
SUBAPPLICATION SUCCESS STORIES

HAZARD MITIGATION SUMMIT 2024

An overview of the selections for BRIC & FMA 2023, as well as highlighting several approved subapplications under HMGP.

12/10/2024

INTRODUCTIONS

- Robyn Fennig, Cal OES
- Stephanie Stephens, FEMA
- Amos Pole, Yurok Tribe
- Brian Deason, El Dorado Irrigation District
- Michael Fam, San Bernardino Flood Control District

BRIC and FMA Success Stories

Stephanie Stephens, Non-Disaster Grants Branch Chief

December 5, 2024



FEMA

Building Resilient Infrastructure and Communities (BRIC) FY23 Overview

BRIC FY2023 Priorities

- Incentivize natural hazard risk reduction activities that mitigate risk to public infrastructure and disadvantaged communities.
- Incorporate nature-based solutions, including those designed to reduce carbon emissions.
- Enhance climate resilience and adaptation.
- Increase funding for the adoption and enforcement of the latest published editions of building codes.



Total Available BRIC Funding in Fiscal Year 2023 - \$1 Billion

Uses of Assistance	\$112M State/Territory Allocation	\$50M Tribal Set-Aside	\$112M State/Territory Building Code Plus-Up	\$25M Tribal Building Code Plus-Up	\$701M National Competition for Mitigation Projects
Management Costs	✓	✓	✓	✓	✓
Capability- and Capacity-Building Activities	✓	✓			
Hazard Mitigation Projects	✓	✓			✓
Building Code Adoption and Enforcement	✓	✓	✓	✓	



FEMA

Federal Emergency Management Agency

BRIC FY2023 Competitive Funding Summary

- \$1 billion in BRIC funding available nation-wide.
- 1,234 subapplications received, reflecting \$5.66 billion in federal share requested
- 656 subapplications selected
 - 46 subapplications selected for Region 9
 - 13 subapplications selected for California
 - **\$215,681,799** (21.5%)
 - 2 subapplications selected for California Tribes
 - **\$2,008,513** (2%)
- *California has received over 20% of BRIC funding since the program was enacted in FY2020*



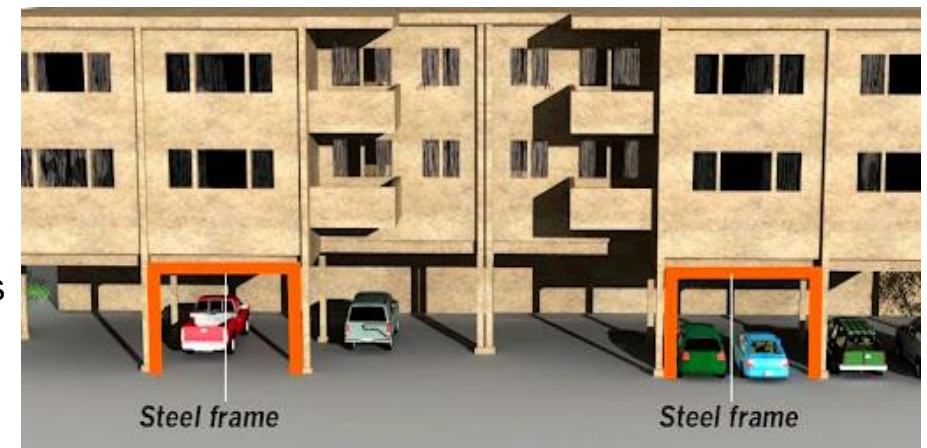
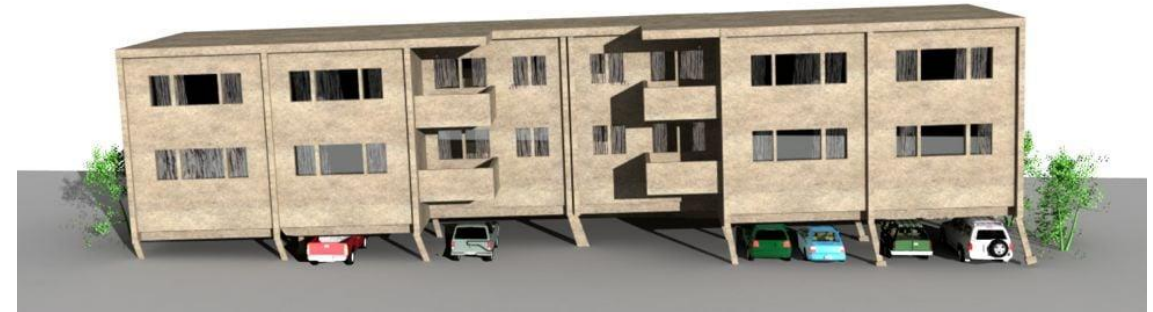
FEMA

BRIC Success Story

- **Funding Source:** BRIC
- **Subrecipient:** California Earthquake Authority (CEA)
- **Project:** Multi-Family Soft-Story Retrofit Program
- **Federal Share:** \$20,200,000
- **Cost Share:** 75/25

- **Project Description:**

- This program offers seismic retrofit grants to building owners of multi-family (5 to 10 units) soft-story apartment and condominium buildings that have not been previously retrofitted. “Soft-story” buildings, built before current building codes, have ground stories that tend to collapse when shaken hard enough. CEA has several ongoing seismic retrofit grants funded under FEMA Mitigation Grant programs which have and will continue to successfully retrofit over 30,000 residential structures in seismically vulnerable communities in California. In FY2021, CEA was selected for \$20.2M in BRIC funding to complete the Multi-Family Soft-Story Seismic Retrofit Program, and in FY2022, CEA was selected for another \$20.2M in BRIC funding, totaling \$40.4M for residential seismic retrofits, keeping California communities safer from seismic hazards.



