RD 2064 was estimated by dividing the District's governmental activities revenue, which excludes enterprise activities revenue, by the total number of levee miles. The revenue for FY 14-15 for RD 2094 was estimated by averaging the total revenue collected in FY 16-17 over five years.

The obvious outlier is RD 1614 with revenue of nearly \$300,000 per mile of levee. Unlike many other districts, RD 1614 collected funding from all three main revenue types in FY 14-15: assessments, property taxes, and state assistance. State assistance, however, is an inconsistent income source. For instance, RD

1614 received \$189,102 in subvention funds in FY 14-15, but none in the previous two fiscal years. On the other side of the spectrum is RD 2107 that collected the lowest amount of income per levee mile in FY 14-15, or about \$6,000 per levee mile. Although RD 2107 participates in State assistance programs, it received no income from this source in FY 14-15. By contrast, RD 2075, which also received a fairly low amount of revenue per levee mile in FY 14-15, does not participate in State assistance programs, thus its revenue stream is fairly consistent from year to year.

Exhibit 26-3: Revenue per Levee Mile, FY 14-15



Assistance Programs

As was already mentioned, one of the most significant sources of income for San Joaquin County reclamation districts is assistance from the State of California. The assistance is generally provided by way of two main programs—the Delta Levee Subvention and the Delta Levee Special Flood Control Projects—which provide financial assistance to local levee maintenance agencies for the maintenance and rehabilitation of non-project levees. About half of the reviewed districts participate in one or both programs. Those that do not are generally not eligible for participation (i.e., do not have any non-project levees) or are not able to come up with the required matching funding. While the emphasis of the subvention program is to fund projects that preserve or maintain the existing status of a levee, the primary purpose of the special projects program is to fund levee projects that increase the level of protection. For additional details on the two programs refer to Section 4.3 of this report.

Table 26-8: State Assistance, FY 12-13 to FY 14-15

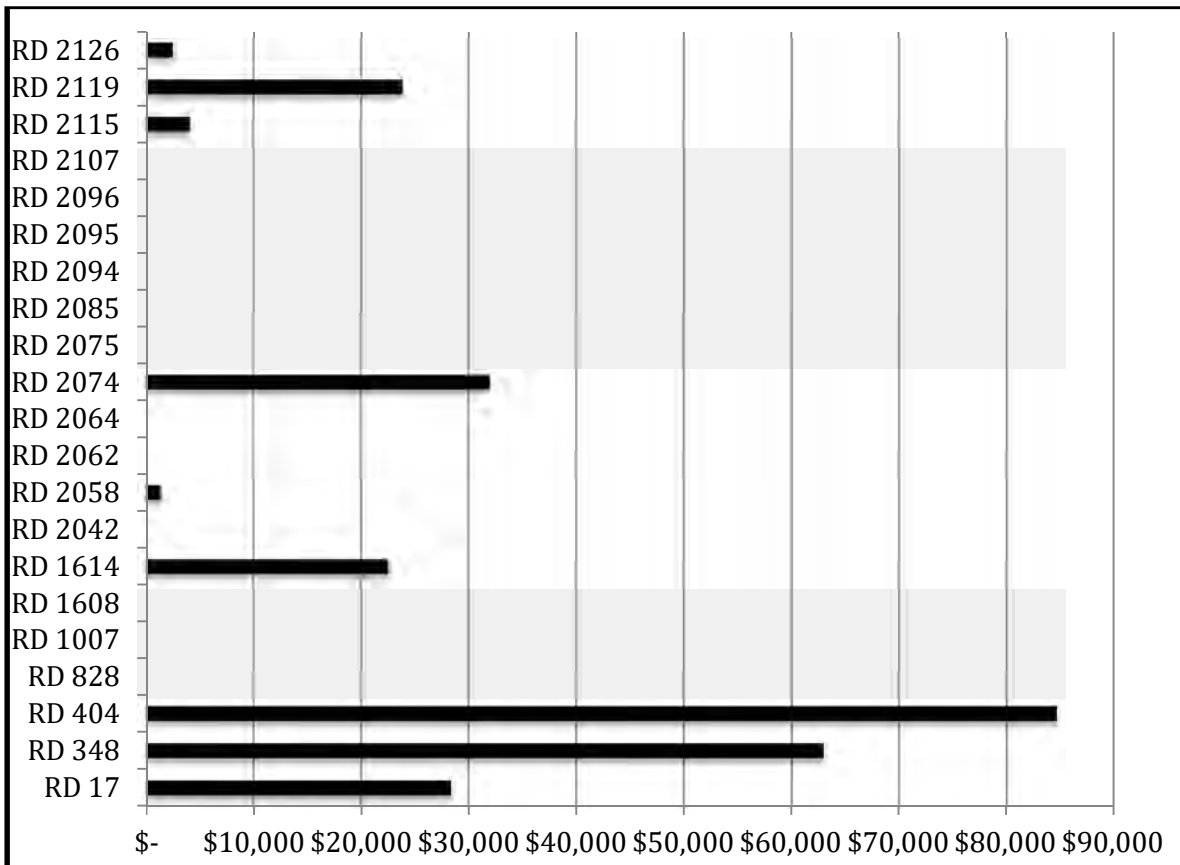
DISTRICT	NAME	PARTICIPATE?	STATE ASSISTANCE		
			FY12-13	FY13-14	FY14-15
RD 17	Mossdale	No	-	\$1,617,235	-
RD 348	New Hope	Yes	\$518,511	\$1,006,888	\$1,989,241
RD 404	Boggs Tract	Yes	-	\$1,200,007	\$6,509
RD 828	Weber Tract	Yes	-	-	-
RD 1007	Pico & Nagle	No	-	-	-
RD 1608	Smith Tract	Yes	-	-	-
RD 1614	Smith Tract	Yes	-	-	\$189,102
RD 2042	Bishop Tract	Yes	-	-	-
RD 2058	Pescadero	Yes	\$10,018	\$18,810	\$7,386
RD 2062	Stewart Tract	No	-	-	-
RD 2064	River Junction	No	-	-	-
RD 2074	Sargent-Bar	Yes	\$7,053	\$304,797	\$128,956
RD 2075	Mc Mullin	No	-	-	-
RD 2085	Kasson	No	-	-	-
RD 2094	Wethall	No	-	-	-
RD 2095	Paradise	No	-	-	-
RD 2096	Wetherbee	No	-	-	-
RD 2107	Mossdale	Yes	-	-	-
RD 2115	Shima Tract	Yes	-	\$54,830	\$26,030
RD 2119	Wright-Elmwood	Yes	\$102,424	\$333,437	\$69,939
RD 2126	Atlas Tract	Yes	-	\$6,264	\$16,748

As is shown in Table 26-7, although 12 reviewed districts participate in the State assistance programs, only nine received assistance funding between FY 12-13 and FY 14-15, and only four obtained income

from it during all three fiscal years. As is clear, this source of revenue is not consistent from year to year. Once a district is in the subvention program, for example, it has to continue to accomplish projects to maintain the reimbursement stream.

Exhibit 26-4 shows the average amount of state assistance to each of the districts from FY 12-13 to FY 14-15. Although RD 404 was not one of the districts that received assistance during all three fiscal years, it received the overall largest amount of assistance funding per levee mile averaged over the three years. And although RD 2058 received assistance in every one of the three years, the overall low amount of funding made its average assistance income per levee mile the lowest among all the districts that did receive the assistance.

Exhibit 26-4: Average State Assistance per Levee Mile, FY 12-13 to FY 14-15



Expenditures

The primary expenditures for all the districts reviewed consisted of levee maintenance and repairs, engineering services, salaries and wages (including contractor fees), and insurance. In FY 14-15, the reclamation districts’ overall operating expenditures ranged from a low of \$4,912 per levee mile in RD 1007 to a high of \$156,386 in RD 2074, as shown in Exhibit 26-5. For RD 2064, the analysis included only governmental activities (levee maintenance) operating expenditures and excluded enterprise activities (irrigation water services) expenditures. It appears that select districts may report their levee maintenance expenditures together with other expenses in one category in their audited financial statements. It was not always entirely clear from the documents available whether indicated amounts of maintenance expenses were exclusively spent on levee maintenance. Similar to RD 1007, RD 2094 also spent a relatively low amount that year per levee mile. Because exact expenditures for FY 14-15 were not available for RD 2094 and the District reported that it tends to spend between \$7,000 and \$16,000 every

year on maintenance and insurance, it is estimated that RD 2094 spends approximately between \$2,000 per levee mile to \$5,000 per mile in operating expenditures.

Exhibit 26-5: Operating Expenditures per Levee Mile, FY 14-15

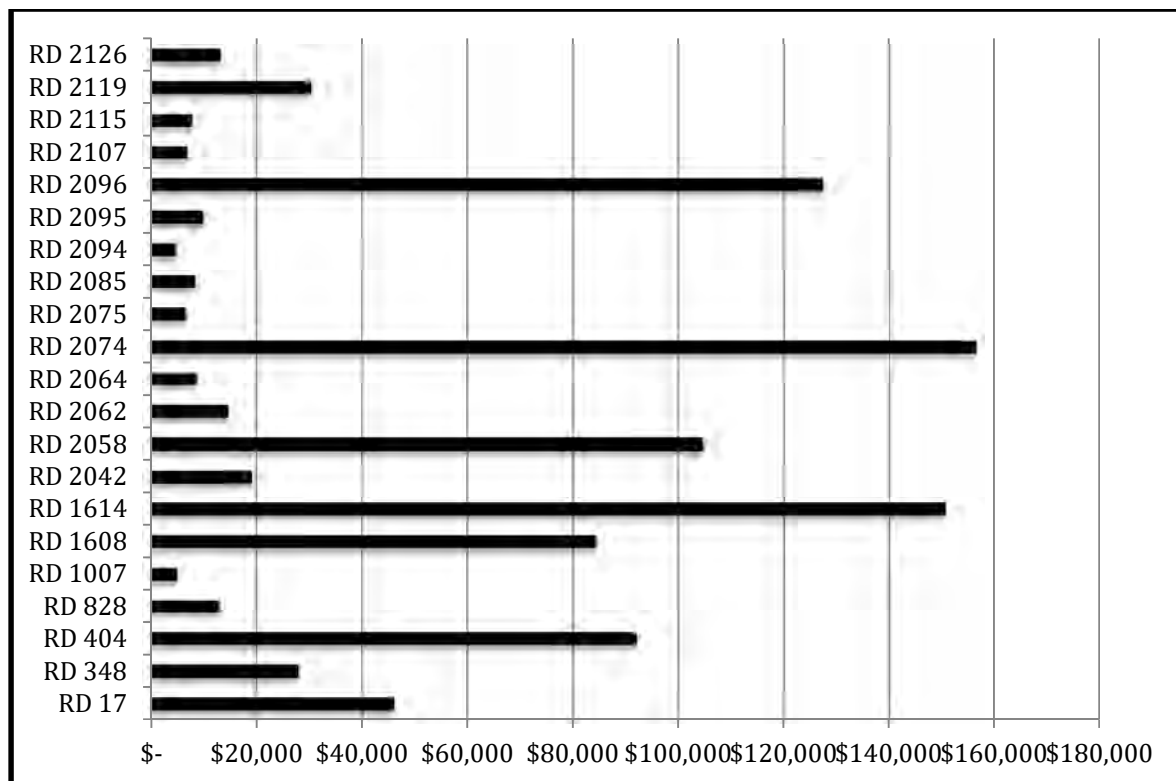
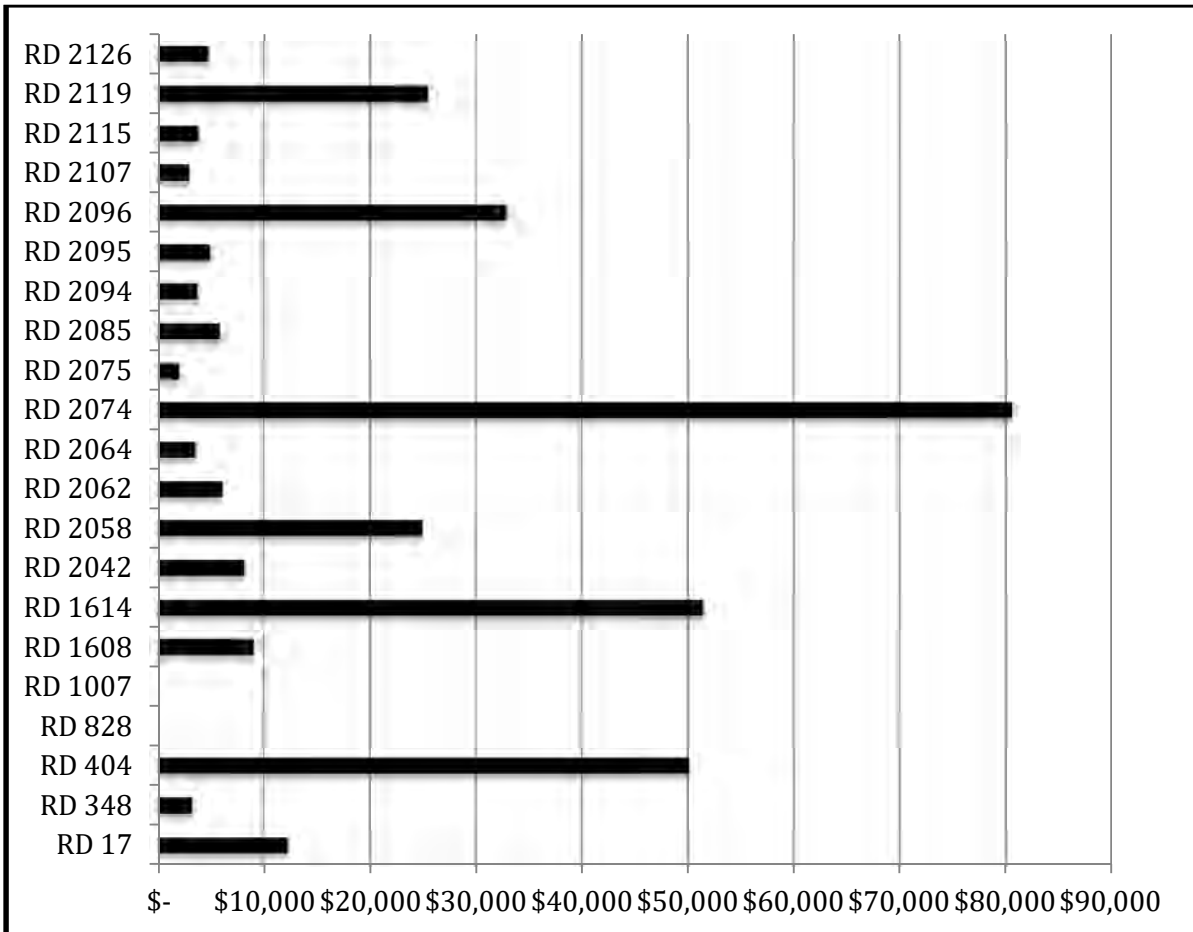


