

Feather River West Levee Financing Authority

Board of Directors Amended Agenda – Regular Board Meeting, March 9, 2022, 2:00 p.m.
1201 Civic Center Blvd, Yuba City, CA 95993 – Council Chambers

MODIFIED BROWN ACT REQUIREMENTS IN LIGHT OF COVID-19

In Compliance with CA Executive Orders AB361 members of the Board of Directors and members of the public will participate in this meeting in person and by teleconference. The call in information for the Board of Directors and the public is as follows:

Meeting URL: https://us06web.zoom.us/webinar/register/WN_q5edgX9cS-GJaO0tbx7h1w

Any member of the public on the telephone may speak during Public Comment or may email public comments to admin@sutterbutteflood.org and comments will be read from each member of the public. During this period of modified Brown Act Requirements, Sutter Butte Flood Control Agency will use best efforts to swiftly resolve requests for reasonable modifications or accommodations with individuals with disabilities, consistent with the Americans with Disabilities Act, and resolving any doubt whatsoever in favor of accessibility.

Levee District 1

Charlie Hoppin
Alt: Al Montna

Levee District 9

Mike Morris
Alt: Chris Schmidl

Sutter County

Mike Ziegenmeyer
Alt: Mat Conant

AGENDA SUMMARY

REGULAR MEETING/CALL TO ORDER

- Roll Call
- Pledge of Allegiance

PUBLIC COMMENT

Members of the public will be allowed to address the Feather River West Levee Financing Authority Board of Directors on items of interest to the public that are within the subject matter jurisdiction of the Board. Any member of the audience who may wish to bring a matter before the Board that has not been placed on the agenda may do so at this time; however, State law provides that no action may be taken on any item not appearing on the posted Agenda.

CONSENT CALENDAR

The Consent Calendar groups together those items which are considered noncontroversial or for which prior policy direction has been given to staff and that require only routine action by the Board. The Chair will advise the audience that the matters may be adopted in total by one motion; however, the Board may, at its option or upon request of a member of the public, consider any matter separately.

1. Approval of the minutes for the February 9, 2022 Board Meeting
2. Brown Act Resolution 2022-01

PRESENTATION, DISCUSSION & ACTION ITEMS

3. FRWLFA Assessment District Update - Briefing of FRWLFA Operations and Maintenance Assessment District Engineer's Report
4. SBFCA Services Update

ADJOURNMENT

The next regularly scheduled Board of Directors meeting will be held on April 13, 2022 at 2 p.m.

Feather River West Levee Financing Authority

Board of Directors Minutes Regular Meeting, February 9, 2022, 2 p.m.

MODIFIED BROWN ACT REQUIREMENTS IN LIGHT OF COVID-19

The Feather River West Levee Financing Authority (Authority) Board of Directors (Board), State of California, met on the above date at 2 p.m. in Compliance with CA Executive Orders AB361 members of the Board of Directors and members of the public participated in this meeting by teleconference.

These minutes do not represent a transcript of the meeting and are intended to be a summary of the most important points. For a complete record, please refer to the video recording of the meeting, which is posted on FRWLFA's website: <http://frwlfa.org/governance/meetings>

MEMBERS PRESENT

Levee District 1:	Charlie Hoppin
Levee District 9:	Mike Morris
County of Sutter:	Mike Ziegenmeyer

STAFF PRESENT: Michael Bessette, SBFCA Executive Director; Andrea Clark, Authority Counsel; Seth Wurzel, SBFCA Budget Manager, and Kim Floyd, Public Outreach; Drew Stresser, General Manager; Terra Yaney; SBFCA Board Clerk

MEETING/CALL TO ORDER

At 2:00 p.m., SBFCA Executive Director Michael Bessette opened the meeting and led the group in the pledge of allegiance.

PUBLIC COMMENT

[No public Comment](#)

PRESENTATION, DISCUSSION & ACTION ITEMS

1. Approval of the minutes for the December 8, 2021 Board Meeting

A motion to approve the Minutes of the December 8, 2021 Board Meeting was made by Director Charlie Hoppin and seconded by Director Mike Morris. The motion passed with no objection. The motion was approved as follows:

- Charlie Hoppin - yes
- Mike Morris– yes
- Mike Ziegenmeyer - yes

[No public Comment](#)

2. FRWLFA Assessment District Engineering Update – Discussion of Benefit Area Map

SBFCA Budget Manger Seth Wurzel presented a PowerPoint presentation on flood mapping – extent and depth analysis. He reported that PBI and HDR/Willdan prepared a composite flood map that encompass all areas protected by the reach of levee maintained by LD1, LD9 and MA3. He presented slides of the maps which showed flood areas and depths resulting from modelled breaches of LD1, LD9 and MA3 levees.

The entire report, along with a PowerPoint presentation is available on the FRWLFA website at: <http://frwlfa.org/governance/meetings>

3. SBFCA Services Update

SBFCA Executive Director gave an update on SBFCA’s tracking of expenses – administrative costs, legal, assessment district coordination and outreach. It was reported that the team is working on developing draft talking points to set the script for public outreach discussions by the Team and Board.

No public Comment

ADJOURNMENT

With no further business coming before the Board, the meeting was adjourned at 2:52 p.m.

ATTEST BY: _____
Terra Yaney, Board Clerk

Board Chair

Feather River West Levee Financing Authority

RESOLUTION NO. 2022-01

**AUTHORIZING REMOTE TELECONFERENCE MEETINGS OF FEATHER RIVER
WEST LEVEE FINANCING AUTHORITY PURSUANT TO THE BROWN ACT**

WHEREAS, Feather River West Levee Financing Authority (“Authority”) is committed to preserving public access and participation in meetings of the Board of Directors; and

WHEREAS, all meetings of the Authority are open and public, as required by the Ralph M. Brown Act (Gov. Code, §§ 54950 – 54963) (“Brown Act”), so that any member of the public may attend, participate, and watch the Authority’s legislative body conduct its business; and

WHEREAS, Assembly Bill 361 added Government Code section 54953(e) to make provisions for remote teleconferencing participation in meetings by members of a legislative body, without compliance with the requirements of Government Code section 54953(b)(3), subject to the existence of certain conditions; and

WHEREAS, a required condition is that a state of emergency is declared by the Governor pursuant to Government Code section 8625, proclaiming the existence of conditions of disaster or of extreme peril to the safety of persons and property within the state caused by conditions as described in Government Code section 8558; and

WHEREAS, it is further required that state or local officials have imposed or recommended measures to promote social distancing, or, the legislative body determines that meeting in person would present imminent risks to the health and safety of attendees; and

WHEREAS, as a condition of extending the use of the provisions found in Section 54953(e), the Board of Directors must reconsider the circumstances of the state of emergency that exists in the District; and

WHEREAS, such conditions persist in the Authority, specifically, the March 4, 2020 State of Emergency Proclamation remains active in California due to the continued threat of COVID-19; and

WHEREAS, the Board of Directors does hereby find that meeting in person would present imminent risks to the health or safety of attendees; and

WHEREAS, the Board of Directors does hereby find that the Authority shall conduct its meetings without compliance with paragraph (3) of subdivision (b) of Government Code section 54953, as authorized by subdivision (e) of section 54953, and that the Board shall comply with the requirements to provide the public with access to the meetings as prescribed in paragraph (2) of subdivision (e) of section 54953; and

WHEREAS, all meeting agendas, meeting dates, times, and manner in which the public may participate in the public meetings of the Authority and offer public comment by telephone or internet-based service options including video conference are posted on the Authority website and physically outside of the Authority office.

NOW, THEREFORE, THE BOARD OF DIRECTORS OF FEATHER RIVER WEST LEVEE FINANCING AUTHORITY DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. Recitals. The Recitals set forth above are true and correct and are incorporated into this Resolution by this reference.

Section 2. Risks to Health and Safety of Attendees. The Board hereby determines that meeting in person would present imminent risks to the health or safety of attendees.

Section 3. Remote Teleconference Meetings. Authority staff are hereby authorized and directed to take all actions necessary to carry out the intent and purpose of this Resolution, including conducting open and public meetings in accordance with Government Code section 54953(e) and other applicable provisions of the Brown Act.

Section 4. Effective Date of Resolution. This Resolution shall take effect immediately upon its adoption and shall be effective until the earlier of (i) March 9, 2022, or such time the Board of Directors adopts a subsequent resolution in accordance with Government Code section 54953(e)(3) to extend the time during which the Authority may continue to teleconference without compliance with paragraph (3) of subdivision (b) of section 54953.

PASSED AND ADOPTED by the Board of Directors of Sutter Butte Flood Control Agency, this 9th day of March, 2022, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Board Chair

Feather River West Levee Financing Authority

March 9, 2022

TO: Board of Directors

FROM: Michael Bessette – SBFCA Executive Director

SUBJECT: Informational briefing of FRWLFA Operations and Maintenance Assessment District Draft Engineer's Report

Recommendation

This informational report covers Engineer's Report for the proposed FRWLFA Operations and Maintenance Assessment District. Staff recommends that the Board of Directors review this report, receive a presentation on the subject and make available for review by the public, the draft Engineer's Report for the proposed FRWLFA Operations and Maintenance Assessment District

Background

FRWLFA was formed for the purpose of financing the Operations and Maintenance, Repair, Replacement and Rehabilitation (OMRR&R) of the west Feather River levees, related facilities, and administration expenses within the jurisdictions of LD1, LD9, and MA3 in Sutter County (referred to as the "FRWLFA Levees"). The FRWLFA Levees consist of twenty-seven (27) miles of the west Feather River levee improvements from Paseo Road south to the confluence of the Sutter Bypass and protect approximately 25,000 properties and 75,000 residents in Live Oak, Yuba City, and unincorporated Sutter County. FRWLFA proposes a Benefit Assessment District ("District") to fund OMRR&R of the FRWLFA levees to meet new, rigorous State and federal requirements. This staff report augments the report dated February 9th, 2022, that describes the benefitting area and avoided damage benefits of the District.

The Benefit Assessment Act of 1982 (Govt. Code section 54703 et seq.), (the "1982 Act") and substantive and procedural requirements of the California State Constitution Article XIIID ("California Constitution") require preparation of an Engineer's report that details the basis of the proposed assessment. In advance of embarking on the formal benefit assessment district formation process, HDR/Wildan has prepared a draft Engineer's Report available for public review.

Engineer's Report

An Engineer's Report provides the required technical analysis to support a proposed assessment district. The Engineer's Report quantifies the proportionate special benefits that each parcel in the proposed assessment district will receive from the service provided – in this case, OMRR&R of improved levees and flood control facilities associated with the FRWLFA levees.

Recently repaired levees must be maintained to strict state and federal requirements. Currently, there is a \$1.3 million shortfall between existing and needed revenues to adequately fund levee maintenance. This deficit represents the difference between \$621,000 of annual, existing funding and the \$1.9 million that is necessary to adequately maintain and operate the FRWFLA levees. This estimate of OMRR&R costs was

prepared by FRWLFA and constituent agencies LD1 and LD9 using historic and current costs and are detailed in Part III of the Engineer's Report.

