



Final

**Jones Tract
Municipal Service Review
and
Sphere of Influence Update**

**RD 2038 (Lower Jones Tract)
and
RD 2039 (Upper Jones Tract)**

San Joaquin Local Agency Formation Commission

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Table of Contents

Acronyms	vii
Chapter 1: Introduction	1-1
1.1 Role and Responsibility of LAFCo	1-1
1.2 Purpose of the Municipal Service Review	1-1
1.3 Uses of the MSR	1-2
1.4 Sphere of Influence	1-2
1.5 California Environmental Quality Act	1-3
1.6 Levee Standards	1-4
1.7 Jones Tract Reclamation Districts	1-4
1.8 Local Infrastructure Protected by District Levees	1-5
1.9 Recent Flood Threats and Levee Breaches	1-8
Chapter 2: Executive Summary	2-1
2.1 Role and Responsibility of LAFCo	2-1
2.2 Overview	2-2
2.3 Reclamation District 2038	2-4
2.4 Reclamation District 2039	2-7
2.5 Recommendations	2-8
Chapter 3: Reclamation District Overview	3-1
3.1 Water Resource	3-1
3.2 Wildlife Habitat	3-1
3.3 Recreation and Tourism	3-1
3.4 Delta Management	3-1
3.5 Hazards and Dangers	3-2
3.6 Boundaries, Demographics and Land Use	3-2
3.7 Regulatory Setting	3-4
3.8 Flood Management System	3-5
3.9 Existing Levee Standards and Guidance	3-6
3.10 Reclamation Districts	3-7
3.11 Maintenance of Delta Levees	3-7
3.12 Inspections	3-7
3.13 Revenue Sources	3-8
Chapter 4: Reclamation District 2038 (Lower Jones Tract)	4-1
4.1 Growth and Population Projections	4-1
4.2 Disadvantaged Unincorporated Communities	4-3
4.3 Present and Planned Capacity of Public Facilities	4-3
4.4 Financial Ability to Provide Services	4-6
4.5 Status and Opportunities for Shared Facilities	4-8
4.6 Government Structure and Accountability	4-9
4.7 Matters Related to Effective or Efficient Service Delivery Required by Commission Policy	4-10
4.8 MSR Summary of Determinations	4-10
4.9 Sphere of Influence Considerations	4-12
Chapter 5: Reclamation District 2039 (Upper Jones Tract)	5-1
5.1 Growth and Population Projections	5-1
5.2 Disadvantaged Unincorporated Communities	5-3
5.3 Present and Planned Capacity of Public Facilities	5-3
5.4 Financial Ability to Provide Services	5-6
5.5 Status and Opportunities for Shared Facilities	5-8

5.6 Government Structure and Accountability 5-9

5.7 Matters Related to Effective or Efficient Service Delivery Required by Commission Policy 5-10

5.8 MSR Summary of Determinations..... 5-10

5.9 Sphere of Influence Considerations 5-12

Chapter 6: Recommendations 6-1

Chapter 7: References 7-1

List of Tables

Table 1-1: Levee Standards 1-4

Table 2-1: Levee Standards 2-4

Table 2-2: RD 2039 Facilities Overview 2-6

Table 2-3: RD 2039 Facilities Overview 2-9

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

Table 3-2: Levees of San Joaquin and Other Delta Counties, Miles of Levees..... 3-6

Table 3-3: Levee Standards 3-6

Table 4-1: RD 2038 General Information 4-1

Table 4-2: RD 2038 Census Designated Place Population Forecast 4-3

Table 4-3: RD 2038 Functions 4-4

Table 4-4: Overview of District Facilities..... 4-5

Table 4-5: RD 2038 Revenues and Expenses FY 12 – FY 16 (\$) 4-6

Table 5-1: RD 2039 General Information 5-1

Table 5-2: RD 2039 Census Designated Place Population Forecast..... 5-1

Table 5-3: RD 2039 Functions 5-4

Table 5-4: RD 2039 Facilities Overview 5-5

Table 5-5: RD 2039 Revenues Expenses and Fund Balance 2012-2016 (\$) 5-6

Table 6-1: Revenues and Expenses Single District and Consolidated District 6-3

List of Exhibits

Exhibit 1-1: Jones Tract Reclamation Districts RD 2038 and RD 2039 1-6

Exhibit 4-1: RD 2038 Boundary Map 4-2

Exhibit 4-2: RD 2038 Sources of Revenues 2014–2016 4-7

Exhibit 4-3: RD 2038 Allocation of Expenses 2014-2016* 4-8

Exhibit 5-1: RD 2039 Boundary Map..... 5-2

Exhibit 5-2: RD 2039 Sources of Revenues 2014–2016 5-7

Exhibit 5-3: RD 2039 Allocation of Expenses 2014–2016..... 5-7
Exhibit 5-4: RD 2039 Proposed Sphere of Influence..... 5-13
Exhibit 6-1: Consolidated Jones Tract (RD 2039)..... 6-2

ACRONYMS

AD	East Bay Municipal Utility District Aqueduct
BNSF	Burlington Northern Santa Fe Railroad
CALEMA	California Emergency Management Agency
CEQA	California Environmental Quality Act
CIP	capital improvement plan
CKH	Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000
CVFPB	Central Valley Flood Protection Board
CVP	Central Valley Project
DUC	disadvantaged unincorporated community
DWR	Department of Water Resources
DFW	Department of Fish and Wildlife
EBMUD	East Bay Municipal Utility District
FEMA	Federal emergency Management Agency
FY	fiscal year
HMP	Hazard Mitigation Plan
LAFCo	Local Agency Formation Commission
LMA	Levee Maintaining Agencies
LRA	local responsibility area for fire protection
MGD	million gallons per day
MHI	median household income
MSR	Municipal Service Review
RD	Reclamation District
SEWD	Stockton East Water Agency
SJAFCA	San Joaquin Area Flood Control Agency
SJ OES	San Joaquin Office of Emergency Services
SWP	State Water Project
SWRCB	State Water Resources Control Board
SOI	Sphere of Influence
ULDC	Urban Levee Design Criteria
ULOP	Urban Level of Protection
USACE	U.S. Army Corps of Engineers

WAPA Western Area Power Association

CHAPTER 1: INTRODUCTION

1.1 Role and Responsibility of LAFCo

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. CKH requires all LAFCos, including San Joaquin County LAFCo, to conduct a Municipal Service Review (MSR) prior to updating the spheres of influence (SOIs) of the various cities and special districts in the County (Government Code Section 56430). CKH requires an MSR and SOI updated periodically.

1.2 Purpose of the Municipal Service Review

This MSR will provide San Joaquin LAFCo with information to make determinations for each of the seven elements prescribed by CKH. This MSR evaluates the structure and operation of each agency and discusses possible areas for improvement, coordination, changes of organization or changes to the SOI as appropriate. The purpose of the MSR is to collect data in order to provide a comprehensive analysis of service provision by Reclamation District 2038 (Lower Jones Tract) and Reclamation District 2039 (Upper Jones Tract). Key sources for this study included agency-specific information gathered through a questionnaire, strategic plans, general plans, websites, financial reports, agency audits, research, personal communication, and the Municipal Service Review Guidelines published by the Governor's Office of Planning and Research.

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

Growth and Population Projections for the Affected Area. This section reviews projected growth within the existing service boundaries of the district and analyzes the district's plans to accommodate future growth.

The Location and Characteristics of any Disadvantaged Unincorporated Communities within or Contiguous to the Sphere of Influence. A disadvantaged community is defined as a community of 12 or more registered voters with a median household income of 80 percent or less of the statewide median income.

Present and Planned Capacity of Public Facilities and Adequacy of Public Services Including Infrastructure Needs or Deficiencies. This section discusses the services provided including the quality and the ability of the agency to provide those services, and it will include a discussion of capital improvement projects currently underway and projects planned for the future where applicable.

Financial Ability of Agencies to Provide Services. This section reviews the agency's fiscal data and rate structure to determine viability and ability to meet service demands. It also addresses funding for capital improvement projects.

Status of and Opportunities for Shared Facilities. This section examines efficiencies in service delivery that could include sharing facilities with other agencies to reduce costs by avoiding duplication.

Accountability for Community Service Needs, including Government Structure and Operational Efficiencies. This section examines the agency's current government structure, and considers the overall managerial practices. It also examines how well the each agency makes its processes transparent to the public and invites and encourages public participation.

Matters Related to Effective or Efficient Service Delivery Required by Commission Policy. This section includes a discussion of any San Joaquin LAFCo policies that may affect the ability of each agency to provide efficient services.

1.3 Uses of the MSR

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, such as initiating studies for changes of organization, updating the SOI, or originating a change of organization.

Studies in anticipation of a change of 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 the proposed SOI update. In evaluating the proposed 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 each district, source of revenues, and 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 California Environmental Quality Act (CEQA) requirements for the SOI update. That requires a separate analysis.

Alternatively, the MSR can recommend changes of 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 may also require an environmental review, a property tax sharing agreement, and an election.

1.4 Sphere of Influence

This report includes sphere of influence recommendations and analysis for each agency in a separate section. CKH requires LAFCo to adopt a sphere of influence and map for each city and each special district in the County. The sphere influence is defined by CKH in Government Code Section

56076 as “a plan for the probable physical boundary and service area of a local agency or municipality as determined by the Commission.”

The LAFCo Commission must make determinations with respect to the following factors when establishing or reviewing a sphere of influence:

- **Present and planned land uses in the area, including agricultural and open space lands** - This consists of a review of current and planned land uses based on planning documents to include agricultural and open-space lands.
- **Present and probable need for public facilities and services** - This includes a review of the services available in the area and the need for additional services.
- **Present capacity of public facilities and adequacy of public services provided by the agency** - This section includes an analysis of the capacity of public facilities and the adequacy of public services that the city provides or is authorized to provide.
- **Social or economic communities of interest** - This section discusses the existence of any social or economic communities of interest in the area if the Commission determines that they are relevant to the city or district. These are areas that may be affected by services provided by the city or district or may be receiving services in the future.
- **Present and probable need for services to disadvantaged communities** - Beginning July 1, 2012 the commission must also consider services to disadvantaged communities which are defined as populated areas within the SOI whose median household income is less than or equal to 80 percent of the statewide median income.

A sphere of influence may be amended or updated. An amendment is a relatively limited change to the sphere or map to accommodate a specific project. Amendments can add or remove territory, address a change in provision of services by an agency, or revise a plan for services when it becomes impractical.

An update is a comprehensive review of the sphere that includes the map and relevant portions of one or more MSRs. The review allows for the identification of areas that are likely to receive services and to exclude those territories that are not or will not be served from the sphere of influence. CKH requires updates at least every five years or as needed.

1.5 California Environmental Quality Act

Public Resources Code Section 21000, et seq., also known as the California Environmental Quality Act, requires public agencies to evaluate the potential environmental effects of their actions. This MSR is exempt from CEQA under Class 6 categorical exemption. CEQA Guidelines Section 15306 states that “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.”

1.6 Levee Standards

Both RD 2038 and RD 2039 are agricultural areas. Table 1-1 shows applicable agricultural levee standards. There are more stringent urban levee standards, but they do not apply here. The table shows that compliance with a more stringent standard includes compliance with a less stringent standard.

Table 1-1: 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	

Three levee standards and guidance are applicable to Jones Tract:

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.

Public Law (PL) 84-99. The PL 84-99 standard is a minimum Delta specific levee requirement established by U.S. Army Corps of Engineers (USACE) for levees that participate in its Rehabilitation and Inspection Program. 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. Levees accepted into the USACE program are no longer eligible for FEMA rehabilitation assistance and those which protect primarily agricultural areas will not meet USACE cost benefit requirements for USACE rehabilitation assistance. The PL 84-99 is an easily applied engineering standard based on depth of peat at the landside of the levee used by most districts as an intermediate construction goal without the desire to be included in the USACE program.

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 Delta Flood Protection Act of 1988 requires that Delta Levee Subventions projects be compatible with Bulletin 192-82.

1.7 Jones Tract Reclamation Districts

There are two reclamation districts in Jones Tract, Reclamation District 2038 (Lower Jones Tract) and Reclamation District 2039 (Upper Jones Tract). Exhibit 1-1 shows the two districts. Both were formed in 1919 to provide flood protection for the agricultural areas and infrastructure. The area in

Jones Tract of approximately 12,000 acres is primarily agriculture. Major crops include potatoes, onions, beans, barley, corn, asparagus and celery.

1.8 Local Infrastructure Protected by District Levees

The RD 2038 and RD 2039 levee systems protect key infrastructure on Jones Tract. Some of the facilities include the following.

Burlington Northern Santa Fe Railroad (BNSF)

The BNSF is the main east and west Rail route for a majority of the goods shipped from the Bay Area to the Central Valley as well as a major commuter service. The BNSF Railroad separates Lower Jones Tract (RD 2038) from Upper Jones Tract (RD 2039). Exhibit 1-1 shows the Jones Tract reclamation districts in relation to the BNSF track. The railroad is in neither district. There is an open trestle in the railroad embankment that allows flood water to pass between the Tracts. The Railroad embankment is not designed to retain water and as such if one RD floods the other must be allowed to flood, to equalize the forces of the water on the embankment. As evidenced from the 1980 flood of Lower Jones Tract and the 2004 flood, the railroad experiences extensive damage due to erosion, wave wash and seepage. Although it is outside of the RD 2039 levee the trestle's proximity to the North levee presents a threat in the event this portion of the levee were to fail. Scouring of the channel could expose the pilings of the trestle and greatly reduce safety of the trestle. Wind generated waves across a flooded Upper Jones Tract could also have an impact on the trestle.