FEMA

Flood Mitigation Assistance (FMA) FY23 Overview

Flood Mitigation Assistance (FMA) Highlights

- The program reduces or eliminates the risk of repetitive flood damage to buildings insured under the National Flood Insurance Program (NFIP), and within NFIP participating communities
- Is Nationally competitive; offered on an annual application cycle.
- Appropriated annually with at least \$175 million since 2016.
- IIJA more commonly known as the Bipartisan Infrastructure Law provides
- \$3.5 billion over 5 years, or \$700 million per year for Fiscal Year 2022-2026.



Flood Mitigation Assistance Eligibility Requirements

- Subapplicants must participate in the National Flood Insurance Program (NFIP). They cannot be on probation or suspended.
- All structures included in the project subapplications must be insured under the NFIP (before, during, and after the mitigation).
- Mitigation Reconstruction
 - Structures listed in the subapplication must have a National Flood Insurance Program (NFIP) policy in effect at the Flood Mitigation Assistance (FMA) application start date.
 - It must be maintained for the life of the structure regardless of the flood zone.
- Acquisition/Demolition
 - Structures listed in the subapplication must have an NFIP policy in effect at the FMA application start date.
 - It must be maintained until the transfer of property occurs regardless of flood zone.



Verify at [Community Status Book | FEMA.gov](https://www.fema.gov/community-status-book)

FY2023 FMA Available Funding

**\$800
MILLION**

**TOTAL AVAILABLE
FMA FUNDING
IN FISCAL YEAR
2023**

Allocated up to **\$60 MILLION**

1 Capability and Capacity-Building (C&CB) Activities

- › Mitigation Plans
- › Technical Assistance by States to Communities
- › Project Scoping
- › Additional C&CB Activities

Allocated up to **\$520 MILLION**

2 Localized Flood Risk Reduction Projects

At least **\$220 MILLION**

3 Individual Flood Mitigation Projects

Note: Allocated funding amounts may be reduced by up to 10 percent due to the funding of state, tribal, and local management costs.



FEMA

FMA FY2023 Competitive Funding Summary

- \$800 million in FMA funding available nation-wide.
- 386 subapplications received, reflecting \$2.35 billion in federal share requested
- 197 subapplications selected
 - 8 subapplications selected for Region 9
 - 3 subapplications selected for California
 - **\$51,800,000** (6.5%)



FEMA

FMA Success Story - Acquisition

- **Funding Source:** FMA
- **Subrecipient:** Sacramento County
- **Project:** Repetitive Loss Acquisition on Dry Creek Road
- **Federal Share:** \$1,283,715
- **Cost Share:** 90/10

- **Project Description:**
 - The church facility had repetitive flood damage, flooding over 10 times since 1982 with depths ranging from 10 to 43 inches. With FEMA funding, the County purchased the 6,000 SF facility from the owner, and acquired the necessary permits to demolish the structure located in a flood-prone area, thus reducing the risk of flooding to the population the church served. The acquired property will now serve as open space in perpetuity.



FEMA



Notice of Funding Opportunities (NOFOs)

The BRIC and FMA NOFOs are expected to be released this week. Please pay special attention to Cal OES' due dates and deadlines.

There will be no extensions to the FEMA deadlines!

FEMA GO technical issues must be reported to FEMA through the help desk.

(femago@fema.dhs.gov | 877-611 4700)

BCA Helpline: BCHelpline@fema.dhs.gov | 1-855-540-6744

How to Apply

- Eligible Applicants must apply for funding using FEMA Grants Outcomes (FEMA GO) at the FEMA GO Portal.
- Visit FEMA Grants Outcome (FEMA GO) for Hazard Mitigation Assistance Grants to view the technical user manuals and support materials.

Thank you!

Stephanie Stephens

Non-Disaster Grants Branch Chief

FEMA Region 9; Mitigation Division

Email: stephanie.stephens@fema.dhs.gov

Phone: (202) 893-1604



FEMA

The background features a large, semi-transparent seal of the Yurok Tribe. The seal is circular and contains a central figure of a person in traditional dress, surrounded by intricate geometric patterns and symbols. The entire seal is rendered in a dark red color that blends with the background.

YUROK TRIBE'S Prepare California Jumpstart

Presentation by: Yurok Tribe's Office of
Emergency Services Director

Amos Pole



Amos Pole
Director/ Senior Emergency
Manager with the Yurok Tribe,
since 2020.

Disaster responder since 1999 (Megrim Fire)

EMT since 2011

Certified EM since 2016

FFT2 Structural 2009

Tactical Heavy Rescue Tech,

Hazardous Materials Tech Spec. since 2009

Advanced Swift Water Rescue Technician V

Current Hoopa Volunteer fire Chief since 2009

Environmental Water Quality Planner III

Passion for instructional teaching, training for

High/Low angle ropes rescue operations.