To formulate the annual, proposed assessment, the total cost of funding OMRR&R is apportioned to individual properties that receive a special benefit from the FRWLFA levees. To assess benefits equitably, a calculation is made of each property's relative share of the special benefits of levee OMRR&R. The benefit calculation can be summarized as follows:

$$\text{Special Benefits} = \text{Damages Avoided}$$

$$\text{Damages Avoided} = \text{Structure Damage} + \text{Content Damage} + \text{Land Damage}$$

Structure and Content Damage considers the following:

- Relative Structure and Content Value
- Flood Depth Reduction
- Percentage of Flood Damage Reduction
- Structure Size

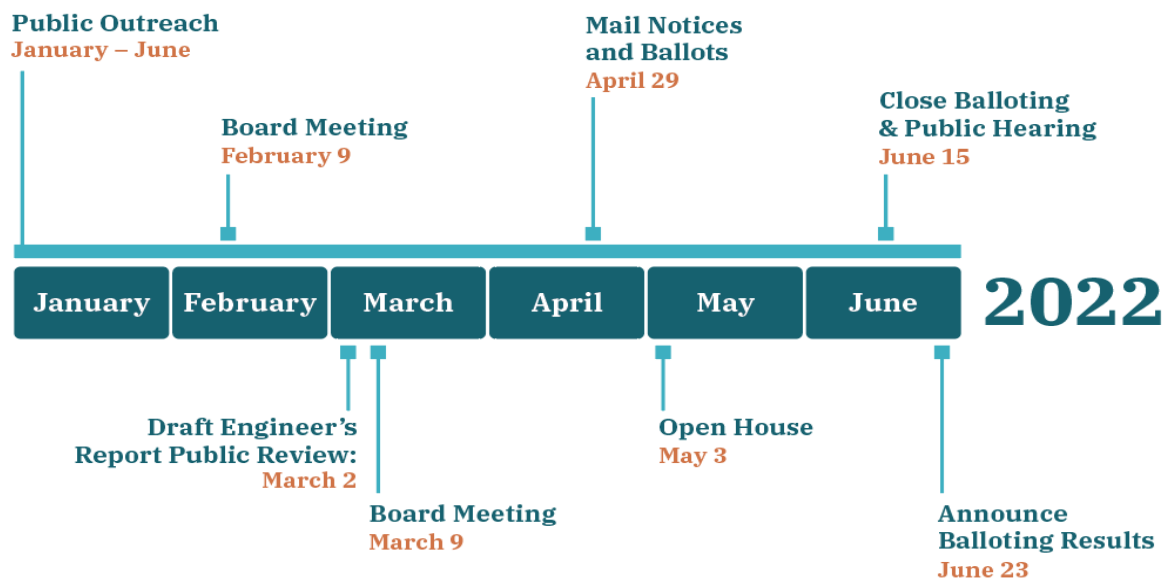
Factors that impact the land damage calculation include:

- Relative Land Damage Factor
- Parcel Size

Property owners can view proposed assessments for individual properties at www.frwlfa.org. Any questions or concerns can be addressed by calling the FRWLFA Hotline at 800-401-8302 or emailing info@frwlfa.org

Next Steps

Following public review of a draft Engineer's Report, the recommended next step is for the FRWLFA Board of Directors to adopt a Resolution of Intention to form the assessment district. In doing so, the Board would Preliminary approve the Engineer's Report, schedule a public hearing and call for a mailed property owner protest ballot proceeding. Staff recommends that the FRWLFA Board take this step on April 13th and schedule the public hearing for June 15th. Staff would then mail ballots to all affected property owners. The mailing would include Notice of the Public Hearing / Ballot Information Guide as well as a Ballot and return envelope. The final step of the formation process would be to conduct the public hearing at the close of ballot proceeding, tabulate the ballots received, report the results of the balloting, and if there is no majority protest, the Board could then approve the Engineer's Report making it final and take the necessary action to form the Benefit Assessment District through the adoption of a Resolution of Formation. The Board could then call for the annual levy and collection of assessments. A summary schedule is as follows:



Fiscal Impact

There is no fiscal impact.

Feather River West Levee Financing Authority

Engineer's Report Formation of:

FRWLFA Operations and Maintenance Assessment District

Commencing Fiscal Year 2022/2023

Intent Meeting: April 13, 2022

Public Hearing: June 15, 2022

**MARCH 2022
PREPARED BY
WILLDAN FINANCIAL SERVICES**

ENGINEER'S REPORT AFFIDAVIT
Feather River West Levee Financing Authority
Formation of the
FRWLFA Operations and Maintenance Assessment District
Fiscal Year 2022/2023
County of Sutter, State of California

This Engineer's Report ("Report") and the enclosed descriptions and diagrams outline the Feather River West Levee Financing Authority ("FRWLFA" or "Agency") proposed formation and establishment of annual assessments for the FRWLFA Operations and Maintenance Assessment District (hereinafter referred to as "District") commencing with fiscal year 2022/2023. Said District incorporates each lot, parcel, and subdivision of land within Sutter County that receives special benefit from the operation and maintenance of levee improvements and flood control facilities associated with the locally maintained portions of the Feather River West Levee system within the boundaries of said District as defined by the District Diagram contained herein as Part IV and adopted at the time of the passage of the Resolution of Intention. Reference is hereby made to the Sutter County Assessor's maps for a detailed description of the lines and dimensions of each lot, parcel, and subdivision of land within said territory and District. The undersigned respectfully submits the enclosed Report that includes a general description of the plans and specifications, method of apportionment, budgets and proposed special benefit assessments associated therewith as directed by the FRWLFA Board of Directors ("Board") and pursuant to the provisions of the Benefit Assessment Act of 1982, being Chapter 6.4 of the California Government Code, commencing with Section 54703.

Dated this _____ day of _____, 2022.

Willdan Financial Services
Assessment Engineer
On Behalf of Feather River West Levee Financing Authority

By: _____

Jim McGuire
Principal Consultant, Project Manager

By: _____

Tyrone Peter
PE # C 81888

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Introduction

Background

The Yuba City Basin (the Sutter County portion of the Sutter Butte Basin) is an area subject to inundation from flood flows in the Sutter Bypass and Feather River. The first organized responses to seasonal floods were simple non-engineered levees, generally built by farmers to protect their crops and farm properties. The early settlers' levees were often no more than berms of loose local soils, often built over pervious and/or unstable foundations. After major floods in the early part of the 20th century, the United States Army Corps of Engineers ("USACE") constructed or authorized a comprehensive and connected set of levees and bypasses (or overflow channels) to contain the river runoff. Eventually, dams were also built that function as shock absorbers, storing storm water and snow melt surges to help prevent overwhelming levees. Despite these initial efforts to prevent flooding, levee breaches still occurred in 1917, 1955, 1986 and 1997, resulting in major flooding that affected the region both in property damages and lives lost.

California weather is changing as a result of climate change. More precipitation is falling in the mountains as rain, resulting in less snowpack, and it is likely this change will continue to increase the stress on the region's flood control system. Consequently, the State of California's agency that looks at flood protection, the Department of Water Resources ("DWR"), in 2006 conducted extensive exploration, testing and analyses of the levees that surround the Yuba City Basin. These studies identified numerous deficiencies in the region's levee system.

To address the basin's levee system deficiencies and to protect public safety against the ongoing threat of flooding from Sierra Nevada storms that run off into the region's rivers systems, the Sutter Butte Flood Control Agency ("SBFCA") was established in September 2007. SBFCA was formed to plan, finance, and construct a flood control program, and to coordinate regional flood control improvements in order to protect lives and property in the Yuba City Basin. SBFCA independently reviewed the DWR data and determined that the entire levee along the west side of the Feather River required rehabilitation.

In 2010, SBFCA in partnership with the State began the design, construction, and rehabilitation of approximately 37 miles of the west Feather River levee from Thermalito Afterbay in Butte County, south to Star Bend and at Laurel Avenue, known as the Feather River West Levee Project (FRWLP). The USACE, in partnership with SBFCA and the State, repaired another 5.5 miles from Star Bend south to the Highway 99 crossing (excluding the levee at Laurel Avenue) for a total of 42.5 miles of repaired levee on the west bank of the Feather River. The remaining 1.5 miles of levee from the Highway 99 crossing to the confluence with the Sutter Bypass has been slated for repair by SBFCA. A special benefit assessment district was formed by SBFCA to fund the local share of the construction costs, known as the Sutter Butte Flood Control Agency Assessment District, and this assessment district incorporated all properties located within the SBFCA boundaries except properties adjacent to Cherokee Canal/Butte Sink, properties north of Sutter Buttes in the far westerly portion of SBFCA's jurisdiction, and high ground areas above the 200-year floodplain around the easterly base of Sutter Buttes and in the far northerly portion of SBFCA's jurisdiction. The FRWLP was completed in 2020, providing the urban portion of the basin (Yuba City to north of Biggs) protection against 200-year flood flows within the Feather River and increasing the level of flood protection for the remainder of the basin (areas south of Yuba City).

Ongoing Operation, Maintenance, Repair, Rehabilitation, and Replacement (“OMRR&R”) of the west Feather River levees are the responsibilities of the following Local Maintenance Agencies (“LMAs”) and State Maintenance Areas (“MAs”) located along the Feather River: Maintenance Area 7 (“MA7”) within Butte County; Maintenance Area 16 (“MA16”) covering the very southern section of Butte County and Sutter County north of the Sunset Pump Station; Levee District 1 (“LD1”); Levee District 9 (“LD9”); and Maintenance Area 3 (“MA3”).

Legislative Authority

In May 2020, the Feather River West Levee Financing Authority (“FRWLFA”) was established by and between Levee District 1, Levee District 9, and Sutter County pursuant to the provisions of the Joint Exercise of Powers Act, Govt. Code Section 6500 et seq. (“JEP Act”). Agencies formed pursuant to the JEP Act may provide financing for any of their members or other local agencies in the State of California in connection with the acquisition, construction, improvement, and maintenance of public capital improvements, working capital requirements or insurance programs of such members or other local agencies.

FRWLFA was specifically formed for the purpose of financing the OMRR&R of the west Feather River levees, related facilities, and administration expenses within the jurisdictions of LD1, LD9, and MA3 in Sutter County (hereafter collectively referred to as the “FRWLFA Levees”). The FRWLFA Levees consist of twenty-seven (27) miles of the west Feather River levee improvements from Paseo Road south to the confluence of the Sutter Bypass and must be maintained in compliance with strict State and Federal standards and regulations. The location of the FRWLFA Levees within the jurisdictions of LD1, LD9, and MA3 in Sutter County are illustrated in **Figure 1**, on page 6 and more detailed OMRR&R activities is provided in Part I – Plans and Specifications Section of this Report.