East Bay Municipal Utility District Aqueducts (AD's)

East Bay Municipal Utility District (EBMUD) is a multipurpose, regional agency that serves as a water purveyor to approximately 1.3 million municipal and industrial water users throughout portions of Contra Costa County and Alameda County.

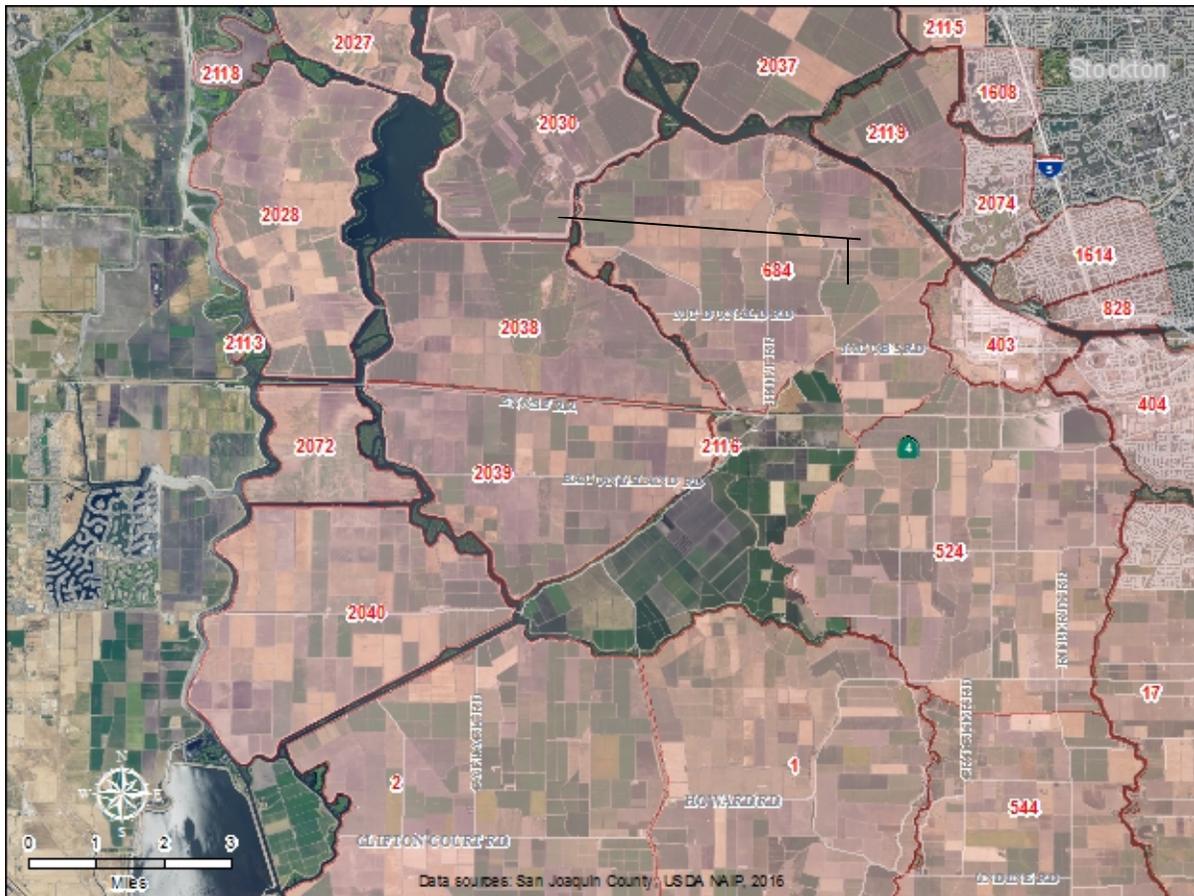
The EBMUD AD's are located on Upper Jones Tract and protected by the Upper Jones Tract levee. The AD's convey the primary water supply from Pardee Reservoir located in Calaveras and Amador County, across the Sacramento — San Joaquin Delta region to the East Bay Area. The EBMUD AD's extend from Pardee Reservoir to the Walnut Creek Water Treatment Plant 82 miles away.

The AD's consist of three parallel large-diameter steel pipelines, constructed at different times in response to the growth of EBMUD's customer base and with a reliance on the ability to deliver 325 MGD to the service area. Under gravity conditions, the three aqueducts can deliver about 200 MGD to EBMUD's service area, and when operating in a pumped mode, the aqueducts can deliver about 325 MGD to EBMUD's service area.

The AD's are most susceptible to damage from the failure of levees on Upper and Lower Jones Tract where water passes through the railroad trestle and at the levee crossing due to, scour damage to the pile supports and footings of the EBMUD AD's. The force of

water running through the trestle and failures in the embankment and even wind waves generated across the flooded areas threaten the stability of the pipes and connections. As experienced from the June 2004 Upper Jones levee break the water and wave action contacting the pipes damaged the coatings on the pipelines necessitating a multi-million dollar repair of the coating.

Exhibit 1-1: Jones Tract Reclamation Districts RD 2038 and RD 2039



Highway 4

The islands and tracts directly adjacent to Upper Jones Tract (Woodward and Victoria) support State Highway 4. In the event of a flooded Upper Jones Tract these islands will likely experience additional seepage and potentially large waves due to increased fetch. The Victoria Island levee is approximately 500 feet from the south levee of RD 2039. A breached Upper Jones levee along the south could induce scour and seepage to the Victoria Levee and threaten Highway 4. As evidenced by the 2004 levee break, RD 2039's, Trapper Slough Levee protects the inundation of State Highway 4 due to flooding of Jones Tract.

Western Area Power Association (WAPA)

The WAPA electrical transmission lines cross Upper Jones Tract. These lines are an important component to the electrical grid for California. In the event of a flood the integrity of the supports could be jeopardized due to saturation of the foundations and exposure to navigation on the resulting open water.

PG&E Electrical Facilities

PG&E distribution and transmission lines on Upper and Lower Jones Tract and both distribution and transmission facilities on adjacent islands could be impacted. The 60 KV transmission line serving the McDonald Island underground gas storage field runs parallel to and near the landside toe of the lower Jones Tract levees. A critical PG&E substation is located on the landside levee slope of the Upper Jones Tract levee and is vulnerable to flooding at water levels less than the 100 year flood level.

Kinder Morgan Fuel Transmission Line

RD 2038 and RD2039 protect the Kinder Morgan the 10 inch fuel transmission line that carries gasoline and aviation fuel from Bay Area refineries to critical locations including military installations (Exhibit 4-1 and Exhibit 5-1). This pipeline is adjacent to the EBMUD aqueduct and is similarly threatened from water forces and scour at the trestle, railroad embankment breaks and at levee crossings.

PG &E Gas Transmission Line 57C

There is a major gas transmission line that crosses Lower Jones Tract. This line carries natural gas to and from the PG&E McDonald Island gas storage facility.

Cellular Telephone Transmission Facilities.

The cellular towers located on Jones Tract are essential to the cellular grid of the Delta including both the Hwy 4 and Hwy 12 corridors.

County Roads

County roads are located on the crown of the Lower Jones Tract levees. The County roads are also located on the crown of portions of the Upper Jones Tract levees and cross the interior of the Upper Jones Tract. These roads also provide access to Woodward, Bacon, and Mandeville Islands and serve as general means of access to the surrounding waterways for recreation, health, and safety.

1.9 Recent Flood Threats and Levee Breaches

Levee breaches are now relatively rare in the Delta. With the introduction of the DWR subventions program in 1973 the reclamation districts have been able to rehabilitate and better maintain the levees. Levee breaches throughout the Delta occur about once every 20 years.

Levee Breaches

The most recent levee breach in the Delta was the Upper Jones Levee Break of 2004.

- 2004 - The Upper Jones Levee breached during a summer seasonal high tide. It is unknown what other conditions contributed to the breach but it is speculated to be either seepage or burrowing animals.
- 1986 and 1994 - Little Mandeville Island levees breached, however the condition of the levees is not viewed as representative of the levees on Upper Jones Tract.
- 1986 - New Hope Tract and Tyler Island levees breached due to exceptionally high river flows. The high flows were likely due to lack of upstream flood control capacity (Cosumnes River), full reservoirs on the Mokelumne and Sacramento Rivers, and heavy rainstorms. These breaches are viewed as more riverine in nature and not representative of the Delta pool type risks affecting Upper Jones Tract.

Recent Flood Situations

In 2011 the seasonal high tides exposed seepage and beaver dens on Upper Jones Tract. These threats were remedied with emergency maintenance and rehabilitation measures. Toward the end of the winter the reservoirs were filling and the accumulated late snow pack were of concern. Fortunately no major rainstorms or wind conditions developed.

During New Years in 2006 the combination of a heavy rainstorm seasonal high tides and wind-generated waves created a flood situation, which required flood fight measures. During the highest tides the water level reached or nearly reached the elevation of the 100-year storm elevation in many locations throughout the Delta.

Recent Flood Threats

In 1997 the combination of full reservoirs, large snow pack and heavy rain caused significant runoff into the rivers and the Delta. Numerous levee breaches were experienced along the San Joaquin River upstream of the Delta and a major breach occurred on the Feather River near the town of Olivehurst (Yuba City). No levee failures occurred in the Central Delta area.

CHAPTER 2: EXECUTIVE SUMMARY

2.1 Role and Responsibility of LAFCo

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. CKH requires all LAFCOs, including San Joaquin County LAFCo, to conduct a Municipal Service Review (MSR) prior to updating the spheres of influence (SOIs) of the various cities and special districts in the County (Government Code Section 56430). CKH requires an MSR and SOI update to be updated periodically.

The focus of this MSR is to provide San Joaquin County LAFCo with all necessary and relevant information related to Jones Tract reclamation districts, RD 2038 and RD 2039. It will allow San Joaquin LAFCo to 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 SOI, or initiating a change of organization.

This report also includes sphere of influence recommendations and analysis for each agency. CKH requires LAFCo to adopt a sphere of influence and map for each city and each special district in the County. The sphere influence is defined by CKH in Government Code Section 56076 as “a plan for the probable physical boundary and service area of a local agency or municipality as determined by the Commission.”

The LAFCo Commission must make determinations with respect to the following factors when establishing or reviewing a sphere of influence:

- Present and planned land uses in the area, including agricultural and open space lands
- Present and probable need for public facilities and services
- Present capacity of public facilities and adequacy of public services provided by the agency
- Social or economic communities of interest
- Present and probable need for services to disadvantaged communities

A sphere of influence may be amended or updated. An amendment is a relatively limited change to the sphere or map to accommodate a specific project. An update is a comprehensive review of the sphere that includes the map and relevant portions of one or more MSRs. CKH requires updates at least every five years or as needed.

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.

The Delta is a vital link in California's water delivery system. 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.

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.

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. Both RD 2038 and RD 2039 are in the primary zone. 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. Approximately 87% of the Primary Zone and 49% of the Secondary Zone are in agriculture.

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 the Thornton Community. 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.

Regulatory Setting

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.
- At the federal level, U.S. Army Corps of Engineers (USACE) is primarily responsible for planning, designing, and constructing federally authorized flood management facilities, including dams, levees, and other structures.
- California Department of Water Resources (DWR), primarily acting through the Division of Flood Management, is responsible for State-level flood management, 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. 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) 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.

Levee Standards

Table 2-1 shows applicable levee standards to RD 2038 and RD 2039. The table shows that compliance with a more stringent standard includes compliance with a less stringent standard.

Table 2-1: 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	

Revenue Sources

There are four main revenue sources for reclamation districts. They include property tax, special assessments, warrants, and grants. Districts typically apply for and receive grants from Delta Levees Subventions Fund, from the Central Valley Flood Protection Board (CVFPB) and Delta Levees Special Flood Control Projects program which is administered by DWR.

2.3 Reclamation District 2038

RD 2038 was formed on May 6, 1919 under the California Water Code §50000, et seq. to provide levee maintenance and drainage services. The District includes approximately 5,682 acres primarily in agricultural. This acreage has ranch and farm facilities as well as associated farming equipment. Crops produced include grain, asparagus, wheat, alfalfa, tomatoes and more. RD 2038 protects nearly 12,000 acres of agricultural production on adjoining islands.

Growth and Population Projections

There are approximately 40 residents in the District. The District anticipates no or very little growth. Considering the estimated population growth for areas in the unincorporated County outside of census designated places the population is expected to increase by 2.5% in the next 30 years. At 2.5% growth the population would be approximately 41 in 2045.

Disadvantaged Unincorporated Communities

The district qualifies as a DUC based on the MHI of \$32,244 which is less than 80% of the statewide MHI. There are no water, wastewater or fire services to the District.

Present and Planned Capacity of Public Facilities

Table 2-2 provides an overview of the District. The District maintains 9.03 miles of levee. All are at HMP standards and 5.03 miles meet PL 84-99 standards.

