



RECLAMATION DISTRICT 2028

BACON ISLAND

LEEVE AND FLOOD CONTROL FACILITIES IMPROVEMENT ASSESSMENT

ENGINEER'S REPORT

MARCH 2023

PURSUANT TO CALIFORNIA GOVERNMENT CODE SECTION 53750, 54710 ET SEQ.,
AND ARTICLE XIID OF THE CALIFORNIA CONSTITUTION

ENGINEER OF WORK:

SCIConsultingGroup

4745 MANGELS BOULEVARD

FAIRFIELD, CALIFORNIA 94534

PHONE 707.430.4300

FAX 707.430.4319

WWW.SCI-CG.COM

RECLAMATION DISTRICT 2028

DISTRICT BOARD

David A. Forkel, Chairman
Russell E. Ryan
Randall D. Neudeck

DISTRICT COUNSEL

Pamela A. Forbus, Law Offices of Al Warren Hoslett

DISTRICT ENGINEER

Nate Hershey, MBK Engineers

ASSESSMENT ENGINEER OF WORK

John W. Bliss, SCI Consulting Group

TABLE OF CONTENTS

INTRODUCTION.....	1
LEGAL AUTHORITY.....	4
DESCRIPTION OF FACILITIES IMPROVEMENTS	6
COST AND BUDGET ESTIMATE	8
METHOD OF APPORTIONMENT	8
DISCUSSION OF BENEFIT.....	9
FLOOD CONTROL IS A SPECIAL BENEFIT	10
BENEFIT FACTORS.....	11
GENERAL VERSUS SPECIAL BENEFIT	12
ASSESSMENT APPORTIONMENT	15
METHOD OF ASSESSMENT.....	16
FLOOD RISK FACTORS (PARCEL SPECIFIC FACTOR I)	17
FLOOD DAMAGE FACTORS (PARCEL SPECIFIC FACTOR II)	17
SHARED FACILITY FACTORS (PARCEL SPECIFIC FACTOR III)	18
WEIGHTED PARCEL FACTOR SUBTOTALS	18
LAND USE FACTORS TO DETERMINE REPLACEMENT FACTORS.....	19
SUMMARY OF BENEFIT UNITS AND RATES FOR VARIOUS LAND USES	20
CRITERIA AND POLICIES	21
ASSESSMENT	23
ASSESSMENT DIAGRAM.....	25
APPENDICES	26
APPENDIX A – ASSESSMENT ROLL, FY 2023-24.....	26

LIST OF TABLES

TABLE 1 – RECOMMENDED ASSESSMENT RATES	4
TABLE 2 – ADDITIONAL FLOOD CONTROL IMPROVEMENTS	7
TABLE 3 – FISCAL YEAR 2023-24 PROPOSED BUDGET	8
TABLE 4 – EQUATIONS.....	16
TABLE 5 – FACTORS.....	16
TABLE 6 – FLOOD RISK FACTORS.....	17
TABLE 7 – FLOOD DAMAGE FACTORS	18
TABLE 8 – SHARED FACILITY FACTORS	18
TABLE 9 – TOTAL RELATIVE PARCEL FACTORS	19
TABLE 10 – LAND USE FACTORS FOR PROPERTY TYPES	19
TABLE 11 – SUMMARY OF BUS AND RATES FOR VARIOUS LAND USES	21

LIST OF FIGURES

FIGURE 1 – LEVEES MAINTAINED BY RD 2028	2
FIGURE 2 – RECLAMATION DISTRICT 2028 ASSESSMENT DIAGRAM FY 2023-24.....	25

INTRODUCTION

The purpose of this Engineer's Report ("Report") is to estimate and justify the need for Reclamation District No. 2028 ("RD 2028" or "District") to form a Levee and Flood Control Facilities Improvement Assessment for fiscal year 2023-24. We have reviewed the operations of the District, its current Assessment Roll, and the near-term projected funding needs of the District to evaluate the total costs to be incurred by the District in providing its services. The funds needed to adequately sustain RD 2028's operations exceed the amount it generates through existing sources. This Report details the methodology for levying an assessment upon parcels that receive a special benefit from the District's flood control and levee maintenance services.

A Levee and Flood Control Facilities Improvement Assessment for Reclamation District No. 2028 - Bacon Island was initially formed by resolution at the conclusion of a balloted, Proposition 218-compliant process, on January 17, 2019. However, in 2020 and again in 2023, the District subsequently identified several significant additional flood control improvements and emergency response concerns (see Table 2, below) that were not included in this initial assessment.

Therefore, in March of 2023, the District is initiating the formation of the Levee and Flood Control Facilities Improvement Assessment for fiscal year 2023-24 to replace 2020 assessment, and accordingly, is conducting a full Proposition 218 process, based upon this updated Engineer's Report and supporting documents.

This Report and the proposed assessment have also been made pursuant to the California Government Code section 53750 et seq. and Article XIID of the California Constitution.

BACKGROUND

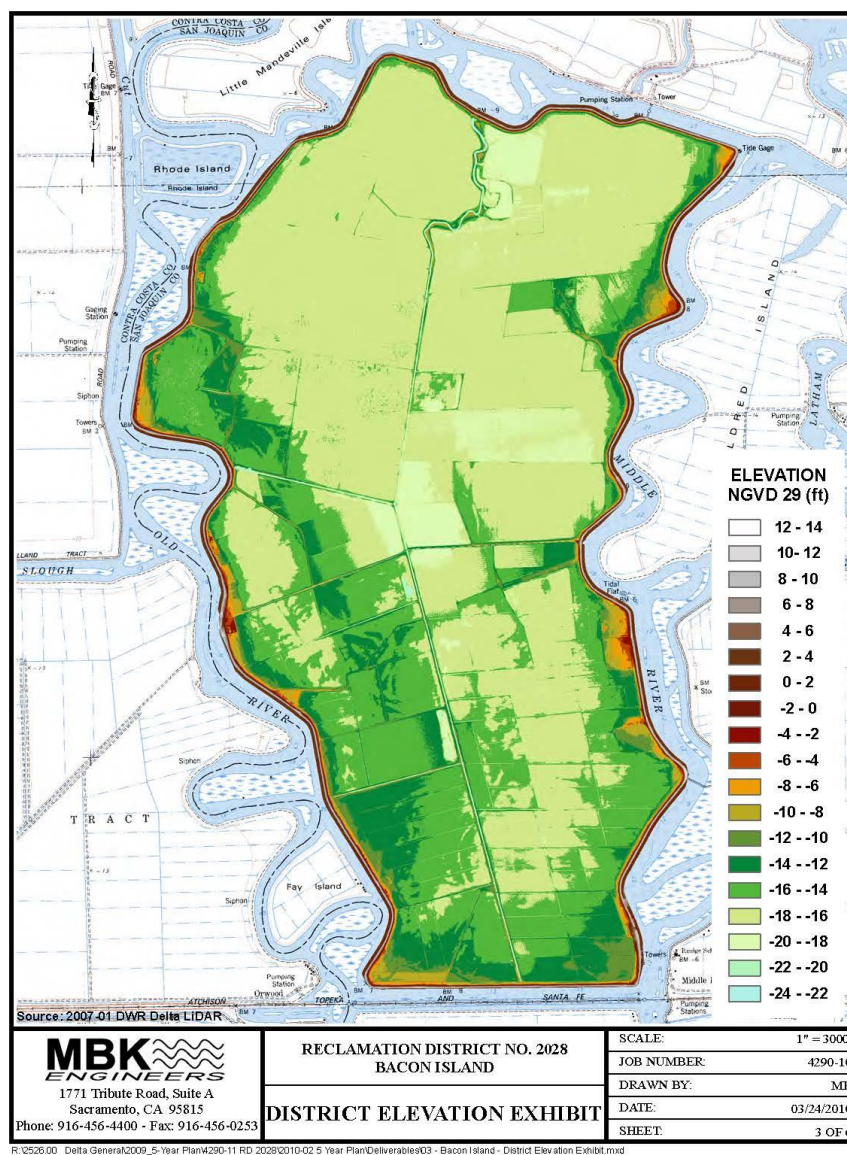
RD 2028 is an independent special district responsible for the maintenance, operation, and capital repair of the levee and flood control system on Bacon Island in the San Joaquin Delta. Bacon Island is located in the north-western portion of San Joaquin County, east of the community of Knightsen. RD 2028's levee and flood control system protects life and property from potential flooding from Old River, Middle River, Connection Slough and Railroad Cut.