Exhibit 26-6 is depicting that, similar to operating expenditures, RD 2074’s maintenance expenditures per levee mile were among the highest in FY 14-15. Although its legal fees that year were very high, the District also spent the highest amount (\$80,553) on levee maintenance among all the reviewed districts. Conversely, RD 2096 had one of the highest operating expenditures per levee mile, but maintenance expenditures per levee mile were not in the same range. Because the District maintains only 0.16 miles of levees its administrative expenditures are high per levee mile compared to other agencies. RDs 1007 and 828 did not spend any funds on levee maintenance in FY 14-15. This may explain why RD 1007’s operating expenditures per levee mile were so low that year. RDs 348, 2064, 2075, 2094, 2107, and 2115, each spent between \$2,000 and \$4,000 per levee mile. Maintenance costs tend to vary between urban and rural reclamation districts, with the urban ones generally spending more per levee mile than the rural. For all the districts, levee maintenance expenditures per levee mile are fairly consistent from year to year. Due to the absence of detail regarding the exact amount spent on levee maintenance in FY 14-15 in RDs 348, 2042, 2075, 2085, 2094, and 2119, approximate estimates based on previous fiscal years were used for this analysis.

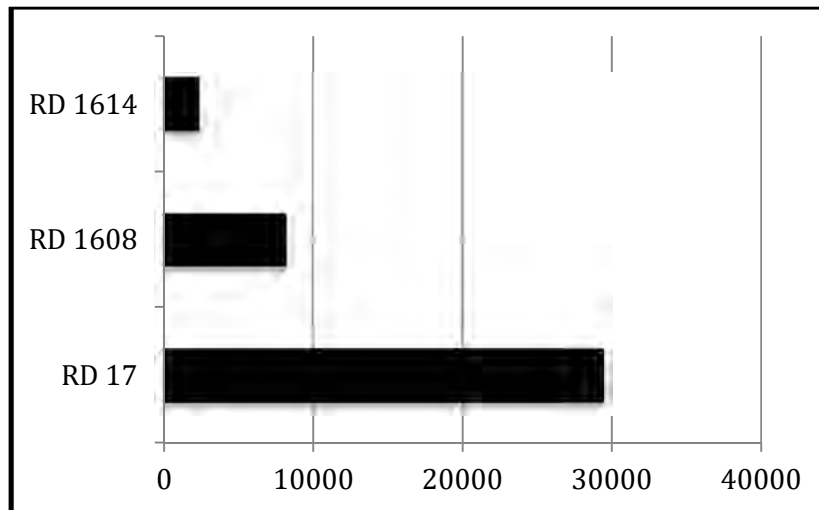
Exhibit 26-6: Maintenance Cost per Levee Mile, FY 14-15



Capital Improvements

San Joaquin reclamation districts generally finance their capital projects through one or more of the four ways that include long-term debt, saving regular annual revenues until there is enough in a reserve to finance a major improvement, collecting benefit assessment funds for a specific project, or using State or federal assistance and grants. In FY 14-15, only three districts expended funding on capital projects, as shown in Exhibit 26-7. Select districts reported that it is difficult sometimes to distinguish between levee maintenance and levee capital improvements because levee improvement projects frequently involve a mixture of work that may be considered maintenance along with work that might be considered capital improvements. Therefore, when audited financial statements did not separate the two types of expenditures it was not possible to identify whether any capital improvements were completed. RD 17 spent the highest amount per levee mile on capital improvements, while RD 1614 spent the least among the three districts.

Exhibit 26-7: Capital Improvement Costs per Levee Mile, FY 14-15



RD 17 has been performing significant levee improvements recommended by the district engineer that consist of multi-phased 100-year seepage repair and upgrades to potentially provide 200-year protection. The multi-phased project is financed by bonds and a grant from the DWR, while funding for the 200-year project is still undetermined. RD 1608 spent \$27,319 and RD 1614 spent \$6,742 on levee improvements in FY 14-15. Additionally, RD 1614 is in need of a pump station replacement, which will be financed via assessments and grants, and a new flood gate to be financed by assessments and with the assistance from RD 828 and SJAFCA.

Only four out of the 21 reviewed districts had outstanding long-term debt used to finance capital improvement projects at the end of FY 14-15. These districts were comprised of RDs 17, 2042, 2058, and 2064.

Fund Balance

The financial ability of the reviewed reclamation districts is, although marginally adequate based on the ability to maintain levees to an adequate standard and generally finance agency operations, severely constrained by the limited number of available financing sources. Additionally, because the largest financing source for the vast majority of the agencies is benefit assessments, its availability is further constrained by the process of voter approval and the expensive and uncertain procedure of running a Proposition 218 election to pass or raise assessment rates. Rural districts also struggle with a limited constituent base, which limits the assessment revenue. As was mentioned in the previous section, capital improvements are also a challenge for the reclamation districts to finance due to the financing constraints and limited availability and eligibility access of grant funding.

Districts generally report that the costs of levee maintenance and rehabilitation have increased over the years and continue to grow, which, paired with limited revenues, is likely to present a major financial challenge in meeting the 200-year level of flood protection required by SB 5. San Joaquin reclamation districts also reported that they are being administratively and financially burdened by the efforts to comply with the continued increase in government regulation and standards.

Overall, in FY 14-15, all but one district ended the fiscal year with a financial surplus. RD 2107's expenditures exceeded its revenues that fiscal year. In fact, the District ended its last six fiscal years with a financial deficit, covering the difference with its financial reserves.

As is seen in Table 26-9, most of the reviewed districts had adequate fund balances at the end of FY 14-15. RDs 17, 2042, and 828 may be able to operate for 16, 17, and 22 years respectively without receiving any income. On the other hand, RDs 2058, 2075, and 2115 have very small fund balances to draw from in case expenditures exceed revenues.

Table 26-9: Fund Balance at the End of FY 14-15 and Years of Operating Expenditures

DISTRICT	NAME	FUND BALANCE	YEARS OF OPERATING EXPENDITURES
RD 17	Mossdale	\$13,743,653	15.7
RD 348	New Hope	\$4,624,536	8.9
RD 404	Boggs Tract	\$1,673,659	3.8
RD 828	Weber Tract	\$561,198	22.1
RD 1007	Pico & Nagle	\$111,789	2.5
RD 1608	Smith Tract	\$1,892,601	6.8
RD 1614	Smith Tract	\$1,536,766	3.6
RD 2042	Bishop Tract	\$2,578,699	16.9
RD 2058	Pescadero	\$251,296	0.3
RD 2062	Stewart Tract	\$744,975	3.3
RD 2064	River Junction	\$638,315	3.1
RD 2074	Sargent-Bar	\$2,061,292	2.9
RD 2075	Mc Mullin	\$42,343	0.9
RD 2085	Kasson	\$68,848	1.3
RD 2094	Wethall	Unknown*	Unknown
RD 2095	Paradise	\$128,948	2.7
RD 2096	Wetherbee	\$110,029	5.4
RD 2107	Mossdale	\$46,664	1.6
RD 2115	Shima Tract	\$30,834	0.6
RD 2119	Wright-Elmwood	\$214,194	1.0
RD 2126	Atlas Tract	\$67,800	1.7

* Because RD 2094 has been considered inactive and does not have official financial records in addition to only receiving income once in five years the District's fund balance at the end of FY 14-15 is unknown.

26.5 - Shared Services and Facilities

Reclamation districts in San Joaquin County generally acquire and own limited facilities that they can share with other agencies and organizations. However, the results of this study showed that RDs generally collaborate with and receive assistance from other agencies to improve services or reduce costs. Realizing that the levee system is designed to protect the entire region and failure in one district can affect a much larger area, districts engage in various forms of agreements, such as streambed alteration agreements, work agreements, and mutual aid agreements, with neighboring providers and nearby cities, as well as larger governmental agencies including various county departments, DWR, USACE, California Department of Fish and Wildlife, and SJAFCA, to name a few main ones.

Most of the districts reviewed have adopted emergency operations plans, but even those that have not, engage in similar emergency collaborative practices. A majority of the reviewed districts are signatories to the California Master Mutual Aid Agreement and the San Joaquin Operational Area Agreement that allow RDs to request necessary resources in emergency situations. Mutual aid requests for technical assistance and services, flood fight crews, supplies and materials, and other resources are made through the San Joaquin Operational Area Logistics Section and/or the Operational Area Public Works Mutual Aid Coordinator. In case of an emergency, districts maintain proper management and coordination with 1) other public agencies and jurisdictions operating within the affected area, 2) neighboring RDs, and 3) the San Joaquin Operational Area.