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.

The District used grant money to develop a Five Year Plan that covered FY 12 through FY 16. With the grant money the District was able to elevate all areas of the levee system to HMP standards and bring a significant portion to PL 84-99 standards. The District is pursuing other grant money to finish bringing all its levees to PL 84-99 standards. The District recently received a grant for \$5.4 million and hopes to begin the project in the summer of 2018.

Financial Ability to Provide Services

The District's main sources of revenues are assessments and special projects. The two sources are split fairly evenly. Assessments are the more stable source but are limited to \$198,000. The major expenses are utilities (operating the pumps) at 43%. Levee maintenance, rodent control, and vegetation control account for 21% of expenditures. During the period 2014 to 2016 expenses varied from \$335,000 to \$741,000, but \$335,000 is more typical. The District maintains a fund balance of nearly one year of typical expenses. In the past the fund balance has been used to cover shortfalls.

The District has completed a Five Year Plan that upgraded all levees to HMP standards and upgraded about half the system to PL 84-99 standards. The goal of bringing all levees to PL 84-99 standards fell short as grant money was insufficient.

Status and Opportunities for Shared Facilities

The District participates in the DWR grant programs, Delta Levees Subventions Program, and Special Projects Program. 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, the California Office of Emergency Services, and the Central Valley Flood Protection Board.

With regard to management efficiencies, 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.

Government Structure and Accountability

The District is governed by a three member board of trustees that serve 4-year staggered terms. Voters and Trustees of the district must be landowners or their legal representative. 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 meetings are held once a year or as needed at 235 E. Weber Avenue in Stockton Weber Avenue in Stockton. Meeting notices are posted according to the Brown Act. The District does not have a website but communicates with landowners via mail as necessary.

Administration is accomplished by its attorney and its secretary. The secretary also does the bookkeeping. In addition, the District has contracted for an engineer and part time employees as needed.

The District's SOI was established in 1983 and is in need of an update. The District has indicated an interest in consolidating with RD 2039. It is suggested the Commission set the District's SOI as a zero sphere since the services will ultimately be provided by another agency. The updated SOI should be consistent with the results of the consolidation.

Table 2-2: RD 2039 Facilities Overview

RD 2039 Facilities Overview

RD 2038 FACILITIES			
Total Levee Miles	9.03	Surface Elevation	-10 to -17 feet Below sea level
LEVEE MILES BY STANDARD		LEVEE MILES BY TYPE	
No Standard	0.0	Dry Land Levee	0.0
HMP Standard	9.03	Urban Levee	0.0
PL 84-99 Standard	5.03	Agricultural Levee	9.03
Bulletin 192-82 Standard	0.0	Other	0.0
FEMA Standard			
DISTRICT FACILITIES			
Internal Drainage System	Open Drains	Pump Station(s)	2
Detention Basins(s)	No	Bridges	No
FLOODPLAIN			
FIRM Designation	Zone AE	Base Flood Elevation	10 NAVD
LEVEE INSPECTION PRACTICES			
Inspections are done at least once a year by the District’s engineering firm with DWR and DFW as related to levee assistance programs. The levee is patrolled regularly, at least weekly, by trustees who are involved in farming on the island. The District Engineer also conducts an inspection at least annually. During high water events inspections are more often sometimes even hourly.			
LEVEE INSPECTION REPORTS			
Most Recent Written Inspection	NP	Inspection Rating	NP
LEVEE SEGMENT	DESCRIPTION		CONDITION
Whiskey Slough Empire Cut Middle River	North & East North West		Good Good Good
LEVEE MAINTENANCE			
Miles Rehabilitated 8.9 miles planned	Selected Areas N/P	Miles Needing Rehabilitation	2.4 miles per last Inspection in 2016 for seepage
% Rehabilitated 0 %		% Needing Rehabilitation	
Rehabilitation Cost per Levee Mile*	\$561,200/mile		
INFRASTRUCTURE NEEDS/DEFICIENCIES			
Plans \$5.8 M project funded by state and EBMUD			
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.

Matters Related to Effective or Efficient Service Delivery Required by Commission Policy

Since the District is interested in a consolidation with RD 2039, LAFCo's policies on changes of organization would apply.

2.4 Reclamation District 2039

RD 2039 was formed on May 6, 1919 under the California Water Code §50000, et seq. to provide levee maintenance and drainage services. The District includes approximately 6,170 acres primarily in agricultural. Major crops include potatoes, onions, beans, barley, corn, asparagus and celery. The District has two non-project levee systems totaling 9.23 miles, 4.82 on Middle River and 4.41 miles on Trapper Slough.

Growth and Population Projections

There are currently 30 residents of RD 2039 with essentially no growth anticipated over the next 30 years. Using the estimated growth rate for rural areas in San Joaquin County there may be 1 additional resident in 2045 for a total of 31.

Disadvantaged Unincorporated Communities

The district qualifies as a DUC based on the MHI of \$32,244 which is less than 80% of the statewide MHI. There are no water, wastewater, or fire services to the District.

Present and Planned Capacity of Public Facilities

An overview of the District is shown in Table 2-3. The District operates and maintains 9.23 miles of levees, 4.82 on the Middle River and 4.41 miles on Trapper Slough. As a result of funding for its Five Year Plan the District was able to bring the Middle River segments to the Bulletin 192-82 standard. The Five Year Plan also allowed the District to bring the Trapper Slough segment, an internal levee, to HMP standards.

Levees are inspected weekly by the Trustees and at least annually by the Engineer in conjunction with DWR and DFW as related to the levee assistance programs. During high water, inspections are accelerated and at times conducted hourly. The Engineer reports results to the Trustees.

The District operates a system of drainage canals, and one pump station that are used to evacuate water from the District. The District also operates the Broadway Canal irrigation system and jointly with landowners, the irrigation gates on Trapper/Whiskey Slough.

Financial Ability to Provide Services

Between FY 14 and FY 16 the District's main sources of revenues were assessments, EBMUD contributions, the State Special Projects Fund, and Subvention Funds. The subvention fund reimburses up to \$0.75 for each \$1 spent on levee maintenance after District spends \$1,000 per mile of levee. Assessments not used for maintenance are set aside for flood emergencies.

Assessments account for an average of approximately \$200,000. EBMUD funds, Special Project funds and Subvention Funds vary from year to year and should not be considered a stable funding source..

The major expenses are levee maintenance, vegetation control, and rodent control, which together account for 37% of expenses. Administration accounted for 8%, salaries for the part-time superintendent 7% and engineering 9%. During the period 2014 to 2016 expenses varied from \$408,000 to \$920,000.

The District maintains an ample fund balance that can be used to cover shortfalls. At the end of FY 2016 the District had a fund balance of \$913,000, approximately 2 years of operating expenses.

Status and Opportunities for Shared Facilities

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, the California Office of Emergency Services, and the Central Valley Flood Protection Board.

As for management efficiencies, 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.

Government Structure and Accountability

The District is governed by a five 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 members do not receive a stipend. Board meetings are held once a year or as needed at 235 E. Weber Avenue in Stockton. Meeting notices are posted according to the Brown Act. The District does not have a website but communicates with residences via mail as necessary.

Administration is accomplished by its attorney and its secretary. The secretary also does the bookkeeping. Part time employees and contractors are used as needed.

The District's SOI was established in 1983 and is in need of an update. The District has also expressed an interest in consolidating with RD 2038. In anticipation of a consolidation it is suggested the Commission set the District's SOI to include all of the District's boundary, the adjoining railroad and RD 2038. Although the District's SOI is in need of an update, the updated SOI will be consistent with the results of the consolidation.

Matters Related to Effective or Efficient Service Delivery Required by Commission Policy

Since the District is interested in a consolidation with RD 2038, LAFCo's policies on changes of organization would apply.

2.5 Recommendations

The SOI for each district was established in 1983 and is in need of an update. In the absence of a change of organization or reorganization, it is recommended that the Commission set the SOI for each district as coterminous with current boundaries.

However, the districts have indicated a desire to consolidate. There are two ways to accomplish that either by consolidation or by dissolution of one district and annexation to the successor agency. .

Table 2-3: RD 2039 Facilities Overview

RD 2039 FACILITIES			
Total Levee Miles	9.23	Surface Elevation	-12 to -15 feet below sea level
LEVEE MILES BY STANDARD		LEVEE MILES BY TYPE	
No Standard	0.0	Dry Land Levee	0.0
HMP Standard	9.23	Urban Levee	0.0
PL 84-99 Standard	4.82	Agricultural Levee	9.23
Bulletin 192-82 Standard	4.82	Other	0.0
FEMA Standard			
DISTRICT FACILITIES			
Internal Drainage System	Drainage Canals	Pump Station(s)	1
Detention Basins(s)	No	Bridges	No
FLOODPLAIN			
FIRM Designation	Zone AE	Base Flood Elevation	10 NAVD
LEVEE INSPECTION PRACTICES			
The levee is patrolled regularly at least weekly by the trustee who are involved in farming on the island. The District Engineer also conducts an inspection at least annually. During high water, inspections are accelerated and at times hourly.			
LEVEE INSPECTION REPORTS			
The Engineer submits reports to the Board of Trustees			
LEVEE SEGMENT	DESCRIPTION		CONDITION
Middle River Trapper Slough	West and South East		Good Good
LEVEE MAINTENANCE			
Miles Rehabilitated	Selected Areas N/P	Miles Needing Rehabilitation	NONE
% Rehabilitated 0 %	NP	% Needing Rehabilitation	0%
Rehabilitation Cost per Levee Mile*	NP		
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.

With those considerations the following is recommended:

- 1) The districts consolidate into RD 2039 because of its stronger reserve position that would allow the consolidated district to maintain approximately 1.4 years of operating expenses in reserves.
- 2) The districts adopt substantially similar resolutions so that LAFCo cannot deny the application.
- 3) The consolidated district's SOI include all the territory currently served by RD 2038 and RD 2039 and ultimately the railroad since the District's flood control operations protect the railroad.
- 4) The consolidated district's board of trustees could be expanded to seven to allow for the expiration of terms of RD 2038 trustees. Alternatively the new District may decide to maintain a five member board with a mix of trustees from both districts determined by voluntary resignation of current trustees.
- 5) The applicant is encouraged to get all the landowners to sign a petition in support of the consolidation. If that can be accomplished the Commission may waive the protest proceedings. Alternatively the Commission may waive protest proceedings under GC 56663 if no opposition is received before the conclusion of proceedings. Otherwise a protest hearing is required where a 25% protest of landowners with 25% or more of the assessed value can force an election. If there is a 50% protest the consolidation fails.
- 6) The consolidation is exempt from CEQA under Section 15320(b) and that the SOI consider the general rule exemption since no change to services or land use is anticipated.

CHAPTER 3: RECLAMATION DISTRICT 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.

3.1 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.

3.2 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.

3.3 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.

3.4 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.

3.5 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 storm water 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.

3.6 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. Both RD 2038 and RD 2039 are in the primary zone. 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. Table3-1 shows existing land use in the San Joaquin County portion of the Delta. The Table shows 87% of the Primary Zone and 49% of the Secondary Zone are in agriculture.

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 the Thornton Community. 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 3-1: 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
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

Source: San Joaquin County 2016

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 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 10 years, 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. Both Districts, excluding the railroad, have Williamson Act easements.

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.

3.7 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.

3.8 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 as part of a federally

authorized project 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 or by reclamation districts and maintained by local reclamation districts. There are no project levees in RD 2038 and RD 2039.

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 3-2.

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

LEVEE TYPE	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%

Source: Eberhardt School of Business 2012

3.9 Existing Levee Standards and Guidance

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

Table 3-3: 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	

Three levee standards and guidance are applicable to RD 2038 and RD 2039:

- FEMA 100-year Protection. This standard is for urban development. This "insurance" standard, often called the "one percent annual chance flood" level of protection, 3 feet of freeboard, 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. This standard is not applicable to Jones Tract since it is not an urban area.

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

3.10 Reclamation Districts

Reclamation districts are special districts responsible for reclaiming and/or maintaining land subject to frequent overflow or flooding by constructing, operating, and maintaining systems of levees, dikes, pumps, and ditches within both urban and rural lands. Reclamation Districts are governed by California Water Code §50000, et seq. 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.

3.11 Maintenance of Delta Levees

Flood control facilities are subjected to natural forces that can reduce their effectiveness over time. Routine maintenance helps preserve the structure 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.

3.12 Inspections

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.” At least one annual inspection is required of levees that received reimbursements for maintenance or improvement costs.

3.13 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 the agency received in 1978 plus an incremental value that is based on the change in assessed value from 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 also 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 maximum amount to be paid parcels receiving the benefits. 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 loans in the form of interest bearing warrants (which are authorized within the Water Code) and typically purchased by local financial institutions. Warrants are usually redeemed in order of registration.

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 and Proposition 1E. In 2014, voters approved Proposition 1, which identified \$239 million for 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.

CHAPTER 4: RECLAMATION DISTRICT 2038 (LOWER JONES TRACT)

RD 2038 was formed on May 6, 1919 under the California Water Code §50000, et seq. to provide levee maintenance and drainage services.