The District encompasses approximately 8.86 square miles (approximately 5,675 acres) of predominately agricultural land. It is home to a population of about 41 permanent residents. RD 2028 maintains and operates about 14.4 miles of levees, supportive internal drainage facilities and two pump stations. Currently, 0.12 miles meets DWR Bulletin 192-82 standard, 1.2 miles meets the Federal PL 84-99 standard and 10.3 miles meets State Hazard

Mitigation Plan standard. Bacon Island is situated entirely within the Primary Zone¹ of the Sacramento-San Joaquin Delta.

Figure 1 below shows the boundary of RD 2028.

FIGURE 1 – LEVEES MAINTAINED BY RD 2028



¹ The Primary Zone of the Delta consists of about two-thirds of the Delta's area and is defined as "...land and water area of primary state concern and statewide significance situated with the boundaries of the Delta...but not within the Urban Limit Line or Sphere of Influence of any local government's general plan or studies as of January 1, 1992."

Bacon Island was first reclaimed in 1916 and RD 2028 was formed shortly thereafter. Bacon Island flooded in 1938. RD 2028 area is at a high risk of flooding due to the following factors:

- **Topography and Regional Geography:** RD 2028 is within western San Joaquin Costa County which itself includes portions of the “Sacramento–San Joaquin River Delta,” or “California Delta” and has a history of significant flooding due to its relatively flat terrain and numerous rivers and creeks fed by potentially intense Sierra snow melt runoff.
- **Local Soil Conditions and Non-Engineered Levees:** The local levees were traditionally constructed by farmers and other early settlers with readily available local materials. Accordingly, these levees were built of permeable materials common in the San Joaquin Delta. This permeable material allows water from the flood-swollen rivers to seep under the levees. During recent significant high-water events adjacent to the RD 2028 levees, there has been considerable evidence of under-seepage which is often a precursor to failure.

The primary routine levee maintenance operations of the RD 2028 include encroachment control, erosion repair, gate maintenance, inspections, rodent control, seepage control, surveying and engineering, tree trimming and vegetation control.

Each year RD 2028’s levees are inspected periodically by District maintenance staff and engineers.

FUNDING NEEDS

RD 2028 is currently funded by an existing assessment roll and subventions from DWR. The District has been working with a budget of approximately \$935,218 per year (as increased in 2020.). with about 149,325 coming from subventions from DWR and the balance from the existing assessments. The District does not receive any ad valorem property tax.

The costs associated with increasingly strict flood protection operations and maintenance standards and the continuing need to repair and upgrade the flood control infrastructure in order to meet all state and federal standards now exceed RD 2026’s current revenue sources. An increase in revenue is needed at this time to keep pace with operational requirements.

Recognizing its need for increased revenue, RD 2028 Board members engaged SCI Consulting Group to assist with the formation of a new Benefit Assessment consistent with Proposition 218 and the 1982 Benefit Assessment Act. In order to attain its service goals for operations and maintenance, and capital repairs, the District needs to establish a reliable, annual funding source that will generate approximately \$4,935,218 additional revenue per year. This Engineer’s Report supports the establishment of such a revenue source, through

the formation of a Proposition 218-compliant, balloted Assessment District that, if approved by property owners, would replace² the existing assessment roll revenue source.

The proposed rates for fiscal year 2023-24 for the proposed RD 2028 Levee and Flood Control Improvement Assessment District are shown in Table 1 below. These assessments would replace the existing \$143.52 per acre assessment as increased in 2020.

TABLE 1 – RECOMMENDED ASSESSMENT RATES

Land Use	Rate	Unit
Vacant & Open Range	\$757.34	acre
Agricultural	\$880.75	acre
Commercial/Industrial	\$1,452.53	acre
Single Family Residential (< 1.5 acre)	\$5,521.30	each
Non Assessable	\$0.00	acre

LEGAL AUTHORITY

The proposed benefit assessment is being formed by RD 2028 under the authority of the Benefit Assessment Act of 1982 (Gov. Code, §§ 54703-54719). Specifically, section 54710, authorizes any local agency able to provide flood control services, which includes RD 2028, to impose a benefit assessment pursuant to the Benefit Assessment Act. (Gov. Code, § 54710(a)(2).) Such assessments are levied annually, based on a budget for expenditures.

All benefit assessments must also comply with Article XIIC and XIID of the California Constitution (often referred to as “Proposition 218”), and the Proposition 218 Omnibus Implementation Act (Government Code, § 53750, et seq.). Proposition 218 allows for benefit assessments to be levied to fund the cost of providing services and improvements, as well as maintenance and operation expenses of a public improvement which provides a special benefit to the assessed property.

Proposition 218 imposes a number of important requirements, including property-owner balloting, for the formation and continuation of assessments, and these requirements are satisfied by the process being used to establish this proposed assessment.

ASSESSMENT PROCESS AND FUTURE CONTINUATION OF ASSESSMENT

Following submittal of this Report to RD 2028 for preliminary approval, the Board of Directors of RD 2028 (the “Board”) may, by Resolution, call for an assessment ballot proceeding and

² The existing assessment is \$55 per acre of land, but information about the basis or legal authority of this assessment was not available. Therefore, this new Benefit Assessment is structured to replace the existing \$55 / acre assessment in its entirety.

public hearing on the proposed establishment of a Levee and Flood Control Facilities Improvement Assessment.