RDs often engage in collaborative practices with state agencies for levee inspections and financial assistance. Districts that own and maintain project levees work with DWR and USACE to maintain and inspect their levee systems. Financial assistance from the State is provided through specific programs, as was previously discussed in Section 4.3 of this report. Approximately half of the districts reviewed participate in either one or both of the Delta Levee Subvention and the Delta Levee Special Flood Control Projects programs.

26.6 - Accountability and Governance

The districts reviewed as part of this study generally demonstrated accountability and transparency with regard to governance by cooperating with the MSR process. A majority of the districts keep up-to-date financial records and comply with the Brown Act, with the exception of RDs 2094 and 2096. RD 2094 does not maintain official financial records, including a budget and audited financial statements, and has been labeled inactive by the State Controller's Office, although the district is not inactive, since the 1990s for the failure to report its expenditures and revenues. Additionally, the District's agendas for the Board of Trustees meetings are not distributed, and the District's Board communicates with its residents only as needed. RD 2096, although active, similarly does not adopt a budget and does not publish agendas for Board meetings in a public place at least 72 hours ahead of the meetings as legally required by the Brown Act. It is recommended the districts participate in board training at least every four years. The training will allow trustees to learn about the requirements of the Brown Act and keep abreast of changes in the law.

The absence of a budget adopted before the beginning of the fiscal year is an issue for several other reviewed agencies, including RDs 828, 2115, and 2126. RDs 17 and 2119 reported that although they currently do not adopt a budget the practice is being implemented. Well-managed public agencies adopt annual budgets as one of the main financial planning tools. The 2013-2014 San Joaquin County Grand Jury report contains a recommendation that all reclamation districts that do not adopt annual operating

budgets prepare a framework for an annual budget and utilize it for all subsequent fiscal years. The Special District Leadership Foundation also lists it as one of the most essential accountability practices of a public agency. Additionally, and more importantly, Government Code §53901 states that within 60 days after the beginning of the fiscal year each local agency must submit its budget to the county auditor. These budgets are to be filed and made available on request by the public at the county auditor's office. If a local agency does not have a formal budget, it shall file a listing of its anticipated revenues, together with its expenditures and expenses for the fiscal year in progress.

A majority of the districts are governed by a three-member Board of Trustees with the exception of four agencies that include five trustees on their Boards. In addition to the three-member Board of Trustees, RD 2064 has a second Board of Directors that has the responsibilities of setting rates and policies for the enterprise functions of the District. Albeit uncommon, this arrangement provides a way to keep enterprise functions separate from the governmental activities. Reclamation district trustees are generally elected, however, many districts often do not have enough candidates to hold an election, in which case Trustees are appointed by the Board of Supervisors. Section 50741 of the California Water Code states that when no election is held according to Section 50740 of the California Water Code, the Board of Supervisors shall appoint those nominated for positions of trustee and if no person has been nominated, the Board of Supervisors shall appoint any qualified person to the position of a trustee. RDs 2115 and 2126 have a slightly different system of Board member selection. Because in each of these districts there is a single owner of the property within that district, legal representatives are elected by the landowner to four-year terms. When the Board falls below a quorum, sufficient trustees to comprise a quorum are appointed by the landowner and confirmed by the City of Stockton City Council. Upon appointment of a quorum, the two members appoint the third member themselves.

Only six out of the 21 agencies reviewed provide some sort of compensation or stipend for their Trustees. Twelve districts, or just over a half of all reviewed agencies, hold regular Board meetings, while the rest of the Boards meet as needed. A vast majority of the districts do not make any information available for their constituents online. It is generally recommended that to be more transparent and accountable to the public, public agencies need to maintain an online presence through a designated website or social media.

Governance Alternatives

In regard to governance structure, a majority of the districts were satisfied with their current boundaries. Two, however, reported that boundary changes might be needed. RD 404 believes that since the District's levees provide flood protection to lands outside of its boundaries it may be logical to expand the boundaries to cover the protected areas so these areas would contribute to the costs of levee maintenance and improvement. RD 2074 is considering expanding its boundaries to include the 1.8 miles of levee owned and maintained by PG&E on 14 Mile Slough.

Recently, the SJAFCA conducted a governance study to determine whether consolidation of urban RDs or some of their functions would be feasible. The study concluded that the primary functions of the various districts (i.e., first responders to flood threats) could not be consolidated for a number of reasons. Each of the participating RDs is unique in character and configuration and would not lend themselves to consolidation.

27: CONCLUSIONS AND RECOMMENDATIONS

The amount of information available varies from one district to the next. RD 17 because of its location had more information than RD 2094 which was labeled as inactive even though they continued to maintain their levees at a highly acceptable level.

There are some districts that don't fully comply with the Brown Act. While most are fully compliant, there may be districts that are not aware of changes made by recent legislation. It is recommended that the districts participate in board training at least every four years. The training will allow trustees to learn about the requirements of the Brown Act and keep abreast of changes in the law.

The spheres for the districts were established in 1983 and need an update. Given the geography and that the district boundaries touch each other like an elaborate jigsaw puzzle, there is very little room for expansion. As a result the recommendation LAFCO update each sphere be coterminous with district boundaries. RD 404 expressed interest in a larger sphere for which they should apply to LAFCO for an update.

One of the key methods of communication is through a district website. Of the 21 districts only two have websites. Besides a great way to communicate with residents the website is important for transparency and accountability of the district. Each district should establish a website. There are vendors that will create websites at no cost to special districts. The monthly fee to maintain the site is \$10 if the district is a member of CSDA or \$20 monthly if they are not.

Eleven of the 21 districts have project levees that are inspected at least twice annually and reported to DWR. Project levees for RD 2094, RD 2096, and RD 2107 are maintained to an acceptable level. The report for RD 2094, the "inactive" district, and RD 2107 indicated the levees were maintained at an acceptable level for the most recent five years. Only project levees in RD 404, and RD 2058 were rated unacceptable. In 2017 RD 2064, RD 2075, and RD 2095 improved to an acceptable rating.

The condition of the non-project levees is a critical concern, given the lack of regular inspections by a regulatory agency. RD 2126, for example which hasn't had an inspection for 10 years, should establish a regular inspection schedule. However, it is the responsibility of the State to address this issue of non-project levees.

Some districts do not approve an annual assessment. If the District is in sound financial condition that is not a problem. Others like RD 1007 should bill annually. RD 2094 bills every five years on an as needed basis.

A few of the districts have some issues that need attention. RD 1007 has yet to meet HMP standards because they do not have a passable access road along the levee. Similarly RD 2115 and RD 2119 have sections of levee below HMP standards. RD 2075 has seepage and vegetation problems that need to be corrected. However, they appear to be short on funding. They should consider applying for subvention or special project funds or raise additional funds by issuing warrants. Finally RD 2094 needs to be considered active and submit financial information to the State Controller, undergo an audit, and have their trustees be reappointed by the Board of Supervisors.

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APPENDIX A
SUMMARY OF DETERMINATIONS

RD 17 Summary of Determinations

- 5.1.1** The District serves a population of 43,500, which is expected to increase substantially over time as additional residential parcels are developed. The anticipated population in 2020 is 46,415 and 2030 is 49,267, growing to 66,092 in 2045.
- 5.2.1** Much of the District lies with the city limits of Stockton, Manteca, or Lathrop. However, the area south of French Camp Road has an MHI of \$42,112, which qualifies it as a DUC. The area receives fire protection from the French Camp McKinley Fire District. There are no municipal water or sewer service providers in this area as residents are on septic systems and water wells.
- 5.3.1** The District maintains 19.01 miles of levees. All of the District’s 19.01 levee miles are Urban Levees, meeting and exceeding the FEMA 100 year standard for urban development. All 19.01 levee miles are also maintained according to Bulletin 192-82 Standards reflecting FEMA 100-year flood plain criteria.
- 5.3.2** Of the 19 miles of levees, 16.03 miles are designated federal “project” levees. Project levees are inspected at least twice a year. The results of inspections of the project levees are reported to DWR to comply with AB 156. DWR reports that in 2015 and 2016 that RD 17 received an overall rating of M, minimally acceptable. In 2017 the rating improved to A, acceptable.
- 5.3.3** The District provides a variety of services for landowners and residents of the District, including levee repair, levee maintenance, and vegetation control. Most services are provided under contract.
- 5.4.1** The District spent \$4,134,912 in FY 15–16. Its major budget component expenditures include, levee repair and maintenance, engineering, legal and professional special projects and capital improvement projects. The District has adequate funding to maintain the levee system, relying on several sources. The District receives most of its funding from assessments imposed upon properties in the District.
- 5.4.2** The District has ready access to public credit markets through its JPA for its capital programs.
- 5.4.3** The District also obtains substantial non-recurring revenue from the DWR grants.
- 5.4.4** The District has an active capital improvements program implemented through various plans, studies and agreements with cooperating agencies. The District receives project-specific funding from the DWR for qualifying projects and improvements.
- 5.5.1** The District works cooperatively with various local, state, and federal agencies to implement its capital projects consistent with federal and state environmental protection requirements.
- 5.6.1** The District is governed by a three-member Board of Trustees. The Board is elected by landowners or appointed by the County if election is not required. Vacancies can be filled by the two remaining Trustees.

- 5.6.2** The Board meets monthly and also adopts an annual budget. Meetings are held on the second Tuesday of each month at 235 E. Weber Avenue, Stockton, California. Members of the Board receive \$25 per diem for each meeting they attend.
- 5.6.3** The District has one part-time administrative employee and occasionally employs maintenance staff. It contracts for engineering, professional services and contractors sufficient to provide effective services.
- 5.7.1** Only the San Joaquin LAFCo sphere policies that may affect service delivery.

Summary of Determinations RD 348

- 6.1.1** There are currently 1,400 residents of the District that includes 1,166 residents of the community of Thornton.
- 6.1.2** Thornton is expected to grow by 3-4 percent for each 5-year period for the next 30 years. If it is assumed the only growth is in Thornton then the District's population would be expected to be 1,676 in 2045. Assuming the portion of the District outside of Thornton grows at the same rate as Thornton, there would be 1,731 residents by 2045.
- 6.2.1** A DUC can be a legacy community that has been in existence for over 50 years. In RD 348, the rural unincorporated community of Thornton qualifies as a legacy community. According to the last census the MHI of Thornton was \$38,359. Since it is less than 80 percent of the statewide MHI, Thornton can be considered a DUC.
- 6.2.2** Thornton receives fire suppression services from the Thornton Rural Fire Protection District. It receives potable water from CSA 12. Most residences are on septic systems although the San Joaquin County Housing Authority provides wastewater services to 30 percent of the town.
- 6.3.1** The District operates and maintains 18.6 miles of the New Hope Tract levee system. All levees are at HMP standards and 13.25 miles are at the higher PL 84-99 standard.
- 6.3.2** The District also operates a system of drainage canals, and four pump stations that are used to evacuate water from the District.
- 6.3.3** The District staff, Engineer and Board President actively inspect levees on a routine basis to identify areas of seepage, erosion, burrowing animals, or waterside vegetation that can hide problems. The District actively pursues rodent control and vegetation control.
- 6.3.4** The main concern of the District is flooding due to overtopping of the levees. That is why the focus is to bring all of its levees up to PL 84-99 standards.
- 6.4.1** The District's main sources of revenues are assessments, property tax, and Subventions Funds. The subvention fund reimburses \$0.75 for each \$1 spent on levee maintenance. Assessments not used for maintenance are set aside for flood emergencies. Assessments and property tax account for an average of approximately \$480,000. Subvention funds ranged from \$225,000 to \$2.6 million between 2010 and 2015.