Table 4-1: RD 2038 General Information

RD 2038 GENERAL INFORMATION	
Agency	RD 2038 (Lower Jones Tract)
Address	P.O. Box 1461 Stockton CA 95201
Principal Act	California Water Code §50000, et seq.
Date Formed	May 6, 1919
Population	Estimate 40
Last SOI Update	1983
Services Provided	Levees, flood control and drainage
Contact Person	Dante Nomellini 235 E. Weber Stockton CA 95202 209-465-5883 ngmpics@pacbell.net
Website	None

The District includes approximately 5,682 acres primarily in agricultural. This acreage has ranch and farm facilities as well as associated farming equipment. Crops produced include grain, asparagus, wheat, alfalfa, tomatoes and more. RD 2038 protects nearly 12,000 acres of agricultural production on adjoining islands.

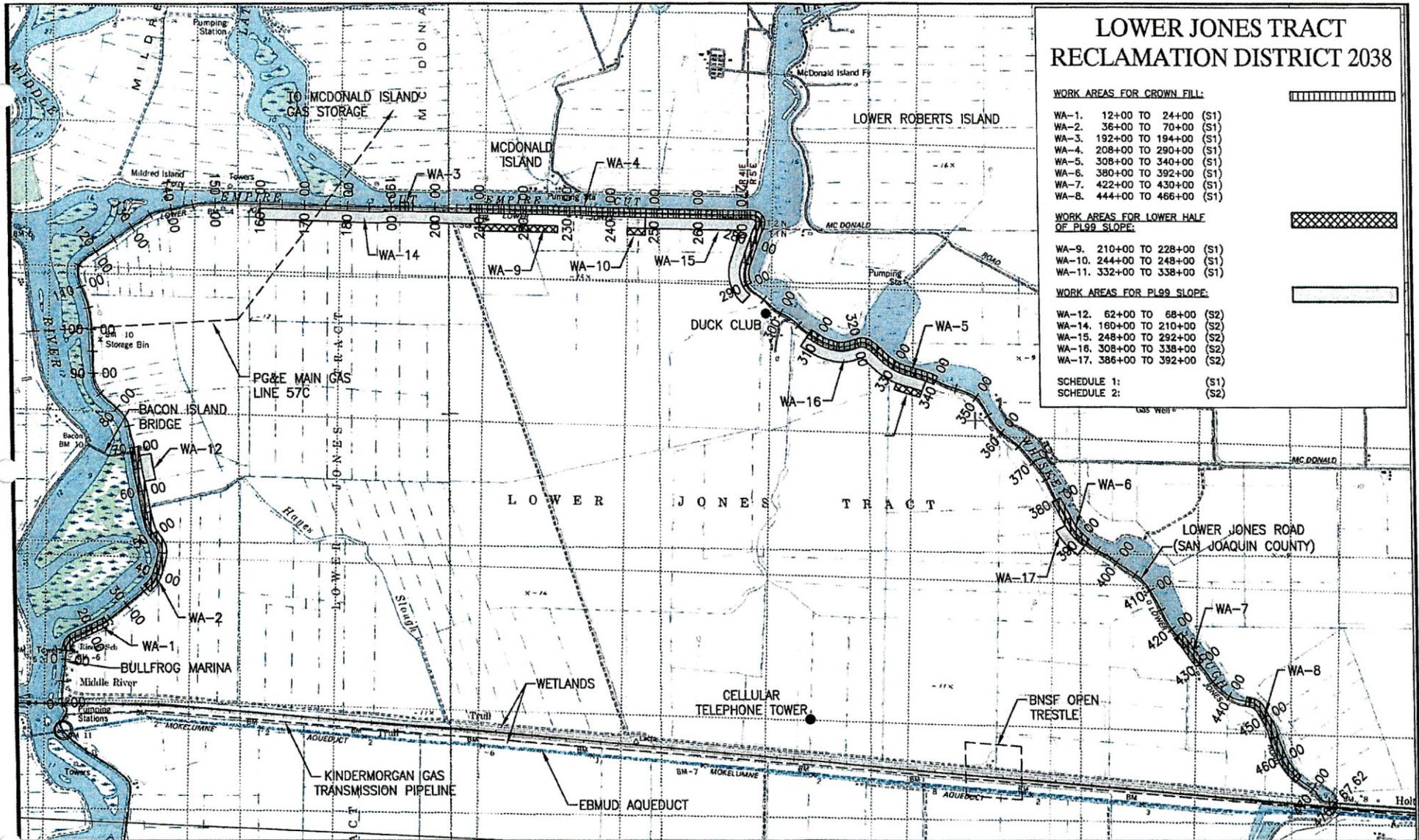
4.1 Growth and Population Projections

The District population is estimated at approximately 40 residents. 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 San Joaquin Council of Governments has published population projections for census designated places and the unincorporated county. Table 4-2 shows projected growth for unincorporated portions of the County. The table shows expected growth of approximately 2.5% 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 the 2.5% can be considered an upper bound of any potential growth and results in an estimated population of 41 in 2045.

DETERMINATIONS

4.1.1 There are approximately 40 residents in the District. The District anticipates no or very little growth. The estimated population growth for areas in the unincorporated County outside of census designated places is expected to increase by 2.5% in the next 30 years. At 2.5% growth the population would be approximately 41 in 2045.

Exhibit 4-1: RD 2038 Boundary Map



LOWER JONES TRACT RECLAMATION DISTRICT 2038

WORK AREAS FOR CROWN FILL:	
WA-1.	12+00 TO 24+00 (S1)
WA-2.	36+00 TO 70+00 (S1)
WA-3.	192+00 TO 194+00 (S1)
WA-4.	208+00 TO 290+00 (S1)
WA-5.	308+00 TO 340+00 (S1)
WA-6.	380+00 TO 392+00 (S1)
WA-7.	422+00 TO 430+00 (S1)
WA-8.	444+00 TO 466+00 (S1)

WORK AREAS FOR LOWER HALF OF P1.99 SLOPE:	
WA-9.	210+00 TO 228+00 (S1)
WA-10.	244+00 TO 248+00 (S1)
WA-11.	332+00 TO 338+00 (S1)

WORK AREAS FOR P1.99 SLOPE:	
WA-12.	62+00 TO 68+00 (S2)
WA-14.	160+00 TO 210+00 (S2)
WA-15.	248+00 TO 292+00 (S2)
WA-16.	308+00 TO 338+00 (S2)
WA-17.	386+00 TO 392+00 (S2)

SCHEDULE 1:	(S1)
SCHEDULE 2:	(S2)

SCALE: 1"=2000'

REV.	DATE	REVISIONS	DESCRIPTION



LOWER JONES TRACT - RD2038
PHASE 1
WORK AREAS FOR LEVEE REHABILITATION
RECLAMATION DISTRICT NO 2038
LOWER JONES TRACT, CALIFORNIA

PROJECT NO:	2038
DRAWN BY:	GME
DESIGN BY:	BTW
CHECK BY:	DC
SCALE:	AS SHOWN
DATE:	2012-06-30
CAD FILE:	T20630_PHASES.DWG

APPROVED BY:	
DATE:	

SHEET NO.	PH-1
OF	3
SHEETS	

Table 4-2: RD 2038 Census Designated Place Population 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	40	40	40	40	41	41	41
Note: CDP = census designated place Source: Eberhardt School of Business, 2016							

4.2 Disadvantaged Unincorporated Communities

CKH defines a DUC as inhabited territory with the MHI of 80% or less than the California MHI or \$54,191. The estimated population of the district ranges between 30 and 40, mostly farm workers. In 2016 the California MHI was estimated as \$67,739 by the Department of Finance. By definition, the MHI for a DUC would be \$54,191 or less. RD 2038 lies in census tract 39 where the MHI is \$32,244. Based on the definition in CKH the District would qualify as a DUC.

For DUC’s, it is necessary to identify water, wastewater, and fire suppression services. There are no water or wastewater services for the district. Further the District resides in a local responsibility area (LRA) where there is no local fire district. Therefore, the area also receives no fire services.

DETERMINATIONS

4.2.1 The district qualifies as a DUC based on the MHI of \$32,244 which is less than 80% of the statewide MHI. There are no water, wastewater or fire services to the District.

4.3 Present and Planned Capacity of Public Facilities

The District operates and maintains 9.03 miles of levees in the Lower Jones Tract. The levees are agricultural levees. The levees protect land that is between 12 and 16 feet below sea level. In the event of a levee breach the entire tract will fill with water until the levee has been repaired. All levees are at HMP standards but only 5.03 miles meet PL 84-99 standard. The District has been working to upgrade the remaining levees up to the higher standard. The upgrade was funded by a DWR Special Projects grant. Unfortunately the grant money was insufficient to complete the upgrade.

Levee breaches throughout the Delta occur about once every 20 years. In 2004 the Upper Jones Levee breached during a summer seasonal high tide. Lower Jones Tract experienced flooding due to water passing from Upper Jones Tract through the opening at the railroad trestle. As a result there was significant interior District levee slope and drainage facility damage. Landowners lost all crops. Irrigation and drainage facilities, farm buildings, and equipment were destroyed or damaged. Significant acreage suffered damage from scour and sedimentation.

The Lower Jones Tract levee performs well during flood situations and landowners monitor the levee. The levees are topped with all-weather roads. The District maintains levee material stockpiles and farm equipment is onsite during the flood season. As a result when the levee experienced waterside sloughing and beaver den cave-ins the District is able to quickly repair the levee.

As shown in Table 4-3 the District lists most RD functions. The District does not provide irrigation water but has a license to do so. Table 4-4 provides an overview of District facilities.

Table 4-3: RD 2038 Functions

District	RD 2038
Name	Lower Jones Tract
Levee Maintenance	✓
Vegetation Maintenance	✓
Weed Abatement	✓
Vector/Rodent Control	✓
Levee Road Upkeep	✓
Flood Control	✓
Drainage	✓
Irrigation Water	No but holds a license
Levee Patrol	✓
Ferry Operations	No
Subvention	✓

Other public facilities in the District include Lower Jones Tract Road and Bacon Island Road and Bullfrog Marina. The roads service Upper and Lower Jones Tract, Woodward, Bacon, and Mandeville Islands. There is a major bridge and a ferry that services the islands that are protected by the Lower Jones Tract levee. All of these islands (nearly 25,000 acres total) are productive agricultural land and require the roads to produce and distribute crops. The Bullfrog Marina provides recreational boating services to the Delta including berthing, a convenience store, and fuel.

There are several areas of concern that could result in flooding. These are also shown in Exhibit 4-1 which identifies mile posts along the levees and key landmarks. The district is concerned about seepage at mileposts 80 to 90 and 120 to 150 and encroachment on the levee toe at the irrigation/pump station, milepost 210 to 230. There is also concern about encroachment at one of the District’s pump stations, mileposts 1 and 204, and at the Farm Camps.

Five Year Plan Projects

The District has been actively pursuing improvements to its levee system. Through a grant the District produced a Five Year Plan to upgrade all of its levee system to PL 84-99 standards. The plan covers FY 12 through FY 16. As stated above the District ran out of money before all sections were

Table 4-4: Overview of District Facilities

RD 2038 FACILITIES			
Total Levee Miles	9.03	Surface Elevation	-10 to -17 feet Below sea level
LEVEE MILES BY STANDARD		LEVEE MILES BY TYPE	
No Standard	0.0	Dry Land Levee	0.0
HMP Standard	9.03	Urban Levee	0.0
PL 84-99 Standard	5.03	Agricultural Levee	9.03
Bulletin 192-82 Standard	0.0	Other	0.0
FEMA Standard			
DISTRICT FACILITIES			
Internal Drainage System	Open Drains	Pump Station(s)	2
Detention Basins(s)	No	Bridges	No
FLOODPLAIN			
FIRM Designation	Zone AE	Base Flood Elevation	10 NAVD
LEVEE INSPECTION PRACTICES			
Inspections are done at least once a year by the District’s engineering firm with DWR and DFW as related to levee assistance programs. The levee is patrolled regularly, at least weekly, by trustees who are involved in farming on the island. The District Engineer also conducts an inspection at least annually. During high water events inspections are more often sometimes even hourly.			
LEVEE INSPECTION REPORTS			
Most Recent Written Inspection	NP	Inspection Rating	NP
LEVEE SEGMENT	DESCRIPTION		CONDITION
Whiskey Slough	North & East		Good
Empire Cut	North		Good
Middle River	West		Good
LEVEE MAINTENANCE			
Miles Rehabilitated 8.9 miles planned	Selected Areas N/P	Miles Needing Rehabilitation	2.4 miles per last Inspection in 2016 for seepage
% Rehabilitated 0 %	NP	% Needing Rehabilitation	NP
Rehabilitation Cost per Levee Mile*	\$561,200/mile		
INFRASTRUCTURE NEEDS/DEFICIENCIES			
Plans \$5.8 M project funded by state and EBMUD			
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.			

upgraded to PL 84-99. The District is pursuing other grant funding to complete the project. The District has recently received a grant for \$5.4 million and hopes to begin the project in the Summer of 2018.