If the Board approves such a Resolution, a notice of assessment and assessment ballot shall be mailed to each property owner within the proposed Assessment District boundaries who will be subject to the proposed assessment. Such notice will include a description of the services and improvements to be funded by the proposed assessments, the total amount of the proposed assessment chargeable to the entire Assessment District and the amount chargeable to the specific owner's parcel, the reasons for the proposed assessments and the basis upon which they were calculated, and an explanation of the process for submitting a ballot. Each notice would also include a postage prepaid return envelope and a ballot on which the property owner may mark his or her approval or disapproval of the proposed assessments as well as affix his or her signature.

After the ballots are mailed to property owners in the Assessment District, a minimum 45-day time period must be provided for the return of the assessment ballots. Following this balloting time period, a public hearing must be held for the purpose of allowing public testimony regarding the proposed assessments. At the public hearing, the public will have the opportunity to speak on the issue.

If it is determined that the assessment ballots submitted in opposition to the proposed assessments do not exceed the assessment ballots submitted in favor of the assessments (weighted by the proportional financial obligation of the property for which ballots are submitted), the Board may take action to approve the imposition of assessments for fiscal year 2023-2024 and each fiscal year thereafter. The levy and collection of the assessments would continue year-to-year until terminated by the Board.

The authority granted by the ballot proceeding would be for a maximum assessment rates as shown above, increased each subsequent year the United States Department of Labor Northern California Consumer Price Index (CPI) (also known as the "San Francisco Bay Area CPI"). Such adjustments may be made consistent with California government code section 53739.

As outlined in Government Code section 53739, the Board may levy the assessment in future years without conducting a new vote procedure, as long as the assessments are within the authorized inflation-adjusted range authorized in the original balloting procedure. If the assessment amount is enough to fund the preliminarily approved budget, a CPI adjustment will not be included. At this meeting, the Board will also call for the publication in a local newspaper of a legal notice of the intent to continue the assessments for the next fiscal year and set the date for the noticed public hearing. At the annual public hearing, members of the public can provide input to the Board prior to the Board's decision on continuing the services and assessments for the next fiscal year.

DESCRIPTION OF FACILITIES IMPROVEMENTS

RD 2028 provides a range of levee and drainage construction, repair, operations, maintenance and flood prevention activities and services (the “Services”) within its boundary.

The maintenance, operations, repairs and improvements proposed to be undertaken by RD 2028 and the cost thereof paid from the levy of the annual assessment provide special benefit to Assessor Parcels within the proposed Assessment District as defined in the Method of Assessment herein. In addition to the definitions provided by the California Government Code Section 54710 et seq., (the “Code”) the maintenance, operations and improvements activities are generally described in the following sections.

Due to inadequate funding, the level of flood protection in the proposed Assessment District is below the desired level of service and the District is unable to adequately service the debt. In other words, the projected baseline level of service for 2023-24, and beyond (without this proposed assessment) would be inadequate to fund the desired service level and meet the District’s financial obligations, and this baseline would diminish over time. If the proposed assessment is approved, it will fund improved and enhanced Services over and above the baseline level of service.

The formula below describes the relationship between the final level of Services, the baseline level of Service if the assessment is not instituted, and the enhanced level of services funded by the assessment.

Final Level of Service	=	Baseline Level of Service	+	Enhanced Level of Service
-----------------------------------	---	--------------------------------------	---	--------------------------------------

In 2023, the District identified several significant additional flood control improvements and emergency response concerns which are quantified in Table 2, below and increase the assessment budget by \$479,800. In 2023, the District initiated a major Capital Improvement Program which will likely include the replacement of major pump stations, etc. over time. The assessment funding for these major capital improvements is described and authorized under the District’s Annual Capital Improvement Program Plan, and is quantified in Table 2, below, and increases the assessment budget by \$4,000,000.

**TABLE 2 – ADDITIONAL FLOOD CONTROL IMPROVEMENTS
AND EMERGENCY RESPONSE CONCERNS**

Additional Expenses						
Additional Expenses - 2020	Quantity	Unit Price	Total Cost	Term (yrs)	Annual Asmt	
Security Gates (2)	2	\$ 15,000	\$ 30,000	5.0	\$	6,000
Emergency Response Rock Stockpile (tons)	400	\$ 50	\$ 20,000	1.0	\$	20,000
Emergency Response Standby Equipment Fleet ¹	3	\$ 16,667	\$ 50,000	1.0	\$	50,000
Emergency Response On Call Equipment Operators ²	1	\$ 25,000	\$ 25,000	1.0	\$	25,000
Emergency Response Fiscal Reserve ³			\$ 404,000	5.0	\$	80,800
Special Projects:						
North/South Levee Directed Action		Project Cost	Local Share	Local Share	Term (yrs)	
	\$	12,000,000	5%	\$ 600,000	5.0	\$ 120,000
Non-Occupied (44 as recommended by MWD mgmt)	\$	880,000	50%	\$ 440,000	5.0	\$ 88,000
Occupied (20 as recommended by MWD mgmt)	\$	400,000	50%	\$ 200,000	5.0	\$ 40,000
Minor Capital Improvement Projects (e.g., pumps, docks)						\$ 50,000
Additional Expenses - 2023						
Approved Capital Improvement Program projects:	1	\$ 4,000,000	\$4,000,000	1.0	\$	4,000,000
Total (Expenses)					\$	4,479,800

¹ Emergency Response Equipment to include one excavator, one loader, & one dump truck

² Emergency Response Labor includes three on-call operators (to be shared by RD #756, #2026, & #2028)

³ Emergency Response Reserve level assumes 50% of annual operating budget

COST AND BUDGET ESTIMATE

Reclamation District 2028 has developed a spending plan which concluded that the appropriate level of funding for flood protection systems and financial obligations require approximately \$4,935,218 per year in operations and maintenance. A detailed budget estimate is shown in Table 2 below.

TABLE 3 – FISCAL YEAR 2023-24 PROPOSED BUDGET

Budget Item	Amount
Expenses	
Administration	\$ 40,000
General Operations	179,230
Engineering	30,000
Levee Operations	80,000
Levee Maintenance	100,000
Additional Improvements	4,479,800
Debt Service	175,513
Total Expenses	\$ 5,084,543
Revenue	
Existing Assessments	\$ 935,218
Interest Income	-
Special Projects	-
Subventions	149,325
Other	-
Total Revenue	\$ 1,084,543
Projected Annual Shortfall	\$(4,000,000)

Assessment Calculator		
Existing Assessment Revenues	\$	935,218
Additional Assessments Required	\$	4,000,000
Balance to Levy	\$	4,935,218
<u>Benefit Units</u>	<u>Rate</u>	
6,516.49	\$ 757.34	\$ 4,935,218
Total Assessment Amount =		\$ 4,935,218

METHOD OF APPORTIONMENT

This section includes an explanation of the special benefits to be derived from the maintenance, operations and repair activities, the criteria for the expenditure of assessment

funds and the methodology used to apportion the total assessments to properties within the proposed Assessment District. The proposed Assessment District area consists of all Assessor Parcels included within the RD 2028 boundary.