- 6.4.2** The major expenses are levee maintenance and engineering. During the period 2010 to 2015 expenses varied from \$464,000 to \$4.8 million.
- 6.4.3** The District maintains an ample fund balance that can be used to cover shortfalls. At the end of FY 2014 the District had a fund balance of \$2.6 million approximately 2 to 5 years of operating expenses. The District has the financial ability to provide services.
- 6.4.4** The District has completed a Five Year Plan that includes a number of projects that would reduce the threat of levee failure. These projects require an extensive amount of planning, permitting costs, and extensive environmental review. Unfortunately the District has no funding for these projects and would rely on 100 percent funding from the State or another source.
- 6.5.1** The District participates in the DWR grant programs Delta Levees Subventions Program and Special Projects Program.
- 6.5.2** The District works with a number of local agencies in their Emergency Operations Plan. They include the County Office of Emergency Services, the County Sheriff's Office, the Department of Public Works and the Thornton Rural Fire Protection District.
- 6.5.3** The District devotes resources to strategic, financial and emergency planning. They complete a Five Year Plan that identifies capital improvement projects. They complete an annual budget and an Emergency Operations Plan.
- 6.6.1** The District is governed by a three member board of trustees that serve 4-year staggered terms. Trustees may be elected but often there are not enough candidates to hold an election so they are appointed by the Board of Supervisors. Board member receive a stipend of \$75 per meeting.
- 6.6.2** Board meetings are held on the second Thursday of the month at 3247 West March Lane Suite 200 in Stockton. Meeting notices are posted according to the Brown Act.
- 6.6.3** The District does not have a website but communicates with residences via mail as necessary.
- 6.6.4** The District employs one full-time maintenance employee responsible for maintaining the levees and one part-time administrative staff that is responsible for financial records.
- 6.7.1** There are no San Joaquin LAFCO policies that would affect service delivery.

RD 404 Summary of Determinations

- 7.1.1** The estimated population of RD 404 as of 2015 was 15,026.
- 7.1.2** RD 404 is located mostly in the City of Stockton and is nearly built out. Even though the District is in the City growth projections for the City would overestimate growth in the District. It is expected the district would see no growth or very modest growth comparable

to the growth rate in the unincorporated rest of the County. We would expect RD 404 to have a population ranging from 15,026 to 15,410 in 30 years. RD 404 is an urban district, hence land uses within its boundaries primarily consist of commercial, industrial, residential, and recreational. The District anticipates that, to the extent there are any vacant lands within its boundary area, it is foreseeable that such lands will ultimately be developed.

- 7.2.1** RD 404 is mostly within the City of Stockton, however it includes an unincorporated island with a median household income that qualifies as a DUC. The island receives water from Cal Water a private company and fire protection from the Boggs Fire Protection District which has a contract with the Stockton Fire Department. There is no sewer service so residents are on septic systems.
- 7.3.1** The District operates and maintains approximately 4.75 miles of levees, 4.1 miles of which are project levees.
- 7.3.2** RD 404 provides levee maintenance. The District is threatened primarily by riverine floods along the San Joaquin River, Delta high tidal events, or from failure of levee systems on the southeastern side of Stockton along Mormon Slough. The District's levees protect areas within the City of Stockton and unincorporated areas of the County.
- 7.3.3** The District constantly maintains and upgrades its levees. These activities are financed via the benefit assessment proceeds and through the DWR funding assistance when available.
- 7.3.4** According to the fall 2016 and the 2017 DWR inspection report, the District's overall LMA rating was U (Unacceptable). The main deficiencies identified were vegetation and animal control.
- 7.3.5** The District's levees have traditionally met FEMA's 100-year flood criteria. RD 404 is working on maintaining that criteria.
- 7.4.1** The District's operations are financed mainly by the benefit assessment. The main constraint to this funding source is its dependence on the voter approval.
- 7.4.2** The District is constrained by the limited budget. Additionally, its expenditures have increased since levee maintenance, rehabilitation, and improvements have become more expensive over the years. Meeting the 200-year level of flood protection standard is likely to be a major financial challenge for the District in terms of engineering and construction costs. Since there is very little anticipated growth the District has made meeting the 200-year standard is a lower priority.
- 7.4.3** The District's current goal is to maintain at least one year's worth of special assessment receipts in its reserves. However, RD 404 is currently planning a significant levee improvement project that will likely deplete all of available reserves.
- 7.4.4** At the end of FY 14–15, the District did not have any long-term debt.
- 7.4.5** The District's capital improvements are financed by either the RDs reserves or specific program or assistance funds.

- 7.5.1** RD 404 works cooperatively with DWR and USACE to maintain and inspect the levee system. The District participates in the Delta Levee Subventions Program.
- 7.5.2** The District is a signatory to the California Master Mutual Aid Agreement and the San Joaquin Operational Area Agreement.
- 7.5.3** The District periodically enters into SAAs with the CDFW for work performed along the waterside of its levee slopes.
- 7.5.4** The District’s management practices consist of maintaining up-to-date financial records and performing regular financial audits and adopting an annual budget. RD 404 adopted a Capital Improvement Plan, which currently solely consists of meeting and maintaining FEMA’s 100-year flood protection criteria.
- 7.5.5** Maintaining an online presence is considered a best management practices and is recommended for RD 404.
- 7.6.1** RD 404 is governed by a three-member Board of Trustees headed by the President of the Board. Trustees are elected by the landowners or appointed by the Board of Supervisors to 4-year terms. The Board does not have a regular meeting schedule and meets as needed.
- 7.6.2** The District demonstrated accountability and transparency related to its governance by cooperating with the MSR process and publishing agendas for public meetings as legally required.
- 7.6.3** RD 404 contracts with a law firm to handle secretarial and legal functions for the District with the lead attorney serving as the District Secretary. The District hires part-time staff as needed to assist with flood control and drainage maintenance and operations.
- 7.7.4** The District’s management practices consist of maintaining up-to-date financial records and performing regular financial audits. However, annual formal or informal budgets are not adopted. RD 404 adopted a Capital Improvement Plan, which currently solely consists of meeting and maintaining FEMA’s 100-year flood protection criteria.
- 7.7.5** Adopting an annual budget before the beginning of every fiscal year and maintaining an online presence are considered best management practices and are recommended for RD 404.
- 7.7.6** Concerning the District’s governance structure, RD 404 believes that since the District’s levees provide flood protection to lands outside of its boundaries it may be logical to expand the boundaries to cover the protected areas, so these areas would contribute to the costs to maintain and improve the levees.
- 7.7.1** San Joaquin LAFCo has not adopted any policies identifying any other matters related to effective or efficient service delivery, and no additional issues have been identified.

RD 828 Summary of Determinations

- 8.1.1** The estimated population of RD 828 as of 2015 was 6,203.

- 8.1.2** RD 828 is an urban district; hence, land uses within its boundaries are primarily residential and commercial. The District is nearly completely built out. The District does not anticipate the development of any vacant land within its boundaries. The population is expected to remain at approximately 6200 residents.
- 8.2.1** RD 828 is located entirely within the City of Stockton; therefore, there are no DUCs within its boundaries.
- 8.3.1** The District operates and maintains approximately 1.96 miles of non-project levees.
- 8.3.2** RD 828 does not own or maintain pumping stations for internal drainage control. The City of Stockton is responsible for internal drainage collection, conveyance and terminal drainage. through its two pump stations. No culverts or through levee pipes exist within the District.
- 8.3.3** The District's levees are inspected periodically. If there is an issue revealed by a routine inspection, a more in-depth inspection is performed by the District's engineer.
- 8.3.4** The District's flood system challenges include highly encroached levees and non-accredited levees along Smith Canal. No current drainage problems have been identified by the District.
- 8.3.5** Although RD 828 reported that it was meeting FEMA urban levee requirements and State levee certifications, in 2009 Smith Canal levees lost their FEMA accreditation. At the same time, SJAFCA partnered with the Smith Canal levee owners, including RD 1614 and RD 828, to finance construction of a floodgate at the mouth of the Smith Canal. The gate will be constructed by 2018–2019. Completion of the floodgate will also provide the district with 200 year flood protection that will comply with SB 5.
- 8.4.1** The District's operations are financed by the benefit assessment. In FY 14–15, RD 828 received \$48,650 in assessments. The primary constraint to this funding source is its dependence on the voter approval. The District's financing is further constrained by the limited number of available financing sources.
- 8.4.2** In addition to the regular benefit assessment collected from all district residents that supports the District's operations, RD 828 also collects benefit assessments for the Smith Canal floodgate construction project from select residents who benefit from the project and are located within the assessment district.
- 8.4.3** One of the District's short-term challenges is costs associated with meeting the 100-year FEMA standards and state levee requirements.
- 8.4.4** RD 828 is in the process of developing a formal policy for establishing and maintaining a financial reserve. At the end of FY 14–15, RD 828 had \$561,198 in its unassigned fund balance, which is equal to over 20 years of the District's regular annual expenditures.
- 8.4.5** At the end of FY 14–15, the District did not have any long-term debt.
- 8.4.6** The District's capital improvements are financed by either RDs reserves or specific program or assistance funds.

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- 8.5.1** RD 828 collaborates and receives assistance from other agencies to improve services or reduce costs. The District participates in the Levee Subventions Program. The District partnered with SJAFCA and RD 1614 on the construction project of the Smith Canal floodgate.
 - 8.5.2** The District is a member of the Metropolitan Unified Flood Flight Command by the San Joaquin Operational Area and a signatory to the San Joaquin Operational Area Agreement.
 - 8.5.3** In case of an emergency, RD 828 ensures proper management and coordination with other public agencies.
 - 8.5.4** The District’s management practices consist of maintaining up-to-date financial records and performing regular financial audits. However, annual formal or informal budgets are not adopted. The District also does not have a Capital Improvement Plan.
 - 8.5.5** Adopting an annual budget before the beginning of every fiscal year and maintaining an up-to-date list of capital improvement needs are considered best management practices and are recommended for RD 828.
 - 8.5.6** RDs 828, 1608, 1614, and 2126 rent a shared storage garage for their records from a storage facility.
 - 8.6.1** RD 828 is governed by a three-member Board of Trustees headed by the President of the Board. Trustees are elected by the landowners to 4-year terms.
 - 8.6.2** The District demonstrated accountability and transparency related to its governance by cooperating with the MSR process, publishing agendas for public meetings as legally required, and maintaining a website.
 - 8.6.3** RD 828 has no employees. Administrative, legal, and engineering functions are performed by contractors.
 - 8.6.4** The District’s management practices consist of maintaining up-to-date financial records and performing regular financial audits. However, annual formal or informal budgets are not adopted. The District also does not have a Capital Improvement Plan.
 - 8.6.5** Adopting an annual budget before the beginning of every fiscal year and maintaining an up-to-date list of capital improvement needs are considered best management practices and are recommended for RD 828.
 - 8.6.6** Concerning the District’s governance structure, no changes are suggested at this time.
 - 8.7.1** San Joaquin LAFCo has not adopted any policies identifying any other matters related to effective or efficient service delivery, and no additional issues have been identified.