DETERMINATIONS

- 4.3.1** 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.
- 4.3.2** The District used grant money to develop a Five Year Plan that covered FY 12 through FY 16. With the grant money the District was able to elevate all areas of the levee system to HMP standards and bring a significant portion to PL 84-99 standards. The District is pursuing other grant money to finish bringing all its levees to PL 84-99 standards. The District recently received a grant for \$5.4 million and hopes to begin the project in the summer of 2018.

4.4 Financial Ability to Provide Services

Table 4-5 summarizes revenues and expenses from 2014 to 2016. In 2014 and 2016 expenses exceeded revenues. The shortfall was covered by the fund balance. In 2015 the District received a special projects grant and reimbursed EBMUD \$477,947 for cash flow advances. Revenues and expenses for 2014 and 2016 are more typical. The District does maintain a fund balance that is approximately one year of typical expenses (FY 14 and FY 16). The fund balance on June 30, 2016 was \$271,000.

Table 4-5: RD 2038 Revenues and Expenses FY 12 – FY 16 (\$)

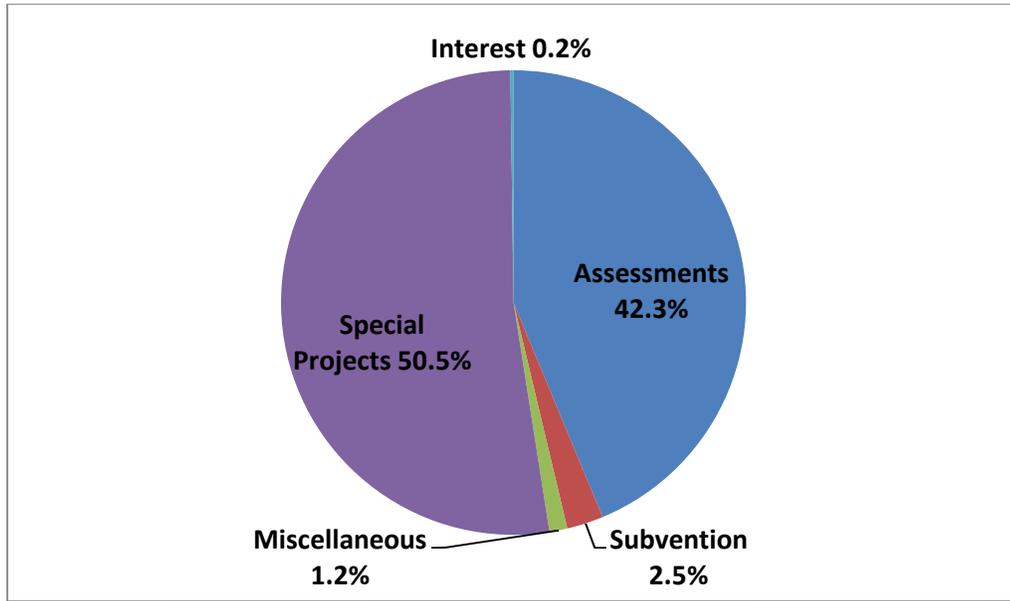
Line Item	2014	2015	2016
Revenues	286,833	915,707	208,038
Expenses	358,653	740,803	335,503
Beginning Fund Balance	294,786	222,966	398,590
Ending Fund Balance	222,966	398,590	271,125

Source: Schwartz Giannini Lantsberger & Adamson 2014, 2015, 2016

RD 2038 receives revenue from two main sources, special projects and assessments. In addition it receives some revenue through subvention funds from DWR. Exhibit 4-2 shows the average distribution of revenue sources for FY 14 and FY 16. As shown the District receives a considerable amount of funding from Special Projects and Subvention. Occasionally the District receives contract revenue from EBMUD to assist in maintenance and improvements. EBMUD benefits from the levee system because the levee protects the EBMUD aqueduct that provides water to Contra Costa County and Alameda County. It is clear from the Exhibit 4-2 that grant funds from the DWR Special Projects Fund provides a good portion of revenues. Unfortunately Special Project funds are not a stable source of funding but vary from year to year. While assessments remained constant at \$198,000, Special Project revenues ranged from \$6,300 to \$670,600 in the three year period.

Exhibit 4-3 shows the allocation of expenses for the three years, FY 2014 to FY 2016. The average expenses were adjusted in 2015 because the District was required to make a one-time payment of \$747,000 to EBMUD to reimburse cash flow advances. The Exhibit shows only 12% goes for administration and a good portion of expenses are for utilities. If levee maintenance were to also include vegetation control, and rodent control, the total levee maintenance would be 21%. Miscellaneous expenses account for 1% and cover payment of the Superintendent’s stipend. Water rights fees account for another 1%. Similar to Exhibit 4-2 the allocation is fairly representative of relative proportions of district expenses.

Exhibit 4-2: RD 2038 Sources of Revenues 2014–2016



Source: Schwartz Giannini Lantsberger & Adamson, 2014, 2015, 2016

Capital Improvements

In 2012 and 2013 the District spent a large amount of funding on upgrading all its levees to HMP standards and portions to PL 84-99/Bulletin 192-82 standards. The upgrade was supported by a special projects fund grant and a contribution from EBMUD.

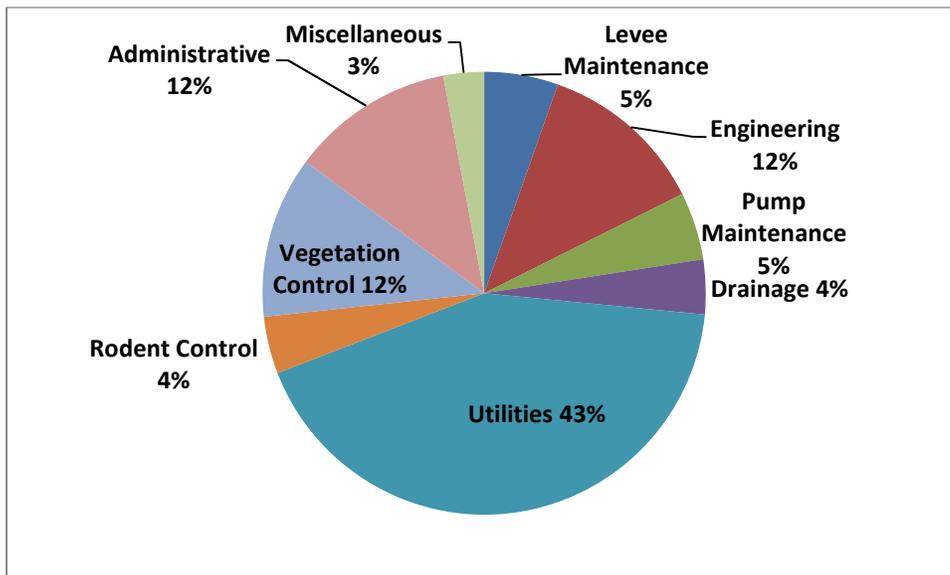
In 2013, the District produced a five-year strategic plan. It included a number of projects that could be undertaken to reduce vulnerability to flooding and to strengthen the levee system around RD 2038. Most of these projects included extensive environmental review, permitting, and planning before construction could even begin. The District does not have sufficient reserves to complete any of the projects and would need to rely on 100 percent cost share from the State or some other funding source.

DETERMINATIONS

4.4.1 The Districts main sources of revenues are assessments and special projects. The two sources are split fairly evenly. Assessments are the more stable source but are limited to \$198,000.

- 4.4.2 The major expenses are utilities 43%. Levee maintenance, rodent control, and vegetation control account for 21%. During the period 2014 to 2016 expenses varied from \$335,000 to \$741,000, but \$335,000 is more typical.
- 4.4.3 The District maintains a fund balance of nearly one year of typical expenses. In the past the fund balance was used to cover shortfalls.
- 4.4.4 The District has completed a Five Year Plan that upgraded all levees to HMP standards and upgraded about half the system to PL 84-99 standards. The goal of bringing all levees to PL 84-99 standards fell short as grant money was insufficient.

Exhibit 4-3: RD 2038 Allocation of Expenses 2014-2016*



Note: FY 15 adjusted to exclude one-time repayment to EBMUD for cash flow advances
 Source: Schwartz Giannini Lantsberger & Adamson 2012, 2013, 2014, 2015, 2016

4.5 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 has a routine maintenance agreement with the Department of Fish and Wildlife for levee projects. The District has received funds from EBMUD to maintain and improve the levees. EBMUD has determined that the RD 2038 levee provides a benefit to the aqueduct that supplies water to Contra Costa County and Alameda County.

The District does coordinate with a number of agencies as part of the emergency operations plan, including the SJ OES, San Joaquin County Sheriff’s Department, the California Office of Emergency Services, and the Central Valley Flood Protection Board.

One measure of management efficiencies is whether the District prepares plans for operations as well as finances. RD 2038 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 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

- 4.5.1** The District participates in the DWR grant programs Delta Levees Subventions Program and Special Projects Program.
- 4.5.2** The District works with a number of local agencies in its Emergency Operations Plan, including the SJ OES, County Sheriff's Office, the California Office of Emergency Services, and the Central Valley Flood Protection Board.
- 4.5.3** 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.

4.6 Government Structure and Accountability

The District is governed by a three-member board elected to 4-year staggered terms. Voters and Trustees of the district must be landowners or their legal representative. Often, there are not enough candidates to hold an election, so Trustees are appointed by the Board of Supervisors. The Trustees receive no stipend or benefits.

Board meetings are held once a year or as needed at 235 E. Weber Avenue in Stockton. Agendas are posted according to the Brown Act and minutes are distributed to trustees. The District has no website and communicates with landowners via mail as necessary.

Administration is accomplished by its attorney and its secretary. The secretary also does the bookkeeping. In addition the District has contracted with an engineering firm for engineering functions. Part time employees and contractors are used as needed.

The District has indicated a willingness to consolidate with RD 2039. Both districts are primarily agriculture in use. The two districts are separated by the railroad trestle and a levee which has an opening to allow floodwater to flow between the districts. Should RD 2039 flood RD 2038 will also flood and vice versa. As a result a coordinated effort between the two districts is necessary to drain flood waters and protect farmland in both areas. During a flood event it would be more efficient to work with one set of directors than two. Both districts use the same attorney and secretary. They also provide flood protection and other services to the same local infrastructure such as the EBMUD aqueduct, the Kinder Morgan Gas Pipeline and the rail line which now separates the two districts. A consolidation would provide more efficient, better, and more cost effective services through better coordination of resources. The consolidation would also lead to more responsiveness in case of a flood event. As a result, consolidation would be beneficial and the preferred form of government structure.

DETERMINATIONS

- 4.6.1** The District is governed by a three member board of trustees that serve 4-year staggered terms. Voters and Trustees of the district must be landowners or their legal representative. Trustees may be elected but often there are not enough candidates to hold an election so they are appointed by the Board of Supervisors.
- 4.6.2** Board meetings are held once a year or as needed at 235 E. Weber Avenue in Stockton. Meeting notices are posted according to the Brown Act.
- 4.6.3** The District does not have a website but communicates with landowners via mail as necessary.
- 4.6.4** Administration is accomplished by its attorney and its secretary. The secretary also does the bookkeeping. In addition, the District has contracted for an engineer and part time employees as needed.
- 4.6.5** The District's SOI was established in 1983 and is in need of an update. The District has indicated an interest in consolidating with RD 2039. It is suggested the Commission set the District's SOI as a zero sphere since the services will ultimately be provided by another agency.

4.7 Matters Related to Effective or Efficient Service Delivery Required by Commission Policy

Since the District has expressed an interest in consolidating with RD 2039 San Joaquin LAFCO's policies on changes of organization apply. In order to consolidate the successor agency must provide a plan for services. The plan for services follows GC 56653 which requires 1) a description of services currently provided or to be extended to the affected territory; 2) the level and range of services; 3) an indication of when those services can be extended; 4) an indication of any improvement or upgrading of facilities that would be required when the change of organization or reorganization is completed; and 5) how those services would be financed; and a demonstration that the District is capable of meeting the service needs. The boundaries of a proposed reorganization must not create or result in areas that are difficult to serve.

DETERMINATION:

- 4.7.1** Since the District is interested in a consolidation with RD 2039 LAFCO's policies on changes of organization would apply.

4.8 MSR Summary of Determinations

- 4.1.1** There are approximately 40 residents in the District. The District anticipates no or very little growth. The estimated population growth for areas in the unincorporated County outside of census designated places is expected to increase by 2.5% in the next 30 years. At 2.5% growth the population would be approximately 41 in 2045.
- 4.2.1** The district qualifies as a DUC based on the MHI of \$32,244, which is less than 80% of the statewide MHI. There are no water, wastewater or fire services to the District.

