Update on CA Dept. Water Resources Flood Management Activities

County Engineers Association of California: Flood Control and Water Resources Policy Committee
August 22, 2025

Image: Damage from Jan. 2025 Palisades Fire near Malibu, CA (photo from Los Angeles Times).

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Outline of Today's Topics

- Update on DWR Statewide Flood Management Financial Assistance Programs
  - Dam Safety Climate and Resilience Program
- Update on FEMA Efforts
  - Building Codes & FFRMS
- National Levee Safety Program
  - One-Time Screening of non-USACE levee systems
- Flood Diversion and Recharge Enhancement

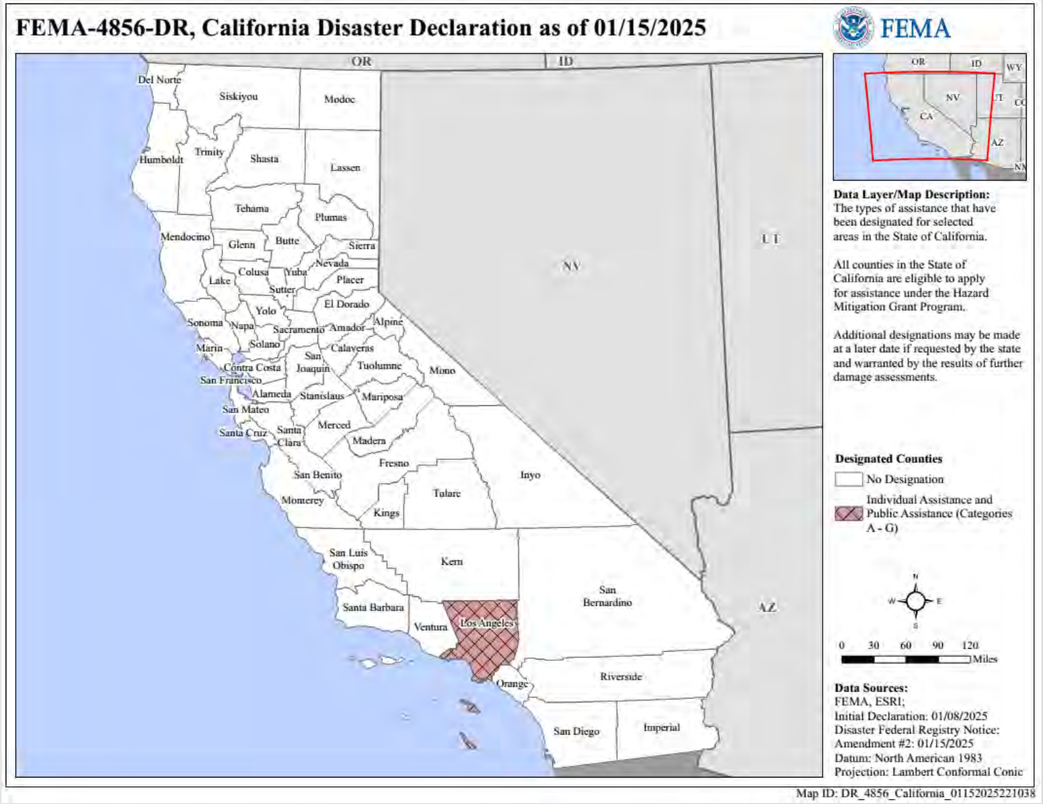

Image: DR-4856 (Jan. '25 Los Angeles County Fires).

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DWR's Flood Management Financial Assistance Programs

DWR Flood Risk Reduction Grant Program	Status	State Plan of Flood Control	Central Valley	Statewide	Current Fund Source
Statewide Flood Control Subventions Program*	Ongoing			✓	Proposition 1E & ~~General Fund~~
~~**Dam Safety Climate and Resilience Program***~~	~~**Project Solicitation**~~			~~✓~~	~~**General Fund**~~
Local Levee Assistance Program	Legacy / Closed			✓	Proposition 1E
Flood Corridor Program	Legacy / Closed			✓	Proposition 13 & 84
Small Community Flood Risk Reduction Program*	Funding Committed	✓			Proposition 1E
Regional Flood Management Planning (Directed Funding)	Funding Committed	✓			Propositions 1E & 68 & ~~General Fund~~
Central Valley Tributaries Program	Funding Committed		✓		Proposition 1
Coastal Flood Risk Reduction Protection Program	Funding Committed			✓	Propositions 1 & 68
Floodplain Management Protection and Risk Awareness Program	Funding Committed	✓	✓	✓	Proposition 68
Conveyance Subsidence Program (Directed Funding)	Funding Committed		✓		General Fund
State Flood Emergency Response Program (Round 3)*	Draft Guidelines			✓	Proposition 84