CERT Disaster preparedness instructor

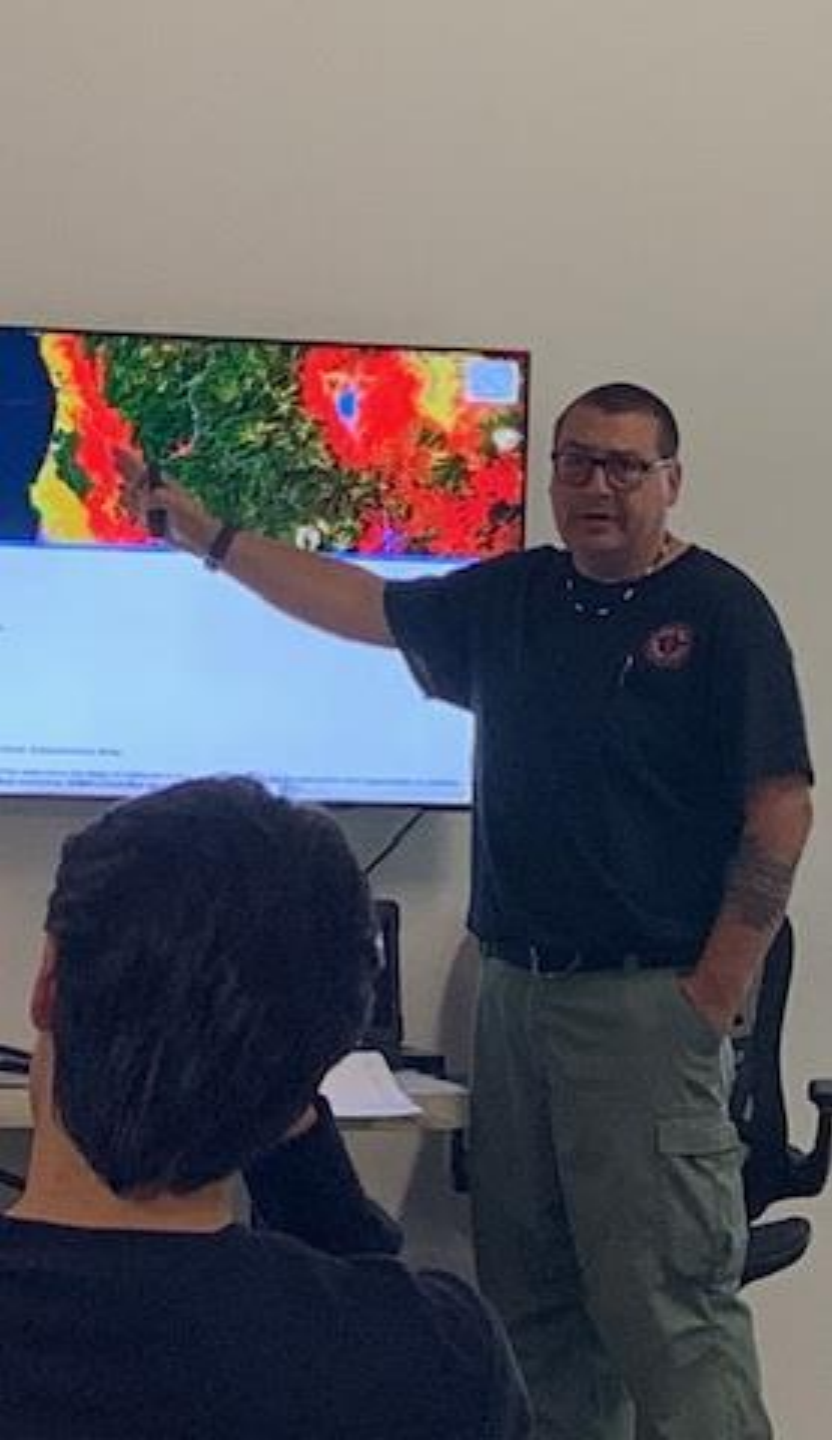
INTRODUCTION

The Yurok Tribe OES, Planning Process! Where do we start?

The Yurok tribe OES director implemented a 5-year strategic plan to prioritize emergency plans and development of a mission and vision for the Yurok Tribes emergency management. This strategic plan reflects the goals the department will accomplish to provide the best avenue possible to support the Yurok Tribal members and surrounding community before, during and after disasters.

Keeping this process as simple and achievable as possible were to focus on 5 strategic goals throughout a five (5) year timeframe.





5 Strategic Goals

1. Develop a comprehensive planning strategy encompassing the threats & hazards for the Yurok Reservation for prevention, protection, mitigation, response and recovery.
2. Ensure optimal preparedness, response and recovery to all emergencies and disasters within the jurisdiction boundaries of the Yurok Tribe through a robust training and exercise program.
3. Coordinate prevention, protection, mitigation, response and recovery actions involved with all hazards or special events.
4. Serve as the tribes leading expert in contemporary EM strategies, policies while innovative solutions to support emergency management and expanding responsibilities.
5. Strengthen community outreach and educational efforts through programs and initiatives that promote resilience for communities. Businesses, and individuals within the boundaries of the Yurok Reservation.

How to tie together
the Yurok Tribe's
OES strategic
planning and 2022
Prepare California
Jumpstart
application?



Prepare California Jumpstart

1. Developing a job description and position that is equitable, multifaceted, integrated, and a collaborative concept that crosses multiple disciplines and departments.
2. Ensuring the position has the responsibility of working across all sectors and silos of the tribal government so that key decision makers are connect important strands of work.
3. Hazardous Mitigation – Help to shape the thinking process, how decisions and priorities affect the ability of the community and tribe to survive a disaster, but to adapt, grow and thrive no matter that circumstances that are experienced.