Pursuant to Proposition 218, the method used for apportioning the assessment is based upon the proportional special benefits conferred to the properties over and above the general benefits conferred to real property in the proposed Assessment District, or to the public at large. Special benefit is calculated for each parcel in the District using the following process:

- 1.) Identification of all benefit factors derived from the Improvements
- 2.) Calculation of the proportion of these benefits that are general
- 3.) Determination of the relative special benefit within different areas of the Assessment District
- 4.) Determination of the relative special benefit per property type
- 5.) Calculation of the specific assessment for each individual parcel based upon special vs. general benefit, zones, property type and other supporting attributes

DISCUSSION OF BENEFIT

Maintenance, operational, and improvement activities relating to flood control fall within the scope of Services that may be funded by assessments under the Code³. However, Proposition 218⁴ expressly prohibits any assessment “imposed on any parcel which exceeds the reasonable cost of the proportional special benefit conferred on that parcel.” The assessments can be levied based only on the special benefit to property. This benefit is received by property over and above any general benefits. Moreover, such benefit is not based on any one property owner’s specific use of the maintenance, operations and improvements activities or a property owner’s specific demographic status.

The benefit factors below, when applied to property in the proposed Assessment District, confer special benefits to property and ultimately protect property in the proposed Assessment District and improve the safety, utility and functionality of such property.

A special benefit is a particular and distinct benefit over and above the general benefits conferred on real property located in the district or to the public at large. The total cost of the Services must be apportioned among the properties being assessed, based on the proportionate special benefit the properties will receive. Proposition 218 requires any local agency proposing a new special assessment to “separate the general benefits from the special benefits conferred on a parcel⁵.” The basis for separating special and general

³ Gov. Code § 54710.5 permits any local agency with flood control capabilities to impose an assessment to finance those activities); and Gov. Code § 53750 defines “flood control” as “any system of public improvements that is intended to protect property from overflow by water.”

⁴ California Constitution, Article XIII C.

⁵ California Constitution, Article XIII D §4.

benefits is to ensure that certain property owners are not charged for Services provided to the general public or to property outside the assessment district.⁶

FLOOD CONTROL IS A SPECIAL BENEFIT

Flood control operations, such as the District's, provide only special benefits. Special benefits are benefits that are "peculiar and distinct over and above general benefits located in the district or to the public at large⁷." Because flood control infrastructure protects particular identifiable parcels (including residents of the parcel and any appurtenant facilities or improvements) from damage due to inundation or force by rising floodwaters, the benefits are provided directly to those parcels, and to none other.

By contrast, general benefits provided to the public at large are discussed in terms of general enhanced property values, provision of general public services such as police and fire protection, and recreational opportunities that are available to people regardless of their location⁸.

The issue of general benefits merits further discussion to the extent that flood control Services and improvements also have an obvious indirect relationship to the provision of general benefits. For example, the Services may protect restaurant and/or recreation facilities in the Assessment District that may be used by people regardless of whether they own property in the District. But this indirect relationship does not mean that the Services and Improvements themselves will provide any general benefits. Rather, the Services will provide direct special benefits to parcels that may themselves be used in the provision of general benefits.

More to the point, the public at large will be paying for the general benefits provided to benefiting "public use" property, and specially-benefited property owners' assessments will not be used to subsidize general benefits provided to the public at large or to property outside the Assessment District. All property that is specially benefited by the Services and Improvements will be assessed, including the parcels used in the provision of general benefits. Thus, the general public will pay for a portion of the provision of the flood control Services and Improvements because the assessed public agencies will use general taxes and other public revenue to pay their Assessments, and privately-owned parcels (such as restaurants) will collect revenue from customers to pay for any "general benefits".

The Assessment Engineer finds that the Services and Improvements are of distinct and direct special benefit to the property within the Assessment District.

⁶ *Silicon Valley Taxpayers' Assn., Inc. v. Santa Clara County Open Space Authority* (2008) 44 Cal. 4th 431, 450.

⁷ California Constitution, Article XIIIID § 2(i).

⁸ *Silicon Valley*, 44 Cal 4th at 450-456.

Following is a description of the separation of general benefit from special benefit, and the quantification of the general benefit, in the District. In each step of this analysis, conservative assumptions and determinations have been used in order to ensure that the total calculated general benefit is maximized which reduces the special benefit assessed on any one parcel.

This Report concludes that enhanced flood control is a special benefit directly to the property that is being protected from flooding. The proposed Maintenance and Operations Services and Improvements, which would be over and above the baseline level, will result in the levees being maintained to a much higher standard, and accordingly will reduce the risk of flooding and the associated damage to property.

The following Benefit Factors section describes how and why the Services and Improvements specially benefit properties. This benefit is particular and distinct from its effect on property in general or to the public at large.

BENEFIT FACTORS

The primary special benefit from the Services and Improvements is the significantly reduced risk of damage to property from flooding. In addition, this section describes other special benefits conferred to residential, commercial, industrial, institutional and other lots and parcels resulting from the Services and Improvements that will be provided. These types of special benefit are summarized as follows:

REDUCED RISK OF DAMAGE TO REAL PROPERTY ASSETS FOR ALL PROPERTY OWNERS WITHIN THE ASSESSMENT DISTRICT

Properties in the proposed Assessment District are currently at higher risk for flood. The proposed Assessments will fund an increase in maintenance, operations and improvement activities to reduce the likelihood of levee failure and reduce the threat from flooding. The reduced risk of direct and indirect contact with flood water will increase public safety and will provide positive health benefits in the Assessment District. The proposed Assessments will fund an increase in maintenance, operations and improvement activities to reduce the likelihood of levee failure and reduce the threat from flooding, thereby significantly reducing the risk of property damage potential and loss of life associated with floods. Clearly, levee and flood control maintenance helps to protect and specifically benefits all properties in the Assessment District. These are special benefits to property in the Assessment District because property is ultimately more desirable and valuable in areas that are safer and have less risk of harmful flooding.

REDUCED RISK OF LOSS OF LIFE OR HARM TO PROPERTY FROM FLOODING

The proposed Assessments will fund maintenance, operations and improvement activities to reduce the likelihood of levee failure and reduce the threat from flooding. These services will reduce the loss of life, injuries, and other public health issues associated with flooding. The reduced risk of direct and indirect contact with flood water will increase public safety and will provide positive health benefits in the Assessment District. These are special

benefits to property in the Assessment District because property is ultimately more desirable and valuable in areas that are safer and have less risk of harmful flooding.

INCREASED SAFETY OF DRINKING WATER SUPPLY TO PROPERTY

Even a minor flood has the potential to contaminate the drinking water supply if flood water enters the distribution system through wells or appurtenances such as air release valves. Such contamination would render the public water supply unfit for drinking. Property owners and residents in the Assessment District would need to use bottled water for drinking and cooking while the distribution systems are flushed, decontaminated, and tested. In addition, privately-owned wells could be damaged or contaminated by flooding. This is ultimately another special benefit to property because property is more desirable and valuable in areas with safe drinking water supplies.