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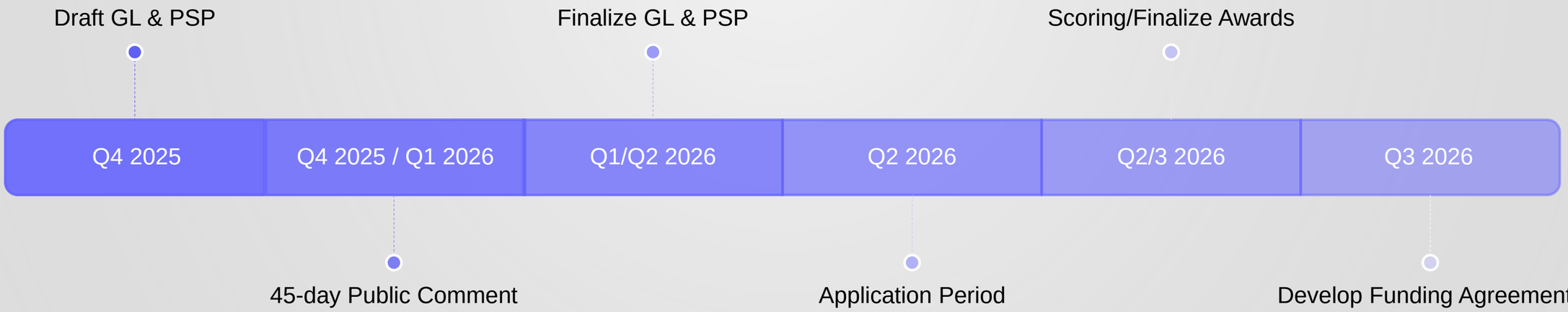
NOTE: These (*) programs may have future competitive funding rounds in the next several years.

Dam Safety and Climate Resilience Program

- Voters approved **$450M** in Prop 4 to start the new Dam Safety and Climate Resilience Program
- Prioritizes protection of public safety, restoration of water storage, flood risk reduction, enhancement of water supply reliability, protection of water quality, and enhancement, protection, or restoration of habitat for fish and wildlife
- DWR **nearly finalized guidelines**
  - Eligibility limited to state regulated Extremely High, High, and Significant Hazard dams
  - 50% state cost share
  - Administrative, planning, design and construction are eligible activities
  - May not have current DSOD enforcement actions
- **Project solicitations expected in Apr./May 2026**

DSCR Overview Schedule

- Draft GL & PSP Public Comment: Q4 2025
- Release Final GL & PSP: Q2 2026
- Release Draft Awards: Q2/3 2026
- Release of Final Awards: Q3 2026



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FEMA UPDATES

Image: FEMA Review Council, established be EO 14180 is to report by Nov. 2025.

Federal Flood Risk Management Standard (FFRMS) Update

FFRMS finalized July 11, 2024

- Effective Sept. 9, 2024
- Provides new guidance on how high and how wide to consider floodplains when applying for Public Assistance (PA) or Hazard Mitigation Assistance (HMA)
  - Applicants can use forth coming FFRMS Tool to view:
    - CISA
    - BFE (i.e. 100-yr floodplain for a FVA)
    - 500-yr floodplain elevation (0.2PFA)
- Does not impact NFIP Special Flood Hazard Area (SFHA) delineations (i.e. does not expand mandatory insurance requirement)

Image: FEMA estimates for FVA 2' Total Project Costs Increases to Comply with FFRMS.

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The FFRMS in Building Codes

Though FEMA was directed by the President to stop the FFRMS, ASCE and the IBC have incorporated the FFRMS into regulatory building codes.

Code	Description	Cycle
ASCE 7	Loadings (including Flood)	Periodic
ASCE 24	Flood Resistant Design and Construction	Periodic
I-Codes	International Building Codes	3 Years
CBSC	California Building Standards Codes	3 Years

In practice the CBSC relies upon the I-Codes, which incorporate the ASCE standards.

DWR's role is to review the ASCE / I-Codes with respect to consistency with 44 CFR Part 60.3(d) and (e) – which is the NFIP.

Understanding CA Building Code Cycles

Year	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
ASCE 7 "Minimum Design Loads and Associated Criteria for Buildings and Other Structures"	✓						✓						✓																					
ASCE 24 "Flood Resistant Design Standards"					✓										✓																			
I-Codes			✓			✓			✓			✓			✓			✓			✓			✓			✓			✓			✓	
California Building Standards Code (Cal. Code Reg. Title 24)	✓		✓			✓			✓			✓		.		✓	.		✓	.		✓	.		✓	.		✓	.		✓	.		✓