Yurok Tribes - Chief Resiliency Officer

The CRO – Chief Resiliency Officer was developed the serve as a high-level adviser to the emergency manager, public safety's division leads and the tribal executive director, tribal council and agency administrator & Tribal Chairman. The CRO would somewhat be like a conductor, drawing all the parties together to building synergy and to build sustainability. To act as the multifaceted and integrated lead to bring project ideas together and conduct the collaborative strategies and goals of resilience and hazardous mitigation throughout internal organizational entities and external partners on the platform of preparedness, collaborative partnership and hazardous mitigation and ultimately resiliency.

**Schedule of details and performance periods,
Important details for major initiatives and
deliverables!**

- 1. Comprehensive approach:** Considering the account of all hazards in all phases and all stakeholder and the impacts relevant to each disasters and how this can be managed by the proposed application.
- 2. Progression:** Anticipate future disasters & take preventive, preparatory measures to build disaster-resistant and disaster resilient communities
- 3. Risk-Driven:** Use of sound risk management principles in assigning priorities and resources. (i.e., Hazard identification, risk analysis, and impact analysis).

**My recommendation is using achievable strategic goals
and objectives from an and developed plan.**

- 4. Integrated:** Ensure unity of efforts among all levels of government and all elements of a community.
- 5. Collaborative:** This crates, sustains broad and sincere relationships among individuals, organizations and facilitates communications.
- 6. Coordinated Efforts:** synchronizes the activities of all relevant stakeholders to achieve a common purpose.
- 7. Outreach & Community Involvement:** Strengthening all community outreach and education efforts through programs, initiatives and trainings that promote resilience for communities, businesses, and individuals within the community as an all-hazard approach...





CONCLUSION

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Questions?

Yurok Tribal Office of Emergency Services

Amos J. Pole



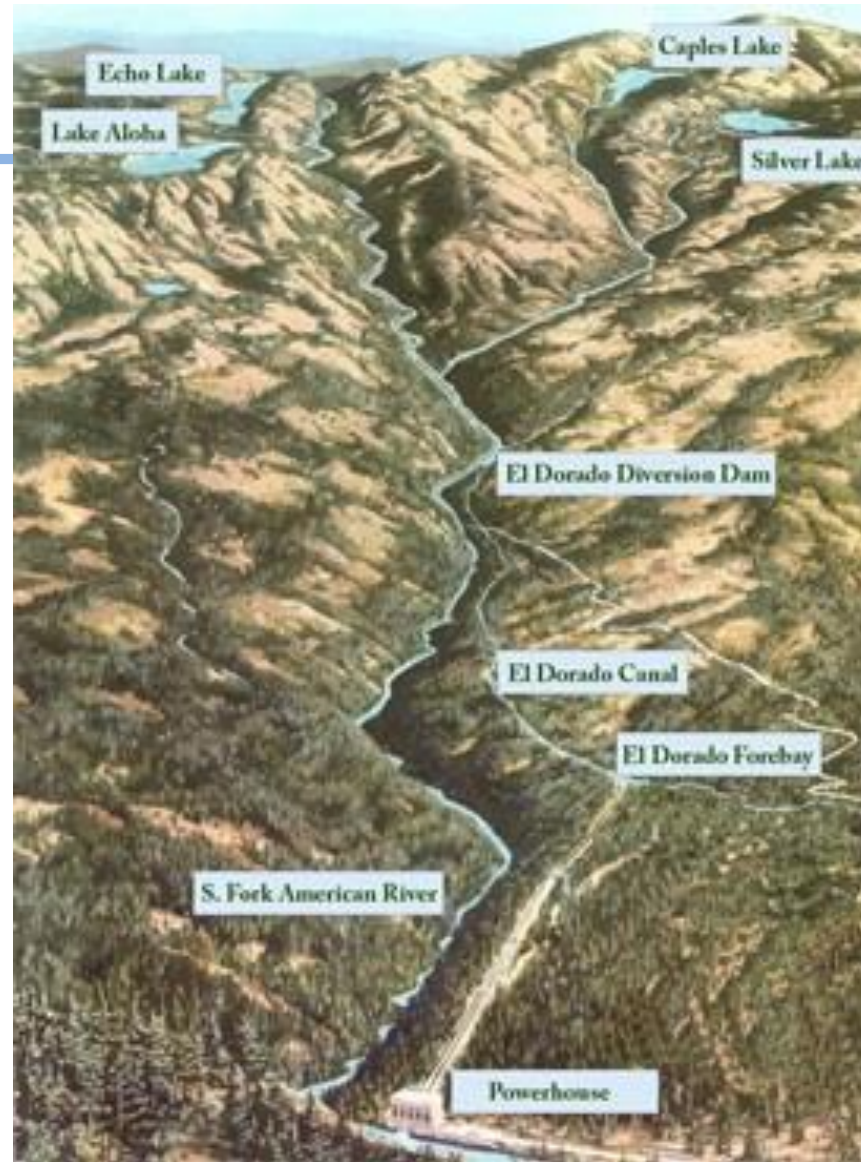
EL DORADO IRRIGATION DISTRICT

CRITICAL WATER SYSTEM
INFRASTRUCTURE PROTECTION PROJECT

December 5, 2024

El Dorado Canal

- Consists of various conveyance structures (flumes, canals, tunnels, siphons) to convey raw water diverted from the South Fork American River
- Provides approximately 1/3 of the total drinking water supply
- Provides clean renewable energy through a 21-megawatt hydroelectric generation facility



Hazards

- Failures or damages to critical raw water conveyance system can occur from wildfires, rockfalls, landslides, or tree and ice damage