PROTECTION OF JOBS, ECONOMIC BASE AND TRANSPORTATION SYSTEMS AFFECTING PROPERTY

The proposed Assessment District will provide funding for maintenance, operational and improvement activities that will reduce the risk of significant disruption and harm to jobs and the economic base in the Assessment District. The maintenance, operations and improvement activities will also better protect the roads and transportation systems in the Assessment District that are crucial for maintaining the local economic base. Without accessible roads and access to jobs, the value of property in the Assessment District would be diminished. Therefore, another special benefit to property is the protection of jobs, the local economic base and local transportation systems.

GENERAL VERSUS SPECIAL BENEFIT

The assessment revenue will be used to provide maintenance, operations and improvement activities to reduce the risk of property damage and harm from flooding. This is a special benefit to property in the proposed Assessment District because the reduction in likelihood of flooding confers the special benefit factors described above and these benefits ultimately flow to property in the Assessment District. Moreover, in absence of the proposed Assessments, the annual ongoing revenues available to RD 2028 are not sufficient to effectively maintain the levees and flood control facilities and will not be sufficient to service the existing debt thereby impairing future financing opportunities for improvement projects. Therefore, in the absence of the proposed assessment, the potential for flooding in the proposed Assessment District could substantially increase.

Proposition 218 requires any local agency proposing to increase or impose a special assessment to “separate the general benefits conferred on a parcel⁹.” The rationale for separating special and general benefits is to ensure that property owners are not charged a benefit assessment in order to pay for general benefits. Thus, a local agency carrying out a project that provides both special and general benefits may levy an assessment to pay for the special benefits but must acquire separate funding to pay for the general benefits¹⁰.

⁹ California Constitution Article XIID, § 4.

¹⁰ *Silicon Valley*, 44 Cal 4th at 431, 450.

In other words:

$$\text{Total Benefit} = \text{General Benefit} + \text{Special Benefit}$$

A formula to estimate the general benefit is listed below:

$$\text{General Benefit} = \text{Benefit to real property outside of improvement district} + \text{Benefit to real property inside of improvement district} + \text{Benefit to public at large}$$

BENEFIT TO PROPERTY OUTSIDE, BUT PROXIMATE, TO THE DISTRICT

There are no parcels that receive special benefit from the levee and flood protection services provided by RD 2028 that are not within the legal boundaries of the District. The general benefit to property outside of the District is calculated as follows with the parcel and data analysis performed by SCI Consulting Group.

Assumptions:

0 parcels outside and adjacent to the District
34 parcels in the Assessment District

Calculation

General Benefit to Property outside the Improvement District=
 $(0/(0 + 34)) = 0\%$

TOTAL GENERAL BENEFIT TO PROPERTIES OUTSIDE, BUT PROXIMATE, TO THE DISTRICT = 0%

BENEFIT TO PROPERTY WITHIN THE ASSESSMENT DISTRICT

The “indirect and derivative” benefit to property within the District is particularly difficult to calculate. A solid argument can be presented that all benefit within the Assessment District is special, because the Improvements are clearly “over and above” and “particular and distinct” when compared with the baseline level of service and the unique proximity and access of the Services and Improvements enjoyed by benefiting properties in the Districts.

Nevertheless, the *Silicon Valley Taxpayers Association* decision indicates there may be general benefit “conferred on real property located in the district.” A measure of the general benefits to property within the District is the percentage of land area within the District that

is publicly owned, open to the public, and used for regional purposes such as major roads, rail lines, hospitals, and other regional facilities because such properties, while physically within the District, are used for regional purposes and could provide indirect benefits to the public at large. In this case, essentially 0% of the land area is used for such regional purposes.

TOTAL GENERAL BENEFIT TO PROPERTIES WITHIN THE ASSESSMENT DISTRICT = 0%

BENEFIT TO THE PUBLIC AT LARGE

In *Beutz v. County of Riverside* (2010) 184 Cal.App.4th 1516, the Court opined that general benefits from parks and recreation facilities could be quantified by measuring the use of parks and recreation facilities by people who do not live within the assessment boundaries. This Report uses this general benefit measure as the third component of the overall general benefit quantification. Therefore, the general benefit to the public at large can be estimated by the proportionate amount of time that the District's facilities are used and enjoyed by individuals who are not residents, employees, customers or property owners in the District.

However, the need for access by those who do not contribute to the assessment in any way (e.g. visitors who are not residents, employees, customers or property owners) in the District is extremely limited and difficult to measure. Nonetheless, the Engineer has liberally assigned an allowance of a 10% general benefit factor.

TOTAL GENERAL BENEFIT TO PUBLIC AT LARGE = 10%

SPECIAL NOTE ON GENERAL BENEFITS

In *Dahms v. Downtown Pomona Property* (2009) 174 Cal.App.4th 708, the court upheld an assessment that was 100% special benefit on the rationale that the Services funded by the assessments were directly provided to property in the assessment district. Similar to the assessments in Pomona that were validated by *Dahms*, the Assessments described in this Engineer's Report fund Flood Control Services that are directly provided to property in the assessment area. Moreover, as noted in this Report, the Services directly reduce flood risk on all property in the assessment area. Therefore, *Dahms* establishes a basis for minimal or zero general benefits from the Assessments. However, in this report, the general benefit is more conservatively estimated and described, and then budgeted so that it is funded by sources other than the assessment.

SPECIAL NOTE ON PG&E UNDERGROUND NATURAL GAS LINES

The engineering analysis supporting this Report has identified the proposed flood protection services and improvements provide special benefit to the PG&E Underground Natural Gas Line facilities and real property, but the quantification of that special benefit is beyond the scope of this Report. The general benefit to the public from the use of natural gas lines is reimbursed to PG&E through natural gas utility rates and bills, and other revenue sources

imposed upon the public. Hence, it is determined that PG&E should be subject to this assessment and the District reserves the right to pursue this assessment in the future.

SPECIAL NOTE ON MINERAL RIGHTS PARCELS

The engineering analysis supporting this Report has considered mineral rights parcels and no assessment has been placed on any mineral rights parcels.

TOTAL GENERAL BENEFITS

Using a sum of these three measures of general benefit, we find that approximately 10% of the benefits conferred by the Improvements may be general in nature and should be funded by sources other than the assessment.

<p>General Benefit =</p> <p>0 % (Outside the District)</p> <p>+ 0 % (Property within the District)</p> <p>+ 10 % (Public at Large)</p>
--

RD 2028's proposed total budget for fiscal year 2023-24, including the proposed Assessment District would be \$5,085,543. Of this total assessment budget amount, RD 2028 will contribute at least \$508,554 or more than 10% of the total budget from sources other than this assessment. The \$149,325 contribution from the DWR subvention program as well as the other non-assessment sources more than satisfies this requirement.

SPECIAL NOTE ON GENERAL BENEFIT TO THE NEARBY LOCAL, STATE AND FEDERAL WATER PROJECTS

Any additional general benefit from the proposed improvements to the nearby local, State and Federal water projects, is addressed through above-described 10% general benefit allowance.