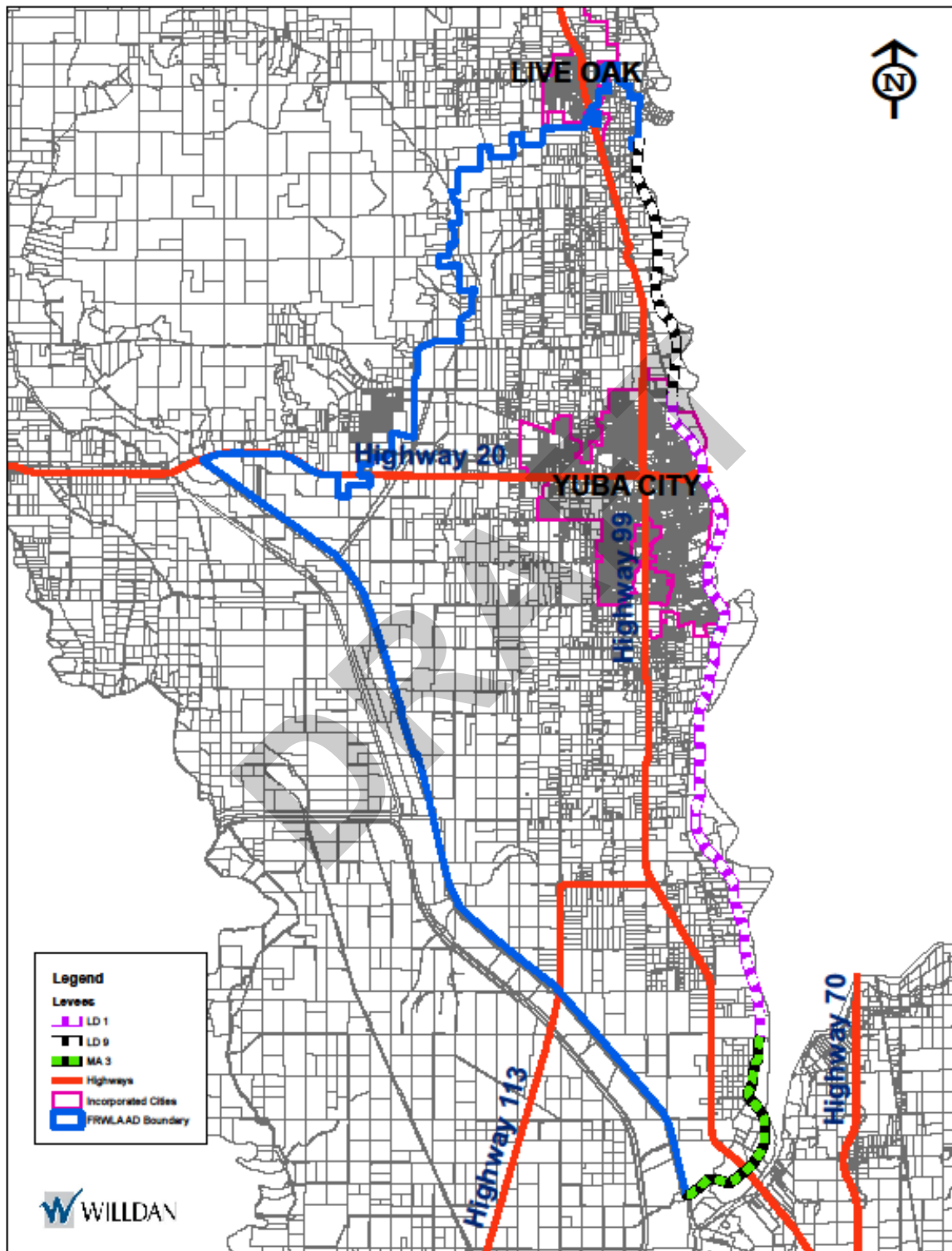
Pursuant to the provisions of the Benefit Assessment Act of 1982 (Govt. Code section 54703 et seq.), (the “1982 Act”), and in compliance with the substantive and procedural requirements of the California State Constitution Article XIID (“California Constitution”), the Board of Directors (“Board”) of FRWLFA proposes to form and levy special benefit assessments for the district to be designated as:

FRWLFA Operations and Maintenance Assessment District

(hereafter referred to as “District”), which includes all lots and parcels of land within the Yuba City Basin that receive a particular and distinct benefit (special benefit) from the ongoing OMRR&R and related incidental expenses associated with the FRWLFA Levees. This Engineer’s Report has been prepared in connection with the formation of said District for fiscal year 2022/2023 and the levy and collection of annual assessments related thereto, as required pursuant to Section 54716 of the 1982 Act.

The Board proposes to form the District, and annually levy and collect special benefit assessments on the Sutter County tax roll to provide ongoing funding for the costs and expenses required to operate and maintain the FRWLFA Levees that are deemed necessary and essential requirements to minimize potential flood risks and provide a distinct and particular benefit to those assessed properties.

Figure 1: FRWLFA Levees



The OMRR&R program provided by the District and funded in whole or in part by the assessments described herein are made pursuant to the 1982 Act and the substantive and procedural provisions of the California Constitution.

1982 Act

Section 54710(a) of the 1982 Act permits any local agency which is authorized by law to provide flood control may impose a benefit assessment pursuant to this chapter to finance the maintenance and operation costs of flood control services. In addition to maintenance and operation costs, Section 54710.5 authorizes agencies to finance the cost of installation and improvement of flood control facilities:

“Any local agency which is authorized by law to provide drainage services or flood control services may, in addition to imposing a benefit assessment for the purposes authorized pursuant to Section 54710, impose such an assessment to finance the cost of installation and improvement of facilities.”

Other provisions of 1982 Act worth noting include the following:

Section 54711 outlines certain prerequisites that must be met for the levy of benefit assessments:

- (1) *“The amount of the assessment imposed on any parcel of property shall be related to the benefit to the parcel which will be derived from the provision of the service...”*
- (2) *“The annual aggregate amount of the assessment shall not exceed the estimated annual cost of providing the service...”*
- (3) *“The revenue derived from the assessment shall not be used to pay the cost of any service other than the service for which the assessment was levied...”*

Pursuant to Section 54716(a) and engineer's report shall be prepared and filed with the clerk of the local agency and contain all of the following information:

- (1) *“A description of the service proposed to be financed through the revenue derived from the assessment.”*
- (2) *“A description of each lot or parcel of property proposed to be subject to the benefit assessment...”*
- (3) *“The amount of the proposed assessment for each parcel.”*
- (4) *“The basis and schedule of the assessment.”*

California Constitution

The costs of the proposed improvements addressed in this Report have been identified and allocated to properties within the boundaries of the District based on special benefits as outlined by Article XIII D of the California Constitution.

Article XIII D Section 2d defines District as follows:

“District means an area determined by an agency to contain all parcels which will receive a special benefit from a proposed public improvement or property-related service”;

Article XIII D Section 2i defines Special Benefit as follows:

“Special benefit” means a particular and distinct benefit over and above general benefits conferred on real property located in the district or to the public at large. General enhancement of property value does not constitute “special benefit.”

Article XIII D Section 4a defines proportional special benefit assessments as follows:

“An agency which proposes to levy an assessment shall identify all parcels which will have a special benefit conferred upon them and upon which an assessment will be imposed. The proportionate special benefit derived by each identified parcel shall be determined in relationship to the entirety of the capital cost of a public improvement, the maintenance and operation expenses of a public improvement, or the cost of the property related service being provided. No assessment shall be imposed on any parcel which exceeds the reasonable cost of the proportional special benefit conferred on that parcel.”

Engineer's Report

This Engineer's Report (“Report”) has been prepared pursuant to Section 54716 of the 1982 Act and presented to the FRWLFA Board for its consideration and approval. This Report describes: the boundaries of the District that incorporates each lot or parcel of property determined to receive special benefit from the OMRR&R of the FRWLFA Levees; the methodology for levying an assessment upon parcels that receive special benefit from the operation and maintenance to be provided by the Local Maintenance Agencies (LD1 and LD9) or subsequent agency or agencies; and the levy and collection of the annual assessments to fund in part the costs and expenses to provide and sustain the OMRR&R program for the FRWLFA Levees.

The budgeted expenses and assessments described in this Report are based on the anticipated annual funding required to support the overall OMRR&R expenses associated with the FRWLFA Levees as well as incidental expenses associated with the formation and administration of the District. While the cost of originally constructing the west Feather River levees is not part of the annual assessments, the budgeted expenses and corresponding assessments represent an estimate of the annual funding required to address not only the regular annual operation and maintenance expenditures and incidental expenses (including annual administrative expenses and formation expenses), but also the collection and accumulation of a reserve fund for periodic routine repairs, as well as long term funding for replacement and rehabilitation projects to ensure the sustainability and useful life of the levee system. This Report does not address additional flood control improvements that may be installed and/or expanded within the Yuba City Basin such as the Sutter Bypass, Wadsworth Canal, or Intercepting Canals, nor significant modifications to or extension of the FRWLFA Levees.

The word “parcel,” for the purposes of this Report, refers to an individual property assigned its own Assessor's Parcel Number (APN) by the Sutter County Assessor's Office. The Sutter County Auditor-Controller uses APNs and specific Fund Numbers to identify properties to be assessed on the tax roll for the District special benefit assessments.

If any section, subsection, sentence, clause, phrase, or portion of this Engineer's Report is, for any reason, held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining provisions of the Engineer's Report and each section, subsection, subdivision, sentence, clause, phrase or portion thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses, phrases, or portions might subsequently be declared invalid or unconstitutional.

Ballot Proceedings

Pursuant to the provisions of Article XIID, Section 4 of the California Constitution, the FRWLFA Board shall call for and conduct a property owner protest ballot proceeding (referred to as “Ballot Proceeding”) for the proposed levy of the new assessments and the assessment range formula presented and described in this Report. In conjunction with this Ballot Proceeding, the Board will conduct a noticed public hearing to consider public testimonies, comments, and written protests regarding the levy of the proposed new assessments. Upon conclusion of the public hearing, property owner protest ballots received will be opened and tabulated to determine whether a majority protest exists:

“A majority protest exists if, upon the conclusion of the hearing, ballots submitted in opposition to the assessment exceed the ballots submitted in favor of the assessment. In tabulating the ballots, the ballots shall be weighted according to the proportional financial obligation of the affected property.”

After completion of the ballot tabulation, the Board will confirm the results of the balloting. If majority protest exists for the proposed new assessment, further proceedings to implement the new assessment for the District shall be abandoned at this time. If tabulation of the ballots indicate that majority protest does not exist for the assessment and the assessment range formula (inflationary adjustment) presented in the ballots and described in the Report, the Board may adopt this Report (as submitted or amended), approve the assessment diagram, and confirm the assessment rate for fiscal year 2022/2023 (“Initial Maximum Assessment”) and the assessment range formula (inflationary adjustment). Either in the same resolution or by a separate resolution the Board may order the levy and collection of the District assessments for fiscal year 2022/2023 as approved and such assessments shall be submitted to the Sutter County Auditor/Controller for inclusion on the property tax roll for each affected parcel, or at the Board's discretion, the first year's annual assessment including the assessment range formula adjustment to the Initial Maximum Assessment presented and described herein, may be postponed to a subsequent fiscal year.