- 4.3.1** 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.
- 4.3.2** The District used grant money to develop a Five Year Plan that covered FY 12 through FY 16. With the grant money the District was able to elevate all areas of the levee system to HMP standards and bring a significant portion to PL 84-99 standards. The District is pursuing other grant money to finish bringing all its levees to PL 84-99 standards. The District has recently received a grant for \$5.4 million and hopes to begin the project in the summer of 2018.
- 4.4.1** The Districts main sources of revenues are assessments and special projects. The two sources are split fairly evenly. Assessments are the more stable source but are limited to \$198,000.
- 4.4.2** The major expenses are utilities for pumping at 43%. Levee maintenance, rodent control, and vegetation control account for 21%. During the period 2014 to 2016 expenses varied from \$335,000 to \$741,000, but \$335,000 is more typical.
- 4.4.3** The District maintains a fund balance of nearly one year of typical expenses. In the past, the fund balance was used to cover shortfalls.
- 4.4.4** The District has completed a Five Year Plan that upgraded all levees to HMP standards and upgraded about half the system to PL 84-99 standards. The goal of bringing all levees to PL 84-99 standards fell short as grant money was insufficient.
- 4.5.1** The District participates in the DWR grant programs Delta Levees Subventions Program and Special Projects Program.
- 4.5.2** The District works with a number of local agencies in its Emergency Operations Plan, including the SJ OES, County Sheriff's Office, the California Office of Emergency Services, and the Central Valley Flood Protection Board.
- 4.5.3** 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.
- 4.6.1** The District is governed by a three member board of trustees that serve 4-year staggered terms. Voters and Trustees of the district must be landowners or their legal representative. Trustees may be elected but often there are not enough candidates to hold an election so they are appointed by the Board of Supervisors.
- 4.6.2** Board meetings are held once a year or as needed at 235 E. Weber Avenue in Stockton. Meeting notices are posted according to the Brown Act.
- 4.6.3** The District does not have a website but communicates with landowners via mail as necessary.
- 4.6.4** Administration is accomplished by its attorney and its secretary. The secretary also does the bookkeeping. In addition, the District has contracted for an engineer and part time employees as needed.

4.6.5 The District's SOI was established in 1983 and is in need of an update. The District has indicated an interest in consolidating with RD 2039. It is suggested the Commission set the District's SOI as a zero sphere since the services will ultimately be provided by another agency.

4.7.1 Since the District is interested in a consolidation with RD 2039 LAFCO's policies on changes of organization would apply.

4.9 Sphere of Influence Considerations

It is recommended that RD 2038 update its sphere to be a zero sphere which means the services will be provided by another agency (RD 2039). With a zero sphere the boundary is the same as in Exhibit 4-1. CKH requires the Commission to make determinations in five areas. Should the District go forward with a consolidation the newly consolidated district will have its own SOI.

Present and planned land uses in the area, including agricultural and open space lands

The land within the district boundaries is entirely in agriculture and planned to continue in agricultural use.

Present and probable need for public facilities and services

The District provides adequate flood protection and drainage services through maintenance of the levees and pumps in the district. As the area continues in agricultural use, these services and the current level of services will be essential. Services provided by the successor agency (RD 2039) will be provided in a more efficient manner.

Present capacity of public facilities and adequacy of public services provided by the agency

The MSR has demonstrated that there is adequate capacity for the levee and drainage system and that District services are adequate to provide adequate flood protection to allow agriculture to flourish in the district.

Social or economic communities of interest

The population of the District is almost entirely engaged in agriculture. The primary economic community of interest is the agricultural community that produces grain, asparagus, wheat, alfalfa, tomatoes as they have since the District was formed. There is a small recreational economic interest associated with the Bull Frog Marina and indirect interests of the railroad, the fuel transmission line, utility lines, and the roads.

Present and probable need for services to disadvantaged communities

The entire District can be considered a disadvantaged community. There are no municipal services such as water, sewer or fire to the District. However, the number of residents in the District and the low density does not make municipal water and sewer economically feasible.

CHAPTER 5: RECLAMATION DISTRICT 2039 (UPPER JONES TRACT)

RD 2039 was formed on May 6, 1919 under the California Water Code §50000, et seq. to provide levee maintenance and drainage services.

Table 5-1: RD 2039 General Information

RD 2039 GENERAL INFORMATION	
Agency	RD 2039 (Upper Jones Tract)
Address	P.O. Box 1461 Stockton CA 95201
Principal Act	California Water Code §50000, et seq.
Date Formed	May 6, 1919
Population	6 to 7 households – 30 people
Last SOI Update	1983
Services Provided	Levees, flood control and drainage
Contact Person	Dante Nomellini 235 E. Weber Stockton CA 95201 209-465-5883 ngmpics@pacbell.net
Website	None

The District includes approximately 6,170 acres primarily in agricultural. Major crops include potatoes, onions, beans, barley, corn asparagus and celery. The District has two non-project levee systems totaling 9.23 miles, 4.82 on Middle River and 4.41 miles on Trapper Slough.

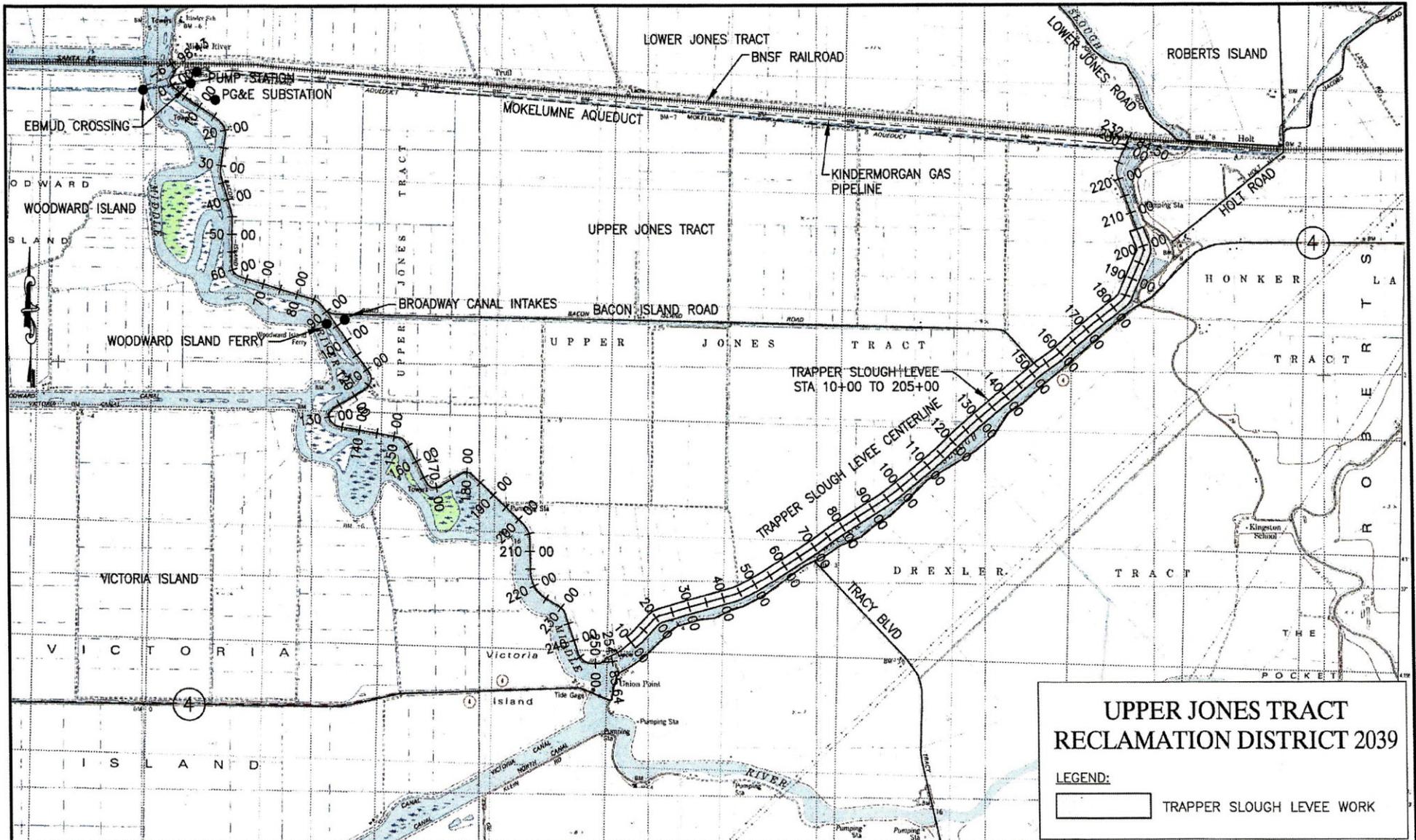
5.1 Growth and Population Projections

The population of RD 2039 is estimated at 30, however there can be up to between 50 and 120 farmworkers in the district depending on the season. There are no development plans for the district so the estimated population would grow based on the forecast growth of rural areas in San Joaquin County. Growth estimates would range annually from 0.06% to 0.1% between 2015 and 2045, essentially no growth. By 2045 the population would be unchanged but there may be 1 additional resident or a total of 31.

Table 5-2: RD 2039 Census Designated Place Population 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	30	30	30	30	30	31	31
Note: CDP = census designated place Source: Eberhardt School of Business, 2016							

Exhibit 5-1: RD 2039 Boundary Map



**UPPER JONES TRACT
RECLAMATION DISTRICT 2039**

LEGEND:

TRAPPER SLOUGH LEVEE WORK

SCALE: 1"=2500'

REVISIONS		
REV.	DATE	DESCRIPTION


**GREEN MOUNTAIN
ENGINEERING**
 1314 Paloma Ave Stockton, CA 95209 209.478.6525

**UPPER JONES TRACT - RD2039
PHASE 3
TRAPPER SLOUGH LEVEE WORK AREA**
 RECLAMATION DISTRICT NO 2039
 UPPER JONES TRACT, CALIFORNIA

PROJECT NO:	2039
DRAWN BY:	GME
DESIGN BY:	BTW
CHECK BY:	DG
SCALE:	AS SHOWN
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SHEET NO.	PH-3
OF	3
SHEETS	

DETERMINATIONS

5.1.1 There are currently 30 residents of RD 2039 with essentially no growth expected over the next 30 years. Using the estimated growth rate for rural areas in San Joaquin County there may be 1 additional resident in 2045 for a total of 31.

5.2 Disadvantaged Unincorporated Communities

CKH defines a DUC as inhabited territory with the MHI 80% or less than the California MHI. In 2016 the California MHI was estimated as \$67,739 by the Department of Finance. By definition, the MHI for a DUC would be \$54,191 or less. RD 2039 lies in census tract 39 where the MHI is \$32,244. Based on the definition in CKH the District would qualify as a DUC.

SB 244 requires identification of water, wastewater, and fire suppression services to the DUC area. There are no water or wastewater services for the district. Further the District resides in a local responsibility area (LRA) for fire protection, however, there is no local fire district. Consequently the area also receives no fire services.

Determinations:

5.2.1 The district qualifies as a DUC based on the MHI of \$32,244 which is less than 80% of the statewide MHI. There are no water, wastewater or fire services to the District.

5.3 Present and Planned Capacity of Public Facilities

Table 5-3 shows the functions and services provided by RD 2039. Most of the services are provided by the District and contractors. Although the ferry is located in the District it is not operated by the District.

The District maintains and operates 9.23 miles of levee, 4.82 on the Middle River and 4.41 miles on Trapper Slough. Table 5-4 summarizes the facilities in RD 2039. As shown all levees are at or above HMP standards. The HMP standard is required for the District to receive assistance in case of a flood incident.

The Middle River section achieves the PL 84-99 standard. PL 84-99 is a USACE Delta specific standard which requires levees to be 1.5 feet above the 100-year flood level. Levees meeting the PL 84-99 standard are eligible for USACE emergency assistance and levee rehabilitation assistance. Those levees fully qualified for the PL 84-99 program are precluded from receiving FEMA rehabilitation assistance.

District levees are shown in Exhibit 5-1. Also shown in the Exhibit is some of the key infrastructure that is protected by District levees. These features consist of the Woodward Island Ferry, the Burlington Northern Santa Fe railroad line, the EBMUD Mokelumne Aqueduct and the Kinder Morgan Gas Pipeline. The aqueduct conveys water to 1.3 million municipal and industrial water customers in Contra Costa and Alameda Counties. The Trapper Slough levees protect Highway 4.

RD 2039 maintains levee material stockpiles and equipment onsite during flood season. In the 2006 and 2011 flood situations the levee experienced waterside sloughing of slope protection and beaver den cave-ins. Since the District had repair material stockpiled, the areas were quickly repaired.

Table 5-3: RD 2039 Functions

RD 2039 Upper Jones Tract	
Activity	Provider
Levee Maintenance	District and contractors
Vegetation Maintenance	District and contractors
Weed Abatement	District and contractors
Vector/Rodent Control	District and contractors
Levee Road Upkeep	District and contractors
Flood Control	District and contractors
Drainage	District and contractors
Irrigation Water	District and contractors
Levee Patrol	District and contractors
Ferry Operations	No
Subvention	District and contractors

Table 5-4 shows the District maintains a series of drainage canals and a pump station. The District also operates the Broadway Canal irrigation system and jointly with landowners, the irrigation gates on Trapper/Whiskey Slough. Since the island is below sea level there are areas that seep water constantly and other areas that have do not have seepage problems. All seepage water is captured by the ditches at the toe of the levee and the main drainage canal, which ends at the pump station. The water is then pumped back to the river system.

Five Year Plan Projects

Like RD 2038, RD 2039 received a grant to produce a Five Year Plan to upgrade of its levee system to PL 84-99 standards. The plan covers FY 12 through FY 16. The District has been actively pursuing improvements to its levee system. RD 2039 has some funding available and did not need as much assistance as RD 2038. The Five Year Plan was completed. All the levees along Middle River met PL 84-99 standards as well as DWR 192-82 standards. The Trapper Slough levee, an internal levee, only meets the HMP standard.