Current CA Building Code Standards

Future CA Building Code Standards

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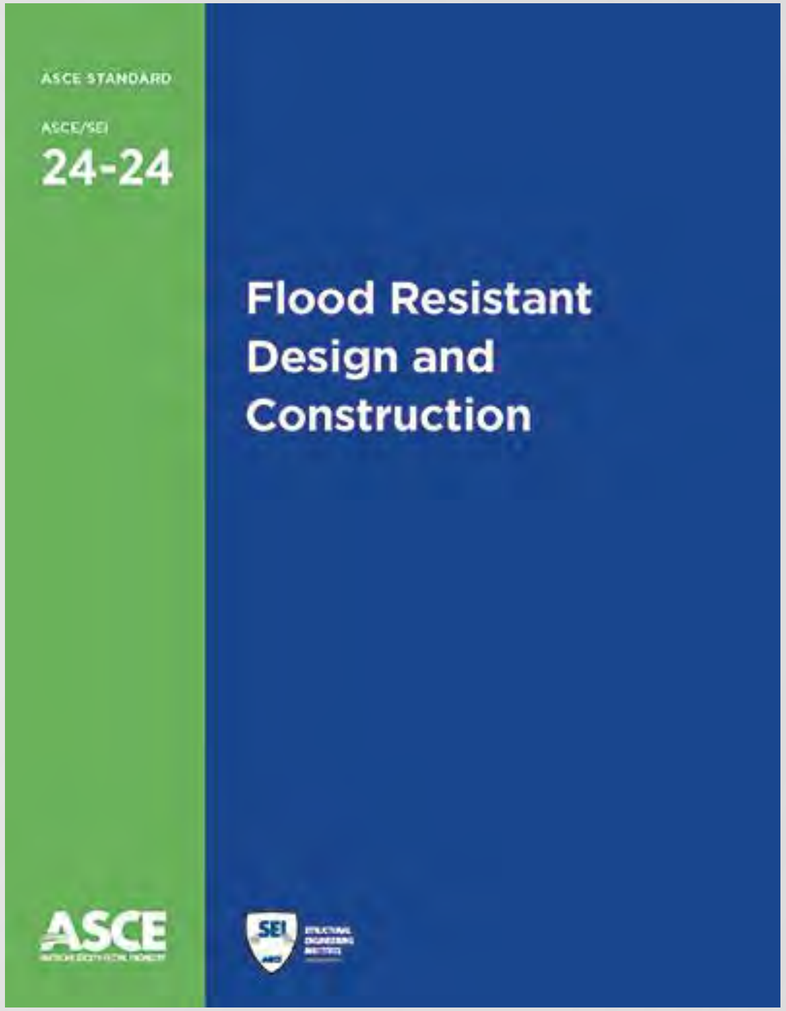
ASCE 24-14 Flood Design Class of Buildings

New to the ASCE 24 standards in 2014 was the introduction of four tiers of flood design standards. The existing portfolio of State owned facilities can be triaged by using these tiers.

Flood Design Class	Facility Use / Occupancy Description	Example (not necessarily in floodplains)
1	Temporary (less than 180s), storage, parking garages, ag structures	
2	Most residential, commercial, and industrial	Target
3	Hospitals, prisons, schools, power generation, sports facilities, museums, theaters	Corcoran Prison
4	Emergency, hazardous waste, communications, power generation for ER	State Operations Center

ASCE 24-24 and the NFIP

- ASCE 24-24 is consistent with NFIP building performance requirements
  - Previous conflicts resolved
- ASCE 24 relative to NFIP:
  - Provides more specific requirements
  - Requires new construction to meet higher standards
  - Requires Substantial Improvement / Substantial Damage construction to meet higher standards
- DWR purchasing multiple hard copies
- ASFPM purchasing 100 virtual licenses for state agency use



ASCE 7-22 Supplement 2 and ASCE 24

- ASCE 7 Risk Categories linked to ASCE 24 Flood Design Class
- Minimum elevation requirements linked to mean recurrence intervals (includes SFHAs including Shaded X Zone, i.e. 500-year floodplains)
- Design elevation needs to incorporate historic SLR and additional guidance on coastal flood elevation design
- Provides table to determine design flood elevations based on best available data using 500-yr, 100-yr, and 10-yr elevation site data

Risk Category	Mean Recurrence Interval (years)
I	100
II	500
III	750
IV	1,000

FEMA Hazard Mitigation Assistance: The Big Three

HMA Program	Pre-Disaster	Post-Disaster	Authorities & Requirements
~~Building Resilient Infrastructure and Communities (BRIC)~~	~~✓~~		~~Stafford Act (1988) / Hazard Mitigation Plan Activity~~
Flood Mitigation Assistance (FMA) Grant Program	✓		National Flood Insurance Program (1968) / Must be NFIP Community / Must be HMP Flood Activity
Hazard Mitigation Grant Program (HMGP)		✓	Stafford Act (1988) / Hazard Mitigation Plan Activity