Caldor Fire

Wood-constructed flume along the El Dorado Canal pre-fire



Caldor Fire

Wood-constructed flume completely destroyed



Mitigation Activity

Reconstructed with more durable ignition resistant concrete



Critical Water System Infrastructure Protection Project

- Flume 45 is a 900-foot long water conveyance structure of EID's water delivery system
- Constructed of wood
- Highly susceptible to damage and destruction by natural hazards



Critical Water System Infrastructure Protection Project



Critical potential failure location due to site-specific characteristics

- Located in steep heavily forested terrain
- Requires a significant amount of foundational reconstruction to meet current factors of safety
- Remote location makes construction and access challenging

Building Resilient Infrastructure and Communities Grant Program

Phased Project

- Phase 1 – Complete design and environmental review
 - Total cost = \$348,661
 - \$248,909 Federal share; \$99,752 District share
- Phase 2 – Construction
 - Total Cost = \$9.3M
 - \$6.6M Federal share; \$2.7M District share

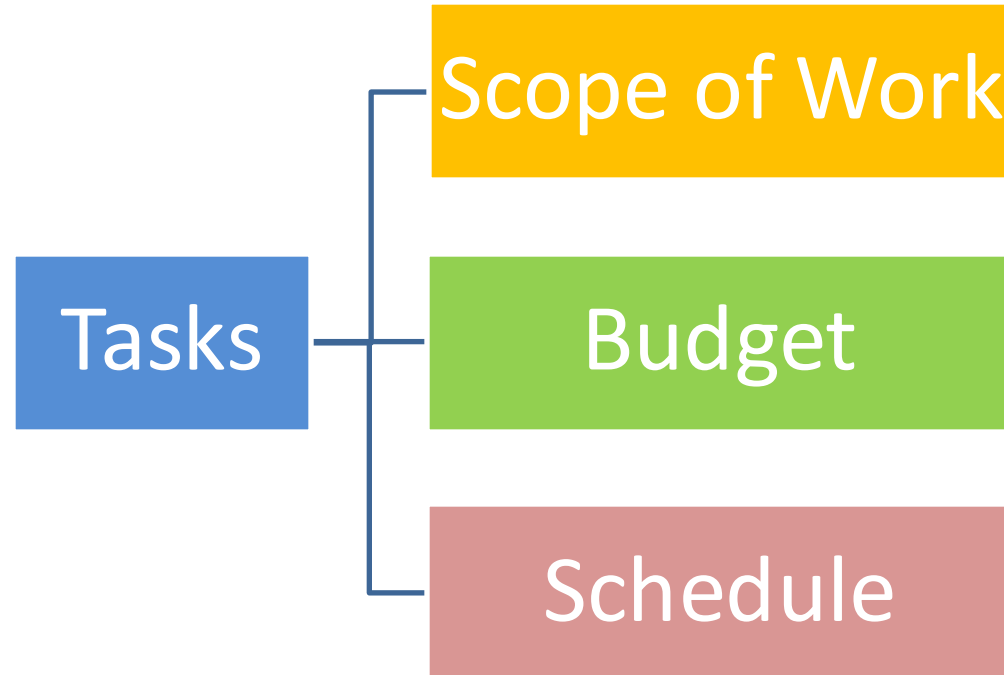


Lessons Learned – Consistency

Ensure all tasks are consistent throughout application

Example – Phase 1 Tasks

1. Project Management
2. Design
3. Environmental Review
4. Construction
Procurement Package
5. Phase 1 Deliverables



Lessons Learned – Justification

Provide ample details to justify costs

Example – Management costs

- Identify staff positions, responsibilities, and estimated hours
 - Verifying compliance with federal procurement requirements
 - Verifying consultant deliverables meet project requirements
 - Reviewing all consultant invoices for accuracy
 - Authorizing payments
 - Maintaining an up-to-date budget and schedule
 - Compiling information for reporting and reimbursement
 - Records retention and financial reporting
 - Preparation of quarterly progress reports



Lessons Learned – Procurement

Follow federal procurement requirements (2 CFR 200)

- Plan ahead for projects that may be eligible for grant funding
- Ensure pre-award activities meet requirements
- Divide project activities/services and establish delivery schedules to encourage participation by small and minority businesses, and women's business enterprises
- Ensure that procurement process and documents comply with federal requirements
- Seek CalOES review/expertise regarding compliance
- Document compliance



Thank you



SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT – DEL ROSA CHANNEL HARDENING PROJECT

PRESENTER

MICHAEL B. FAM, P.E., CFM

CHIEF, FLOOD CONTROL PLANNING/ WATER RESOURCES

DECEMBER 5, 2024



OUTLINE

- Introduction
- Project Overview
- Subapplication Development
- Experience & Challenges
- Lessons Learned
- Current Status & Next Steps



INTRODUCTION

- Del Rosa Channel is an interim rectangular concrete (upper reach) and earthen channel with rail and wire revetment (lower reach)
- The channel is over 60 years old – constructed between 1938-1960's
- Flooding is the hazard being mitigated with small to medium (5-year to 25-year) storm events causing flooding due to undersized culvert crossings and channel sections
- Bank erosion is also a major concern during storms due to the proximity to homes
- 1% Annual Exceedance Probability (AEP) Deficiency Ratios (Design Flow/Existing Capacity) for the channel are 1.35-10.62