DETERMINATIONS

- 5.3.1** The District operates and maintains 9.23 miles of levee, 4.82 on the Middle River and 4.41 miles on Trapper Slough. As a result of funding for its Five Year Plan the District was able to bring the Middle River segments to the Bulletin 192-82 standard. The Five Year Plan also allowed the District to bring the Trapper Slough segment, an internal levee, to HMP standards.
- 5.3.2** The District operates a system of drainage canals, and one pump station that are used to evacuate water from the District. The District also operates the Broadway Canal irrigation system and jointly with landowners, the irrigation gates on Trapper/Whiskey Slough.

Table 5-4: RD 2039 Facilities Overview

RD 2039 FACILITIES			
Total Levee Miles	9.23	Surface Elevation	-12 to -15 feet below sea level
LEVEE MILES BY STANDARD		LEVEE MILES BY TYPE	
No Standard	0.0	Dry Land Levee	0.0
HMP Standard	9.23	Urban Levee	0.0
PL 84-99 Standard	4.82	Agricultural Levee	9.23
Bulletin 192-82 Standard	4.82	Other	0.0
FEMA Standard			
DISTRICT FACILITIES			
Internal Drainage System	Drainage Canals	Pump Station(s)	1
Detention Basins(s)	No	Bridges	No
FLOODPLAIN			
FIRM Designation	Zone AE	Base Flood Elevation	10 NAVD
LEVEE INSPECTION PRACTICES			
The levee is patrolled regularly at least weekly by the trustee who are involved in farming on the island. The District Engineer also conducts an inspection at least annually. During high water, inspections are accelerated and at times hourly.			
LEVEE INSPECTION REPORTS			
The Engineer reports to the Board of Trustees			
LEVEE SEGMENT	DESCRIPTION		CONDITION
Middle River Trapper Slough	West and South East		Good Good
LEVEE MAINTENANCE			
Miles Rehabilitated	Selected Areas NP	Miles Needing Rehabilitation	NONE
% Rehabilitated 0 %	NP	% Needing Rehabilitation	0%
Rehabilitation Cost per Levee Mile*	NP		
INFRASTRUCTURE NEEDS/DEFICIENCIES			
District levees met the 100-year flood protection standard in 2009; No major rehabilitation is needed 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.			

5.3.3 Levees are inspected weekly by the Trustees and at least annually by the Engineer in conjunction with DWR and DFW as related to the levee assistance programs. During high water, inspections are accelerated and at times conducted hourly. The Engineer reports results of inspections to the Trustees.

5.4 Financial Ability to Provide Services

Table 5-5 shows a summary of expenses and revenues from 2014 through 2016. During that period revenues ranged from \$273,000 and \$795,000, while expenses ranged from \$408,000 to \$920,000. The wide range in revenues and expenses is partly explained by the influx of state and EBMUD funds and expenditures of those funds on projects identified in the 5 Year Plan. These funds focused on bringing the levees up to PL 84-99/Bulletin 192-87 standards.

The table also shows the District has a sizeable fund balance that covers two years of expenses. The fund balance is partly due to receipt in FY 2014 of \$300,660 of subventions and \$116,252 in Special Projects funds. In FY 2015 the District also received \$512,451 in special projects funds. The additional funding for those two years was used on levee maintenance to upgrade to PL 84-99 standards and the Five Year Plan. Although it appears that in FY 2015 there may be need for an assessment increase, the large difference in revenues and expenses from other years can be explained by the receipt and use of Special Projects and Subventions funds.

Table 5-5: RD 2039 Revenues Expenses and Fund Balance 2014-2016 (\$)

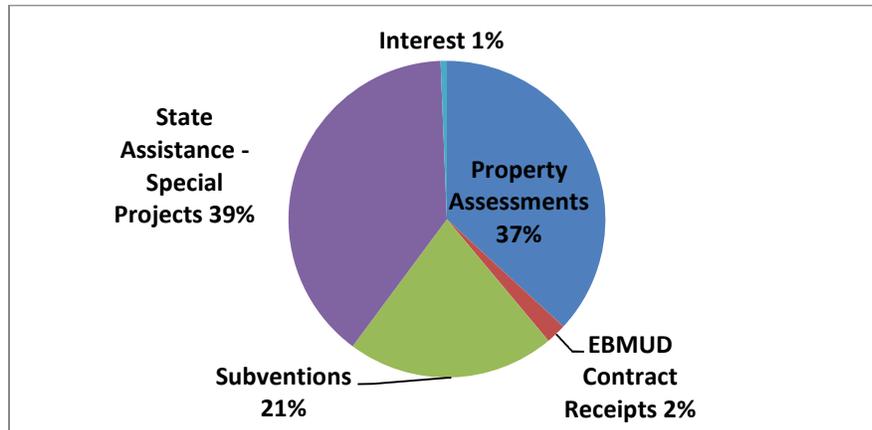
Line Item	2014	2015	2016
Revenues	713,688	795,341	273,435
Expenses	542,786	920,035	408,807
Fund balances - beginning of year	1,002,280	1,173,182	1,048,488
Fund balance/net assets - end of year	1,173,182	1,048,488	913,116

Source: Schwartz Giannini Lantsberger & Adamson 2014, 2015, 2016

Exhibit 5-2 shows revenue sources for the three year period. The Exhibit shows three main sources, state assistance from the special projects fund, 39%, property assessments, 37%, and subvention funds, 21%. Special project and subvention funds vary from year to year. The one constant is the assessments which provide approximately \$200,000 annually. The District sometimes gets funds from EBMUD for levee maintenance, rehabilitation and improvements. Over the three year period the District received an average of 2% of its total revenues from EBMUD.

The Table shows that in 2015 the District spent \$920,000 and took in \$795,000. Compared to FY 2014 and FY 2016 these figures appear to be high and bear closer examination. An explanation is that in FY 2014 and FY 2015 the District received a large amount of grant money.

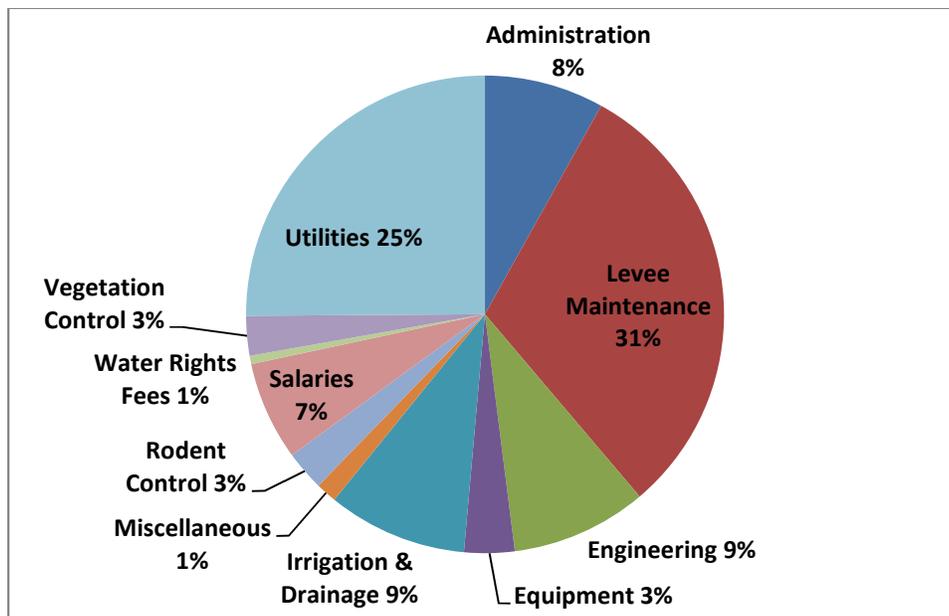
Exhibit 5-2: RD 2039 Sources of Revenues 2014–2016



Source: Schwartz Giannini Lantsberger & Adamson 2014, 2015, 2016

Exhibit 5-3 shows average expenditures for the same three years FY14 –FY16. The largest portion of expenses goes for levee maintenance, 31%, but vegetation control and rodent control should be considered levee maintenance so that the total would be closer to 37%. Utility expense is the next largest expense at 25%, mostly likely for operating pumps. It should be noted that administration is only 8% and salaries for the part time superintendent average 7%.

Exhibit 5-3: RD 2039 Allocation of Expenses 2014–2016



Source: Schwartz Giannini Lantsberger & Adamson 2014, 2015, 2016

Capital Improvements

In 2012, the District produced a Five Year strategic plan. It included a number of projects that could be undertaken to reduce vulnerability and to strengthen the levee system around RD 2039. Most of these projects included extensive environmental review, permitting, and planning before

construction could even begin. The District was able to complete the projects in its Five Year plan through use of subventions, EBMUD funds, and Special Projects grant funds. The District was able to bring the Middle River levee segment up to PL 84-99/Bulletin 192-82 standards and the Trapper Slough Segment up to HMP standards.

DETERMINATIONS:

- 5.4.1** Between FY 14 and FY 16 the District's main sources of revenues were assessments, EBMUD contributions, the State Special Projects Fund, and Subvention Funds. The Subvention Funds reimburses up to \$0.75 for each \$1 spent on levee maintenance after the District spends \$1,000 per mile of levee. Assessments not used for maintenance are set aside for flood emergencies. Assessments account for an average of approximately \$200,000. EBMUD funds, Special Project funds and Subvention Funds vary from year to year and should not be considered a stable funding source.
- 5.4.2** The major expenses are levee maintenance, vegetation control, and rodent control, which together account for 37% of expenses. Administration accounted for 8%, salaries for the part-time superintendent 7% and engineering 9%. During the period 2014 to 2016 expenses varied from \$408,000 to \$920,000.
- 5.4.3** The District maintains an ample fund balance that can be used to cover shortfalls. At the end of FY 2016 the District had a fund balance of \$913,000, approximately 2 years of operating expenses.
- 5.4.4** 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. Owing to its reserves the district was able to complete the projects in its Five Year Plan and bring the Middle River levee segment up to PL 84-99/Bulletin 192-82 standards and the Trapper Slough Segment up to HMP standards .

5.5 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. The District also works with EBMUD on specific projects funded by EBMUD.

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, the California Office of Emergency Services, and the Central Valley Flood Protection Board.

One measure of management efficiencies is whether the District prepares plans for operations as well as finances. RD 2039 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 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:

- 5.5.1** The District participates in the DWR grant programs Delta Levees Subventions Program and Special Projects Program.
- 5.5.2** 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, the California Office of Emergency Services, and the Central Valley Flood Protection Board.
- 5.5.3** 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.

5.6 Government Structure and Accountability

The District is governed by a five 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 meetings are held once a year or as needed at 235 E. Weber Avenue in Stockton. Agendas are posted according to the Brown Act and minutes are distributed to trustees. The District has no website and communicates with landowners via mail as necessary.

Administration is accomplished by its attorney and its secretary. The secretary also does the bookkeeping. In addition, the District has contracted with an engineering firm for engineering functions. Part time employees and contractors are used as needed.

Like RD 2038 the District has indicated a desire to consolidate. RD 2039 shares many of the same infrastructure responsibilities such as the BNSF railroad, the Mokelumne aqueduct and the gas pipeline. If RD 2038 floods then RD 2039 also floods. The flood fight becomes a joint effort with RD 2038. They also share the same secretary and legal counsel.

There are a number of ways to accomplish a consolidation. If both districts are in agreement about becoming one the first step would be to adopt substantially similar resolutions indicating the desire to consolidate. If two districts take that step then LAFCO cannot deny the consolidation only add conditions.

A Plan for Services would need to be prepared to demonstrate the ability to carry out the services and the other factors contained in GC 56663 would need to be addressed. In addition to the consolidation the railroad, which is currently not in either district, should be added through an annexation process.

The consolidation process requires a protest hearing unless certain conditions are met. As a landowner the railroad must be notified of the proceeding. If the railroad has not submitted written opposition by the close of the Commission hearing and all the landowners have signed a petition supporting the consolidation, the protest proceedings may be waived.

Owing to its financial position we recommend that RD 2039 be the successor agency or that RD 2038 be consolidated into RD 2039.

DETERMINATIONS:

- 5.6.1** The District is governed by a five 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 members do not receive a stipend.
- 5.6.2** Board meetings are held once a year or as needed at 235 E. Weber Avenue in Stockton. Meeting notices are posted according to the Brown Act.
- 5.6.3** The District does not have a website but communicates with landowners via mail as necessary.
- 5.6.4** Administration is accomplished by its attorney and its secretary. The secretary also does the bookkeeping. Part time employees and contractors are used as needed.

5.7 Matters Related to Effective or Efficient Service Delivery Required by Commission Policy

Since the District has expressed an interest in consolidating with RD 2038 San Joaquin LAFCO's policies on changes of organization apply. In order to consolidate the successor agency must provide a plan for services. The plan for services follows GC 56653 which requires 1) a description of services currently provided or to be extended to the affected territory; 2) the level and range of services; 3) an indication of when those services can be extended; 4) an indication of any improvement or upgrading of facilities that would be required when the change of organization or reorganization is completed; and 5) how those services would be financed. The boundaries of a proposed reorganization must not create or result in areas that are difficult to serve.

