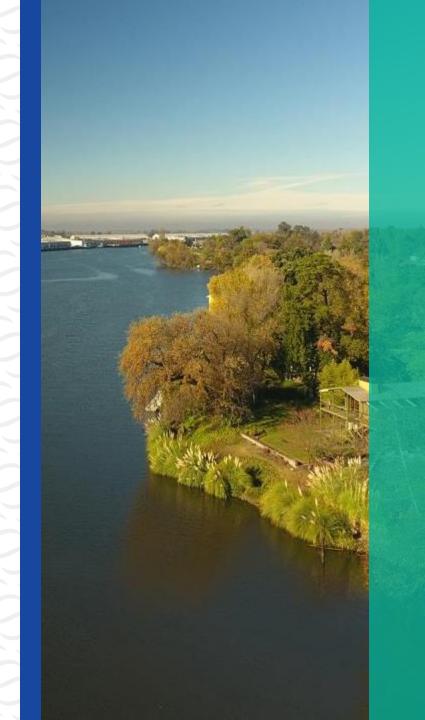


# Levee Construction & Maintenance Assessment

Advisory Water Commission – May 17, 2023



#### **Overview**

- What is SJAFCA?
- What is SCFCWCD Zone 9?
- Problem & Solution
- Proposed Property Assessment
- Balloting Process & Timeline
- Q&A



#### What is SJAFCA?

- Joint Powers Authority (1995)
  - Stockton, Lathrop, Manteca
  - San Joaquin County
  - San Joaquin County Flood Control & Water Conservation District
- Reduce and manage flood risk
- Plans, finances, implements projects and programs
- 9-member Board of Directors
- Actions have saved property owners millions each year since 1998



#### What is SCFCWCD Zone 9?

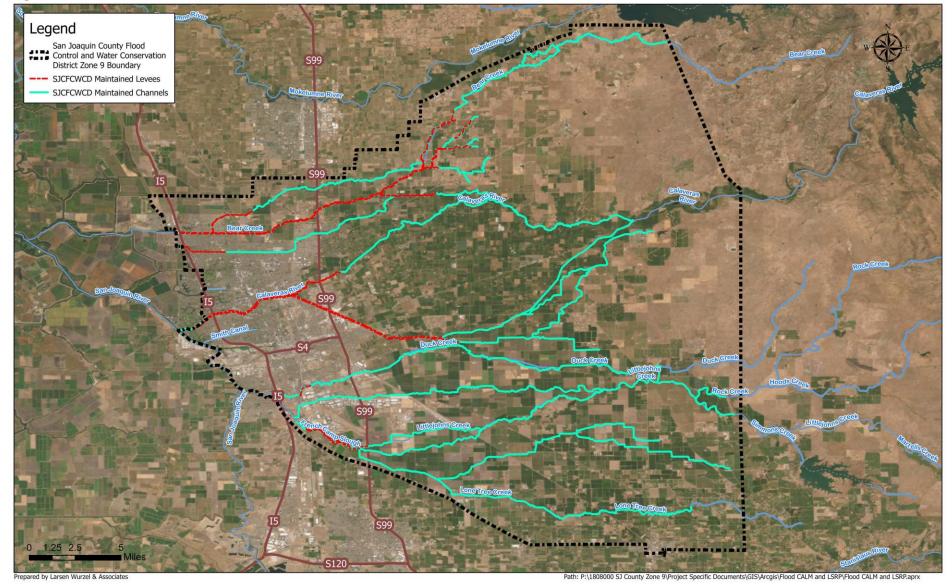
- San Joaquin County Flood Control & Water Conservation District Zone 9 (1961)
- Division of San Joaquin County
- Maintains:
  - 112 miles of urban levees
  - 119 miles of urban channels
  - 3 miles of rural levees
  - 152 miles of rural channels
- Last assessment adopted in 1996