HAZARD MITIGATION SUMMIT 2024

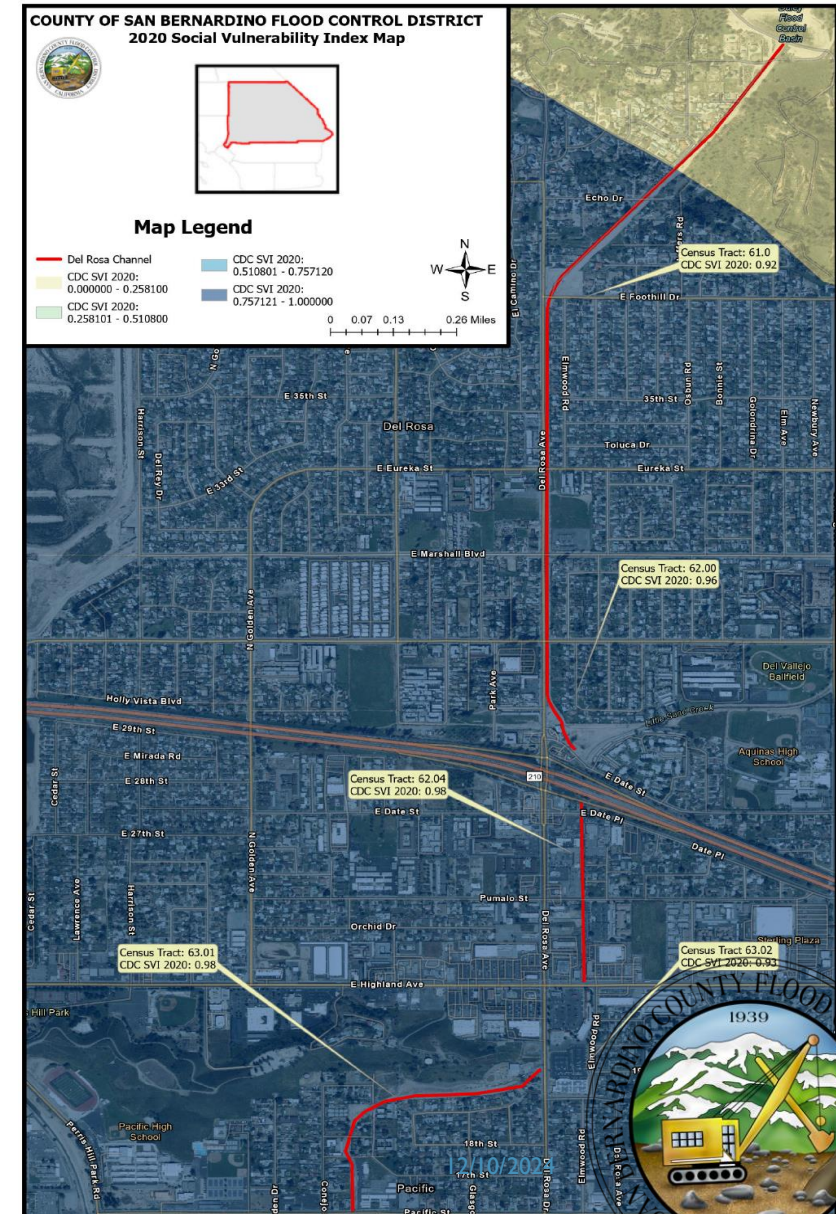


12/10/2024



INTRODUCTION

- Located in an extremely disadvantaged community with all census tracts having a socially vulnerable index of 0.94-0.98
- Total hazard percentile ranges from 0.84-0.92
- This community lacks the infrastructure needed to protect from these flooding hazards