RD 1007 Summary of Determinations

- 9.1.1** The population of the District is estimated at 400 residents. Most of the population resides within the municipal boundaries of Tracy City. No significant new development is anticipated as the projected population in 2045 is expected to be 410.
- 9.2.1** The MHI in the census tract containing RD 1007 is \$86,950, well above 80 percent of the statewide MHI of \$51,600. Furthermore, there are no fringe communities, legacy communities or unincorporated islands in the District that would qualify as unincorporated communities. Therefore, there are no DUCs in RD 1007.
- 9.3.1** The District provides five key services for landowners and residents of the District, levee maintenance, vegetation removal, weed abatement, vector/rodent control and upkeep of levee roads. The District maintains 8.3 miles of non-project levees.
- 9.3.2** In 2012 the District applied for a grant to all for improvements on the levee road. Some of the sections are impassible because of vegetation. The grant would allow for an aggregate base road around the entire levee. Without the levee road although the levees are of proper height and width they do not meet HMP, PL84-99, or Bulletin 192-82 standards. In 2014 the District was awarded a \$100,000 matching grant, the District's match was 5 percent. The District is currently conducting the necessary surveys to begin the project.
- 9.4.1** The District adopts an annual budget although it is legally not required to do so.
- 9.4.2** The District budget in FY 12–13 is \$32,852 (revenue) based on an assessment formula approved in 1993. Recent audits show the District does not always levee an assessment and in some years revenues are only those received from grants.
- 9.4.3** Over the last 4 years levee maintenance and repair accounted for only 2 percent of the annual expenses. Over half the expenses are due to engineering. The District is currently conducting surveys that are needed to use the grant funding to extend the levee road.
- 9.4.4** The District maintains a fund balance equal to about 2.5 years of its FY 15 audited operating expenses.
- 9.5.1** The District has no shared facilities and no plans for any.
- 9.5.2** The District works cooperatively with a number of state and local agencies, particularly for planning in case of a flood emergency. It also works with DWR on grant programs for levee maintenance and repair.
- 9.6.1** The District is governed by a three member elected by vote of District landowners or appointed by the San Joaquin Board of Supervisors. Board members serve 4-year terms and receive no stipend. The board meets as needed at 4600 S. Tracy Boulevard, Suite 114 in Tracy, CA 95377.
- 9.6.2** The District has no full-time employees. The District Secretary/Treasurer maintains District records, prepares minutes of meetings, updates annual assessment role for changes in

ownership, supplies assessment information to the County and handles District correspondence. Maintenance and other work is contracted out.

9.6.3 The District has no website. It communicates with residents via mailers as necessary.

9.7.1 There are no San Joaquin LAFCO policies that would affect service delivery.

RD 1608 Summary of Determinations

10.1.1 RD 1608 is an urban district with primarily residential and commercial land uses. The estimated population of RD 1608 as of 2015 was 8,926.

10.1.2 Since RD 1608 is located within the City of Stockton with a only a small island situated in unincorporated San Joaquin County and is completely surrounded by the City. The District is nearly completely built out so that population growth in the next 10 and 30 years is very limited. The future development of any vacant land within the District boundary is unknown. Accordingly the population is expected to remain at approximately 8,900 residents.

10.1.3 RD 1608 is an urban district with primarily residential and commercial land uses. The future development of any vacant land within the District boundary is unknown.

10.2.1 There are no DUCs within RD 1608.

10.3.1 The District operates and maintains approximately 3.54 miles of non-project levees and one pumping station for internal drainage control.

10.3.2 The District's levees are inspected periodically. If there is an issue revealed by a routine inspection, a more in-depth inspection is performed by the District's engineer.

10.3.3 The District's levees meet the established FEMA standards. No infrastructure needs are identified at this time.

10.4.1 The District's operations are financed mainly by the benefit assessment and property taxes. The main constraint to the benefit assessment funding source is its dependence on voter approval and the cost of implementation of Proposition 218 elections

10.4.2 Administrative and financial burden stemming from compliance with government regulations has been a strain on the District. The District is also challenged with the costs of increasing environmental requirements associated with maintenance and rehabilitation. A higher percentage of the District's budget is being spent on legal compliance overhead as opposed to levee maintenance and rehabilitation.

10.4.3 The District Board determines the amount of reserves annually. At the end of FY 14–15, RD 1608 had \$1,892,601 in its emergency reserve, which is equal to over 4 years of the District's regular expenditures.

10.4.4 At the end of FY 14–15, the District did not have any long-term debt.

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- 10.4.5** The District’s capital improvements are financed by either RDs reserves, grants, or specific program or assistance funds.
- 10.5.1** RD 1608 collaborates and receives assistance from other agencies to improve services or reduce costs. The District participates in the Levee Subventions Program. Occasional assistance with levee maintenance and repairs is provided by various federal, state, and local agencies.
- 10.5.2** The District is a member of the Metropolitan Unified Flood Flight Command by the San Joaquin Operational Area and a signatory to the San Joaquin Operational Area Agreement.
- 10.5.3** In case of an emergency, RD 1608 ensures proper management and coordination with other public agencies.
- 10.5.4** RD 1608 jointly with RDs 828, 1614, and 2126 rent a storage garage for their records from a storage facility.
- 10.5.5** The District’s management practices consist of maintaining up-to-date financial records, adopting annual budgets, and performing regular financial audits. RD 1608 adopted an Emergency Operations Plan last updated in 2016; no Capital Improvement Plan has been compiled.
- 10.5.6** Maintaining an up-to-date list of capital improvement needs is considered a best management practice and is recommended for RD 1608.
- 10.6.1** RD 1608 is governed by a three-member Board of Trustees headed by the President of the Board. Trustees are elected by the landowners to 4-year terms.
- 10.6.2** The District demonstrated accountability and transparency by cooperating with the MSR process and publishing agendas for public meetings as legally required. RD 1608 maintains a website but could improve its accountability by publishing its financial documents online.
- 10.6.3** RD 1608 employs one part-time levee superintendent and maintenance personnel as needed. An engineer and a district secretary, are employed on a contractual basis.
- 10.6.4** The District’s management practices consist of maintaining up-to-date financial records, adopting annual budgets, and performing regular financial audits. RD 1608 adopted an Emergency Operations Plan last updated in 2016; no Capital Improvement Plan has been compiled.
- 10.6.5** Maintaining an up-to-date list of capital improvement needs is considered a best management practice and is recommended for RD 1608.
- 10.6.6** Concerning the District’s governance structure, no changes are suggested at this time.
- 10.7.1** San Joaquin LAFCo has not adopted any policies identifying any other matters related to effective or efficient service delivery, and no additional issues have been identified.

RD 1614 Summary of Determinations

- 11.1.1** The estimated population of RD 1614 as of 2015 was 14,730 according to the U.S. Census American Community Survey..
- 11.1.2** RD 1614 is located within both incorporated and unincorporated San Joaquin County and is nearly built out. Consequently, the population is expected to remain at approximately 14,700 residents.
- 11.1.3** RD 1614 is an urban district; hence, land uses within its boundaries are primarily residential, commercial, and recreational. The development of vacant lands is expected to occur in compliance with local zoning and planning approvals and permits.
- 11.2.1** There are two communities (the entirety of Census Tract 11.02 and a portion of Census Tract 10) within RD 1614 that are considered disadvantaged for LAFCo purposes. The unincorporated area lies within the Tuxedo-Country Club Fire District, which is served by the Stockton Fire Department. Water is provided by Cal Water and sewer service by Pacific Gardens Sanitary District.
- 11.3.1** The District operates and maintains approximately 2.8 miles of non-project levees and 11 pump stations.
- 11.3.2** Pump Station No. 7 is over capacity and at the end of its useful life. The pump station replacement project estimated to cost \$2.3 million will be financed through benefit assessments and a DWR grant appropriated from the State of California general fund.
- 11.3.3** RD 1614 levees are regularly inspected by the District and landowners within the District.
- 11.3.4** Although RD 1614 reported that it was meeting FEMA urban levee requirements and State levee certifications, in 2009 Smith Canal levees lost their FEMA accreditation, at which time SJAFCA partnered with the Smith Canal levee owners, including RD 1614 and RD 828, to finance construction of a floodgate at the mouth of the Smith Canal. The gate will be constructed by 2018–2019.
- 11.3.5** Generally, the District’s levees are not prone to problems during high water events. The primary source of levee vulnerability for the District is residential development up to and on top of the levee.
- 11.4.1** The District’s operations are financed mainly by the benefit assessment and property taxes. The main constraint to the benefit assessment funding source is its dependence on voter approval and the cost of implementation of Proposition 218 elections.
- 11.4.2** The administrative and financial burden stemming from compliance with government regulations has been a strain on the District. The District is also challenged with the costs of increasing environmental requirements associated with maintenance and rehabilitation. A higher percentage of the District’s budget is being spent on legal compliance overhead as opposed to the levee maintenance and rehabilitation.

- 11.4.3** In addition to the regular benefit assessment collected from all district residents that supports the District's operations, RD 1614 also collects benefit assessments for the Smith Canal floodgate and Pump Station 7 replacement projects from select residents who benefit from these respective projects.
- 11.4.4** The District Board determines the amount of reserves annually. At the end of FY 14–15, the District had \$1,536,766 in unrestricted reserves or approximately three years of its annual expenditures.
- 11.4.5** At the end of FY 14–15, the District did not have any long-term debt.
- 11.4.6** The District's capital improvements are financed by the RDs reserves, grants, specific program, or assistance funds.
- 11.5.1** RD 1614 collaborates and receives assistance from other agencies to improve services or reduce costs. The District participates in the Levee Subventions Program. Occasional assistance with levee maintenance is provided by agencies such as DWR and USACE. RD 1614 entered into a project funding agreement with DWR for the preparation of the five-year plan for the District.
- 11.5.2** In 2009, SJAFCA partnered with RDs 1614 and 828 on a project to construct a closure structure at the mouth of Smith Canal to protect areas affected by Smith Canal levee decertification.
- 11.5.3** The District is a signatory to the California Master Mutual Aid Agreement and the San Joaquin Operational Area Agreement and a member of the Metropolitan Unified Flood Flight Command established by the San Joaquin Operational Area.
- 11.5.4** RDs 1614, 828, 1608, and 2126 rent a shared storage garage for their records from a storage facility.
- 11.6.1** RD 1614 is governed by a three-member Board of Trustees headed by the President of the Board. Trustees are elected by the landowners to 4-year terms.
- 11.6.2** The District demonstrated accountability and transparency related to its governance by cooperating with the MSR process and publishing agendas for public meetings as legally required. RD 1614 maintains a website but could improve its transparency by publishing its financial documents online.
- 11.6.3** RD 1614 employs one part-time levee superintendent and maintenance personnel as needed. An engineer and a district secretary are employed on a contractual basis.
- 11.6.4** The District's management practices consist of maintaining up-to-date financial records, adopting annual budgets, and performing regular financial audits. RD 1614 adopted an Emergency Operations Plan, which was last updated in 2016, and a 2013 Five-year Plan. While an overall capital improvement plan has not been developed, the Five-year Plan covers infrastructure needs in order to meet 100-year level flood protection as recognized by FEMA.

- 11.6.5** Maintaining an up-to-date list of all capital improvement needs is considered a best management practice and is recommended for RD 1614.
- 11.6.6** Concerning the District's governance and service structure, no changes are suggested at this time.
- 11.7.1** San Joaquin LAFCo has not adopted any policies identifying any other matters related to effective or efficient service delivery, and no additional issues have been identified.

RD 2042 Summary of Determinations

- 12.1.1** The District estimates there are currently 5,000 residents in the District.
- 12.1.2** A large portion of the District is in the City of Stockton. Those areas that have not been developed are designated as mixed use or residential use. Assuming those areas are built out by 2045 the anticipated population of the District will increase to 7477.
- 12.2.1** There are no DUCs in RD 2042.
- 12.3.1** The District maintains 8 miles of levees to urban levee standards. That translates to 3 feet above the 100-year flood level. The District also maintains five pump stations and a series of canals and ditches to drain the District if necessary.
- 12.3.2** The District's goal is to upgrade the levee system to achieve 200-year flood protection. They are looking to comply using the Evidence 3, adequate progress, criteria. They are currently working on a plan to remove and replace diversion structures to achieve 200 year protection.
- 12.4.1** The District budget averages \$825,000 a year. Revenues are derived primarily from assessments. Expenses are distributed among debt service, maintenance and administration. The District allocates approximately 60 percent of expenses for debt service, 20 percent for administration and 20 percent for maintenance.
- 12.4.2** The District refinanced its bond indebtedness in 2014. The total debt as of June 30, 2014 was \$6.7 million. The debt is anticipated to be repaid in FY 2031.
- 12.4.3** The long-term plan is for the District to upgrade its levee system from the 100-year flood level to the 200-year flood level. The District will not entertain other capital improvements until the engineering study for the 200-year protection level is complete. The engineering study is scheduled for completion by the end of the 2013 Five Year Plan.
- 12.5.1** The District works cooperatively with a number of local, state, and federal agencies to assist with protecting Bishop Tract from flood emergencies.
- 12.5.2** The District exhibits management efficiencies through planning activities. These include an Emergency Operations Plan and a Five Year Plan. The Five Year Plan, most recently adopted in 2013, documents the goals of the District and identifies capital improvement projects. The

District's ultimate goal is to increase levee protection from the 100-year flood level to the 200-year flood level.