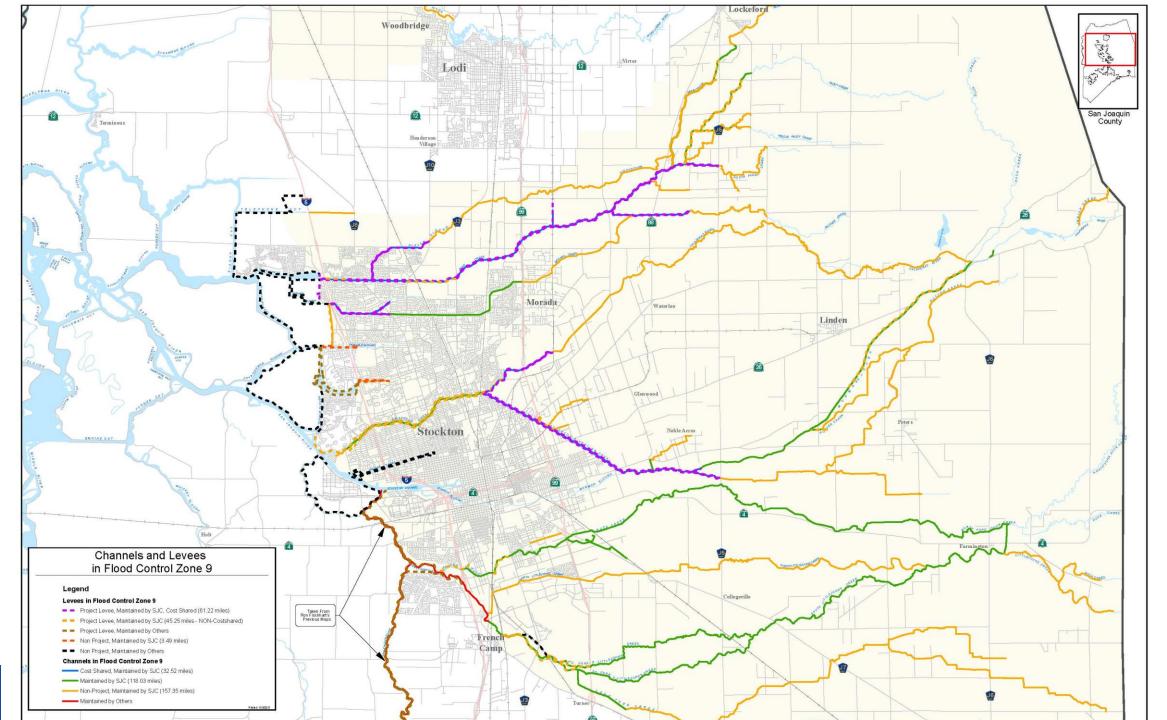




# Zone 9 Maintained Facilities

Figure 1: Zone 9 Levees and Channels

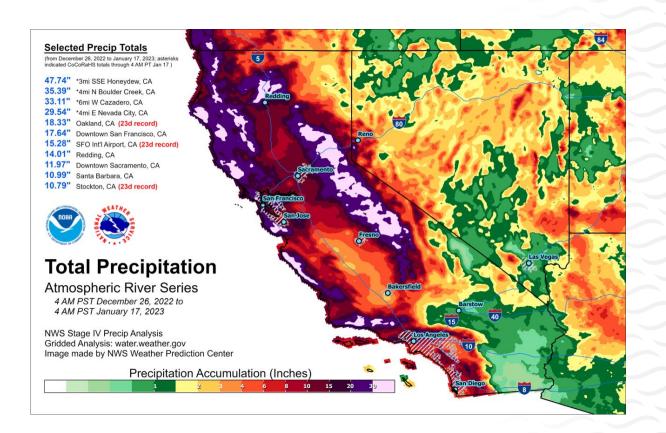






## Challenges

- State/federal regulations for flood protection are becoming stricter
- Weather extremes are unpredictable
- Every major storm event stresses levee system
- Levees are the only/last defense against flooding



#### **Problems to Avoid**

- Physical damages from flooding
  - Calaveras/San Joaquin Rivers
  - Creeks, Sloughs, Channels
- Financial impacts from failure to meet changing state/federal regulations
  - FEMA remapping of Special Flood Hazard Areas
  - Loss of federal funding for emergency repairs to levees



# **Cost of Flood Damage**

Depth	Cost
1 inch	\$10,819
6 inches	\$21,161
1 foot	\$29,360
2 feet	\$36,360
3 feet	\$39,831
4 feet	\$43,400

Source: FEMA, based on 1,000 SF home



Within proposed assessment district = 2,363 active NFIP Policies



# **Cost of Regulatory Impacts**

#### FEMA Special Flood Hazard Areas

- ✓ Mandatory insurance for properties with mortgages/loans
- √ Costs increase 18% per year
- ✓ Won't fully cover damages
- ✓ Slow payment of claims