Report Organization

This Report consists of five (5) parts:

Part I

Plans and Specifications: This section provides an overall description of the FRWLFA Operations and Maintenance Assessment District, the FRWLFA Levees, and the OMRR&R program to be funded in large part by the District's annual assessments. The assessments outlined in this Report are based on these improvements, materials, equipment, services, and activities authorized by the 1982 Act and that provide special benefit to the properties to be proportionally assessed. More detailed information regarding the specific improvements, facilities, operations, maintenance, services, and activities (specific plans and specifications) for the District are on file in the offices of FRWLFA and by reference are made part of this Report.

Part II

Method of Apportionment: This section includes a discussion of the general and special benefits associated with the FRWLFA Levees and the OMRR&R program to be provided within the District and outlines the method of calculating each parcel's proportional special benefit and corresponding assessment. The method of apportionment developed for this District to proportionately allocate the special benefit costs and resulting assessments are generally similar and consistent with the method of apportionment utilized for the SBFCA assessment to fund in part the construction of the FRWLP.

Part III

Estimate of Costs: An estimate of the annual costs to provide the OMRR&R program associated with the FRWLFA Levees. The budget outlined in this section includes an estimate of the maintenance costs and incidental expenses including, but not limited to, labor, materials, utilities, equipment, and administration deemed necessary to fully support the FRWLFA Levees. Those OMRR&R materials, equipment, services, and activity expenses and/or other costs determined to be of general benefit shall not be assessed as special benefit costs and will be funded by other revenue sources available to FRWLFA or its member agencies.

Part IV

Assessment Roll: The Assessment Roll contains a listing of each Assessor's Parcel Number to be assessed within the District for special benefits received commencing in fiscal year 2022/2023, along with the initial maximum assessment amount to be balloted ("Balloted Assessment") for each parcel. The Balloted Assessment amount for each parcel is based on the parcel's calculated proportional special benefit as outlined in "Part II – Method of Apportionment" and the annual assessment rate established by the estimated costs (budget) in "Part III – Estimate of Costs" of this Report. Due to the number of parcels within the District (over 25,000 parcels), the Assessment Roll for fiscal year 2022/2023 has been filed electronically with the FRWLFA Board Clerk rather than displayed in this Report and by reference the listing of the APNs and the corresponding assessment amounts are made part of this Report.

Part V

Assessment Diagram: This section of the Report contains a diagram showing the boundaries of the District, which incorporates the parcels determined to receive special benefits from the FRWLFA Levees and OMRR&R program. The diagram also provides a visual depiction of the location and extent of the FRWLFA Levees being maintained. Parcel identification, the lines, and dimensions of each lot, parcel, and subdivision of land within the District are shown on the Sutter County Assessor's Parcel Maps and shall include any subsequent lot line adjustments or parcel changes therein. Reference is hereby made to the Sutter County Assessor's Parcel Maps for a detailed description of the lines and dimensions of each lot and parcel of land within the District.

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Part I — Plans and Specifications

District Overview

The territory within the FRWLFA Operations and Maintenance Assessment District is narrowly defined to include those parcels within the Yuba City Basin of Sutter County that have been identified as parcels receiving a reduction or elimination of potential flooding from the west Feather River levees and related flood control infrastructure improvements that are to be maintained as part of the FRWLFA's Operation, Maintenance, Repair, Rehabilitation, and Replacement (OMRR&R) program. The boundaries of the District and the parcels therein are based on hydrologic and hydraulic mapping (flood levels), incorporating each of the parcels that have been identified as receiving a reduction or elimination of potential flood damages as a result of possible breaches or other flooding from the FRWLFA Levees. Based on the hydrologic and hydraulic data, the District incorporates approximately 25,000 properties in the Live Oak, Yuba City and unincorporated areas of Sutter County that are protected from flooding by these west Feather River levees.

The purpose of FRWLFA and this District is to provide in part, through annual assessments, a cost effective program to properly fund and support the daily and long-term materials, equipment, services, and activities necessary to ensure that the design level of flood protection for the twenty-seven (27) miles of levees that comprise FRWLFA Levees are sustained and maintained over time, thereby reducing potential flood damages to structures, the contents of structures, and land associated with the lots and parcels of land in the District.

Collectively, Levee District 1, Levee District 9, and the State through DWR Maintenance Area 3 are currently responsible for operating and maintaining the west Feather River levee system within Sutter County. LD1 and LD9 are responsible for approximately twenty-two (22) miles of the Improvements from Paseo Road south to Marcuse Road and MA3 is responsible for the remaining five (4.9) miles of the Improvements from Marcuse Road to the Sutter Bypass. The OMRR&R of the FRWLFA Levees is strictly governed by State and Federal regulations which includes not only the twenty-seven (27) miles of levees, but also a pump station (Star Bend Pump Station), twenty-five (25) Relief Wells, Union Pacific Closure Structure, and other appurtenant structures.

FRWLFA Levees

In order to comply with State and Federal requirements and regulations FRWLFA's OMRR&R program may include but is not limited to levee inspections and evaluations, debris cleanup, mowing, grazing, and spraying for weed control, rodent control, levee road maintenance and resurfacing, levee patrols, flood fighting, replacing erosion protection materials, repair of levee embankments, and pump station and relief well operations and maintenance. In addition to the on-going performance of these services and activities on an annual or long-term basis, the District assessments will also provide for the collection and accumulation of reserve funding necessary to support routine and as needed repairs, and periodic (scheduled) repairs, equipment purchases and replacements, as well as long-term rehabilitation and renovation projects of the facilities to ensure an adequate level of service over the duration of the assessment district.

OMRR&R Program

Specific OMRR&R activities that collectively provide special benefits to parcels within the District may include but are not limited to:

- Permitting and compliance requirements (Local, State and Federal):
 - Environmental permitting;
 - State and Federal inspections;
 - Certification of levees and structures (certification and documentation);
 - Safety equipment, safety certificates, and safety training; and
 - System Wide Improvement Framework (SWIF) compliance as administered by the USACE (i.e., right of way, encroachments, video/pressure testing of pipes, tree, or structure removals, USACE periodic survey findings).
- Levee operations and maintenance activities:
 - Erosion control including seeding, vegetation planting silt fence, waddles, straw, rock slope protection, etc.;
 - Rodent and squirrel control including pesticide applications and rodent hole repair;
 - Weed control chemical applications (herbicides, sterilant, and preemergent); and
 - Slope repairs;
 - Disking waterside patrol road and fire breaks;
 - Burning;
 - Mowing and/or grazing (sheep and/or goats);
 - Tree pruning, tree and root removal;
 - Scraping and grading levee crowns and toe roads;
 - Removal of imbedded flood debris in levees;
 - Embankment crack repair;
 - Backfill unauthorized excavations (i.e., children's forts, scrap metal recovery, homeless camps and toilets, garbage pits);
 - Engineering excavations, such as potholing and borings for geotechnical exploration of levees; and
 - Dragging levee slopes and roads.
- Patrol road operations and maintenance
 - Grading and minor earthwork on patrol roads;
 - Repair and rehabilitation of asphalt surfaces;
 - Repair and replacement of gravel surfaces;
 - Sign and levee mile marker installation, replacements, and repair;
 - Bollard installation and maintenance; and
 - Placement of public access barriers (K-rail or boulders).

- Operations and maintenance activities for flood control structures and facilities including but not limited to:
 - Relief well maintenance, including:
 - Well utilities, debris removal, swabbing, and cleaning;
 - Pump testing and periodic repair;
 - Monitoring well replacement and abandonment;
 - Well construction; and
 - Telementary recording devices, monitoring repair and replacement.
 - Piezometer maintenance, including:
 - Annual operation and maintenance;
 - Bi-annual reading and reporting; and
 - Replacements.
 - Pump maintenance, including:
 - Station motor control and telementary upgrades; and
 - Pump rebuilds and ceramic coating.
 - OMRR&R servicing and activities of other facilities including:
 - Environmental habitat restoration as required;
 - Vault hatches;
 - Gates and fences;
 - Riprap areas;
 - Concrete ditches;
 - Retaining walls;
 - Observation wells;
 - Union Pacific Railroad crossing; and
 - Pipe crossings and collection pipes.
- Performance of emergency flood response activities including levee patrols and flood fighting; and
- Hazmat Response/Homeless Cleanup.

In addition to the on-going regular annual operation and maintenance of the FRWLFA Levees, the annual assessment will also provide for the collection and accumulation of a fund to support long-term routine repairs, rehabilitation, and replacement of the levee facilities and infrastructure in order to ensure the integrity of the levee system and provide an adequate level of service over the duration of the assessments. The expenses associated with these long-term repairs, rehabilitation, and replacement are generally considered expenses that are greater than can reasonably be collected in a single fiscal year and are therefore collected as assessment installments and accumulated for these future expenses when needed or scheduled.

Part II — Method of Apportionment

Benefit Analysis

The west levees along the Feather River are Yuba City Basin's first line of defense against flooding by runoff from Sierra Nevada mountain storms. As noted previously, California weather has been changing with more precipitation falling in the mountains as rain, and less as snowpack. SBFCA secured the necessary funding to construct the west Feather River levee improvements in part through the Sutter Butte Flood Control Agency Assessment District. These levees provide a specific level of flood protection that have significantly reduced potential flooding and damage to properties within the Yuba City Basin. While potential flooding and damage to properties has been dramatically reduced with the construction of the west Feather River levees, no levee system provides full flood protection to the properties, particularly if those improvements are not maintained. In order to comply with strict State and Federal standards and regulations, the west Feather River levees improvements and appurtenant facilities require a comprehensive OMRR&R program. Although continuing changes to the climate will inevitably place greater stress on the region's flood control system including the SBFCA constructed levees along the Feather River, even under status quo climate conditions, a comprehensive OMRR&R program for the levee system is essential to ensuring the long-term protection of people and property in the Yuba City Basin.

The analysis and findings outlined in this Report and the resulting method of apportionment and assessment rate structure is focused on establishing a reasonable and appropriate benefit nexus (both general and special benefits) consistent with the provisions of the 1982 Act, Proposition 218 (Article XIII D of the California Constitution), and case law regarding assessments. The method of apportionment and resulting proportional special benefit assessments for this District are based on the premise that the OMRR&R program to be provided by the Local Maintenance Agencies is necessary and essential to minimize potential flood risks to specific properties within the Yuba City Basin; thereby directly reducing potential flood damages to structures, the contents of those structures, and land associated with those properties. Therefore, the formulas used for calculating assessments as described herein reflect both the composition and characteristics of each parcel within the District, the hydrology associated with those parcels (reduced flood level) and the resulting calculated flood damage reduction benefits to those parcels that directly result from the OMRR&R program to be funded.