ASSESSMENT APPORTIONMENT

In the process of determining the appropriate method of assessment, various alternatives were considered. For example, an assessment only for all residential improved property was considered but was determined to be inappropriate because vacant, commercial, industrial and other properties also receive special benefits from the Assessments. Moreover, a fixed or flat assessment for all properties of similar type was deemed to be inappropriate because properties less likely to be affected by flooding would be assessed the same as properties more likely to be affected. Hence, the appropriate method of assessment should be based on the type and use of the property, the relative size of the property, and the level of potential damage to property. This method is further described below.

METHOD OF ASSESSMENT

The next step in apportioning assessments is to determine the relative special benefit for each property. This process involves determining the relative benefit received by each property in relation to a "benchmark" property. In most cases the benchmark property is a single family detached dwelling on one parcel. However, there are no single-family dwellings lying within the RD 2028 inundation zone. The most common type of parcel is in the Vacant/Open Range category. Therefore, the Vacant/Open Range category is used as the benchmark property and is designated as one benefit unit or "BU" for each acre of land. This BU methodology is commonly used to distribute assessments in proportion to estimated special benefits. In this Engineer's Report, all properties are assigned a BU value, which is each property's relative benefit in relation to a Vacant/Open Range parcel on one acre.

The relative benefit to properties from maintenance, operational and improvement activities that reduce the potential for levee failure and flooding is described by the following equations:

TABLE 4 – EQUATIONS

Equations	
1	$\sum \text{Special Benefit}_{\text{parcel}} = \sum \text{Assessment}_{\text{parcel}}$
2	$\text{Assessment}_{\text{parcel}} = \text{Rate}_{\text{zone}} \times f(\text{Replacement Factors, Parcel Specific Factors})$
3	$\text{Rate}_{\text{zone}} = \text{Base Rate} * \text{Relative Zone Factor}$
4	$\text{Base Rate} = \frac{\sum \text{Costs}}{\sum \text{SFEs}}$

TABLE 5 – FACTORS

Factor	Reference
$\sum \text{Cost}$	Table 2
$\sum \text{SFE}$	Table 2
Parcel Specific Factors:	
I. Flood Risk Factors	Table 5

II. Flood Damage Factors (Groups)	Table 6
III. Shared Facilities Factors	Table 7
Weighted Parcel Factor Summary	Table 8
Replacement Factors	Table 9

That is, the special benefit conferred to property is a function of flood risk factors, flood damage factors, shared facilities factors and land use factors. The derivation of these factors is described in the sections below.

FLOOD RISK FACTORS (PARCEL SPECIFIC FACTOR I)

Flood risk factors are typically derived from an analysis of the relative risks corresponding to specific sections of flood protection system, and then assigned to specific corresponding geographic zones. An analysis was conducted comparing the flood risk in the North and South sections of the District and the flood risk is uniform and all properties are protected by the same sections of levees, with the same relative risk of failure. A breach or failure anywhere on the levees will affect all interior properties uniformly. Therefore, the relative risk factors are the same.

TABLE 6 – FLOOD RISK FACTORS

Area	Flood Risk Factors (%)
North	100.0
South	100.0

FLOOD DAMAGE FACTORS (PARCEL SPECIFIC FACTOR II)

Flood damage is generally a function of the depth of flooding, with higher water levels causing greater damage to structures. The proposed Assessment District area was evaluated, with all properties subject to flood depths of greater than 17 feet. Based upon the relevant Flood Damage Percent curves (Corp of Engineer's Economic Guidance Memorandum (EGM) 01-03, Generic Depth-Damage Relationships), relative Damage Factors were determined, and normalized, as shown in Table 6, below: (Essentially, damage for flood depths of 17 feet or greater are effectively the same, and result in a Mean of Damage of 81.)

TABLE 7 – FLOOD DAMAGE FACTORS

Area	Effective Flood Depth (ft.)	Mean of Damage	Normalized Flood Damage (%)
North	18.00	81.00	100.00
South	20.00	81.00	100.00

SHARED FACILITY FACTORS (PARCEL SPECIFIC FACTOR III)

Shared facilities factors affect the calculated special benefit to parcels by evaluating the relative benefit to essential facilities and services. (For example, in the extreme hypothetical case of comparing benefit to a house at the lowest grade versus a house on stilts, the flood risk and flood damage to the properties may be very different, but both may receive very similar benefit in accessibility and access to water, power, sewer and drainage) A weighted system is used based upon an equal distribution for each of the five critical shared facilities to model the effect of the degradation of these facilities in different zones during a flood event. Since water and sewer services are not provided in a shared manner (i.e. each property must develop these services individually), these two services are given zero weight. This component of this special benefit apportionment is the same in all zones as summarized in Table 8, below.

TABLE 8 – SHARED FACILITY FACTORS

Area	Water	Power	Sewer	Drainage	Road Access	Total (%)
North	0	33.33	0	33.33	33.33	100
South	0	33.33	0	33.33	33.33	100

WEIGHTED PARCEL FACTOR SUBTOTALS

Within the proposed Assessment District boundaries, Flood Risk Factors, Flood Damage Factors and Shared Facility Factors describe the relative benefit to each parcel within the east, northwest and southwest areas, and are adjusted by their relative importance (weighting). Table 9 below shows the total weighted and normalized flood, Risk, Flood Damage and Shared Facilities factors. (Note: This analysis concludes that the special benefit conferred on north and south areas are equal, as shown in Table 8) Because the shared facilities are reduced to only three of the five critical services, that factor is weighted less than the other factors.

TABLE 9 – TOTAL RELATIVE PARCEL FACTORS

Area	Flood Risk Factor	Flood Damage Factor	Shared Facilities Factor	Total Weighted Parcel Factors
Relative Weight	40.00	40.00	20.00	
North	100.00	100.00	100.00	100.00
South	100.00	100.00	100.00	100.00

LAND USE FACTORS TO DETERMINE REPLACEMENT FACTORS

The final step in determining the apportionment is to factor in the land use, or replacement value for each type of use within a Group.

Using the San Joaquin County Assessor's data for land and total value, appraisal results, and other regional characteristics, relative land use factors were determined for various property types.

These property types and land use factors are normalized to the most common property type in the District: Vacant/Open Range. These values are described below and summarized in Table 10.

TABLE 10 – LAND USE FACTORS FOR PROPERTY TYPES

Land Use	Normalized Replacement/Crop Loss Value(%)	Unit
Single Family Residential (< 1.5 acre)	729.0	each
Single Family Residential (> 1.5 acre)	354.6	acre
Commercial/Industrial	191.8	acre
Agricultural	116.3	acre
Vacant & Open Range	100.0	acre
Non Assessable	0.0	acre

RESIDENTIAL PROPERTIES

For this analysis, parcels with residential dwellings were broken into two categories. For parcels less than 1.5 acres, it is presumed that the parcel is primarily for residential use and the accompanying land is ancillary to the home. For parcels 1.5 acres or more it is presumed that the land has agriculture or open range as its primary use and the home is ancillary to the land. Thus, the former is analyzed on a "per parcel" basis, and the latter is analyzed on

a “per acre” basis. There are several parcels in the District with dwelling structures, and these structures are in support of larger agricultural operations.

