



October 21, 2024

Monthly Members Meeting Minutes

Attending

Valley Water: Kurt Lueneburger, Sepi Bahrami, Katie Muller

Contra CC: Mark Boucher, Tim Jensen, Sara Duckler

Sonoma Water: Keenan Foster, Carlos Diaz, Candace Messner, Jessica Martini-Lamb, David Manning

Santa Cruz: Antonella Gentile

San Mateo One Shoreline: Johnathan Persho

Marin: Judd Goodman

Zone 7: Elke Rank, Jeff Tang

PRFMA: Greg Wilson

Vallejo: Natalie Muradian

Army Corp: Tami Churc

BCDC: Jenn Hyman

Orange County: Jennifer Shook

Jennifer Krebs - BAFPAA Staff

1. Introductions

2. Admin Updates - Carlos

- a. Water Board & BAFPAA members met in September, Roger Leventhal presented "Mud on the Move"
- b. Leadership team will discuss updating the BAFPAA strategic plan next month and bring it to members. If members have questions or comments, call Jennifer or Carlos
- c. Opening nominations for BAFPAA leadership next month with voting in December. If you're interested, let Carlos know.

3. Jennifer Shook, Orange County concerns about CDFW, and concerns about overreach.

- a. Several BAFPAA members heard her presentation at CEAC. Setting up endowments for endangered species is time-consuming, expensive. The Army Corps accepts letters of assurance.
- b. Setting up endowments is time-consuming, expensive. Local governments don't have a history of non-compliance.
- c. Jennifer is trying to set up a group to move this issue forward. 7 counties in SoCal are interested. They are trying to get the ear of agencies.
- d. Valley Water set up a HCP that they use for mitigation. Land Trusts are not wanting to take on conservation easements.
- e. Carlos asked that Jennifer keep us in the know as to next steps. Or reach out to Jennifer.

4. Jenn Hyman, BCDC, The Importance of Collaborating on Coastal Flood Protection - BCDC reviews projects in Coastal Zone & sets permit conditions. Jenn is happy to set up pre-application meetings and help. A take away from hurricane Katrina - different parishes had different standards and where the parishes met there were

problems. What would a Bay-wide flood protection system be? One Shoreline is asking municipalities to exceed FEMA standards.

5. Committee Updates

- a. Environmental Permitting Committee - Meeting again 11/6
- b. Restoration Authority - Attachment from Paul Detjens
- c. Silver Jacket, Army Corps - Tami Church - Silver Jackets had a meeting last week. Levee owners workshop. Paul Detjens spoke. Army Corps assumes more funding soon - reach out to Tami with project ideas.
- d. AQPI - DWR gave a grant extension to 2026.

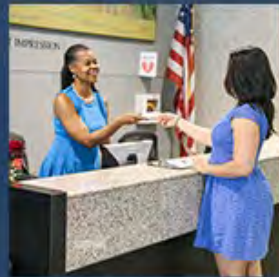
6. Next Meeting Topics???

- a. Round robin on summer work
- b. CHARG white paper in October?
- c. November - Homeless encampments, - 5 minutes each agency of new issues, ongoing problems

7. Treasurer's Report - Dues went out after the last meeting. Several counties have paid. Working on a new administrative services contract.

8. Next Meeting - 11/18 at 1:30

Endowments and Conservation Easements What do they mean to Counties?