To levy an assessment for a property-related service such as OMRR&R for flood control improvements and facilities, the California Constitution requires the local agency imposing the assessment (FRWLFA) to comply with the following:

- Identify and include in the District all parcels that will have special benefits conferred on them by the improvements, facilities and/or services.
- Only special benefits are assessable, and the agency shall separate the general benefits from the special benefits conferred on a parcel.
- Calculate the proportional special benefit for each parcel in relationship to the entirety of the capital cost, the maintenance, and operation expenses of a public improvement, and/or the cost of the property related service being funded.
- No assessment shall be imposed on any parcel which exceeds the reasonable cost of the proportional special benefit conferred on that parcel.

Special Benefit

Essentially, the primary function of FRWLFA and the FRWLFA Operations and Maintenance Assessment District is to provide a collective and coordinated benefit funding source to support an ongoing OMRR&R program, necessary to ensure reduced potential flood damages to structures, the contents of those structures, and the land associated with the parcels within the Yuba City Basin that receive a particular and distinct benefit from the FRWLFA Levees. As previously noted, the District boundary has been narrowly defined to include each identified parcel based on hydrologic and hydraulic data that will receive a reduction or elimination of flood damages. The existing FRWLP infrastructure was designed to provide 200-year protection from Feather River flood flows over much of the northern portion of the basin generally from Yuba City to the north and designed to provide 100-year protection from Feather River flood flows south of Yuba City when combined with anticipated future improvements to the Sutter Bypass levees by the DWR and a proposed repair of the lower 1.5 miles of the Feather River. However, the Sutter Bypass levees are not a part of the proposed OMRR&R program funding contained in this Report nor are the Wadsworth Canal and East-West Interceptor Canals. The operation and maintenance of the Sutter Bypass levees, the Wadsworth Canal and the East-West Interceptor Canals are the obligation of the State of California under Water Code 8361, and it is anticipated that the operation and maintenance of these three flood control improvements will continue to be the State's responsibility in the future.

The special benefits to parcels (protected properties) within the District associated with an OMRR&R program for the FRWLFA Levees that complies with strict State and Federal standards and regulations include but are not limited to:

- Continued level of flood protection for urban and non-urban areas protected by the FRWLFA Levees.
- Continued assurance of reduced potential flood damages to structures, content of those structures, and land.
- Local agency control which provides for:
 - More expedited response to levee maintenance needs;
 - Consistency of annual assessments;
 - Lower costs than if levees are turned over to the State; and
 - More direct input from property owners.
- A Federally compliant OMRR&R program will prevent properties that have been removed from a Federal Emergency Management Agency ("FEMA") Special Flood Hazard Area (due to recent levee improvements), from being mapped back into a FEMA Special Flood Hazard Area, which would result in:
 - Mandated flood insurance for any property with a federally backed mortgage;
 - Increased cost of flood insurance; and
 - Building restrictions.

- Promotes best and full use of properties within the District by allowing local governments (e.g., Sutter County, Yuba City, Live Oak, etc.) to implement general plans for urban and urbanizing areas with appropriate levels of flood protection.
- Sustain and grow the local economy by creating construction jobs and related spending, protecting property values, and allowing for responsible residential, commercial, and industrial development.
- Retention of Federal assistance during or following

Ultimately, both public and privately owned parcels within this narrowly defined District boundary will receive a particular and distinct benefit over and above any general benefits the west Feather River Levee improvements and proposed OMRR&R program provides to the general public or properties in general. It is clear the assessed parcels will be directly impacted and/or burdened if the improvements are not properly operated and maintained including necessary repairs, replacements, and rehabilitation efforts. Without the proposed special benefit assessment revenue, the LMAs will lack the funding required to meet State and Federal OMRR&R requirements and the parcels within the District could be negatively impacted by the following:

- Greater flood risk resulting in increased risk of property damage and loss of life due to flooding.
- Loss of FEMA low-to-moderate risk flood zone designation that will likely result in higher FEMA National Flood Insurance Program (NFIP) premiums, mandatory flood insurance, and building restrictions.
- Loss of federal assistance during or following a flood emergency, such as repair of a levee break.
- Loss of local levee operations and maintenance control to the State.
- Loss of urban level of flood protection status for Live Oak and Yuba City, resulting in development restrictions.
- The State would eventually assume operations and maintenance at a higher cost that often varies dramatically from year to year.
- State can impose an exaction (assessment) for operation and maintenance without a vote of the property owners. Under state management, operations and maintenance are performed regardless of costs, which are then passed through to property owners without local input.
- Under state management, there is no limitation on annual assessments.

While properties within the District will derive substantially similar special benefits from the proposed OMRR&R program (services and activities necessary to ensure reduced flood damages to structures, the contents of structures, and land on an ongoing basis), the special benefit (particular and distinct benefit) for each parcel is proportional to the potential flood damages specifically and directly related to each parcel's potential flood depth and development characteristics (i.e. land use, structure size, and land size).

General Benefit

Based on the proposed services and activities to be funded by District assessments (OMRR&R of the FRWLFA Levees) and relationship to properties to be assessed, it is evident that the OMRR&R program slated to receive assessment funding directly impacts and benefits developed properties and agricultural properties, as well as the potential development of properties. Furthermore, because the flood control maintenance and operations to be funded by the District assessments protect specific parcels (narrowly defined boundaries) from potential flood damage and the fact that the flood damage benefit for each parcel is measurable, the benefits to these assessed parcels are clearly direct and display particular benefit (proportional special benefits). However, it is also recognized that flood mitigation services and activities also directly or indirectly provide some measure of benefit to properties in general and to the public at large (general benefit) in the form of continued safe access and travel through the District area.

OMRR&R of the FRWLFA Levees will provide a general benefit to real property, residents, and the public generally in the form of continued safe access and travel through the District area. Prevention of flooding of public infrastructure within the District, such as roads, easements, and various rights-of-way, benefit the assessed parcels generally with respect to access and travel, and also facilitates general public services such as police and fire protection access. Protection of such infrastructure through OMRR&R of the FRWLFA Levees therefore provides a general benefit both to people and properties within and outside of the District. Property associated with such public infrastructure improvements and facilities is typically not assigned Assessor's Parcel Numbers. The acreage associated with most of these public infrastructures, compared to the acreage of Assessor assigned parcels within the District, provides a reasonable and quantifiable measure of the proportional general benefit and general benefit costs associated with the FRWLFA Levee OMRR&R program.

The total land area within the District boundaries is approximately 92,500 acres of which approximately 88,060 acres are assessed County Assessor designated parcels (APNs) with the remaining 4,440 acres being comprised of public infrastructure improvements and facilities that may include, but is not limited to: public streets, easements, rights-of-way, and other public-lands including wetlands, canals, channel ways, open spaces, preserves, and other similar restricted-use public areas. Of the 4,440 acres public infrastructure land, conservatively, 500 acres are considered flood and drainage control facilities such as wetlands, canals, channel ways. These control facilities clearly do not receive a special benefit from the OMRR&R program, nor do they provide a measurable benefit (general or special) to the District parcels. The remaining 3,940 acres, or approximately 4.26% of the total 92,500 acres, identified as public infrastructure improvements and facilities within the District, collectively serve or are in proximity to parcels being assessed. This reflects a reasonable and quantifiable measure of the proportional general benefit both to people and properties within the District and the proportional general benefit costs associated with the FRWLFA Levee OMRR&R program.

Therefore, it is reasonable to conclude that the overall general benefit costs associated with the District's OMRR&R program is less than five percent (5%) of the annual OMRR&R budgeted expenditures. These general benefit costs shall be excluded from the special benefit assessment funding and not assessed to the parcels within the District. Furthermore, either separately or collectively, FRWLFA, the Local Maintenance Agencies (LD1 and LD9), or subsequent agency or agencies shall annually fund the overall general benefit costs associated with the District's OMRR&R program. The calculated "Total Annual Expenses" and the "General Benefit Expenses

(Agency Funded)” proposed for fiscal year 2022/2023 (initial fiscal year) are identified in Table 5, Estimate of OMRR&R Costs for Fiscal Year 2022/2023 (found in Part III of this Report).

Assessment Methodology (Special Benefit Calculations)

To assess benefits equitably it is necessary to calculate each property's relative share of the special benefits conferred by the funded improvements and service. As previously noted, the OMRR&R program to be funded by the assessments will provide ongoing flood damage reduction benefits to the properties in the District and like the physical levee improvements themselves, such services and activities support the long-term avoidance of damage to structures, content within the structures, and land. The Damages Avoided method of assessment apportionment is utilized in this District and establishes a Total Damages Avoided for each parcel based on the combined Structure Damage, Content Damage, and Land Damage reduction benefit calculated for the parcel. The proportional special benefit calculation for each parcel considers these three factors independently. The benefit calculation can be summarized as follows:

$$\text{Special Benefits} = \text{Damages Avoided}$$

$$\text{Damages Avoided} = \text{Structure Damage} + \text{Content Damage} + \text{Land Damage}$$

Structure and Content Damage

The damage avoided to structures and the content of those structures is derived by determining the amount of flood depth reduction experienced by each particular parcel and the protection provided as a result of the west Feather River Levee and the ongoing operation and maintenance, repair, replacement, and rehabilitation of such improvements.

Determining the avoided damages to structures and contents requires considering the following factors:

- Relative Structure and Content Value
- Flood Depth Reduction
- Percentage of Flood Damage Reduction
- Structure Size

Relative Structure and Content Value

The United States Army Corps of Engineers (USACE) has identified the potential flood damages to structures by the following general land use categories:

- Residential — Physical damages to dwelling units (single-family, multifamily, and mobile homes) and to residential contents, including household items and personal property.
- Commercial — Structure value and content value damages (to commercial and public buildings), including equipment and furniture, supplies, merchandise, and other items used in the conduct of business.
- Industrial — Losses from inundation of industrial properties, including warehouses, consisting of fixtures and equipment, inventory, and structure.

- **Agricultural** — Non-residential structures on agricultural properties would experience damages to equipment, tools, supplies, livestock, feed, seed, chemicals, and other items used for agricultural purposes and business.

To reflect differences related to flood damages to structures and their content, Relative Structure and Content Values for residential, commercial, industrial, and agricultural structures shown in the following table (**Table 1**) are utilized. The residential, commercial, and industrial structure and content values were originally determined using USACE data developed in connection with an American River Watershed Investigation ⁽¹⁾ and the content values for agricultural structures were derived from a related technical report ⁽²⁾. The Relative Structure Values shown in **Table 1** are used in the assessment methodology to reflect the relative structure and content value relationships between land use categories (proportional benefit). These values represent gross averages for the different land uses and do not represent assessed values or current market values for an individual structure.

TABLE 1: RELATIVE STRUCTURE AND CONTENT VALUE

Land Use	Relative Structure Value (\$/Sqft)	Relative Content Value (\$/Sqft)
Residential	60	30
Residential - Mobile Home	30	15
Commercial (Public & Private)	70	75
Industrial (Public & Private)	50	58
Agricultural	50	30

⁽¹⁾ US Army Corps of Engineers (USACE), American River Watershed Investigation, California Feasibility Report, Sacramento District, December 1991.