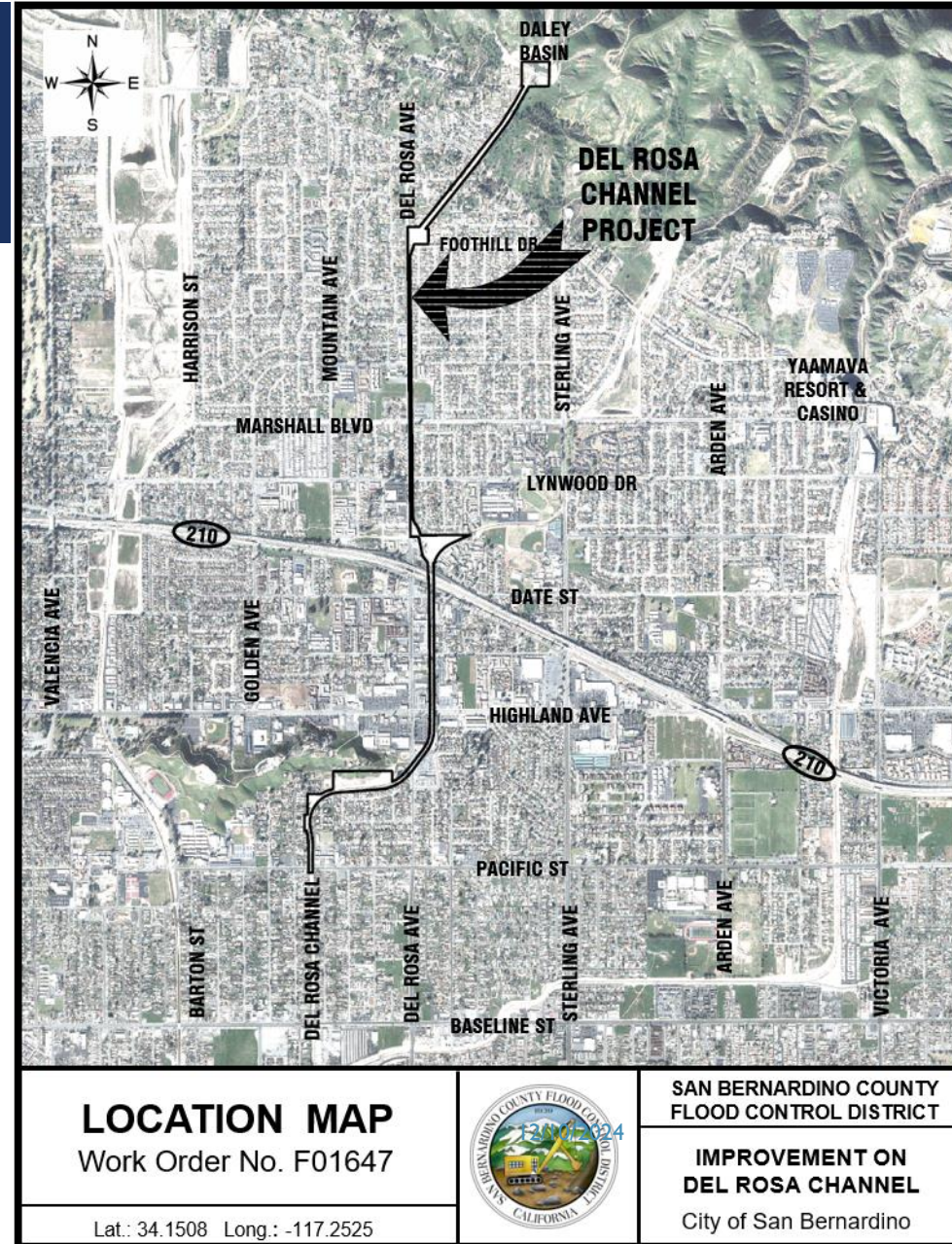


PROJECT OVERVIEW

- Reconstruct the channel to convey flows from a 100-year (1% AEP) storm event with adequate freeboard, 1,800-5,000 cfs
- Project length is approximately 2.5 miles from Daley Basin in the north to Pacific Street at the south end
- Project Estimate: \$66,250,000 (2022)



HAZARD MITIGATION SUMMIT 2024



SUBAPPLICATION DEVELOPMENT

- Phased Project
 - Phase 1 – Hydrology & Hydraulics (H&H), Geotechnical, CEQA, 90% Design including plans, specifications, and cost estimate, and Final BCA
 - Phase 2 – Final Design & Construction
- The subapplication consisted of preparing the Scope of Work (SOW), Cost Estimate, Schedule, EHP Checklist, and Benefit Cost Analysis (BCA)
- Schedule – 36 months for both Phase 1 & 2 (new subapplications can now have 48 months)
- Requested 75% Federal to 25% Local Cost Share



SUBAPPLICATION DEVELOPMENT

- Ensure the SOW, Cost Estimate, and Schedule all match
- We had to clearly demonstrate how this proposed project would reduce the flooding hazards and benefit the community
- Clearly describe community demographics, social vulnerability and risk to hazards in the benefitting area
- Identify proximity to structures, infrastructure, and critical facilities
- Environmental & Historic Preservation (EHP) Information Checklist
 - Much more detail required than previously
 - Make sure to identify and potential ground disturbance in Phase 1 (prior to NEPA)



SUBAPPLICATION DEVELOPMENT

- Benefit Cost Analysis (BCA)
 - Analyzed 100-year & 10-year events before mitigation using 2D HEC-RAS to obtain inundation boundaries
 - Using ArcGIS Pro, the inundation boundaries were overlaid with the assessor's parcel and building footprints layers
 - Damages before mitigation were determined by multiplying the building footprint by the default \$100/SF and by the depth damage function (DDF) percentages for the building and contents
 - Damage after mitigation used was \$0 (now use 10% of pre mitigation damages)
 - Used FEMA Benefit Cost Calculator V.6.0 to determine the BCR
 - Benefit Cost Ratio (BCR) – 3.11



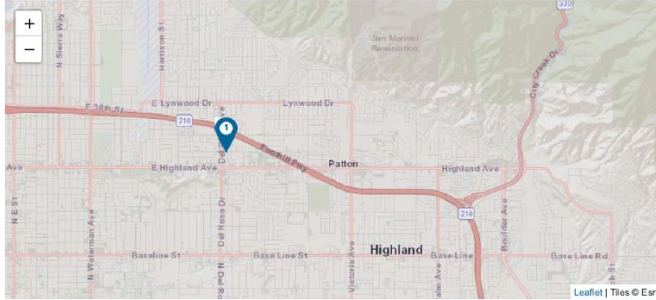


FEMA

Benefit-Cost Calculator
V.6.0 (Build 20220513.1658 | Release Notes)