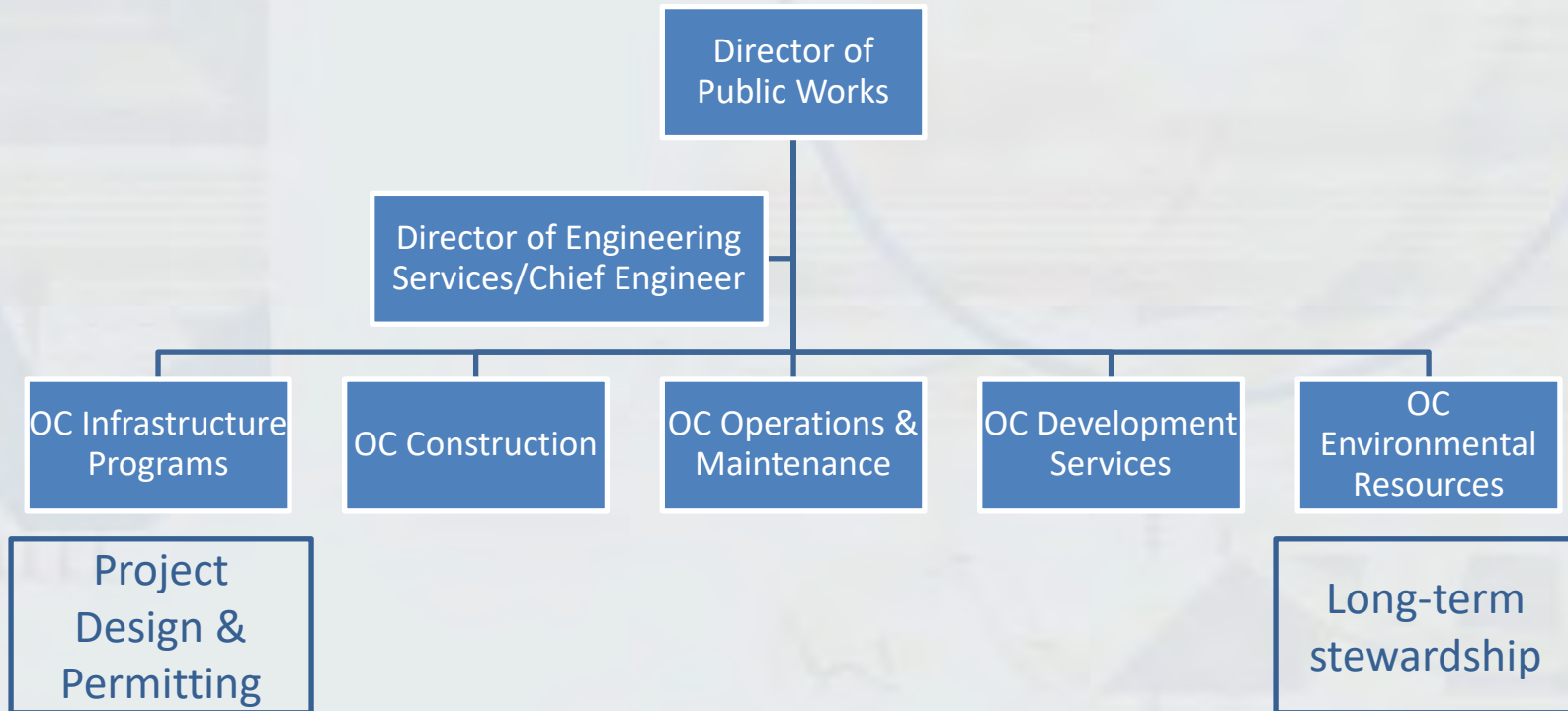


August 23, 2024

CEAC Flood Control & Water Resources Policy Committee

Introduction

Jennifer Shook
Regulatory Compliance Manager
Mitigation Program



Presentation Overview

ENDOWMENTS – When they are required and the impact to Counties

- California Code of Regulations & Fish and Game Code
 - Endangered Species Act / Incidental Take Permit
 - Financial Assurance
- Alternatives to endowments
- Fiscal and other impact to counties



Presentation Overview

CONSERVATION EASEMENTS – The challenge with finding third-party grantees

- Fish and Game Code & California Civil Code
 - Conservation Easements as defined in code
 - The challenge with finding grantees