⁽²⁾ US Army Corps of Engineers (USACE), Draft Economic Re-evaluation Report, American River Watershed Project, Appendix D, Attachment II, Technical Report, May 2007.

Flood Depth Reduction

The OMRR&R program proposed for the District is intended to support the long-term operation and maintenance needs of the west Feather River levee improvements and flood control facilities. So, both the boundaries of the proposed District and the flood depth reductions attributed to the benefiting parcels within those boundaries was determined using GIS flood mapping models. These models were derived from flood elevation data and flood depths developed by hydraulic modeling of possible levee breaches (levee failures) at several locations along the west Feather River levees, prepared by Peterson Brustad Inc. (PBI), to encompass all parcels that receive benefits from the OMRR&R of the west Feather River levees. To identify all parcels that would receive a reduction or elimination of flooding (flood depth avoidance) and thus receive OMRR&R benefits, levee breaches were modeled at various locations to delineate those areas that are protected by the FRWLFA Levees and proposed OMRR&R program. The modeled breach locations are illustrated in **Figure 2**, on page 22.

The individual breach models were overlayed into a composite flood depth map to quantify individual parcel flood depths. Based on this mapping and the underlying data, relative flood depths were established by grouping every parcel into one of four flood depth ranges (flood depth zones) based on the composite flood depth map. The four flood depth ranges include depths two feet or less (0.00 to 2.00 feet); greater than two feet and up to four feet (2.01 to 4.00 feet); greater than four feet and up to six feet (4.01 to 6.00 feet); and greater than six feet (6.01 feet or greater). The boundaries of the District and the flood depth ranges are illustrated in Figure 3, on page 23.

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Figure 2: Breach Model

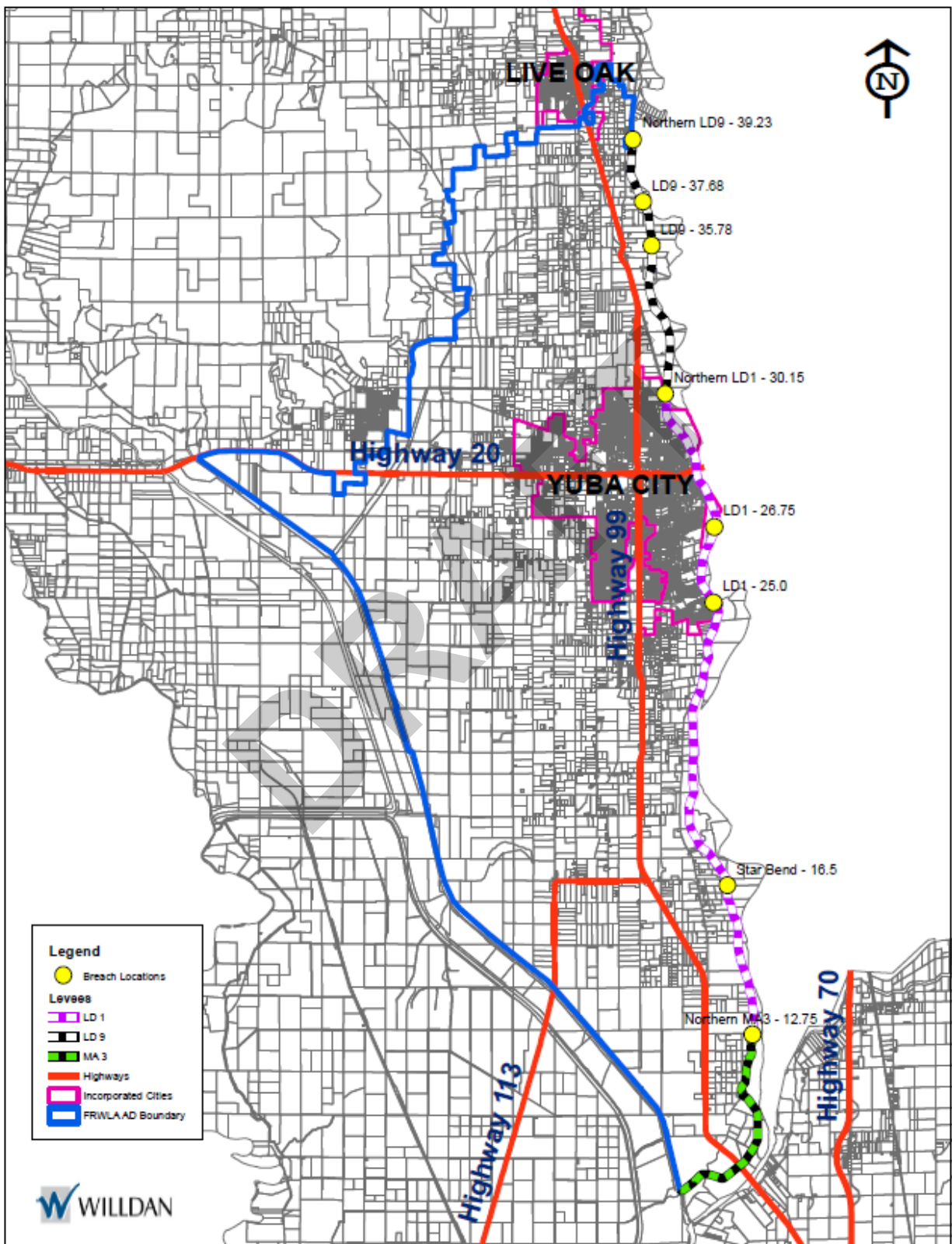
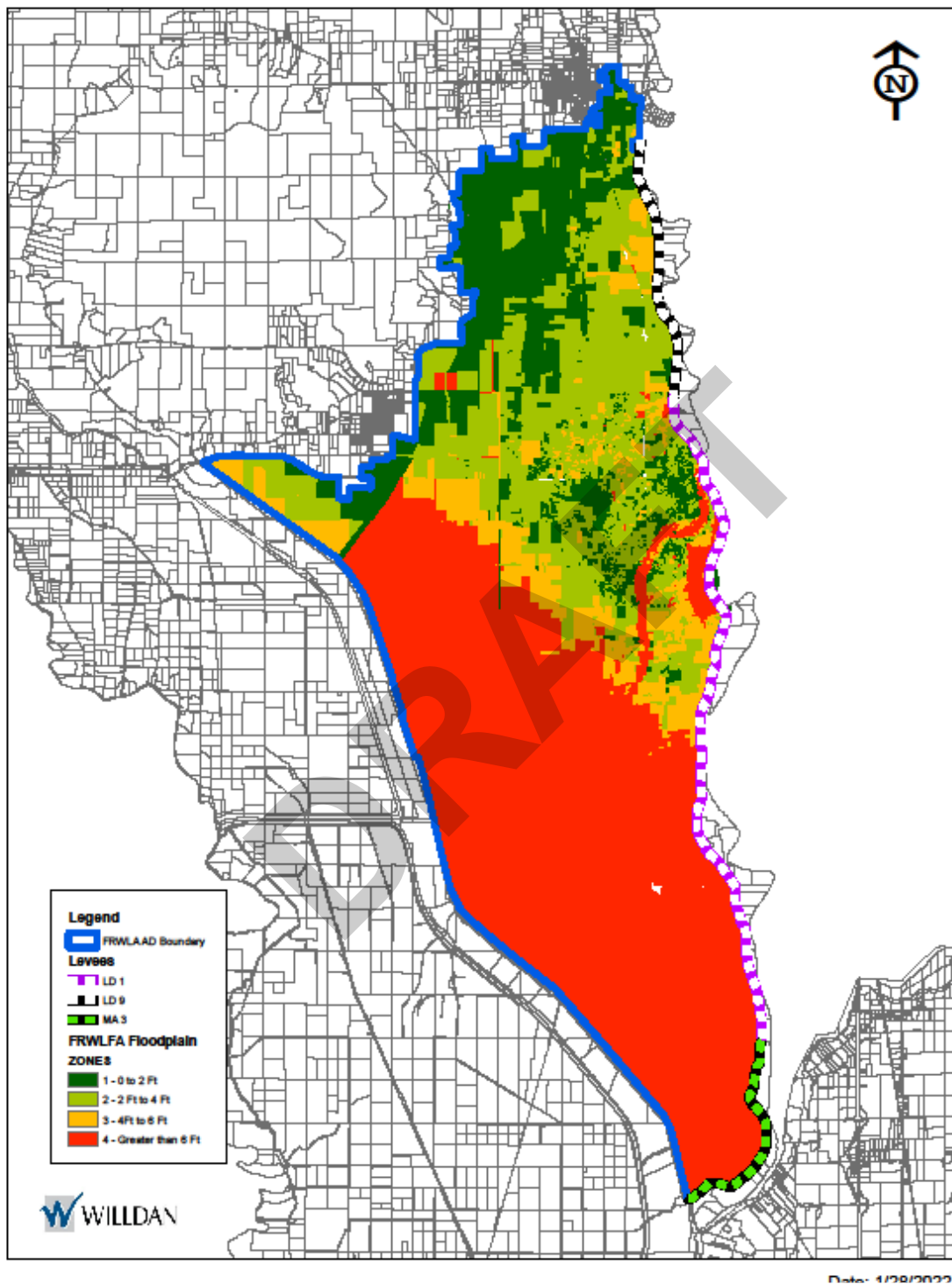


Figure 3: Flood Depth Ranges



Percentage of Flood Damage Reduction

The relationship between depth of flooding and damages to structure and contents is calculated for each parcel based on the various land use categories specific to the structure (residential, commercial, industrial, and agricultural); the four flood depth ranges (flood depth zones) applicable to this District; and the depth-damage curves established for the USACE American River Watershed Investigation. Although based on 1988 Federal Insurance Administration (FIA), depth-damage relationships for residential structure depth-damage curves are slightly different for one-story and two-story residentials, since that data distinction is not readily available from Sutter County Assessor's data, the residential structure depth-damage curve and percentages applied have been averaged together and applied to all residential structures. USACE damage surveys of flood damaged structures conducted immediately after the storm of 1986 confirmed the reasonableness of these 1988 FIA depth-damage relationships. The commercial and industrial depth-damage curves were based on depth-damage relationships developed by the Tennessee Valley Authority (TVA) for the Department of Housing and Urban Development (HUD). A separate investigation conducted by the USACE (Morrison Creek Investigation), established depth-percent damage relationships for commercial properties that were similar to those in the HUD study.

The relation between depth of flooding and damages to structure and contents are illustrated in **Table 2**, expressed as percent of structure value.