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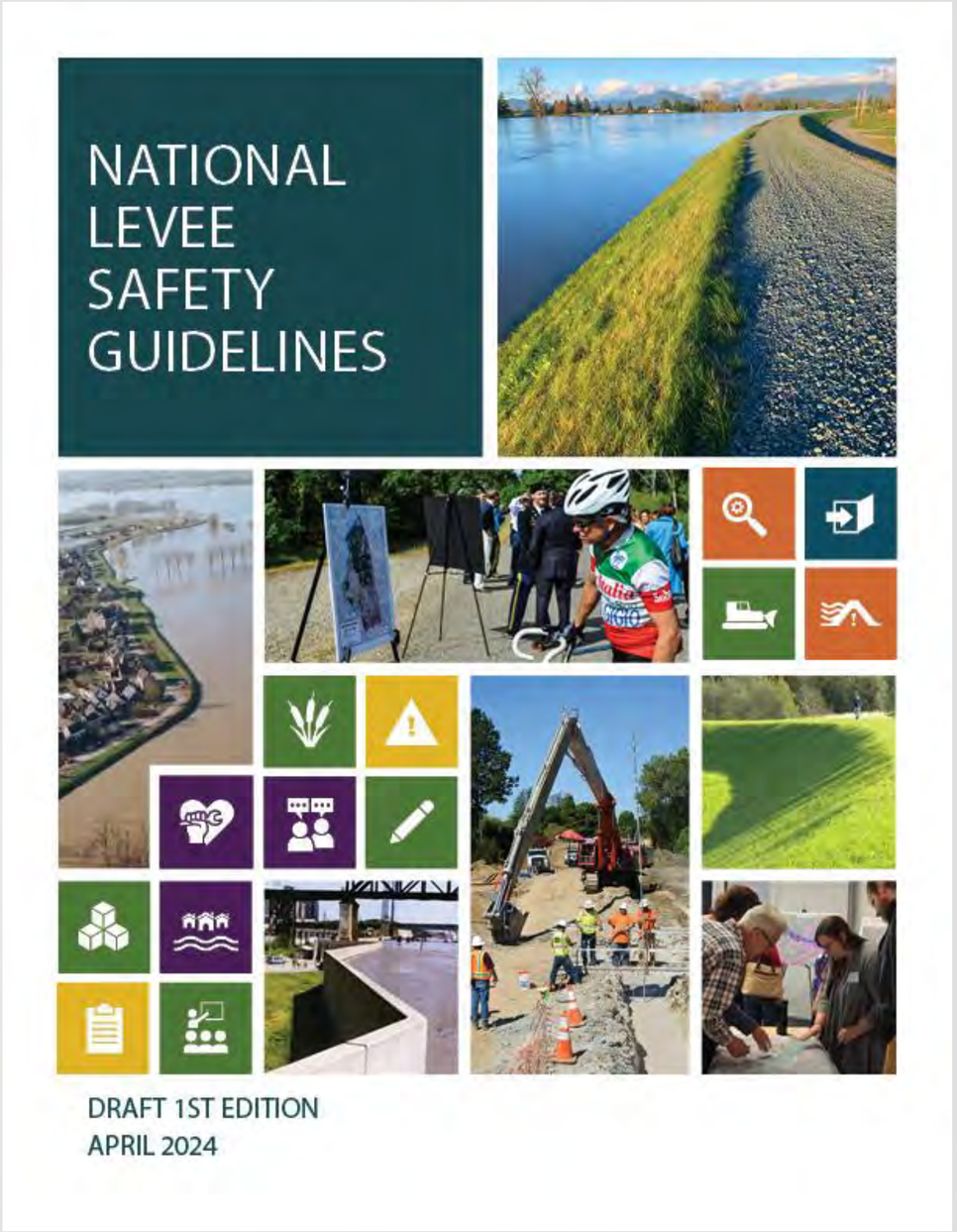
NOTE: ~~FEMA has other specialty programs too, including its High Hazard Potential Dam (HHPD) Program.~~

DR-4856 Hazard Mitigation Grant Program (HMGP) Subapplication Types

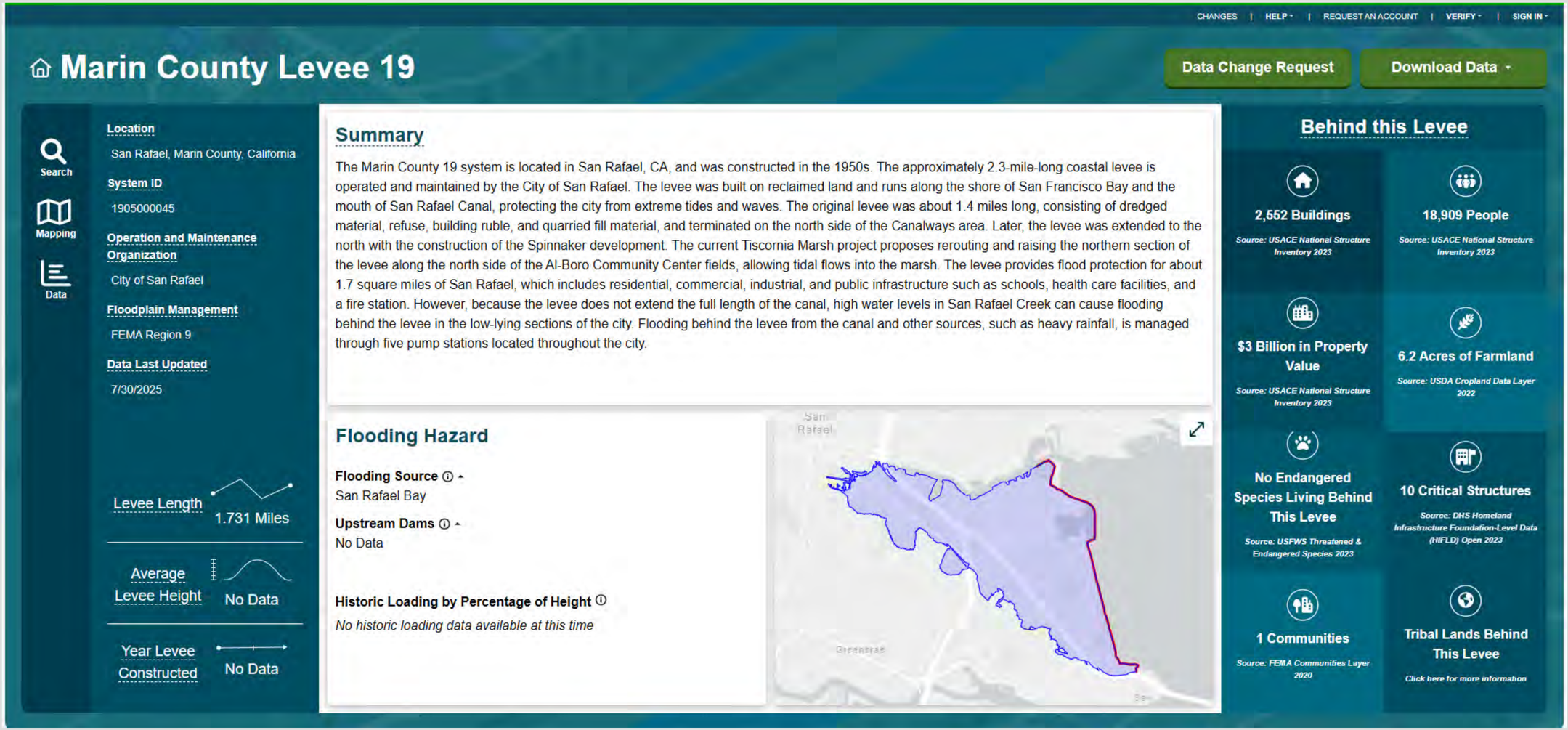
Type	Short Description
Planning	Updating Hazard Mitigation Plans (HMPs)
Planning Related	Integrating planning efforts
Project (Shovel Ready)	Construction / physical work
Advance Assistance	Preliminary project investigation, feasibility, & design
5% Initiative	Data, research, building codes