CASE STUDIES HIGHLIGHTING THE CHALLENGES

NEXT STEPS

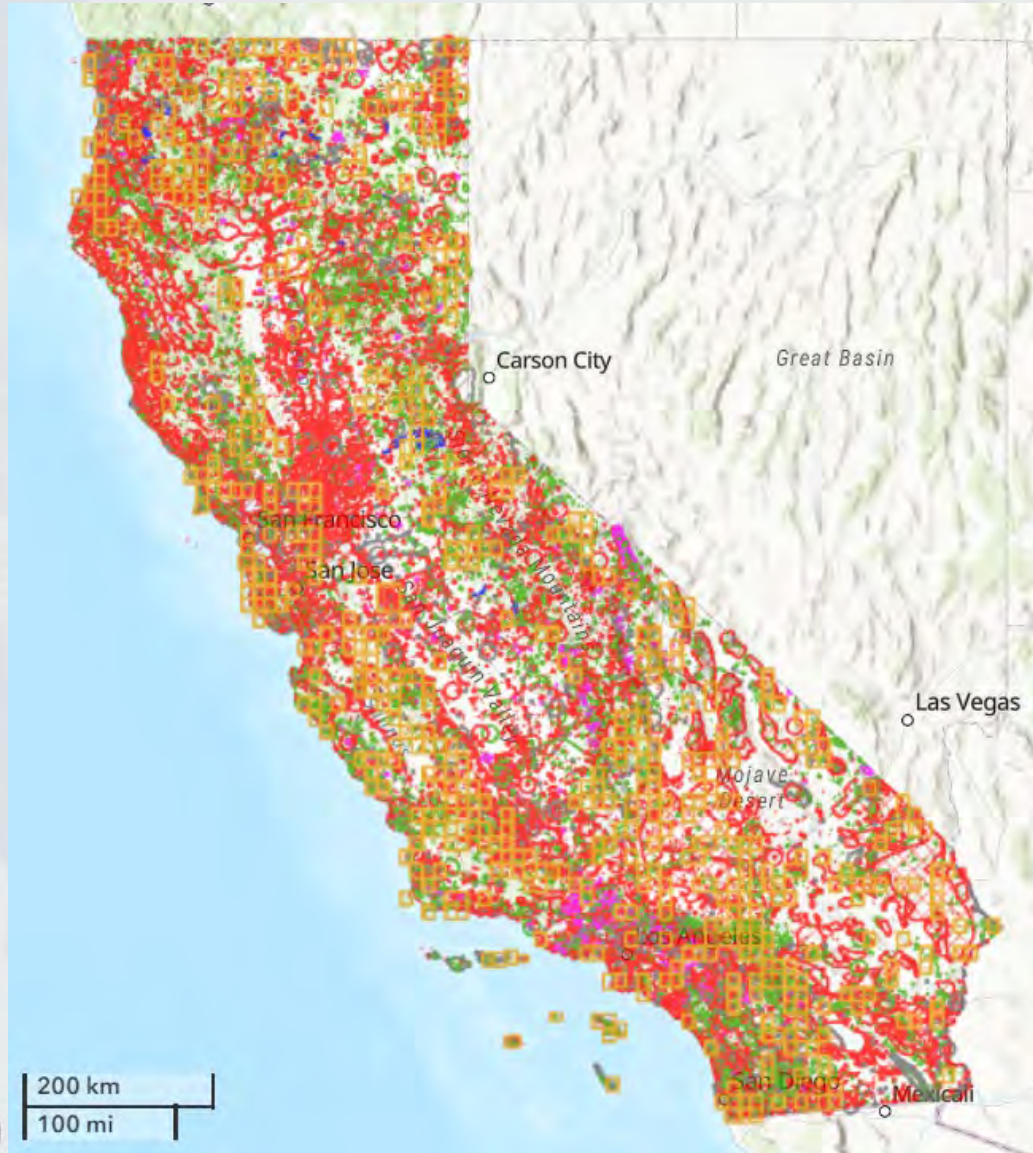


BACKGROUND

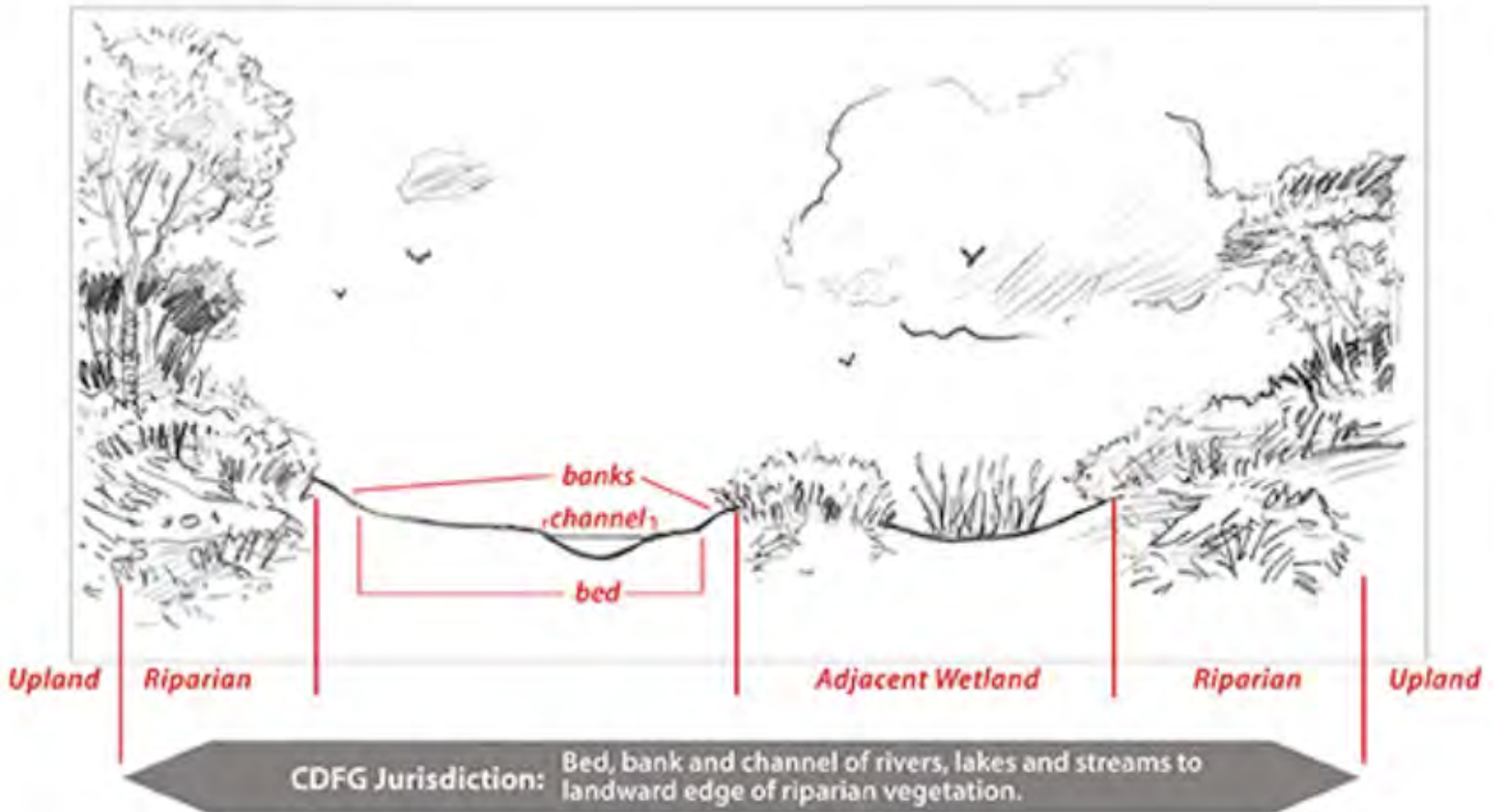


CDFW Jurisdiction - CESA

California Endangered Species Act



CDFW Jurisdiction – Streams/Channels



Source: Wetland Project Permitting Guide; http://pwaportal.ventura.org/ONESTOP/ESD/Wetland_Project_Permitting_Guide_in_Ventura_County.pdf



Little Hoover Commission



The Little Hoover Commission, formally known as the Milton Marks “Little Hoover” Commission on California State Government Organization and Economy, is an independent state oversight agency created in 1962. The Commission’s mission is to investigate state government operations and policy, and – through reports and legislative proposals – make recommendations to the Governor and Legislature to promote economy, efficiency and improved service in state operations.