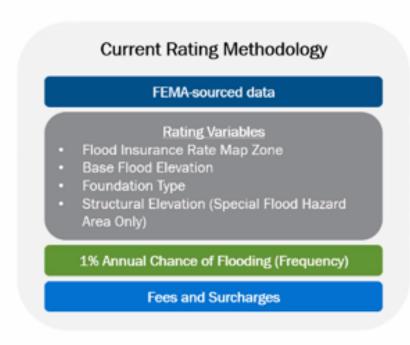
Zip Code	Average Current Premium	Average Risk-Based Premium	Difference
95203	\$ 959.13	\$1,736.52	+ \$777.39
95204	\$1,048.75	\$1,655.84	+ \$607.10

Source: FEMA Risk Rating 2.0: Projected Premium Changes by Zip Code



#### **FEMA NFIP Risk Rating 2.0**

Equity in Action premiums will more accurately reflect a property's unique flood risk by considering a broader range of variables.



#### Risk Rating 2.0 Methodology\*

#### FEMA-sourced data

Additional data sources: Federal governmentsourced data, commercially available third-party

#### Cost to Rebuild

#### Rating Variables

- · Distance to Coast/Ocean/River
- River Class
- Flood type Fluvial/Pluvial
- Ground Elevation
- First Floor Height
- · Construction Type/Foundation Type

Broader Range of Flood Frequencies

#### Fees and Surcharges

\*Additional variables are not shown here

Federal Emergency Management Agency

# **Cost of Regulatory Impacts**

Public Law 84-99

- ✓ Loss of eligibility for federallyfunded emergency repairs
- ✓ Cost of repairing levees is 100% community responsibility
- ✓ Repairs typically \$1M or more





# How do we defend lives, property?

- 1) Improve levee maintenance services
- 2) Improve levees beyond 100-year level of flood protection



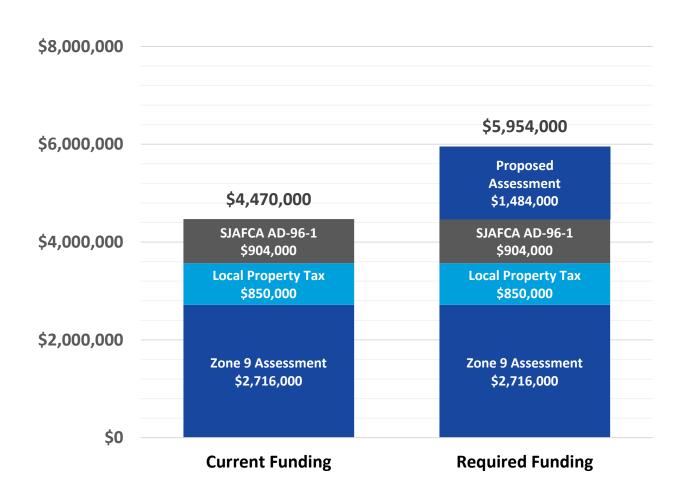
### Improve Levee Maintenance (O&M Services)

#### Adequately fund maintenance for existing and improved levees

- Removal of debris that obstructs storm water and flood flows, damages levees
- Vegetation removal and control
- Rodent removal and control
- Levee patrol during high water warning and flood stages
- Resurfacing of levee maintenance and patrol roads
- Construction of erosion repair and protection
- Repair of levee embankments
- Inspection and repair of gates
- State and federal inspections and evaluations
- State and federal permit applications and compliance



#### Zone 9 Project Levee O&M Funding Need



Categories	Annual Budget
O&M	\$5,426,000
Engineering	\$70,000
State & Fed Coordination	\$305,000
Admin, Legal, Compliance, Insurance	\$153,000
Subtotal Budget	\$5,954,000
Current Zone 9	(\$2,716,000)
Property Taxes	(\$850,000)
SJAFCA AD 96-1	(\$904,000)
Subtotal Revenues	(\$4,470,000)
LCMA Zone 9	
O&M Budget	\$1,484,000

# Improve Levees (Capital Services)

- Lower San Joaquin River Project
  - \$1.4 billion Federal project
  - Increases level of protection along Calaveras and San Joaquin Rivers/Delta (closer to 200-year)
  - Project includes:
    - 23 miles of cutoff walls
    - 16 miles of other improvements
    - 2 closure structures (including Smith Canal Gate)
    - Construction to begin in 2024
- Other projects necessary to maintain FEMA accreditation for 100-year flood protection