TABLE 2: PERCENT DAMAGE TO STRUCTURE AND CONTENTS
Percent Damage to Structure and Contents
Expressed as Percent of Structure Value ⁽³⁾

Land Use	Flood Depth Ranges			
	2.00 Ft. or Less	2.01 Ft. to 4.00 Ft.	4.01 Ft. to 6.00 Ft.	6.01 Ft. or Greater
Residential	16%	35%	44%	64%
Commercial	34%	81%	109%	126%
Industrial	65%	77%	90%	108%
Agricultural	38%	49%	59%	74%

⁽³⁾ Because percentage values represent damages to both structure and contents, they may exceed 100% of structure value.

The above functional relationships between flood depth and structure and content damages are the same percentages applied in the Sutter Butte Flood Control Agency Assessment District which originally funded in part the construction of the west Feather River levee improvements and provides a reasonable and proportional measurement for the flood-damage reduction benefit received by developed properties as a result of the levee improvements and OMRR&R program.

For example, in the case of a residential single-family home on a parcel that experiences a flood-depth reduction of three feet (3.00 ft.), the depth-damage percentage for a residential structure in the 2.01 to 4.00 foot range of 35 percent would be applied for the structure and content damage associated with this residential property.

Structure Size

Flood damages to structures and their contents were calculated for each property within the District boundaries using the square footage for the first and second stories of residential structures, the first story of commercial, industrial, and agricultural structures, and appropriate structure value and depth-percent damage relationships for the particular land use category. Structure size was determined for each parcel in the District (special benefit area) based on data obtained from the County Assessor's parcel data either directly or through third party sources. For those properties identified with a structure or structures for which no specific structure detail information was available from the County Assessor or third-party sources, the footprint of the structure or structures shall be measured by the Assessment Engineer using GIS and recent aerial imagery or by field measurements.

Application of Structure and Content Damage Calculation

As stated above, both the structure and content damage are calculated for each individual parcel in the District based on the specific attributes of the parcel, i.e., land use type, structure size, and flood-depth reduction.

Structure and Content Damage Avoided = Structure Damage + Content Damage

Structure Damage = Building SF x Relative Structure Value x Depth %

Content Damage = Building SF x Relative Content Value x Depth %

As an example:

The Structure and Content Damage Avoided for a residential single-family structure that is 2,000 square feet (sf) located in flood depth zone 2.01 to 4.00 feet would be calculated as follows:

Structure Damage = 2,000 sf x 60/sf x 35% = 42,000

+

Content Damage = 2,000 sf x 30/sf x 35% = 21,000

Structure and Content Damage Avoided = 42,000 + 21,000 = 63,000

63,000 would represent the proportional Structure and Content Damage Benefit experienced by the example parcel presented.

Land Damage

There are several factors that may contribute to the flood damage reduction benefit to land, both vacant and improved. These include, but are not limited to, avoidance of physical damage to the land during a flood, the ability to secure financing for development projects, reduced cost of flood insurance, changes to the full and best land use of the property, preservation of land values, avoidance of damage to crops or other related impacts to agricultural operations, reduced cost of improvements, and the ability to access the property. The factors that impact the land damage calculation include:

- Relative Land Damage Factor
- Parcel Size

Relative Land Damage Factor

The benefit to land in the District is proportional to the relative land values. To account for the benefit received by the land and to weigh this benefit appropriately with respect to the relative structure and content damage benefit, each property in the proposed District is assigned a relative land damage cost per acre or a Relative Land Damage Factor.

Relative Land Damage per Acre = Relative Land Damage Factor

This Relative Land Damage Factor is based on an algorithm of the average land value over several years within a given land use classification multiplied by a land value percentage which is a weighted ratio of the average land value within that land use classification to the total property value of those same properties. As part of developing this relative land damage factor, each parcel in the District was categorized into one of five broader land use classifications similar to those land use classifications applied for structural and content damages including, residential, commercial, industrial, agricultural, and public properties. (For purposes of calculating land damages, each vacant parcel is assigned to an appropriate land use classification based on the county use code or other available sources and all residential properties including residential mobile homes are grouped together as residential).

Relative Land Damage Factor = Average Land Value x Land Value Percentage

Average Land Value = Sum Total of Land Values / Sum Total of Acreage
(for all parcels in each land use classification)

Land Value Percentage = Sum Total of Land Values / Sum Total of Land and Improvement Values
(for all parcels in each land use classification)

Table 3 displays the results of the above Relative Land Damage Factor calculation for each land use calculation.

TABLE 3: RELATIVE LAND DAMAGE PER ACRE

Land Use	Relative Land Damage/Acre (\$)/acre ⁽⁴⁾
Single-Family Residential	46,950
Multi-Family Residential	41,750
Commercial	91,900
Industrial	26,750
Vacant Residential	21,450
Vacant Commercial	57,100
Vacant Industrial	17,400
Agricultural Orchard	6,350
Agricultural	3,550
Public	65,300
General Benefit	21,750

⁽⁴⁾ Data from Sutter County Secured Roll Data July 2017 through July 2020 as compiled by Willdan Financial Services.

The applicable Relative Land Damage per Acre above is multiplied by each parcel's specific acreage to establish the parcel's Land Damage Avoided Value. The land damage factor values above considered land values alone, exclusive of any building improvements. The values derived are not actual assessed values or market values for any individual parcel of land; rather, they represent the value relationship between various land use classifications for the property in the District.

Parcel Size

Flood damages to land are calculated for each parcel in the District using land use code designations and acreage information available from the Sutter County Assessor's records or available third-party sources.

Application of Land Damage Calculation

As stated above, land damage is calculated for each individual parcel in the District based on the specific attributes for the parcel, i.e., land use type and parcel size/acreage.

$$\text{Land Damage Avoided} = \text{Acreage} \times \text{Relative Land Damage Factor}$$

As an example:

The Land Damage Avoided for a residential single-family property on a 7,800 square foot lot (0.179 acres) would be calculated as follows:

$$\text{Land Damage Avoided} = 0.179 \text{ Acres} \times 46,950 / \text{Acre} = 8,404$$

8,404 represents the Land Damage benefit experienced by the example parcel.

Total Proportional Flood Damage Reduction Benefit

The total proportional Flood Damage Reduction Benefit (FDRB) for each benefiting parcel in the District is the sum of the avoided structure damage, content damage, and the land damage associated with that parcel. Given the residential single-family property example used in the preceding discussions, the resulting total FDRB is calculated as follows:

$$\text{Total FDRB} = \text{Structure Damage} + \text{Content Damage} + \text{Land Damage}$$

Residential Single-Family Example:

Parcel Acreage: 0.179 acres

Building Square Feet: 2,000

Flood Depth: 3 Feet

$$\text{Structure Damage} = 2,000 \text{ sf} \times 60/\text{sf} \times 35\% = 42,000$$

+

$$\text{Content Damage} = 2,000 \text{ sf} \times 30/\text{sf} \times 35\% = 21,000$$

+

$$\text{Land Damage} = 0.179 \text{ Acres} \times 46,950 / \text{Acre} = 8,404$$

$$\text{Total Flood Damage Reduction Benefit} = 42,000 + 21,000 + 8,404 = 71,404$$

The analysis described above was performed for every parcel that receives special benefit as well as the general benefit calculations. The Total Flood Damage Reduction Benefit (special benefit) for the assessed parcels is estimated to be 3,740,275,424 FDRBs. Table 4 that follows, provides a summary breakdown the FDRBs for both special and general benefits for fiscal year 2022/2023.

TABLE 4: FLOOD DAMAGE REDUCTION BENEFITS BY LAND USE ⁽⁵⁾

Land Use	Structure & Content Damage Reduction Benefit	Land Damage Reduction Benefit	Total Flood Damage Reduction Benefit
Residential Multi Family	136,811,338	15,765,832	152,577,170
Residential Single Family	1,074,260,229	239,111,650	1,313,371,879
Commercial	955,902,558	132,765,265	1,088,667,823
Industrial	630,226,303	23,422,350	653,648,653
Agricultural Non-Orchard	97,702,229	148,282,755	245,984,984
Agricultural Orchard	49,013,891	233,319,054	282,332,945
Commercial Vacant	0	11,158,482	11,158,482
Industrial Vacant	0	13,754,752	13,754,752
Public Vacant	0	26,692,681	26,692,681
Residential Vacant	0	7,209,372	7,209,372
Special Benefit	2,943,916,548	851,482,193	3,795,398,741

⁽⁵⁾ The Flood Damage Reduction Benefit data in Table 4 above is based on parcel information and characteristics at the time this Report was prepared and applicable to fiscal year 2022/2023.

Part III — Estimate of Costs

Proposed Fiscal Year 2022/2023 Budget

The following budget (**Table 5**) outlines an Estimate of Costs to fund the District's west Feather River levee OMRR&R program expenses for fiscal year 2022/2023. While periodic servicing, installation, construction, or replacement of flood control facilities are permitted under the 1982 Act and certainly applicable to this District, the funds necessary to perform such services or activities are typically significantly greater than can be reasonably collected in a single year's assessments. Therefore, many of the services and activities associated with the District's OMRR&R program will be collected in installments over several years and held in a designated reserve fund established for the District, until such time the services or activities are deemed necessary and scheduled for implementation. However, it should be noted that although the funds collected and accumulated in the District's reserve fund are intended to be sufficient to address the cost of normal levee repairs and rehabilitation, as well as equipment and facility replacements that may be reasonably anticipated as a result of annual storms and erosion over the years, these reserve funds are not intended to fund reconstruction of the levee in the event of unforeseen major levee damages or failures. Such major replacement/reconstruction projects would be costly and would require the agency to retain a significantly large fund balance for something that hopefully will never happen. Therefore, if unforeseen major levee damages or failures occur subsequent funding measures may be necessary to address the replacement needs.

Table 5 on the following page identifies the estimated expenses and the resulting "Maximum Assessment Rate per FDRB" for fiscal year 2022/2023 being presented to the property owners of record in a property owner protest ballot proceeding required pursuant to the provisions of the Constitution.

TABLE 5: ESTIMATE OF OMRR&R COSTS FISCAL YEAR 2022/2023

BUDGET ITEMS	DISTRICT BUDGET FISCAL YEAR 2022/2023
Annual Operations & Maintenance Expenses (O&M)	
Personnel Salaries and Benefits	\$ 696,271
Contract and Operational Services	153,967
Material, Equipment, and Utilities	170,208
Total Annual Operations and Maintenance Expenses	\$ 1,020,446
Repair, Rehabilitation, & Replacement Funding (RR&R)	
RR&R Services and Activities Funding Collection	\$ 373,872
RR&R Material & Equipment Funding Collection	84,795
Total Repair, Rehabilitation, & Replacement Funding Collection	\$ 458,666
Incidental Operational Expenses	
Agency Overhead & Administration	\$ 217,103
Professional Administration Services	189,791
Office Supplies, Equipment, Utilities & Repairs	28,909
Federal, State, County & Local Fees and Reimbursements	99,646
Total Annual Incidental Expenses	\$ 535,448
TOTAL ANNUAL EXPENSES (Sum-total of O&M, RR&R, and Incidental Expenses)	\$ 2,014,561
General Benefit Expenses (Agency Funded)	\$ (99,980)
TOTAL ELIGIBLE SPECIAL BENEFIT EXPENSES	\$ 1,914,581
Funding Adjustments/Contributions	
Additional Agency Contribution	-
Total Funding Adjustments / Contributions	\$ -
BALANCE TO LEVY	\$ 1,914,581
District Statistics	
Total Parcels	25,181
Parcels Levied	24,805
Total Flood Damage Reduction Benefits (FDRBs)	3,795,398,741
Assessment Rate per FDRB FY2022/2023	\$0.00050445 ⁽⁶⁾
Balloted Maximum Assessment Rate per FDRB	\$0.00050445

⁽⁶⁾ The Assessment Rate per FDRB is calculated by dividing the Balance to Levy by the Total Flood Damage Reduction Benefits (FDRBs).