Subapplicants must have an approved, active Hazard Mitigation Plan!

NATIONAL LEVEE SAFETY PROGRAM



Example of a Coastal Levee in NLD



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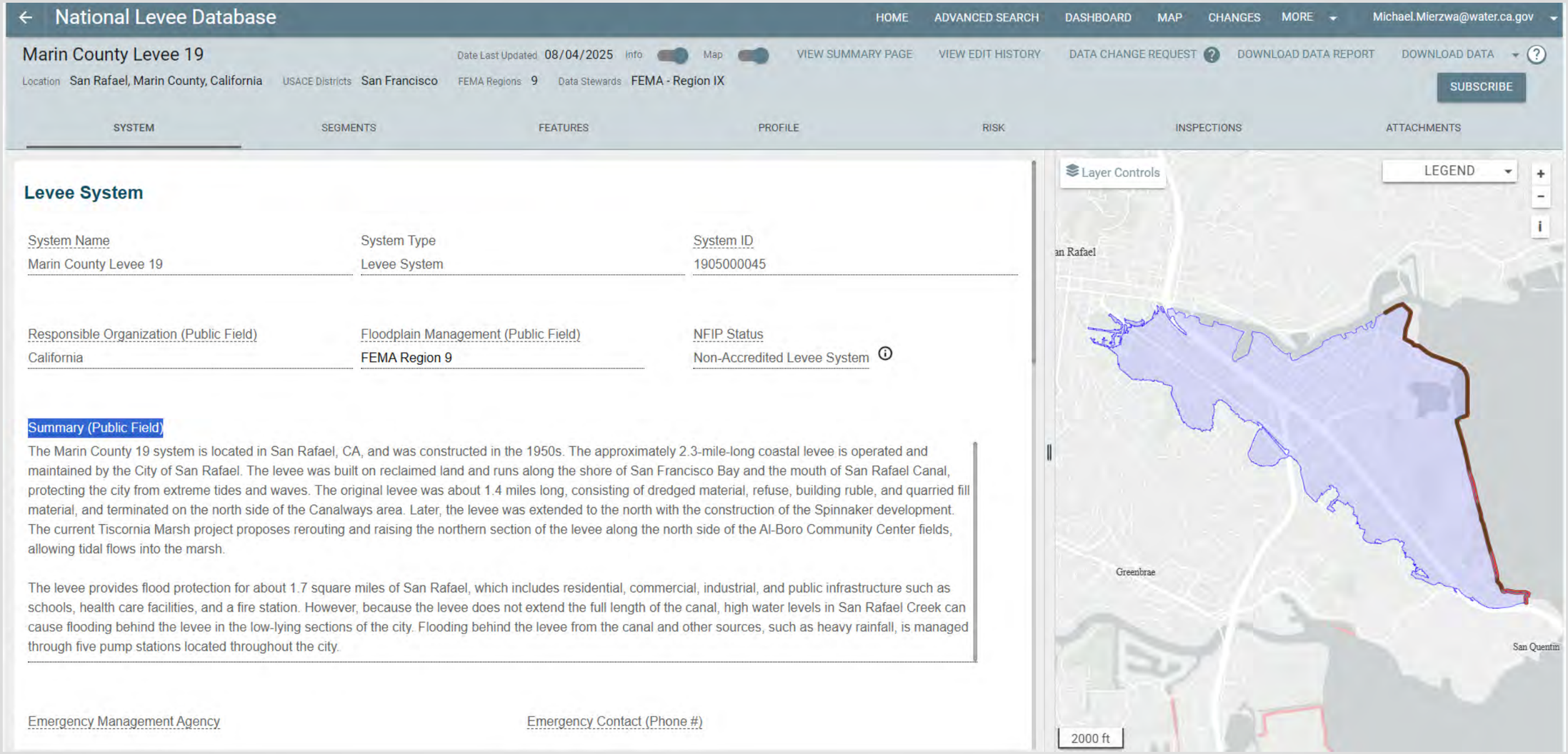
Levee Owner View