Figure 2: Lower San Joaquin River Project

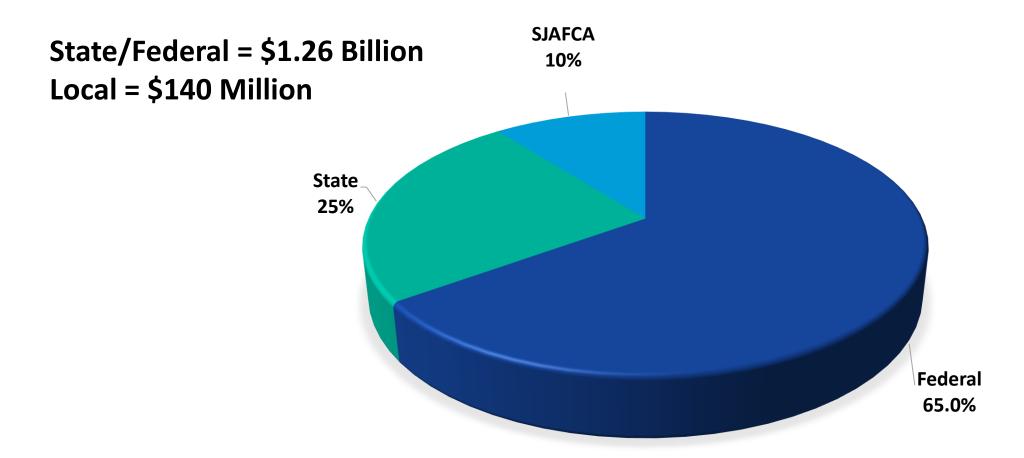


# Fixing the Worst, First

- Ten Mile Slough
- Draft Environmental Impact Report/Environmental Impact Statement
- 100% design
- Construction = 2024



#### Lower San Joaquin River Project Cost Share



Based upon USACE 2017 cost estimate & Lower San Joaquin River Project Partnership Agreement

# **Annual Funding Requirement**

Additional O&M of Zone 9 Levees: \$1,484,000

Capital Improvement and Incremental O&M: \$6,200,000

Estimated Annual Budget: \$7,684,000\*

\*Proposed Budget for 2023/24. Can be increased each year by CPI, capped at 4%



### **Proposed Assessment**

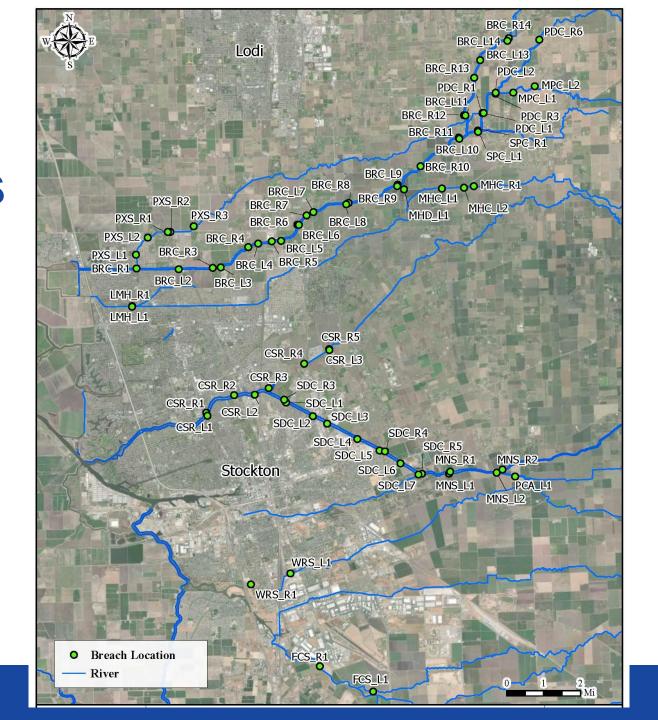
Properties can only be assessed for benefit received

- Avoided flood damages to land, structures and contents
- Avoided financial impacts of not meeting state/federal regulations for levee maintenance and levels of protection
- Assessment revenues may not be used for any purpose other than levee improvements and maintenance