- 12.6.1** The District is governed by a five-member board of trustees elected or appointed, if necessary, to 4-year staggered terms. Trustees receive no compensation. Trustees meet on an as-needed basis at the District office.
- 12.6.2** The District has no website and communicates with residents via mail as needed.
- 12.6.3** The District has one part-time employee. Much of the work is completed by contractors. The District also hires temporary employees on an as-needed basis to complete maintenance and vegetation control projects.
- 12.7.1** There are no San Joaquin LAFCO policies that would affect service delivery.

RD 2058 Summary of Determinations

- 13.1.1** The population of the District is estimated at 1,024 residents based on 324 residences and 3.16 persons per household. Most of the population resides within the corporate limits of the City of Tracy. Additional population is concentrated in the town of Banta. Additional industrial development is anticipated within the area of the District located within the City of Tracy and some scattered home site development is also likely to accommodate up to approximately 26 new residents by 2045 when the District population is expected to reach 1,050.
- 13.2.1** The District lies in Census Tract 52.02 where the median household income is \$96,000, well above the 80 percent of the California median household income. Furthermore, there are no fringe communities in the District, nor are there legacy communities or island communities in the District. Therefore, there are no DUCs in RD 2058.
- 13.3.1** The District provides four key services for landowners and residents of the District, levee maintenance, flood control, irrigation and drainage.
- 13.3.2** The District maintains 6.8 miles of project levees (Paradise Cut) and 2.2 miles of non-project levees (Sugar Cut). Project levees are required to meet HMP and PL 84-99 standards. The most recent DWR inspection showed some areas of seepage and an area of erosion on the project levee. Vegetation was an issue that resulted in the District using goats to remove vegetation.
- 13.3.3** The District also provides irrigation water to land owners during irrigation season of March 15 to October 15. Landowners can order water 72 hours in advance of when it is needed and must be current with their reclamation assessments. Orders for irrigation water must be paid in advance of delivery. The District currently charges \$18.00 per acre per irrigation for flood irrigation and \$55/acre-foot for drip irrigation. The District maintains sufficient infrastructure to deliver and drain irrigation water.
- 13.4.1** The District budget in FY 15 is \$941,789. It includes three components one for levees, one for the irrigation system and one for operations.

- 13.4.2** The District obtains the majority of its funding from user fees for irrigation services.
- 13.4.3** The District has only modest long-term debt.
- 13.4.4** The District has recently adopted a new assessment to generate funds to be used to provide the necessary drainage, levee, and flood control services, and related operating services to the lands within its boundaries.
- 13.4.5** The District's Five Year Plan includes levee improvements to bring all portions of the non-project levees to HMP standards.
- 13.5.1** The District works cooperatively with agencies that would provide service during a flood emergency. That includes the San Joaquin County Office of Emergency Services, the California Office of Emergency Services, and FEMA.
- 13.5.2** The District exhibits management efficiencies by developing a 5 year plan and an Emergency Operations Plan. In addition, the District produces an annual budget or spending plan for the District.
- 13.6.1** The District is governed by a three member elected board. Board members serve 4-year terms and receive no stipend. The board meets on the first Wednesday of the month, January through November, at 3650 W. Canal Blvd. Meetings are conducted according to the Brown Act.
- 13.6.2** The District has 4 full-time employees. Some maintenance and vegetation control work is contracted out.
- 13.6.3** The District has a website to communicate with landowners. The website also contains a newsletter published to inform residents and landowners. The District also publishes flood warnings on its website. In addition, the District at times will communicate with residents by mail as needed.
- 13.7.1** There are no San Joaquin LAFCo policies that would affect service delivery.

RD 2062 Summary of Determinations

- 14.1.1** The population of the District is estimated at 600 residents. Most of the population is concentrated in the Marina and Lakeside areas in the easternmost portion of the District. Substantial new development is anticipated as a new pending Master Planned development community achieves buildout over the next 30 years causing the population to increase to 25,489 persons in 2045.
- 14.2.1** The District lies entirely in the City of Lathrop and contains no fringe communities, unincorporated islands or legacy communities. The MHI for this district is \$96,000, which is well above the statewide MHI. Consequently there are no disadvantaged communities in RD 2062.

- 14.3.1** The District provides five key services for landowners and residents of the District, levee maintenance, flood control, recreation (Lake), irrigation and drainage.
- 14.3.2** The District maintains a total of 15.45 miles of levee. Of those 12.35 miles of project levees subject to inspection and reporting under AB 156. All levees are to the PL 84-99 standards. The most recent inspection found the levees are maintained at a marginally acceptable level.
- 14.4.1** The District budget in FY 14 is \$207,152 and increase to \$518,611 in FY 16. On average utilities for irrigation and drainage account for 18.8 percent, followed closely by professional services 14.4 percent. Maintenance is the largest expenditure at 42.5 percent.
- 14.4.2** The District maintains a substantial fund balance amounting to nearly twice its annual outlays.
- 14.4.3** The current fee schedule provides adequate funding for levee maintenance, irrigation, drainage and flood control services.
- 14.5.1** The District works cooperatively with a number of public and private organizations including the City of Lathrop, the Lathrop Irrigation District, DWR, USACE the South Delta Water Agency, The District is working with the City to be sure the levees are accredited to comply with SB 5 to allow the River Islands development to be completed.
- 14.5.2.** The District has an Emergency Operations Plan and adopts an annual spending plan.
- 14.6.1** The District is governed by a three member appointed board. Board members serve 4-year terms and receive no stipend. Meetings are held at 73 W. Stewart Road, Lathrop, California and posted according to the Brown Act.
- 14.6.2** The District has no full-time employees. Maintenance work is contracted out.
- 14.6.3** The District has no website. It communicates with residents by mail as needed.
- 14.6.4** There are no San Joaquin LAFCO policies that would affect service delivery.
- 14.7.1** There are no San Joaquin LAFCO policies that would affect service delivery.

RD 2064 Summary of Determinations

- 15.1.1** The predominant if not exclusive land use within the District is agricultural with associated buildings and structures.
- 15.1.2** The population of the District is estimated by GIS as 523. Very little growth is anticipated in the next 30 years. It is estimated the population in the District would grow to 536 by 2045.
- 15.2.1** There are no DUCs in RD 2064.
- 15.3.1** The District provides four key services for landowners and residents of the District, levee maintenance, flood control, drainage and irrigation.

- 15.3.2** The District maintains 10.2 miles of agricultural levees that meet the HMP standard.
- 15.3.3** The District operates an irrigation water, treatment, transmission and pumping system as a separate fee-supported enterprise fund. The operation is through the Bret Harte Water Users.
- 15.4.1** The District spends on average around \$92,000 on levee operations and maintenance and \$108,000 on irrigation water services annually.
- 15.4.2** The District maintains a healthy fund balance of 2 to four times its expenses.
- 15.4.3** The current fee schedule provides adequate funding for levee maintenance, drainage, flood control and irrigation services.
- 15.4.4** The District has three outstanding notes to landowners that currently total \$48,999. The District has been making regular payments so that the notes will be paid off in the near future.
- 15.5.1** The District has no shared facilities but does work with other state, regional and local agencies on flood control.
- 15.6.1** The District is governed by a three-member appointed Board of Trustees. Board members serve 4-year terms and receive no stipend. The board meets twice annually on an as-needed basis in a landowner's garage at 28560 Airport Road, Manteca, California.
- 15.6.2** The District has no full-time employees. Maintenance work and administrative work is contracted out.
- 15.6.3** The Bret Harte Water Users Association is governed by a three member Board of Directors appointed to three year terms. The Bret Harte Water Users Association has part-time employees.
- 15.6.4** The District has no website. It communicates with residents by mail and posted notice of meetings as needed.
- 15.7.1** There are no San Joaquin LAFCO policies that would affect service delivery.

RD 2074 Summary of Determinations

- 16.1.1** The District has a mix of urban land uses including single- and multi-family residential, commercial, office and institutional. The population of the District is approximately 8,617. Most of the population resides in the 3,084 single-family homes with an indeterminate number living in multi-family residences.
- 16.1.2** The District is built out and no significant new development or population growth is expected through 2045.
- 16.2.1** There are no DUCs in RD 2074 as the District is within the City of Stockton boundaries.

- 16.3.1** The District provides two key services for landowners and residents of the District, levee maintenance and flood control.
- 16.3.2** The District maintains 4.6 miles of PL 84-99 urban and dry-land levees.
- 16.3.3** The District maintains the Calaveras River project levee by agreement with the County.
- 16.4.1** Over the last 5 years, expenses ranged from \$532,000 to \$800,000. Over the same period revenues ranged from \$642,000 to \$1.04M leaving a fund balance of \$2.3M. The fund balance is nearly 4 time the expenses.
- 16.4.2** The District's revenue sources are primarily assessments augmented by state and federal reimbursements. The assessments are annually adjusted based upon a cost-of-living inflator. Average expenses are primarily maintenance, 46 percent; administration, 19 percent; and engineering, 18 percent.
- 16.4.3** The current fee schedule provides adequate funding for the District's operations and functions.
- 16.4.4** The District has a capital improvement plan consisting of four projects designed to add protection from erosion and to comply with the 200-year level of flood protection standards.
- 16.5.1** The District works cooperatively with a number of federal, state, regional and local agencies. The District participates in the Delta Levee Subventions Program. As another example the District has worked with the County to help maintain a section of the Calaveras River Levee. The District relies on the City of Stockton for drainage and pumping.
- 16.5.2** The District exhibits management efficiencies through its Five Year Plan that identifies capital improvement projects. The District also produces an Emergency Operations Plan.
- 16.6.1** The District is governed by a three-member appointed board. Board members serve 4-year terms. Trustees receive a stipend of \$99.99 per meeting. The Trustees meet the 2nd Thursday of the month at 8:30 am at 3425 Brookside Road, Suite A, Stockton, California.
- 16.6.2** The District has no full-time employees. Maintenance work and administrative work is contracted out.
- 16.6.3** The District has no website. It posted notice of meetings as needed and further communicates by email.
- 16.7.1** The District needs to update its sphere which was established in 1983, San Joaquin LAFCO's sphere policy would apply. It is recommended the commission set a coterminous sphere so there would be no effect on service delivery.

RD 2075 Summary of Determinations

- 17.1.1** The population of the District is estimated at 100 residents. There is no anticipated development as the projected population in 2045 is expected to be 102.