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One-Time Levee Review

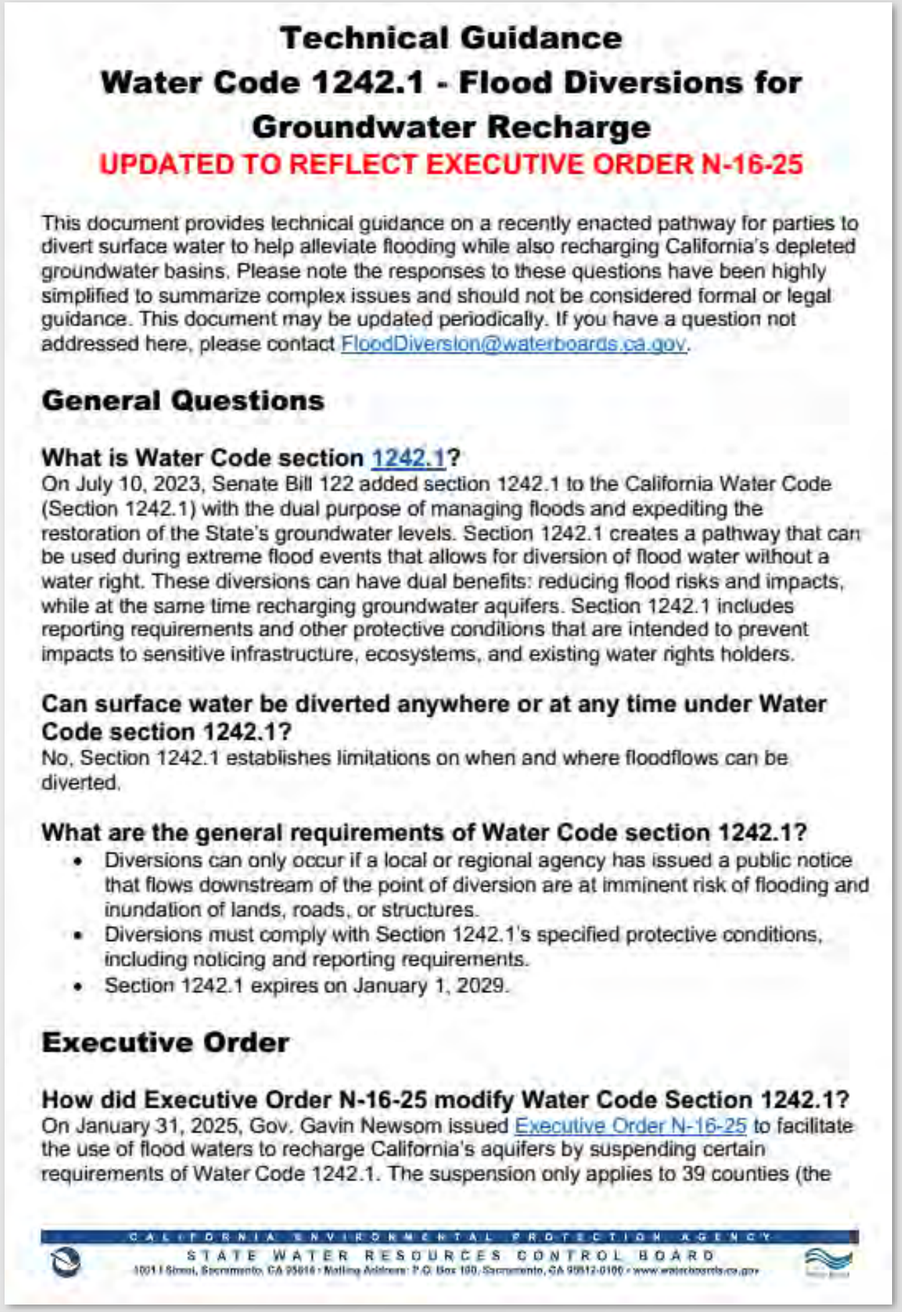
- Collection of Available Data Sources
- Site Visit/Inspection: General Levee Condition and Inform Risk Assessment
- Screening Risk Assessments:
  - Flood Loading
  - Expected Levee Performance
  - Consequences of Levee Breach and Overtopping

Image: Cosumnes River levee, looking upstream (Sacramento County), Feb. 2024.