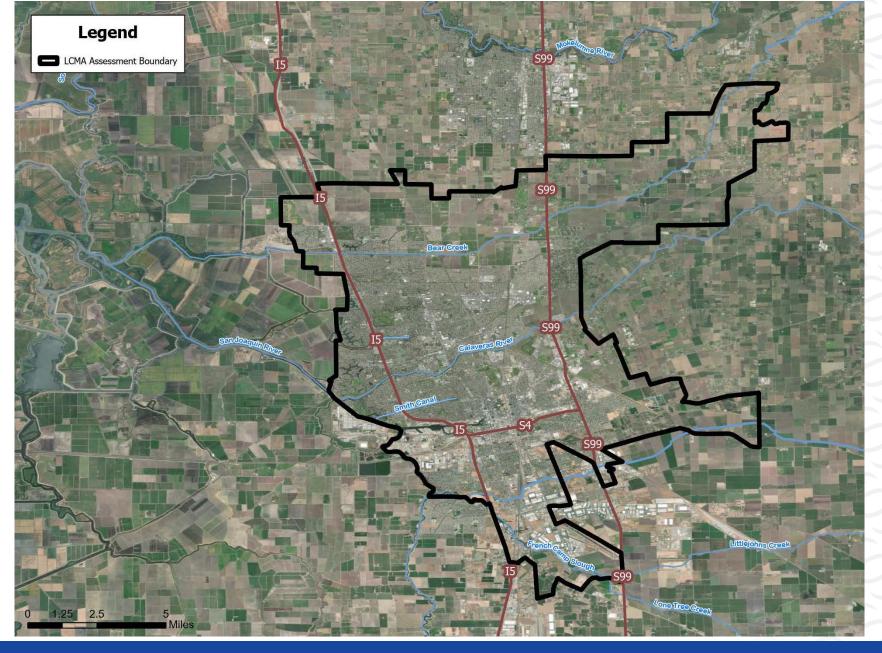
### O&M Breach Locations

## Zone 9 Project Levees





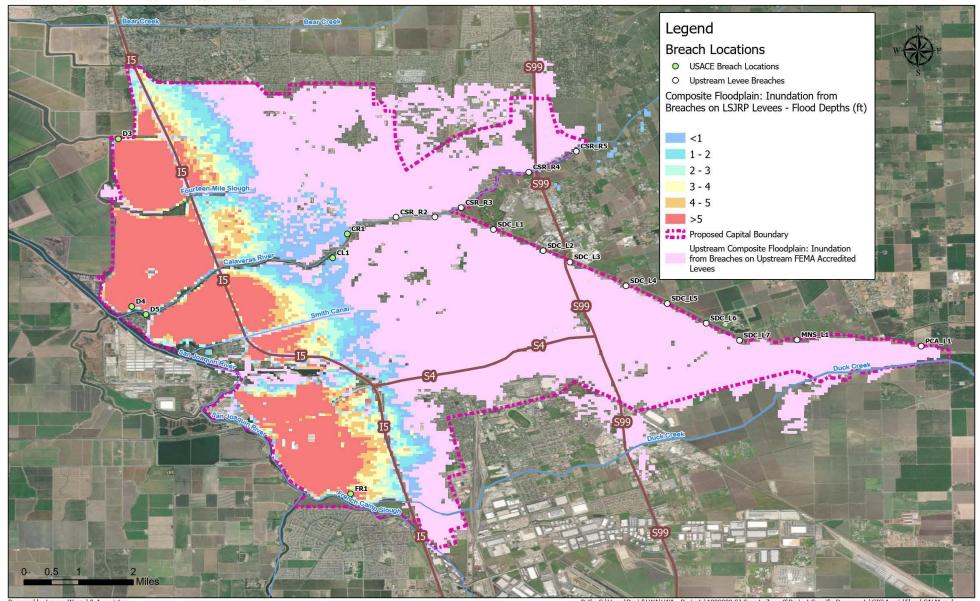
# LCMA Boundary Map





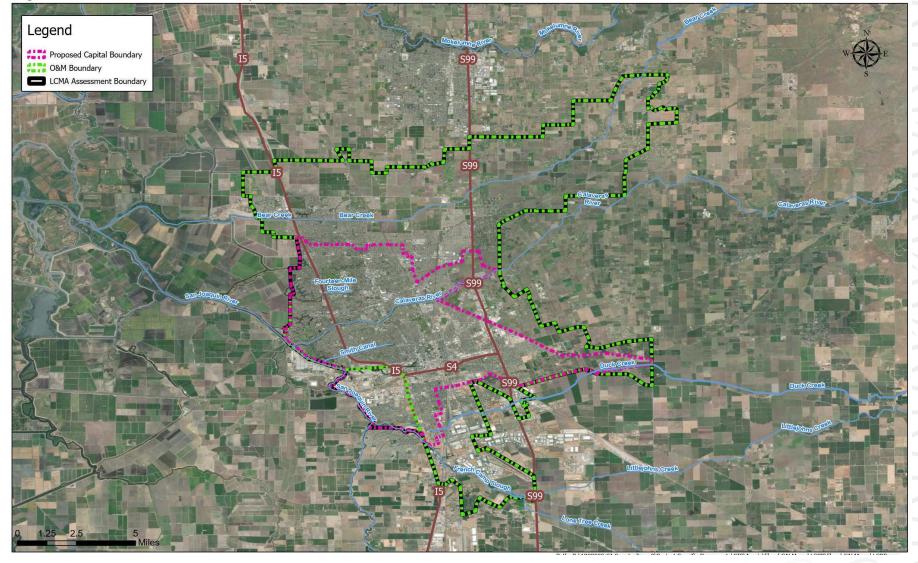
#### **Area of Benefit – Levee Improvements**