- 17.2.1** The estimated median household income for the District is likely to exceed 80 percent of the state MHI, the threshold of a DUC. Therefore, there are no DUCs in RD 2075.
- 17.3.1** The District provides three key services for landowners and residents of the District, levee maintenance, flood control, and drainage. The District maintains 7.45 miles of project levees.
- 17.3.2** The District focuses a significant amount of time on vegetation control and ditch maintenance. The District levees are too narrow in places to allow for all-weather access. The sandy soils in RD 2075 contribute to seepage problems. The 2016 DWR report also mentioned significant efforts to mitigate river erosion and seepage in approximately 3 miles of the 7.5 miles of project levees. The 2016 inspection of the condition of the levees found several areas of serious seepage resulting in an unacceptable rating. By 2017 the District was able to bring the levee system up to acceptable, or A rating.
- 17.4.1** The District receives approximately \$62,000 in assessment revenue to offset \$58,000 in estimated annual expenses. The fund balance at the end of 2014 was reported at \$42,000.
- 17.4.2** The District increased its fees in 2012 because funding was insufficient to provide services. The current fee schedule provides adequate funding for levee maintenance, drainage and flood control services.
- 17.4.3** The District increased its fees. Additional funding may be required to widen the road to make it all-weather accessible to facilitate inspections. Given the additional revenues derived from its new rate structure, the District should make an effort to tap into the Delta Levee Subventions program and the Delta Levee Special Funds program.
- 17.5.1** The District shares administrative facilities and administration services with 10 other RDs in the area. It also shares engineering services with RD 1, RD 2, RD 554, RD 2042, 2089, and 2090.
- 17.5.2** The District completed an Emergency Operations Plan in 2015 and works cooperatively with state and local emergency services departments.
- 17.6.1** The District is governed by a five-member board that often run unopposed. Board members serve 4-year terms and receive no stipend.
- 17.6.2** The board meets on an as-needed basis at the District Office in Stockton or within District boundaries. Meetings are conducted according to the Brown Act.
- 17.6.3** The District has no full-time employees. Maintenance work is contracted out.
- 17.6.4** The District has no website. It communicates with residents by mail as needed.
- 17.7.1** There are no San Joaquin LAFCO policies that would affect service delivery.

RD 2085 Summary of Determinations

- 18.1.1** The population of the District is estimated at 860 residents. Most of the population resides in the San Joaquin River Club that contains approximately 350 single-family homes. A building moratorium has been in place since 1979 due to lack of suitable septic sites. There is no anticipated development as the projected population in 2045 is expected to be 860.
- 18.2.1** While the San Joaquin River Club can be considered a legacy community with an estimated median household income below the median household income of the state but above the 80 percent threshold of a DUC. Therefore, there are no DUCs in RD 2085.
- 18.3.1** The District provides three key services for landowners and residents of the District, levee maintenance, flood control, and drainage. The District maintains 6.28 miles of project levees. An additional levee protects the San Joaquin River Club.
- 18.3.2** The levees are inspected four times a year and reported to DWR. The most recent inspection graded the project levees as marginally acceptable. They noted some areas of erosion and seepage.
- 18.3.3** The District also operates and maintains a drainage ditch system that serves all but five parcels, and a pump station that pumps drainage water through siphon pipes to the river.
- 18.3.4** The District has no staff; maintenance is completed by contractors.
- 18.4.1** In 2014, the District approved a budget of \$125,759 for FY 14–15. It includes three components one for levees, one for the drainage system, and one part for capital improvement projects.
- 18.4.2** The District maintains a line of credit so that it can fund capital improvements as needed. The line of credit of \$80,000, approximately one year of funding, is used to repay warrants use for specific projects.
- 18.4.3** The District increased its fees in 2010 because funding was insufficient to provide services. The current fee schedule provides adequate funding for levee maintenance, drainage, and flood control services. The District has adequate finances to provide essential levee services.
- 18.5.1** The District works with a number of San Joaquin County, state, and federal agencies on flood control and their emergency operations plan.
- 18.5.2** The District also works with neighboring RDs, realizing the levee system is designed to protect the entire region and a failure in one district can lead to flooding in neighboring districts.
- 18.6.1** The District is governed by a five-member appointed board. Board members serve 4-year terms and receive no stipend. The board meets on the first Tuesday of February, May, August, and November at 5 p.m. at 30000 S. Kasson Road. Meetings are conducted according to the Brown Act.

- 18.6.2** The District has no full-time employees. Maintenance work is contracted out.
- 18.6.3** The District has no website. It communicates with residents by mail as needed.
- 18.7.1** There are no San Joaquin LAFCO policies that would affect service delivery.

RD 2094 Summary of Determinations

- 19.1.1** The District anticipates no growth or very little growth. Considering the estimated population growth for areas in the unincorporated County outside of census designated places is expected to increase by 2.5 percent in the next 30 years. At 2.5 percent growth the population would remain at approximately 40 in 2045.
- 19.2.1** In 2015 the California MHI was estimated as \$64,500 by the Department of Finance. By definition, the MHI for a DUC would be \$51,600 or less. The census tract that includes the District has a median household income of \$75,125. Therefore, there are no DUCs in RD 2094.
- 19.3.1** The District maintains 3.23 miles of project levees. Through activities such as levee patrol, road maintenance, vegetation control, and rodent control, the District has been able to maintain the levees at an acceptable level since 2008.
- 19.4.1** The District has been termed inactive, which may be due to the fact it has not reported transactions to the State Controller's office in quite some time. The District does levee assessments approximately every 5 years and funds are held in the County Treasury. The District expends funds for levee maintenance and insurance. The District has also contracted with KSN Engineers to update their Emergency Operations Plan. Since the District is collecting assessments and expending funds for levee maintenance it should resume submitting data to the State Controller and engage in annual audits.
- 19.4.2** The District is in the process of collecting additional assessment this year. The District also is responsible for insurance costs. Additional assessments are being collected, with a total based on assessed value expected to reach approximately \$223,000. Funding is sufficient for at least two years of operations.
- 19.5.1** The District works with DWR and USACE to maintain its project levees.
- 19.6.1** The District is governed by a three member appointed board. Board members receive no stipend. The board meets as needed to determine the costs of maintain the levees at acceptable level.
- 19.6.2** The District has no full-time employees. Maintenance work is contracted out.
- 19.6.3** The District has no website. It communicates with residents by mail as needed.
- 19.7.1** There are no San Joaquin LAFCO policies that would affect service delivery.

RD 2095 Summary of Determinations

- 20.1.1** The current population of the District stands at 4,033. Very little growth is anticipated in the next 30 years. If we assume the population will increase as the population in the unincorporated portions of San Joaquin County outside a CDP then in 2045 the estimated population could range up to 4,133.
- 20.2.1** There are no DUCs in RD 2095.
- 20.3.1** The District provides three key services for landowners and residents of the District, levee maintenance, flood control, and drainage. The District maintains 4.86 miles of project levees on the west side of the San Joaquin River.
- 20.3.2** The District services include routine inspection, vegetation control, and rodent control. The District does not provide drainage services; however, the District does operate one pumping station to return seepage or flood water into Paradise Cut.
- 20.3.3** While the DWR inspection ratings in 2015 were acceptable, in 2016 the inspection found several areas of concern to give an unacceptable rating. More specifically, the DWR inspection found vegetation that significantly impacts access and visibility and that there are several areas of erosion along the San Joaquin River. The DWR inspection report recommended the District should focus on controlling vegetation and repairing erosion sites. In 2017 the District was able to bring project levees back to an acceptable rating.
- 20.3.4** The District employees contractors for operation and maintenance services on an as-needed basis.
- 20.4.1** The District derives revenues primarily from assessments. Occasionally the District receives grants from federal and state sources. The County Treasurer collects assessments and maintains District funds in the County Treasury. Fifty percent of expenses are due to maintenance of the levee system.
- 20.4.2** In general revenues are sufficient to cover expenses and allow the District to provide adequate maintenance services. The occasional shortfall is filled from the unrestricted fund balance. As of June 30, 2016 the District maintained a fund balance of \$116,126, nearly three years of operating expenses.
- 20.4.3** The District should allocate some of its fund balance to suggested repairs to bring the levees back to an acceptable rating.
- 20.5.1** The District has no shared facilities but works cooperatively with their neighbors, DWR, and USACE. RD 2095 and RD 2085 have a Joint Routine Maintenance Agreement with CDFW.
- 20.5.2** The District does produce an Emergency Operations Plan and works with county flood control agencies, the County Sheriff, the Tracy Rural Fire Protection District, as well as state agencies such as DWR, CVFPB, and San Joaquin County agencies. The plan is also circulated to the Joaquin County Sheriff's Office and the Deuel Vocational Institution.

- 20.6.1** The Board of Trustees serves 4-year staggered terms and was appointed by the San Joaquin Board of Supervisors since no nominees filed for the position. Trustees receive no compensation.
- 20.6.2** The Board meets every three months in Tracy. Meetings are noticed according to the Brown Act.
- 20.6.3** The District has no full-time employees. They contract for Field Operations Manager and Board Secretary. Maintenance work is also contracted out.
- 20.6.4** The District has no website. It communicates with residents by mail as needed.
- 20.7.1** There are no San Joaquin LAFCO policies that would affect service delivery.

RD 2096 Summary of Determinations

- 21.1.1** The District estimated population of RD 2096 is approximately 350 people.
- 21.1.2** RD 2096 is located outside and adjacent to the City of Manteca. However, no new growth from new development is anticipated within the District's boundaries. The population for the next 10 and 30 years is expected to remain at approximately 350.
- 21.2.1** There are no DUCs within RD 2096.
- 21.3.1** The District operates and maintains approximately 0.16 mile of project levees, one pumping station, and a floodgate. The District's other facilities and infrastructure consist of a shack and a storage box. No infrastructure needs have been identified.
- 21.3.2** The District inspects its levees once a month, unless there is a danger of flood, in which case additional inspections are performed.
- 21.3.3** According to the fall 2016 DWR inspection report, the District's overall LMA rating was A (Acceptable).
- 21.3.4** The District's challenges include silt buildup in the sump area and potential flooding.
- 21.4.1** The District's operations are financed almost entirely by property taxes.
- 21.4.2** The District tries to stay within its budget and keep the remainder of its annual revenues for emergencies. These unrestricted funds are used in case of flooding or repairs to the pumping station and the floodgate. At the end of FY 14–15 the District had \$110,029 in its emergency reserve, which is equal to over 4 years of its regular expenditures.
- 21.4.3** At the end of FY 14–15, the District did not have any long-term debt.
- 21.5.1** The District participates in the California Special District Association (CSDA).

- 21.5.2** RD 2096 collaborates with and receives assistance from other agencies to improve services or reduce costs. Examples of such agencies include neighboring RDs and the City of Manteca.
- 21.6.1** RD 2096 is governed by a five-member Board of Trustees headed by the President of the Board. Trustees are appointed by the County Board of Supervisors to 4-year terms.
- 21.6.2** The District demonstrated accountability and transparency related to its governance by cooperating with the MSR process. Agendas for Board meetings should be published in a public place at least 72 hours ahead of the meetings as legally required by the Brown Act.
- 21.6.3** Administrative functions are performed by the president of the Board on a full-time basis. Additional administrative assistance is provided by one part-time employee. All of the trustees are engaged in maintenance activities along with one or two maintenance employees hired on an as-needed basis.
- 21.6.4** The District's management practices consist of maintaining up-to-date financial records and performing biennial financial audits. RD 2096 does not adopt formal or informal annual budgets, a Capital Improvement Plan, or an Emergency Operations Plan.
- 21.6.5** Adopting an annual budget before the beginning of every fiscal year, maintaining an online presence, and maintaining an up-to-date list of capital improvement needs are considered best management practices and are recommended for RD 2096.
- 21.6.6** Concerning the District's governance structure, no changes are suggested at this time.
- 21.7.1** San Joaquin LAFCo has not adopted any policies identifying any other matters related to effective or efficient service delivery, and no additional issues have been identified.

RD 2107 Summary of Determinations

- 22.1.1** The District comprises 16 landowners and a population based on the 2010 census of 14. Growth in the unincorporated portion of San Joaquin County is estimated at 2.5 percent over the next 30 years. With no anticipated development, the population in 2045 can be expected to remain at 14.
- 22.2.1** There are no DUCs in RD 2107.
- 22.3.1** The District maintains approximately 4.15 miles of project levees. Maintenance activities in 2016 included engineering services, inspections, patrolling, rodent control, and spraying of herbicides.
- 22.3.2** Project levees are subject to reporting by AB 156 to DWR. In 2016, DWR found the levees were overall acceptable level of maintenance with a couple areas of seepage that needed attention by the District.
- 22.3.3** The District has no staff; the projects are completed by contractors.