List of Screenings of Non-USACE Levees in CA

Levee System(s)	Community	Land Use Protected	Flood Hazard	Maintainer	Date(s) of Screening	Number of Systems Screened
Cosumnes River	Sacramento County / Wilton / Rancho Muretia	Rural / Ag	Riverine (Rain Flood)	RD 800	Feb 24, Apr 25, Jun 25	6
Kern River	Bakersfield	Industrial	Riverine (Snow Melt)	Kern County Water Agency	Nov 23	1
City of Oroville, CA	Oroville	Urban	Riverine (Rain Flood and Snow Melt)	Oroville	May 25	1
San Pablo Bay Levee	San Rafael	Urban	Coastal	San Rafael	Jun 25	1
Mojave River Levee	Victorville	Urban	Riverine (Snow Melt – High Desert)	San Bernardino County	Jul 25	1
Sycamore Creek Levee	San Bernardino	Suburban	Debris (Mountain)	San Bernardino County	Jul 25	1

FLOOD DIVERSION FOR RECHARGE ENHANCEMENT



Technical Guidance
Water Code 1242.1 - Flood Diversions for Groundwater Recharge
UPDATED TO REFLECT EXECUTIVE ORDER N-16-25

This document provides technical guidance on a recently enacted pathway for parties to divert surface water to help alleviate flooding while also recharging California's depleted groundwater basins. Please note the responses to these questions have been highly simplified to summarize complex issues and should not be considered formal or legal guidance. This document may be updated periodically. If you have a question not addressed here, please contact FloodDiversion@waterboards.ca.gov.

General Questions

What is Water Code section 1242.1?
On July 10, 2023, Senate Bill 122 added section 1242.1 to the California Water Code (Section 1242.1) with the dual purpose of managing floods and expediting the restoration of the State's groundwater levels. Section 1242.1 creates a pathway that can be used during extreme flood events that allows for diversion of flood water without a water right. These diversions can have dual benefits: reducing flood risks and impacts, while at the same time recharging groundwater aquifers. Section 1242.1 includes reporting requirements and other protective conditions that are intended to prevent impacts to sensitive infrastructure, ecosystems, and existing water rights holders.

Can surface water be diverted anywhere or at any time under Water Code section 1242.1?
No, Section 1242.1 establishes limitations on when and where floodflows can be diverted.

What are the general requirements of Water Code section 1242.1?
- Diversions can only occur if a local or regional agency has issued a public notice that flows downstream of the point of diversion are at imminent risk of flooding and inundation of lands, roads, or structures.
- Diversions must comply with Section 1242.1's specified protective conditions, including noticing and reporting requirements.
- Section 1242.1 expires on January 1, 2029.

Executive Order

How did Executive Order N-16-25 modify Water Code Section 1242.1?
On January 31, 2025, Gov. Gavin Newsom issued Executive Order N-16-25 to facilitate the use of flood waters to recharge California's aquifers by suspending certain requirements of Water Code 1242.1. The suspension only applies to 39 counties (the

SB 122 / CWC 1242.1 Background

- CWC 1242.1 permits local entities to adopt plans to facilitate the dual objectives timely diversions of floodwater to promote groundwater recharge (which addresses future water supply issues) and to address anticipated downstream or localized flood losses

- Review SWRCB Technical Guide at: https://waterboards.ca.gov/waterrights/water_issues/programs/groundwater-recharge/docs/1242-1-tech-guidance.pdf

- Local agency must have considered flood risk as part of an adopted general plan or for urban areas within the Sacramento-San Joaquin Drainage District an adopted local plan of flood control (per CWC 8201)

CWC 1242.1 Restrictions on Diversions

- An adopted local plan needs to be prepared and publically noticed. (1242.1(a)(1))
- Diversions can only be for floodflows to avoid threats to human health and safety. (1242.1(a)(2)(A))
- The floodflow must be likely of imminent escape from a channel or waterbody. (1242.1(a)(2)(B)(i))
- Diversions can not be to protect areas that are intended to be inundated, such as a wetlands, working lands, or floodplains, or water confined to a “designated floodway”. (1242.1(a)(2)(B)(ii))
- Diversions can only be made if the Delta is in excess conditions without restrictions. (1242.1(d))
  https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/State-Water-Project/Operations-And-Maintenance/Files/Operations-Control-Office/Delta-Status-And-Operations/Delta-Operations-Daily-Summary.pdf

Examples of Flood Threats

Flood Threat Type	Examples	Threshold Sources
Previous observed flooding	Flood insurance claim, recorded road closure, livestock evacuation	- NWS E-19 Agreements - FEMA Flood Insurance Study (FIS) - County Emergency Event After Action Reports - Local Hazard Mitigation Plan
Potential flood pathway	Corroding / failing pipe or culvert, flap gate missing or not functioning, levee erosion, recent channel migration	- Elevation of pathway and elevation of nearby stage or flow data - Photographs of area of concern w/ estimated elevation - Distance of channel migration from original centerline
Upstream / downstream waterway change to flow timing	Nearby diversion operation changed resulting in localized increase in water levels, downstream permitted development in floodplain	- FEMA LOMR-Fill documentation
Temporary construction or occupation	Boat ramp replacement / construction, bridge or road construction, levee repair / construction, temporary water intake	- Documentation of floodplain variance (with county or city) - CEQA documentation - Construction site maps w/ elevation

Proof of Concept w/ Sacramento County (Cosumnes River)

Flood Threat: Potential flood pathway → damaged pipe through levee when water reaches 9’ at upstream gauge (data collected from RD800 inspections)

Diversion location: Rancho Murieta Community Services District intake (upstream of flood threat).