Figure 4: Floodplain Mapping supporting Capital Services Benefit Area



# LCMA Boundary Map by Service

Figure 5: LCMA Area of Benefit - Levee Capital & O&M Services





#### **Assessment Methodology**

Every property's assessment differs based on property characteristics:

- Land use category
- Parcel size (acres)
- Location of Property determines:
  - Benefit of Levee O&M Services (Y/N)
  - Which breach scenario impacts the parcel (for Levee O&M Services)
  - Benefit of Levee Capital Services (Y/N)
  - In Smith Canal Area Assessment District (Y/N, only for Levee Capital Services)
  - Depth of flooding for O&M and Capital (separately)



## Example Assessments – Single Family Home

#### **Property Characteristics:**

- Land Use: Single-Family Residential
- Parcel Sizes for Examples –
   0.1 Acres, 0.25 Acres, 0.5 Acres
- Average flood depths by category

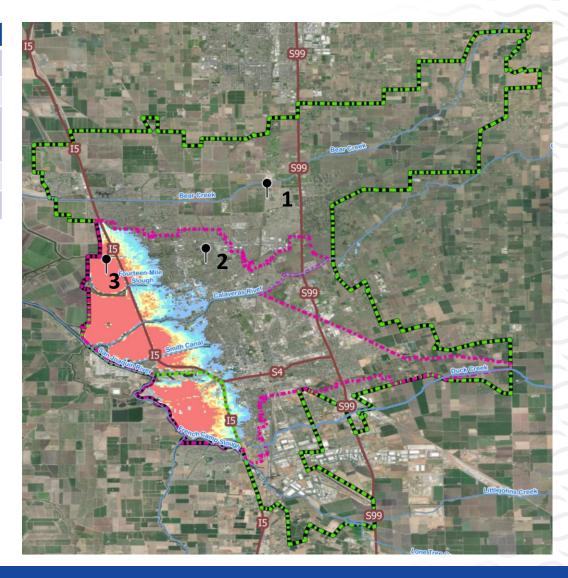
#### **Categories**

- 1) O&M Only (one breach)
- 2) O&M (three breaches) and Non-LSJRP Accredited Levees
- 3) O&M (three breaches) and LSJRP Capital



# Examples – Single Family Home .10 acre

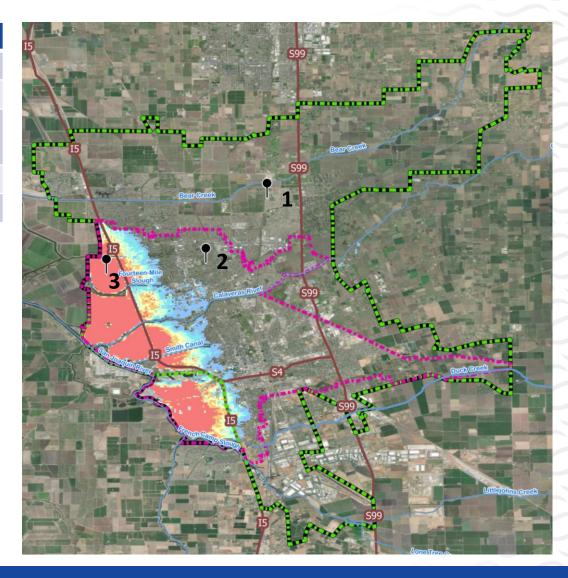
Category	O&M	Capital	Total	
SFR - 0.10 Acre Parcel				
1) O&M only (one breach)	\$18.70	\$0	\$18.70	
2) O&M (three breaches) and Non-LSJRP Accredited Levees	\$34.25	\$38.52	\$72.77	
3) O&M (three breaches) and LSJRP Capital	\$34.25	\$148.39	\$182.64	