DETERMINATIONS:

- 5.7.1** Since the District is interested in a consolidation with RD 2038 LAFCO's policies on changes of organization would apply.

5.8 MSR Summary of Determinations

- 5.1.1** There are currently 30 residents of RD 2039 with essentially no growth expected over the next 30 years. Using the estimated growth rate for rural areas in San Joaquin County there may be 1 additional resident in 2045 for a total of 31.
- 5.2.1** The district qualifies as a DUC based on the MHI of \$32,244 which is less than 80% of the statewide MHI. There are no water, wastewater or fire services to the District.
- 5.3.1** The District operates and maintains 9.23 miles of levee, 4.82 on the Middle River and 4.41 miles on Trapper Slough. As a result of funding for its Five Year Plan the District was able to bring the Middle River segments to the Bulletin 192-82 standard. The Five Year Plan also allowed the District to bring the Trapper Slough segment, an internal levee, to HMP standards.

- 5.3.2** The District operates a system of drainage canals, and one pump station that are used to evacuate water from the District. The District also operates the Broadway Canal irrigation system and jointly with landowners, the irrigation gates on Trapper/Whiskey Slough.
- 5.3.3** Levees are inspected weekly by the Trustees and at least annually by the Engineer in conjunction with DWR and DFW as related to the levee assistance programs. During high water, inspections are accelerated and at times conducted hourly. The Engineer reports results of inspections to the Trustees.
- 5.4.1** Between FY 14 and FY 16 the District's main sources of revenues were assessments, EBMUD contributions, the State Special Projects Fund, and Subvention Funds. The Subvention Funds reimburses up to \$0.75 for each \$1 spent on levee maintenance after the District spends \$1,000 per mile of levee. Assessments not used for maintenance are set aside for flood emergencies. Assessments account for an average of approximately \$200,000. EBMUD funds, Special Project funds and Subvention Funds vary from year to year and should not be considered a stable funding source.
- 5.4.2** The major expenses are levee maintenance, vegetation control, and rodent control, which together account for 37% of expenses. Administration accounted for 8%, salaries for the part-time superintendent 7% and engineering 9%. During the period 2014 to 2016 expenses varied from \$408,000 to \$920,000.
- 5.4.3** The District maintains an ample fund balance that can be used to cover shortfalls. At the end of FY 2016 the District had a fund balance of \$913,000, approximately 2 years of operating expenses.
- 5.4.4** 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. Owing to its reserves the district was able to complete the projects in its Five Year Plan and bring the Middle River levee segment up to PL 84-99/Bulletin 192-82 standards and the Trapper Slough Segment up to HMP standards.
- 5.5.1** The District participates in the DWR grant programs Delta Levees Subventions Program and Special Projects Program.
- 5.5.2** 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, the California Office of Emergency Services, and the Central Valley Flood Protection Board.
- 5.5.3** 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.
- 5.6.1** The District is governed by a five 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 members do not receive a stipend.
- 5.6.2** Board meetings are held once a year or as needed at 235 E. Weber Avenue in Stockton. Meeting notices are posted according to the Brown Act.

- 5.6.3** The District does not have a website but communicates with landowners via mail as necessary.
- 5.6.4** Administration is accomplished by its attorney and its secretary. The secretary also does the bookkeeping. Part time employees and contractors are used as needed.
- 5.7.1** Since the District is interested in a consolidation with RD 2038 LAFCO's policies on changes of organization would apply.

5.9 Sphere of Influence Considerations

It is recommended that RD 2039 update its sphere to include all of RD 2038 and the adjoining railroad. The proposed sphere is shown in Exhibit 5-4. CKH requires the Commission to make determinations in five areas. Should the District go forward with a consolidation the newly consolidated district will have its own SOI.

Present and planned land uses in the area, including agricultural and open space lands

The land within the district boundaries is entirely in agriculture and is planned to remain in agriculture.

Present and probable need for public facilities and services

The District provides adequate flood protection and drainage services through maintenance of the levees and drainage canals in the district. The District maintains one pump station to assist with drainage services and irrigation facilities. As the area continues in agricultural use these services and the current level of services will be essential. Services will be provided in a more efficient manner.

Present capacity of public facilities and adequacy of public services provided by the agency

The MSR has demonstrated that there is adequate capacity for the levee and drainage system and that District services are adequate to provide adequate flood protection to allow for agriculture to flourish in the district.

Social or economic communities of interest

The population of the District is all engaged in agriculture. The only economic community of interest is the agricultural community that produces potatoes, onions, beans, barley, corn, asparagus and celery as they have since the District was formed.

Present and probable need for services to disadvantaged communities

The entire District can be considered a disadvantaged community. There are no municipal services such as water, sewer and fire available to the District. However, the number of residents in the District and the low density does not make municipal water and sewer economically feasible.



2039 Proposed Sphere Of Influence

2039

Exhibit 5-4:
RD 2039 Proposed
Sphere of Influence

Data sources: San Joaquin County; USDA NAIP, 2016

CHAPTER 6: RECOMMENDATIONS

Both districts have not updated their spheres since 1983 when they were established. It is recommended that if there is no consolidation the spheres be set as coterminous with current boundaries.

The districts have indicated they would like to consolidate. The two districts have a lot in common. They protect much of the same infrastructure, such as the BNSF railroad, the EBMUD aqueduct, and the utility transmission lines. The railroad embankment for the BNSF line has an open trestle to allow flood waters from one district to flow to the other in order to relieve pressure on the rail line. When one district floods the other will as well. Both districts share an attorney and clerical staff.

The consolidation of the two districts can be accomplished in one of several ways.

- 1) Change of organization – consolidation. The change of organization in CKH includes a consolidation. In order to accomplish this two spheres must be amended to include the other district. CEQA analysis would be exempt under the class 20(b) exemption for consolidating two or more districts having the same powers.
- 2) Reorganization where one district is dissolved and the other district annexes its territory. The sphere for the dissolving agency would be set to zero, indicating the desire to dissolve the district. The sphere for the successor district could be set to include territory of the other agency. In order for assets to be transferred smoothly the terms and conditions would have to specify that all the dissolving districts assets be transferred to the successor district. However, GC 57457 specifies that remaining assets be distributed to the County. This provision may affect the distribution of assets to the successor agency. This process would be exempt from CEQA under class 20 or the general rule exemption. However, the reorganization would be subject to a protest proceeding.

Of the two options, it is recommended the applicant apply for option 1, a consolidation of the two districts. The consolidation offers a more straightforward approach.

Since the two districts desire to be one it is recommended that they adopt substantially similar resolutions. That way LAFCo can only condition the approval, but cannot deny the application. Should the Districts follow option 1, it is recommended that the districts consolidate into RD 2039 since RD 2039 is in a stronger financial position with larger reserves. Exhibit 6-1 shows the configuration of the consolidated district.

San Joaquin LAFCo policies require the successor agency must provide a plan for services. The plan for services follows GC 56653 which requires 1) a description of services currently provided or to be extended to the affected territory; 2) the level and range of services; 3) an indication of when those services can be extended; 4) an indication of any improvement or upgrading of facilities that would be required when the change of organization or reorganization is completed; and 5) how those services would be financed. According to San Joaquin LAFCo policies, the plan for service must be consistent with the MSR. In fact, the MSR provides much of the information needed to develop the plan.



Orwood Island

Orwood

Woodward Island

Holt

Roberts Island

Google Earth

© 2018 Google

**Exhibit 6-1:
Consolidated Jones Tract
(RD 2039)**

3 mi



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As indicted in this MSR the districts provide similar services to support agriculture and protect infrastructure. A consolidated district would provide these same services in a more efficient manner. Services are financed by assessments, Delta Levee Subventions, and DWR Special Project funds. Table 6-1 shows revenues, expenses and reserves in terms of years of annual expenses for the individual districts compared to the consolidated district.

Table 6-1: Revenues and Expenses Single District and Consolidated District

Agency	2014	2015	2016	AVERAGE
RD 2038				
Revenues	\$ 286,833	\$ 915,707	\$ 208,038	\$ 470,193
Expenses	\$ 358,653	\$ 740,803	\$ 335,503	\$ 478,320
Years Expenses in Reserves	0.62	0.54	0.81	0.62
RD 2039				
Revenues	\$ 713,688	\$ 795,341	\$ 273,435	\$ 594,155
Expenses	\$ 542,786	\$ 920,035	\$ 408,807	623876
Years Expenses in Reserves	2.2	1.9	2.2	2.0
Consolidated				
Revenues	\$ 1,396,148	\$ 2,113,966	\$ 1,184,241	\$ 1,564,785
Expenses	\$ 901,439	\$ 1,660,838	\$ 744,310	\$ 1,102,196
Years Expenses in Reserves	1.5	1.3	1.6	1.4

The Table shows both RD 2038 and RD 2039 had at least one year where expenses exceeded revenues. The Table also shows RD 2038 averaged less than one year of operating expenses in reserves, while the consolidated district would have reserves averaging 1.4 years of expenses. The enhanced reserves could be used as matching funds to obtain subventions and Special Projects Grants to improve all levees to the PL 84-99 standards.

Protest Proceedings

Regardless of which option is chosen the change of organization or the reorganization would be subject to protest proceedings. Since reclamation districts are landowner voter districts, if 25 percent of the landowners with 25% or more of the assessed value protest then an election would be required. If 50% protest then the action would fail and would not be completed. However, if all the landowners agree to the consolidation then the Commission may waive the protest proceedings.

Sphere of influence of the Consolidated District

The SOI for the consolidated district would have to address the five areas required by CKH. It is recommended that the sphere include the railroad which at present is in neither district. If the consolidated district includes the rail line in the sphere, it can then move forward to annex the rail line into the district. Since the SOI is subject to CEQA, LAFCo may want to consider the general rule exemption for the consolidated district’s sphere since there are no changes to land use or services nor are any changes contemplated. In order to establish a sphere the Commission must make determinations in the following areas.

- **Present and planned land uses in the area, including agricultural and open space lands**

The land within the district boundaries is almost entirely in agriculture and is planned to remain unchanged. The railroad would continue to use the rail line so land uses would remain the same.

- **Present and probable need for public facilities and services**

The District would provide adequate flood protection, drainage, and irrigation services through maintenance of existing levees, drainage canals, irrigation facilities, and pump stations in the district. The consolidated District would have three pump stations. As the area continues in agricultural use these services and the current level of services will be essential.

- **Present capacity of public facilities and adequacy of public services provided by the agency**

The MSR has demonstrated that there is adequate capacity for the levees, irrigation facilities, and drainage system. The MSR also has shown that District services are adequate to provide flood protection to allow for agriculture and other current land uses to flourish in the district.

- **Social or economic communities of interest**

The population of the District is almost all engaged in agriculture. The primary economic community of interest is the agricultural community that produces the crops in the two separate districts.

- **Present and probable need for services to disadvantaged communities**

The entire District can be considered a disadvantaged community. There are no available municipal services such as water, sewer, and fire to the District. The number of residents in the District and the low density does not make municipal water and sewer economically feasible. At present there are no fire protection services in the area by either a local agency or CALfire.

CEQA Considerations

Since the consolidation is only a change in the board of directors the consolidation would be exempt from CEQA under Section 15320(b), "a reorganization or consolidation of two or more districts having identical powers with no change to the geographical area in which previous existing powers are exercised".

Governance Considerations

The Water Code allows reclamation districts to have five or seven trustees. Often during a consolidation, the board is expanded to allow elected members to complete their terms. The RD 2038 Board has three members and RD 2039 Board has five members. It appears that two of the RD 2038 trustees terms expire in 2019 and one in 2021. Theoretically, up to two of the RD 2038 trustees could be added to the consolidated district board if they desire.

Outstanding Debt Service

Typically a consolidation does not free the district of its long term debt obligations. A review of the audits and balance sheets for the districts did not reveal any debt service payments, indicating the districts have no long term debt obligations.

To summarize it is recommended that:

- 1) The districts consolidate into RD 2039 because of its stronger reserve position that would allow the consolidated district to maintain approximately 1.4 years of operating expenses in reserves.
- 2) The districts adopt substantially similar resolutions so that LAFCo cannot deny the application.
- 3) The consolidated district's SOI include all the territory currently served by RD 2038 and RD 2039 and ultimately the railroad since the District's flood control operations protect the railroad.
- 4) The consolidated district's board of trustees could be expanded to seven to allow for the expiration of terms of RD 2038 trustees. Alternatively the new District may decide to maintain a five member board with a mix of trustees from both districts determined by voluntary resignation of current trustees.
- 5) The applicant is encouraged to get all the landowners to sign a petition in support of the consolidation. If that can be accomplished the Commission may waive the protest proceedings. Alternatively the Commission may waive protest proceedings under GC 56663 if no opposition is received before the conclusion of proceedings. Otherwise a protest hearing is required where a 25% protest of landowners with 25% or more of the assessed value can force an election. If there is a 50% protest the consolidation fails.
- 6) The consolidation is exempt from CEQA under Section 15320(b) and that the SOI consider the general rule exemption since no change to services, or land use is anticipated.

CHAPTER 7: REFERENCES

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