COMMERCIAL/INDUSTRIAL & OFFICE PROPERTIES

Commercial and industrial properties are assigned a land use factor on a per acre basis, since there is a relationship between parcel size, structure size and relative benefits. The land use factor for commercial and industrial properties was determined to be 1.918 BUs per acre.

AGRICULTURAL PROPERTIES

Agricultural properties are those which have been prepared and used for crop production. Based upon an in-depth analysis of revenue production value over time for agricultural properties, the land use factor for vacant properties was determined to be 1.163 BUs per parcel.

VACANT/OPEN RANGE PROPERTIES

These are parcels that either are not actively used (vacant) or are used for storage or animal grazing. Some parcels have minor structures, and analysis shows those structures add an insignificant value on “per acre” basis. Therefore, minor structures were not factored in to this analysis. As the benchmark land use, the land use factor for vacant properties is 1.000 per acre.

PUBLICLY OWNED PARCELS

Publicly owned parcels were individually reviewed and assigned the most appropriate property type.

Article XIID, Section 4 of the California Constitution states that publicly owned properties shall not be exempt from assessment unless there is clear and convincing evidence that those properties receive no special benefit. All public properties that are specially benefited are assessed.

MULTIPLE USES WITHIN A SINGLE PARCEL

Many of the parcels within the District are relatively large and could have multiple uses. For example, a 30-acre parcel could have 10 acres as crop land and the remaining 20 acres left as open range. In such cases, the Engineer has attempted to estimate the amount of acreage for each use and apply those areas to the appropriate assessment rates. As land uses change from year to year, the District may re-evaluate these partial uses and update the assessments as appropriate.

SUMMARY OF BENEFIT UNITS AND RATES FOR VARIOUS LAND USES

Assessment rates are determined by dividing the total benefit by the number of Benefit Units (BUs) in order to determine an assessment rate per BU. The base rate for the benchmark Vacant/Open Range parcel is set at \$757.34 per year per acre. Rates for other types of parcels, as based upon relative replacement costs are shown in Table 11, below.

TABLE 11 – SUMMARY OF BUs AND RATES FOR VARIOUS LAND USES

Land Use	Benefit Units	Rate	Unit
Vacant & Open Range	1.000	\$757.34	acre
Agricultural	1.163	\$880.75	acre
Commercial/Industrial	1.918	\$1,452.53	acre
Single Family Residential (< 1.5 acre)	7.290	\$5,521.30	each
Non Assessable	0	\$0.00	acre

CRITERIA AND POLICIES

PARCEL CHANGES

The signatory Assessment Engineer is responsible for a parcel by parcel analysis to determine the special benefit and assessment amount for each parcel in the proposed Assessment District. Each year, the District may re-analyze and re-calculate individual benefits and corresponding assessments for each parcel, incorporating parcel splits and combinations, land use changes, specific flood risks, etc. The District shall use the lien date roll obtained from the County of San Joaquin, or a third-party distributor of this data as the basis for the levy roll. Review of aerial photos and other data including real estate data, and site visits are anticipated.

APPEALS OF ASSESSMENTS LEVIED TO PROPERTY

Any property owner who feels that the assessment levied on their property is in error as a result of incorrect information being used to apply the foregoing method of assessment may file a written appeal. Any such appeal is limited to correction of an assessment during the then current fiscal year. Upon the filing of any such appeal, District will promptly review the appeal and any information provided by the property owner. If the District finds that the assessment should be modified, the appropriate changes shall be made to the assessment roll.

DURATION OF THE ASSESSMENT

If approved by property owners in an assessment ballot proceeding conducted pursuant to the Article and Government Code Section 53750 et seq., the assessments can be levied annually commencing with fiscal year 2023-24, and continuing each year at the discretion of the RD 2028 Board.

COST OF LIVING ADJUSTMENTS TO ASSESSMENT RATE

The assessment cannot be increased in future years without approval from property owners in another assessment ballot proceeding, except for an annual adjustment tied to the change in the U.S. Department of Labor, Bureau of Labor Statistics Consumer Price Index ("CPI") for the San Francisco, Oakland, Hayward Area, not to exceed 3% per year. The December to December CPI will be used to calculate the CPI. In the case of a negative December to

December CPI, a 0.0% CPI will be used. Any and all unused CPI may be cumulatively reserved for future use in any year in which the CPI is less than 3%

This sub-section describes the criteria that shall govern the expenditure of assessment funds and ensures equal levels of benefit for properties of similar type. The criteria established in this Report, as finally confirmed, cannot be substantially modified; however, the Board may adopt additional criteria to further clarify certain criteria or policies established in this Report or to establish additional criteria or policies that do not conflict with this Report.

ASSESSMENT FUNDS MUST BE EXPENDED WITHIN THE PROPOSED ASSESSMENT DISTRICT

The net available assessment funds, after incidental, administrative and other costs, shall be expended exclusively for the maintenance, operations (including debt service) and improvements provided to levees that protect property within the boundaries of the proposed Assessment District.

ASSESSMENT

WHEREAS, the Board of Reclamation District 2028 is proceeding with the proposed formation of the Levee and Flood Control Facilities Improvement Assessment District under the California Codes Government Code sections 54703 et seq. and Article XIID of the California Constitution (the "Article"), to proceed with the proposed levy of assessments;

WHEREAS, the undersigned Engineer of Work has prepared and filed a report presenting an estimate of costs, a diagram for the Assessment District and an assessment of the estimated costs of the Improvements upon all assessable parcels within the Assessment District;

NOW, THEREFORE, the undersigned, by virtue of the power vested in me under Government Code Section 54703 and Article and the order of said Board, hereby make the following assessment to cover the portion of the estimated cost of said Improvements, and the costs and expenses incidental thereto to be paid by the Assessment District.

The amount to be paid for said Improvements and the expense incidental thereto, to be paid by the Assessment District for the fiscal year 2023-24 is generally as follows:

Costs	
Admin & Engineering	\$ 219,230
Operations & Maintenance	210,000
Additional Improvements	4,479,800
Debt Service	175,513
Total Annual Costs	\$ 5,084,543
Less Contribution from other Sources	149,325
Net Amount to Assessment	\$ 4,935,218

An Assessment Diagram is hereto attached and made a part hereof showing the exterior boundaries of said Assessment District. The distinctive number of each parcel or lot of land in said Assessment district is its Assessor Parcel Number appearing on the Assessment Roll.

I do hereby assess and apportion said net amount of the cost and expenses of said Improvements, including the costs and expenses incident thereto, upon the parcels and lots of land within said Assessment District, in accordance with the special benefits to be received by each parcel or lot, from the Improvements, and more particularly set forth in the Cost Estimate and Method of Assessment hereto attached and by reference made a part hereof.