# Examples – Single Family Home .25 acre

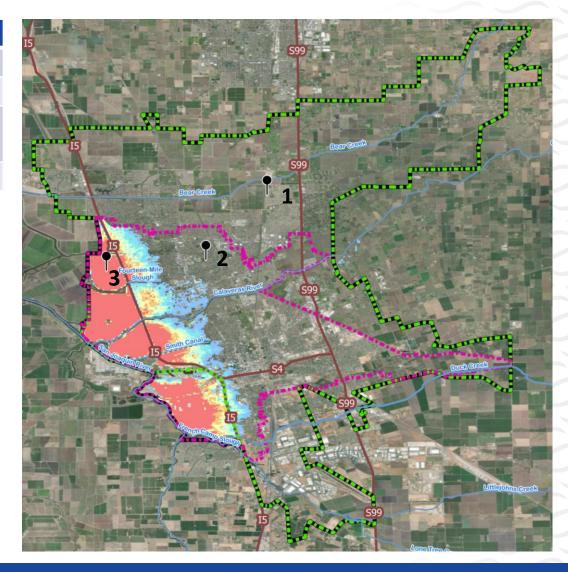
Category	O&M	Capital	Total
SFR - 0.25 Acre Parcel			
1) O&M only (one breach)	\$46.75	\$0	\$46.75
2) O&M (three breaches) and Non-LSJRP Accredited Levees	\$85.63	\$39.72	\$125.36
3) O&M (three breaches) and LSJRP Capital	\$85.63	\$149.59	\$235.22





# Examples – Single Family Home .50 acre

Category	0&M	Capital	Total	
SFR - 0.50 Acre Parcel				
1) O&M only (one breach)	\$93.50	\$0	\$93.50	
2) O&M (three breaches) and Non-LSJRP Accredited Levees	\$171.27	\$41.73	\$212.99	
3) O&M (three breaches) and LSJRP Capital	\$171.27	\$151.60	\$322.86	



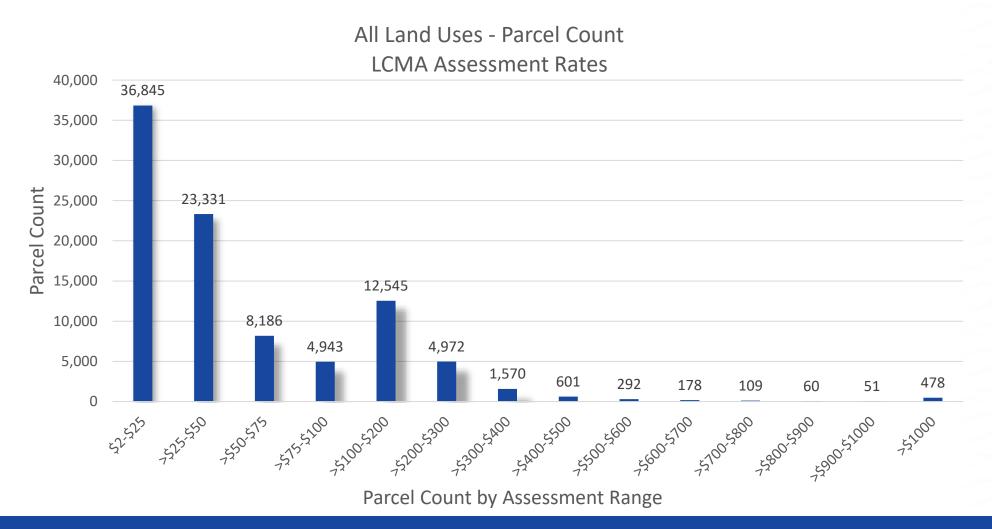


## **Assessment Weight by Land Use**

Land Use Category	Parcel Count	Average Assessment	Proposed FY 2023/24 Assessment [1]	Share of Total Assessment
Agricultural	767	\$14	\$10,618	0.1%
Blended	98	\$1,831	\$179,390	2.4%
Commercial	3,382	\$247	\$836,238	11%
Industrial	961	\$512	\$492057	6.4%
Mobile Home	143	\$38	\$5,479	0.1%
Multi-Family Residential	5,834	\$139	\$809548	10.6%
Open Space	2,527	\$3	\$7567	0.1%
Open Space - Developed	3,401	\$5	\$16317	0.2%
Rural Residential	1,071	\$8	\$8,255	0.1%
School	167	\$781	\$130,486	1.7%
Single-Family Residential	75,810	\$68	\$5,134,757	67.3%
Total	94,161	\$82	\$7,630,712	100.0%
[1] Includes \$2 minimum assessment.				