Benefit-Cost Analysis

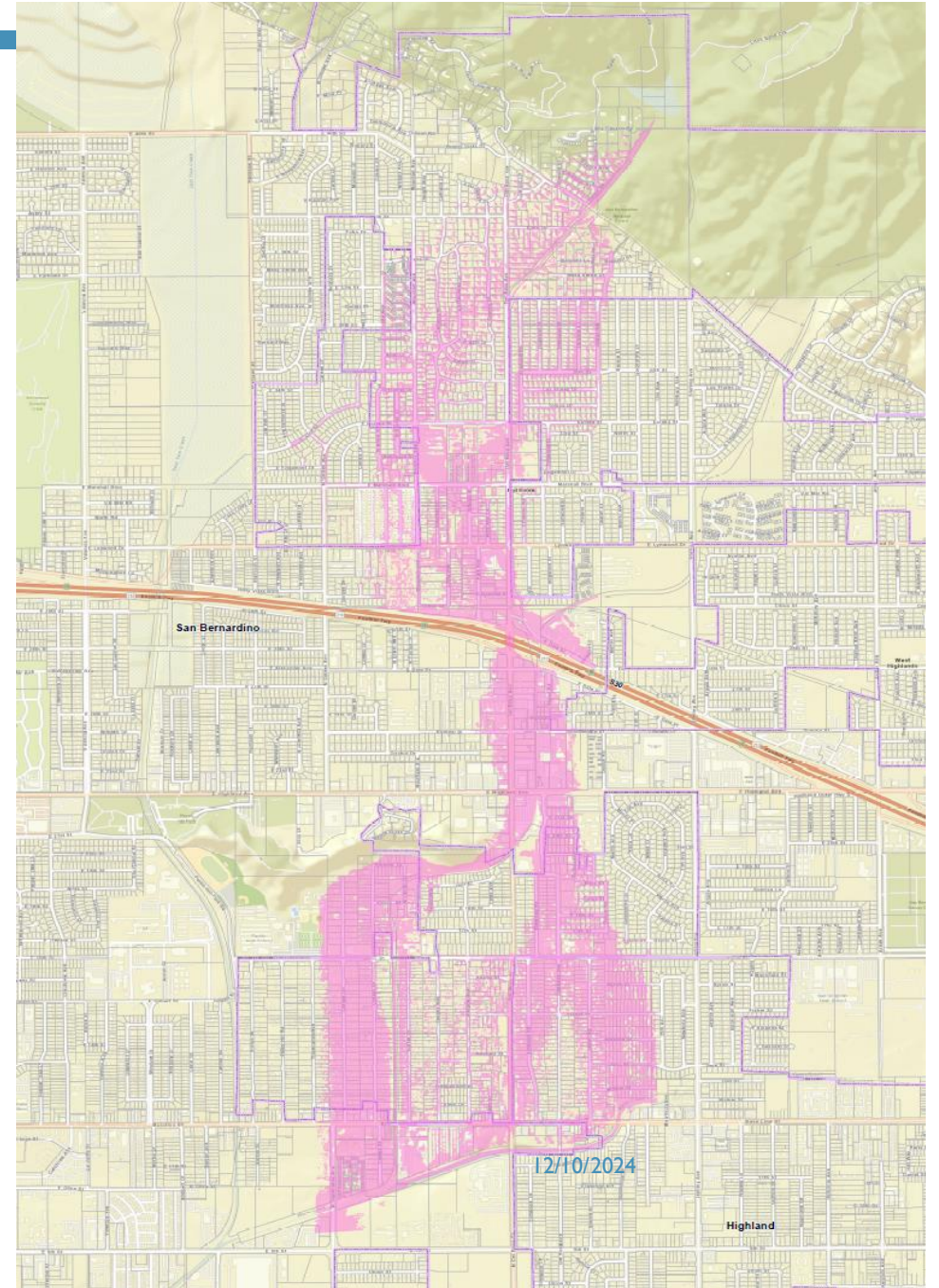
Project Name: Del Rosa Channel 5/25/2022 (Z=1 ft)



Map Marker	Mitigation Title	Property Type	Hazard	Benefits (B)	Costs (C)	BCR (B/C)
1	Drainage Improvement @ 34.1383330, -117.2513890		DFA - Riverine Flood	\$ 206,577,561	\$ 66,526,015	3.11
TOTAL (SELECTED)				\$ 206,577,561	\$ 66,526,015	3.11
TOTAL				\$ 206,577,561	\$ 66,526,015	3.11

100-YR DAMAGE SUMMARY (DAMAGES before MITIGATION)

Building Category	# of Structures Flooded	BRV	Damage Category	BRV	DDF %
APT	33	\$20,174,851	Bldg	\$2,521,856	12.50%
			Cont	\$4,438,467	22.00%
			Total - AGR	\$6,960,324	
COMM	431	\$193,825,428	Bldg	\$22,871,401	11.80%
			Cont	\$40,703,340	21.00%
			Total - COMM	\$63,574,740	
IND	0	\$0	Bldg	\$0	11.90%
			Cont	\$0	19.00%
			Total - IND	\$0	
RES	2,045	\$389,818,199	Bldg	\$59,252,366	15.20%
			Cont	\$33,914,183	8.70%
			Total - RES	\$93,166,549	
TOTAL	2,509	\$603,818,478		\$163,701,614	



EXPERIENCE & CHALLENGES

- You learn a great amount a valuable information, resources, and tips through the entire process
- The last couple of days can be a little overwhelming and challenging
- Once submitted, there is a great sense of accomplishment and relief
- There is no greater accomplishment then receiving an award letter from CalOES and FEMA



LESSONS LEARNED

- Make a very conservative schedule
- Estimate construction costs 4-5 years in the future for phased projects
- BCA's can be very time consuming
- FEMA can increase the Federal share – we asked for 75% and they awarded 90%; because being a disadvantaged community?
- CalOES is a great resource during the entire process



CURRENT STATUS & NEXT STEPS

- Awarded Phase 1 in December of 2023
- Federal Cost Share: 90%, Local Cost Share: 10%
- Currently we are working towards 65% design including surveying, plans, specifications, utility coordination, and environmental
- We plan on starting the final BCA in Summer 2025
- Anticipate closing out Phase 1 in late 2025



Questions?