The assessment is subject to an annual adjustment tied to the annual change in the Consumer Price Index for the San Francisco, Oakland, Hayward Area as of December of each succeeding year, with the maximum annual adjustment not to exceed 3% in any year.

In the event that the actual assessment rate for any given year is not increased by an amount equal to the maximum of 3% or the yearly CPI change plus any CPI change in previous years that was in excess of 3%, the maximum authorized assessment shall increase by this amount. In such event, the maximum authorized assessment shall be equal to the base year assessment as adjusted by the increase to the CPI, plus any and all CPI adjustments deferred in any and all prior years. The CPI change above 3% can be used in a future year when the CPI adjustment is below 3%.

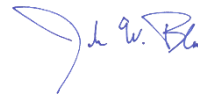
If property owners, in an assessment ballot proceeding, approve the initial fiscal year benefit assessment for the special benefits to their property including the CPI adjustment schedule, the assessment may be levied annually and may be adjusted by up to the maximum annual CPI adjustment without any additional assessment ballot proceeding. In the event that in future years the assessments are levied at a rate less than the maximum authorized assessment rate, the assessment rate in a subsequent year may be increased up to the maximum authorized assessment rate without any additional assessment ballot proceeding.

Each parcel or lot of land is described in the Assessment Roll by reference to its parcel number as shown on the Assessor's Maps of the County of San Joaquin for the fiscal year 2023-24. For a more particular description of said property, reference is hereby made to the deeds and maps on file and of record in the office of the County Recorder of San Joaquin County.

I hereby place opposite the Assessor Parcel Number for each parcel or lot within the Assessment Roll, the amount of the assessment for the fiscal year 2023-24 for each parcel or lot of land within the said Assessment District.¹¹

Dated: March 15, 2023

Engineer of Work



By _____
John W. Bliss, License No. C52091

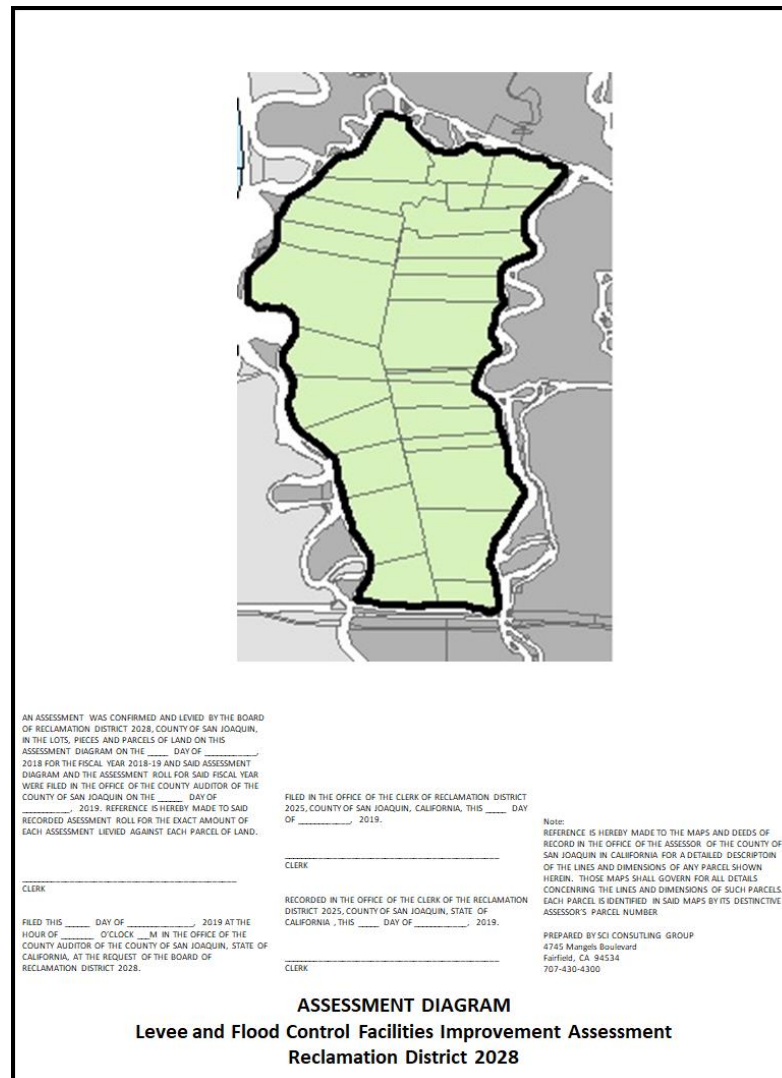


¹¹ Each parcel has a calculated assessment based on the estimated level of special benefit to the property.

ASSESSMENT DIAGRAM

The Assessment District includes all properties within the proposed boundaries of the Levee and Flood Control Facilities Improvement Assessment. The boundaries of the Assessment District are displayed on the following Assessment Diagram. The lines and dimensions of each lot or parcel within the Assessment District are those lines and dimensions as shown on the maps of the Assessor of the County of San Joaquin, for fiscal year 2023-24, and are incorporated herein by reference, and made a part of this Diagram and this Report.

FIGURE 2 – RECLAMATION DISTRICT 2028 ASSESSMENT DIAGRAM FY 2023-24



APPENDICES

APPENDIX A – ASSESSMENT ROLL, FY 2023-24

The Assessment Roll is made part of this report and is available for public inspection during normal office hours. Each lot or parcel listed on the Assessment Roll is shown and illustrated on the latest County Assessor records and these records are, by reference, made part of this report. These records shall govern for all details concerning the description of the lots or parcels.

<u>Parcel</u>	<u>Proposed Asmt</u>	<u>Parcel</u>	<u>Proposed Asmt</u>
129-050-010-000	\$ 118,906.17	129-050-240-000	\$ 159,950.81
129-050-020-000	\$ 57,251.12	129-050-250-000	\$ 166,292.48
129-050-030-000	\$ 124,085.19	129-050-260-000	\$ 147,443.65
129-050-040-000	\$ 53,622.28	129-050-270-000	\$ 276,566.94
129-050-050-000	\$ 176,157.28	129-050-280-000	\$ 5,813.19
129-050-060-000	\$ 173,867.24	129-050-520-000	\$ 556,630.59
129-050-070-000	\$ 100,383.23	129-050-530-000	\$ -
129-050-080-000	\$ 146,976.83	129-050-540-000	\$ 53,816.05
129-050-090-000	\$ 406,218.70	129-050-550-000	\$ 120,949.59
129-050-110-000	\$ 156,691.90	129-050-560-000	\$ 216,144.99
129-050-120-000	\$ 69,758.28	129-050-600-000	\$ 200,995.46
129-050-130-000	\$ 342,379.30		
129-050-140-000	\$ 261,769.72		
129-050-150-000	\$ 91,390.40		
129-050-160-000	\$ 170,167.94		
129-050-170-000	\$ 228,652.15		
129-050-180-000	\$ 176,157.28		
129-050-190-000	\$ 176,157.28		