Note: Subtotals and totals above may not balance due to rounding.

Calculation of Assessments

An assessment amount per Flood Damage Reduction Benefit (FDRB) is calculated by:

Taking the "Total Annual Expenses" (Total budgeted costs) and subtracting the "General Benefit Expenses (Agency Funded)" to establish the "Total Eligible Special Benefit Expenses";

Total Annual Expenses – General Benefit Expenses = Total Eligible Special Benefit Expenses

To the resulting "Eligible Special Benefit Expenses", various "Funding Adjustments/Contributions" may be applied that may include, but are not limited to:

- "Reserve Fund Transfer/Deduction", represents an amount of available existing funds from the "Reserve Fund Balances" being applied to pay a portion of the Special Benefit Expenses for the fiscal year.
- "Additional Agency Contribution", represents a further funding contribution from the Agency above the amount applied as General Benefit. This adjustment addresses the funding gap between the amount budgeted to provide the improvements and services ("Special Benefit Expenses"); and the amount that will be collected through the assessments ("Balance to Levy").

These adjustments to the Special Benefit Expenses result in the net special benefit amount to be assessed "Balance to Levy";

Eligible Special Benefit Expenses +/- Funding Adjustments/Contributions = Balance to Levy

The amount identified as the "Balance to Levy" is divided by the total number of Flood Damage Reduction Benefits of parcels that benefit to establish the "Assessment Rate" or "Assessment per FDRB" for the fiscal year. This Rate is then applied back to each parcel's individual FDRB to calculate the parcel's proportionate special benefit and assessment for the improvements.

Balance to Levy / Total FDRB (Assessed Parcels) = Assessment per FDRB (Rate)

Assessment per FDRB x Parcel FDRB = Parcel Assessment Amount

Assessment Rate and Revenue

Proposition 218 requires assessments levied to be proportional to the benefits conferred by the improvements, facilities, and/or services provided. In order to ensure that the spread of assessments is proportional based upon the benefits calculated above, the annual special benefit costs of the improvements, facilities, and/or services is divided by the total benefits calculated for all benefiting parcels. The estimated OMRR&R program revenue required annually is approximately \$2,014,561 (in fiscal year 2022/2023 dollars), of which approximately \$99,980 is calculated to be General Benefit costs with approximately \$1,914,581 being identified as special benefit costs. The proportional assessment rate to generate the estimated \$1,914,581 in Total Eligible Special Benefit Expenses is approximately **\$0.00050445** per Flood Damage Reduction Benefit (\$1,914,581 / 3,795,398,741 FDRB = \$0.00050445 per FDRB).

Annual Inflationary Adjustment (Assessment Range Formula)

As part of the District formation and establishment of annual assessments to fund the ongoing OMRR&R, the proposed assessments described in this Report and to be submitted to the property owners of record in the Ballot Proceeding shall include an annual inflationary adjustment referred to as an Assessment Range Formula. The purpose of establishing an Assessment Range Formula is to provide for reasonable increases and inflationary adjustment that are inevitably associated with providing such improvements and activities, thereby reducing the need for additional noticing and balloting procedures simply because of inflationary factors. The Assessment Range Formula for this District is defined by the following:

Commencing in the second fiscal year (Fiscal Year 2023/2024) and each fiscal year thereafter, pursuant to Government Code §53739(b), the authorized Maximum Assessment Rate per FDRB established for the District in the previous fiscal year shall be adjusted by the lesser of:

- (1) Four percent (4.0%); or,
- (2) The percentage increase in the Consumer Price Index (CPI) as defined in the following.

The local Consumer Price Index used for the inflationary adjustment shall be based on the CPI for All Urban Consumers (CPI-U), established for the San Francisco-Oakland-Hayward, California area, all items, base period 1982-84=100, as developed and defined by the U.S. Bureau of Labor Statistics. The CPI-U used shall be as determined by the Bureau of Labor Statistics for the 12-month percent change in the Annual Data.

Each fiscal year the Agency shall identify the annual percentage change in the CPI-U, using the difference over a 12-month period between the current year and of the previous year (Annual Data which is based on the prior calendar year's Annual Percentage Change). This percentage difference shall then establish the range of increase to the maximum assessment rate allowed based on CPI. If the percentage change in the CPI is greater than four percent (4.0%), the maximum assessment rate shall be increased by four percent (4.0%). If the percentage change in the CPI is less than four percent (4.0%), the maximum assessment rate shall be increased by the percentage change in the CPI. However, if the percentage change in the CPI is negative (less than 0%) then the maximum assessment rate shall not be increased or decreased from the prior fiscal year. Therefore, the minimum annual adjustment to the Maximum Assessment Rate per FDRB is zero percent (0%) and the maximum annual adjustment is four percent (4%).

Should the Bureau of Labor Statistics revise such index or discontinue the preparation of such index, the Agency shall use the revised index or comparable system as approved by the Agency Board for determining fluctuations in the cost of living.

The adjusted maximum assessment shall be calculated each fiscal year independent of the annual budget and calculated Annual Assessment Rate. Although the authorized Maximum Assessment Rate will be recalculated and adjusted per the formula described above each fiscal year, the Annual Assessment Rate to be adopted and applied each fiscal year may be equal to or less than the authorized Maximum Assessment Rate. If the budget and the calculated Annual Assessment Rate for a given fiscal year does not require an increase or the increase is less than the adjusted authorized Maximum Assessment Rate, then the annual assessments can be approved without a Ballot Proceeding. If the calculated Annual Assessment Rate is greater than the authorized Maximum Assessment Rate per FDRB, then the proposed assessment would be considered an increased assessment. To impose such a new or increased assessment, the

Agency must comply with the provisions of the California Constitution Article XIID Section 4c, that requires a Ballot Proceeding and the assessment increase must be approved by the property owners before that new or increased assessment may be imposed.

Appeals Process

Any property owner who believes his or her property should be reclassified, and the individual assessment adjusted may file a written appeal with the Board Clerk of FRWLFA who will refer the appeal to the General Manager or other designee appointed by the FRWLFA Board or General Manager (referred to as "Designee"). Any such appeal is limited to correction of an assessment during the then-current fiscal year and for future years.

All appeals must include a statement of reasons why the property should be reclassified and may include supporting evidence. On the filing of any such appeal, the General Manager or Designee, will promptly review the appeal and any information provided by the property owner and may investigate and assemble additional evidence necessary to evaluate the appeal. If the General Manager or Designee finds that the individual assessment should be modified, the appropriate changes will be made to the Assessment roll. If any such changes are approved after the assessment roll has been filed with the County for collection, the General Manager is authorized to refund the property owner the amount of any approved reduction to the individual assessment for the then current fiscal year. In the event that an appeal is filed, and the General Manager approves an adjustment and authorizes a refund, that refund shall only be for the current fiscal year. Refunds for any prior fiscal year's assessments whether delinquent or paid before the appeal was filed, will not be made.

If a landowner disputes the decision of the General Manager or Designee, a secondary appeal may be made to the FRWLFA Board, which will consider the matter at a regularly scheduled Board meeting. Any decision made by the Board shall be final.

Part IV — Assessment Roll

Due to the number of parcels within the proposed FRWLFA Operations and Maintenance Assessment District, the Assessment Roll for fiscal year 2022/2023 (a listing of the parcels to be assessed for special benefit within this District along with the assessment amounts) has been filed with the Clerk of the Feather River West Levee Financing Authority, in an electronic format and is by reference made part of this Report. The proposed Assessment Roll shall be available for public inspection in the Feather River West Levee Financing Authority Office during normal office hours.

The Assessment Roll reflects all parcels identified within the District and the corresponding proportional special benefit assessment amount for fiscal year 2022/2023, which is also the amount being balloted for each parcel as part of the Ballot Proceeding. Each parcel listed on the Assessment Roll is currently shown and illustrated on the County Assessor's Roll and the County Assessor's Parcel Number Maps (APN maps). These records are, by reference, made part of this Report and shall govern for all details concerning the description of the lots and parcels. All assessments presented on the assessment roll are subject to change as a result of parcel changes made by the County including parcel splits, parcel merges or development changes that occur prior to the County Assessor's Office securing the final roll and generating tax bills for fiscal year 2022/2023.

Part V — Assessment Diagram

The territory within the FRWLFA Operations and Maintenance Assessment District is narrowly defined to include those lots and parcels of land within the Yuba City Basin of Sutter County that have been identified as parcels receiving a reduction or elimination of potential flooding from the west Feather River levees and related flood control infrastructure improvements that are to be maintained as part of the FRWLFA's Operation, Maintenance, Repair, Rehabilitation, and Replacement program. The boundary of the District and the parcels therein are based on hydrologic and hydraulic mapping (flood levels), incorporating each of the parcels within the Yuba City Basin that have been identified as parcels receiving a reduction or elimination of potential flood damages from inundation or force by floodwaters as a result of possible breaches or other flooding from the west Feather River levees and related flood control infrastructure improvements that extend from Paseo Road south to the confluence of the Sutter Bypass (FRWLFA Levees). Based on the hydrologic and hydraulic data, the District incorporates approximately 25,000 properties in the Live Oak, Yuba City and unincorporated areas of Sutter County that are protected from flooding by FRWLFA Levees.

The parcels within the District as identified on the Assessment Roll as referenced in Part IV of this Report and depicted in the Boundary and Flood Zone Diagram on the following page constitute the Assessment Diagram FRWLFA Operations and Maintenance Assessment District. The Boundary and Flood Zone Diagram also shows the general location of the west Feather River Levee to be maintained as part of the OMRR&R program for which properties identified on the Assessment Roll referenced in Part IV of this Report are being balloted for a new special benefit assessment to support the ongoing annual expenses associated with the OMRR&R program. The parcels therein shall consist of and be dictated by the lines and dimensions as those lots, parcels and subdivisions of land listed on the Assessment Roll and shown on the Sutter County Assessor's parcel maps for fiscal year 2022/2023 and shall incorporate all subsequent parcel splits and merges and by reference the Sutter County Assessor's parcel maps are incorporated herein and made part of this Report.

Figure 3: Boundary and Flood Zone Diagram (Assessment Diagram)