Threshold: Forecasted stage at Michigan Bar gauge
(CNRFC forecast)

Plan: Appendix to Sacramento County Emergency Response Plan (in progress)

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Contact Info

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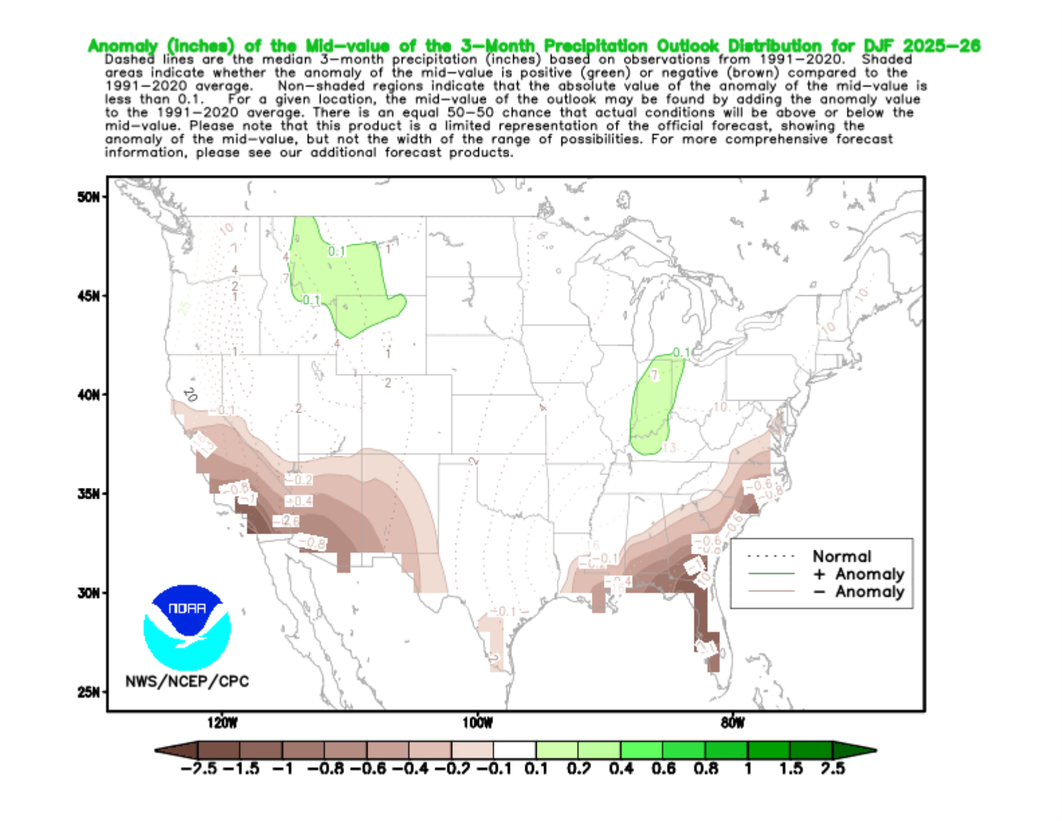

Image: NOAA Climate Prediction Center's 4.5 Month Seasonal Precipitation Outlook

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FEMA Public Assistance Categories

Emergency Work – Must be completed in 6 months

- Category A – Debris removal
- Category B – Emergency protective measures

Permanent Work – Must be completed in 18 months

- Category C – Roads and bridges
- Category D – Water control facilities
- Category E – Public buildings and equipment
- Category F – Public utilities
- Category G – Parks, recreational, and other facilities

ASCE Building Risk Categories

Risk Category	Nature of Building Occupancy
I	Low hazard to human life in the event of failure, including but not limited to: • Agricultural facilities. • Certain temporary facilities. • Minor storage facilities.
II	Buildings and other structures except those listed in Risk Categories I, III, and IV.
III	Substantial hazard to human life in the event of failure, including but not limited to: • Public assembly with an occupant load greater than 300. • Group E occupancies with an occupant load greater than 250. • Educational occupancies for students above the 12th grade with an occupant load greater than 500. • Group I-2 occupancies with an occupant load of 50 or more resident care recipients but not having surgery or emergency treatment facilities. • Group I-3 occupancies. • Occupant load greater than 5,000.[a] • Power-generating stations, water treatment facilities for potable water, wastewater treatment facilities, and other public utility facilities are not included in Risk Category IV. • Buildings and other structures not included in Risk Category IV containing quantities of toxic or explosive materials that:
IV	Buildings and other structures designated as essential facilities, including but not limited to: • Surgery or emergency treatment facilities. • Fire, rescue, ambulance, and police stations and emergency vehicle garages. • Designated earthquake, hurricane, or other emergency shelters. • Designated emergency preparedness, communications, operations centers, and other facilities required for emergency response. • Power-generating stations and other public utility facilities are required as emergency backup facilities for Risk Category IV structures. • Containing quantities of highly toxic • Aviation control towers, air traffic control centers, and emergency aircraft hangars. • Buildings and other structures have critical national defense functions. • Water storage facilities and pump structures are required to maintain water pressure for fire suppression.