- 22.4.1** The District is funded primarily by assessments that are collected by the County. The County also acts to pool the District's revenues for investment and interest earned is credited to the District. **22.4.2** Expenses fall into four main categories levee maintenance 43 percent, legal and administration 34 percent, insurance 13 percent and engineering 12 percent.
- 22.4.3** During the period from 2010 to 2015 expenses have exceeded revenues. The shortfall is filled by the undesignated fund balance. The continued shortfalls suggest the District should consider reducing expenses or a small increase in assessments.
- 22.5.1** The District shares administrative facilities and administrative services with ten other RDs. The District also shares engineering services with a number of other RDs in San Joaquin County and Contra Costa County.
- 22.5.2** The District works cooperatively with DWR and USACE to inspect and maintain levees.
- 22.5.3** The District works with a number of agencies to develop and emergency operation plan. They include the San Joaquin Office of Emergency Services, the City of Lathrop, the Lathrop-Manteca Fire District, Lathrop Police Department, the DWR Flood Operations Branch, and the CVFPB.
- 22.5.4** In addition to the Emergency Operations Plan the District produces an annual budget or fiscal plan.
- 22.6.1** The District is governed by a three member board of trustees appointed to 4-year staggered terms. The Trustees receive no compensation.
- 22.6.2** Meetings are held on an as-needed basis at the District office at 343 E. Main St, Suite 815 in Stockton. Meetings are noticed according to the Brown Act.
- 22.6.3** The District has no full-time employees. Maintenance work, legal services and engineering are contracted out. Levee inspection is conducted by landowners working with the District Engineer.
- 22.6.4** The District has no website. It communicates with residents by mail as needed.
- 22.7.1** There are no San Joaquin LAFCO policies that would affect service delivery.

RD 2115 Summary of Determinations

- 23.1.1** There were 20 residents of RD 2115 as of 2017.
- 23.1.2** Land uses within the District are primarily agricultural with a few residences and related agricultural structures.
- 23.1.3** A master-planned community called The Sanctuary has been approved for development by the City of Stockton City Council. The development has not yet started construction. Should The Sanctuary reach full development, it is anticipated there would be approximately 21,152 residents of RD 2115.

- 23.1.4** The levees are incorporated in The Sanctuary plan with 111 acres dedicated to the Levee Walk. Project construction also includes improvements to the existing levees and would require levees to be constructed to comply with the 200 year protection standard.
- 23.2.1** RD 2115 is located entirely within the City of Stockton; therefore, there are no DUCs within the District's boundaries.
- 23.3.1** The District operates and maintains approximately 6.6 miles of levees, all of which are non-project levees.
- 23.3.2** RD 2115 provides levee maintenance with landowner staff. Inspections of the levees reportedly occur on a daily basis. If carried out as described, these efforts are considered sufficient for protection of an entirely agricultural area.
- 23.3.3** The requirements for levee inspections by the DWR are vague for non-project levees, and as such, RD 2115 has not undergone an inspection in at least the last 10 years. Responsibility for the inspections lie with DWR, and the need for a standardized schedule of inspection of non-project levees and making inspection results available to the public would need to be addressed by the State.
- 23.3.4** The District undertook a levee rehabilitation project which raised levees to HMP standards in 2015-2016.
- 23.4.1** The District's operations are financed primarily by the assessment collected from the single land owner. The assessment varies from year to year depending on the levee maintenance needs.
- 23.4.2** State work agreement and subvention funds have contributed approximately 37 percent of the District's revenues over the last five fiscal years. Given the substantial amount being contributed by the State to the maintenance of the District's levees, a regular inspection schedule of the levees would be fitting.
- 23.4.3** According to the District their primary financial challenge reported by RD 2115 is the administrative burden stemming from compliance with the various regulations and governmental agencies. The District encompasses an entirely agricultural area, and the many regulatory requirements are a strain on the District.
- 23.4.4** At the end of FY 14–15, RD 2115 had the equivalent of seven months of operating expenditures in its unassigned fund balance. Over the last five fiscal years, the District has struggled to maintain a consistent fund balance.
- 23.4.5** RD 2115 has planned for necessary capital improvements in its Five-Year Plan.
- 23.5.1** RD 2115 works cooperatively with DWR through the Delta Levee Subventions Program.
- 23.5.2** For emergency response and technical assistance, the District makes requests through the San Joaquin Operational Area Logistics Section and/or the Operational Area Public Works Mutual Aid Coordinator.

23.5.3 RD 2115 shares legal counsel and engineer services with several other RDs, and has participated in joint financing of the Lower San Joaquin River Feasibility Study.

23.5.4 The District participates in the Delta Levee Special Flood Control Project programs.

23.6.1 RD 2115 is governed by a three-member Board of Trustees headed by the President of the Board. Because there is a single owner of the property within the District, legal representatives are elected by the landowner to 4-year terms.

23.6.2 The District demonstrated accountability and transparency related to its governance by cooperating with the MSR process and publishing agendas for public meetings as legally required.

23.6.3 RD 2115 contracts for services as needed, including secretarial, legal, and engineering services.

23.6.4 The District's management practices consist of maintaining up-to-date financial records and performing regular financial audits. Capital improvements are planned for in the District's Five-Year Plan.

23.6.5 RD 2115's boundaries appear to be appropriate to its service area. No governance structure options were identified.

23.7.1 San Joaquin LAFCo has not adopted any policies identifying any other matters related to effective or efficient service delivery, and no additional issues have been identified.

RD 2119 Summary of Determinations

24.1.1 Land uses within the District consist primarily of agricultural, public utility and open space. The population of the District is estimated at less than ten persons. No additional development or population is expected to occur within the District through 2045.

24.2.1 There are no DUCs in RD 2119.

24.3.1 The District provides three key services for landowners and residents of the District, levee maintenance, drainage and flood control.

24.3.2 The District maintains 7.07 miles of levees. All meet the HMP standard and 4.27 miles are at PL 84-99 standard.

24.3.3 The District maintains the Tenmile slough levee in conjunction with RD 2074 that shares the levee with the District.

24.4.1 The District budget in FY 11–12 is \$754,039, which is close to the average of \$695,000 from 2010 to 2015. Revenues are primarily assessments and state Subventions and special project funds. In recent years the District has issued warrants to cover expenses until assessment

are collected. The District then repays the warrants. Maintenance and operations represent 75 percent of the services and supply expenses.

- 24.4.2** The District maintained a healthy fund balance of 2.3 times its FY 2014 expenses. For three recent years FY 12–FY 14 the District maintained a fund balance that was at least 30 percent of expenses.
- 24.4.3** The current fee schedule provides adequate funding for the District’s operations and functions.
- 24.4.4** The fees are not adjusted based upon a cost-of-living inflator.
- 24.4.5** The District hires part-time employees as needed based upon conditions to complete projects.
- 24.4.6** No major capital projects are anticipated. The District has a rehabilitation plan that is implemented as funds are available.
- 24.5.1** The District shares maintenance a levee on Tenmile Slough with RD 2074.
- 24.5.2** The District works cooperatively with DWR and receives financial assistance for levee maintenance, rehabilitation, and improvements.
- 24.5.3** The District enters into Streambed Alternation Agreements with the DFW.
- 24.5.4** The District works with other local, state, and federal agencies during high water/flood emergencies.
- 24.6.1** The District is governed by a three-member appointed board. Board members serve 4-year terms and receive no stipend. The Board meets once a year or as needed at 235 E. Weber Avenue, Stockton, CA 95202.
- 24.6.2** The District has no full-time employees. Maintenance work and administrative work is contracted out.
- 24.6.3** The District has no website. The Board agenda is posted on the door of the District office. Minutes are available to all attendees and upon request.
- 24.6.4** The District is not seeking to expand its boundary, consolidate with a neighboring district, or discontinue service. With that in mind a coterminous sphere is appropriate.
- 24.7.1** The District is not seeking to expand its boundary, consolidate with a neighboring district, or discontinue service, There are no San Joaquin LAFCo policies that would affect service delivery.

RD 2126 Summary of Determinations

- 25.1.1** There were no residents of RD 2126 as of 2017.

- 25.1.2** It is anticipated that there will continue to be no residents of the District within the short term; however, a large-scale development has been proposed in the area with the potential for 1,400 lots.
- 25.1.3** Land uses within the District are entirely agricultural.
- 25.2.1** RD 2126 is located entirely within the City of Stockton; therefore, there are no DUCs within or immediately adjacent to its boundaries.
- 25.3.1** The District operates and maintains approximately 3.08 miles of levees, 0.81 miles of which are project levees.
- 25.3.2** RD 2126 provides levee maintenance with landowner staff. Inspections of the levees reportedly occur on a weekly basis. If carried out as described, these efforts are considered sufficient for protection of an entirely agricultural area.
- 25.3.3** The requirements for levee inspections by the DWR are vague for non-project levees, and as such, RD 2126 has not undergone an inspection in at least the last 10 years. Responsibility for the inspections lie with DWR, and the need for a standardized schedule of inspection of non-project levees and making inspection results available to the public would need to be addressed by the State.
- 25.3.4** Because inspections of the levees are not carried out by outside agencies, the condition of the District's levees was unable to be corroborated. However, because FEMA designated the area as meeting 100-year flood criteria as of 2011, it is inferred that the levees meet at least the minimally acceptable standards. In a recent discussion with the District engineer the District now meets the 200 flood protection requirement.
- 25.4.1** The District's operations are financed primarily by the assessment collected from the single land owner. The assessment varies from year to year depending on the levee maintenance needs.
- 25.4.2** State work agreement and subvention funds have contributed approximately 37 percent of the District's revenues over the last five fiscal years.
- 25.4.3** The primary financial challenge reported by RD 2126 is the administrative burden stemming from compliance with the various regulations and governmental agencies. The District encompasses a small agricultural area, and the many regulatory requirements are a strain on the District.
- 25.4.4** At the end of FY 14–15, RD 2126 had the equivalent to 1.7 years of operating expenditures in its unrestricted reserves. Over the last five fiscal years, the District has been able to maintain a healthy fund balance from year to year to cover contingencies.
- 25.4.5** While RD 2126 has not yet adopted a formal capital improvement plan, the District is conducting engineering studies to assess necessary improvements, and will determine schedule and funding sources after the studies have been completed.

- 25.5.1** RD 2126 works cooperatively with DWR through the Delta Levee Subventions Program.
- 25.5.2** For emergency response and technical assistance, the District makes requests through the San Joaquin Operational Area Logistics Section and/or the Operational Area Public Works Mutual Aid Coordinator.
- 25.5.3** RD 2126 shares a storage facility, legal counsel, and engineer with several other RDs.
- 25.6.1** RD 2126 is governed by a three-member Board of Trustees headed by the President of the Board. Because there is a single owner of the property within the District and there are no residents of the property, legal representatives are elected by the landowner to 4-year terms.
- 25.6.2** The District demonstrated accountability and transparency related to its governance by cooperating with the MSR process and publishing agendas for public meetings as legally required.
- 25.6.3** RD 2126 contracts for services as needed, including secretary, legal, superintendent, and engineering services.
- 25.6.4** The District's management practices consist of maintaining up-to-date financial records and performing regular financial audits. However, legally required annual formal or informal budgets are not adopted, The District does submit financial reports to the State Controller and performs an annual audit. RD 2126, has not adopted a formal capital improvement plan.
- 25.6.5** Adopting an annual budget before the beginning of every fiscal year, compiling a formal capital improvement plan, and maintaining an online presence are considered best management practices and are recommended for RD 2126.
- 25.6.6** RD 2126's boundaries appear to be appropriate to its service area. No governance structure options were identified.
- 25.7.1** San Joaquin LAFCo has not adopted any policies identifying any other matters related to effective or efficient service delivery, and no additional issues have been identified.