### **Assessment Ranges (All Land Uses)**

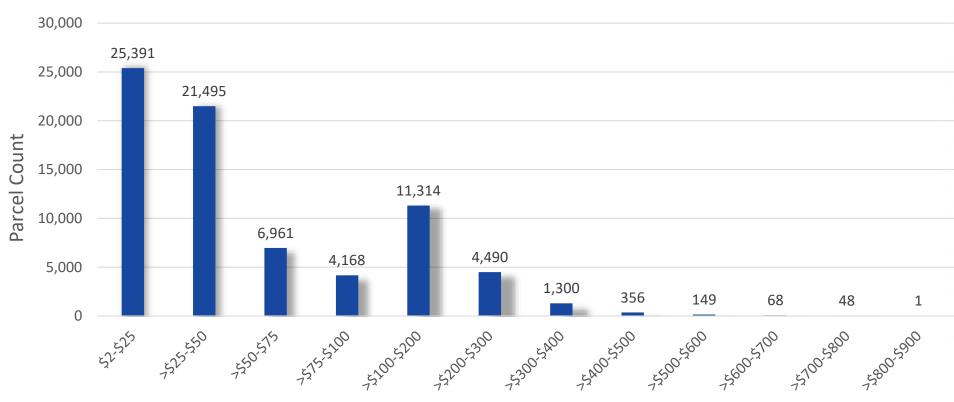
78% (73,300) will pay less than \$9 per month (\$100/year)



#### **Assessment Ranges (Single Family Residential)**

77% (58,000) will pay less than \$9 per month (\$100/year)





Parcel Count by Assessment Range



#### **Prop 218 Process**

- Only property owners vote
- Weighted vote (\$1 assessment = 1 vote)
- Ballots mailed to property owners (April 21); 55 days to return
- Public Hearing at SJAFCA Special Meeting (June 8)
- Ballot Tabulation (commencing June 9 until complete)
- SJAFCA Board meeting/Balloting Results (June 15)
- Majority Protest
  - Weight of ballots opposed exceed weight of ballots in favor



# **Community Meetings**

#### Pre-ballot Mailing:

- April 17 Kennedy Elementary
- April 19 Stagg High School
- > April 20 Madison Elementary

#### Post-ballot Mailing:

- ➤ May 2 6:30 p.m., John Adams Elementary
- ➤ May 3 6:30 p.m., McNair High School
- ➤ May 4 6:30 p.m., Edison High School
- May 8 6:30 p.m., Brookside School

Presentation available online at <a href="https://www.sjafca.org/LCMA">www.sjafca.org/LCMA</a>

Public Hearing: June 8, 6 p.m., SJ County BOS Chambers



#### Consequences of Outcome – Yes, or No



New assessment begins fall 2023

Levee maintenance will be improved

Community <u>will secure \$1.24 billion</u> in state/federal funding for levee improvements for North and Central Stockton

Community will maintain eligibility for federal funding for emergency levee repairs

Community will stay ahead of changing state/federal regulations for levees

Lower flood risk for properties & lower financial risk for property owners

FEMA accreditation will be maintained and flood insurance purchase will be voluntary



Levees cannot be properly maintained

Community will <u>risk losing</u> \$1.24 Billion in state/federal funding for levee improvements for North and Central Stockton

Community will <u>lose</u> current eligibility for federal funding for emergency levee repairs

Community will <u>not</u> be able to meet changing state/federal regulations for levees

Increased flood risk for properties & greater financial risk for property owners

FEMA accreditation may be jeopardized, which could result in mandatory flood insurance for properties with mortgages



#### **Assessment v. Flood Insurance**



#### Assessment

- \$350 per year
- Increases capped at 4% per year
- Stays locally
- Reduces physical flood risk
- Avoids regulatory impacts



#### - Flood Insurance

- \$550-\$3,500 per year
- Increases up to 18% per year
- Does not stay locally
- Does not reduce physical flood risk
- Does not fix regulatory impacts



#### **More Information**

- Hotline: (209) 475-7010
- Email: LCMA@sjgov.org
- www.sjafca.org/LCMA
  - Frequently Asked Questions
  - Boundary maps
  - Preliminary Engineer's Report
  - Assessment calculator





# Questions & Discussion