<https://lhc.ca.gov/>



ENDOWMENTS



Evolution of Endowments

CDFW has required endowments since 1991 to ensure long-term management of mitigation lands. It is well established, and **commonplace for California Endangered Species Act (CESA) permits**, mitigation and conservation bank agreements, and Natural Community Conservation Programs (NCCPs) to require endowments to ensure long-term management. It has been rare for Lake and Streambed (LSA) Agreements to require permanent land protection and associated endowment.

Source: Kevin Hunting, Chief Deputy Director, CDFW; written testimony to Little Hoover Commission; January 31, 2017



California Code Requirements for Funding

“fully mitigated”

“ensure adequate funding”

“description of funding source
and the level of funding
available”



Fully Mitigated Standard

“When a project is done the assumption is it’s a permanent impact for a species. Mitigation has to be permanent, too.”

Source: Steven Ingram, Senior Staff Counsel and Tribal Liaison, CDFW; Little Hoover Commission Report on Improving State Permitting for Local Climate Adaptation Projects (Report #238); June 2017



When and Why Endowments are Required

YES – if not
purchasing
bank credits

Is An Endowment Required?

Yes – if CDFW requires the project proponent to purchase, transfer, or protect lands to mitigate impacts to CESA-listed species.

No – if CDFW requires the project proponent to purchase credits at a conservation or mitigation bank.

YES – to
manage land
in perpetuity

Does CDFW Always Require An Endowment For The Long-Term Stewardship Of Mitigation Lands?

Yes. If CDFW requires a project proponent to purchase, transfer, or protect land to offset adverse impacts to fish and wildlife, state law requires the creation of a fund for the sole purpose of managing that land in perpetuity. That fund must meet the definition of an endowment (Gov. Code, § 65965, subd. (a)) and shall meet the following criteria:

1. The endowment shall be held, managed, invested, and disbursed solely for, and permanently restricted to, the long-term stewardship of the specific property for which the funds were set aside.
2. The endowment shall be calculated to include a principal amount that, when managed and invested, is reasonably anticipated to cover the annual stewardship costs of the property in perpetuity.
3. The endowment shall be held, managed, invested, disbursed, and governed as described in subdivision (a) of Section 65965 consistent with the Uniform Prudent Management of Institutional Funds Act (Part 7 (commencing with Section 18501) of Division 9 of the Probate Code).

In the context of mitigation lands, endowments are restricted and specifically defined in Government Code section 65956 as funds that are conveyed solely for the long-term stewardship of a mitigation property, and permanently restricted to paying the costs of long-term management and stewardship of the mitigation property for which the funds were set aside.



Agency Discretion on Financial Assurance

CDFW requires permittees to provide a performance security to ensure that mitigation obligations are satisfied. While some entities assert that the security may pose a financial burden on them, CDFW is required by the Fish and Game Code to obtain financial assurances to ensure the obligations are timely and successfully implemented.

Government Code section 65966 subdivision (b) states that endowments are not the only method for ensuring funding for long-term stewardship of mitigation land; however, the statute does not clearly define an alternative that is capable of perpetual financial support to maintain mitigation lands. In the absence of an established set of alternative mechanisms, the Government Code reserves discretion to determine the appropriate mechanism to the regulatory agency requiring the mitigation.

Source: Kevin Hunting, Chief Deputy Director, CDFW; written testimony to Little Hoover Commission; January 31, 2017



Alternatives to Endowments - Banks

Animals	Designation	Totals
	State listed – Endangered	55
	State listed – Threatened	43
	State Candidate for listing	10
	<i>Total</i>	108

Listing Status Summary; July 2024

Plants	Designation	Totals
	State listed – Endangered	137
	State listed – Threatened	23
	State listed - Rare	64
	State Candidate for listing	2
<i>Total</i>	226	

Listing Status Summary; July 2024

Species covered by a Conservation Bank
Alameda whipsnake
Blunt-nosed leopard lizard
Burrowing owl
California gnatcatcher
California red-legged frog
Desert tortoise
Englemann oak
Giant garter snake
Longfin smelt
Mohave ground squirrel
Salmonids
San Diego barrel cactus
San Diego thorn mint
San Joaquin kit fox
Swainson's hawk
Tipton kangaroo rat
Tricolored blackbird
Western Joshua Tree
Western Spadefoot toad

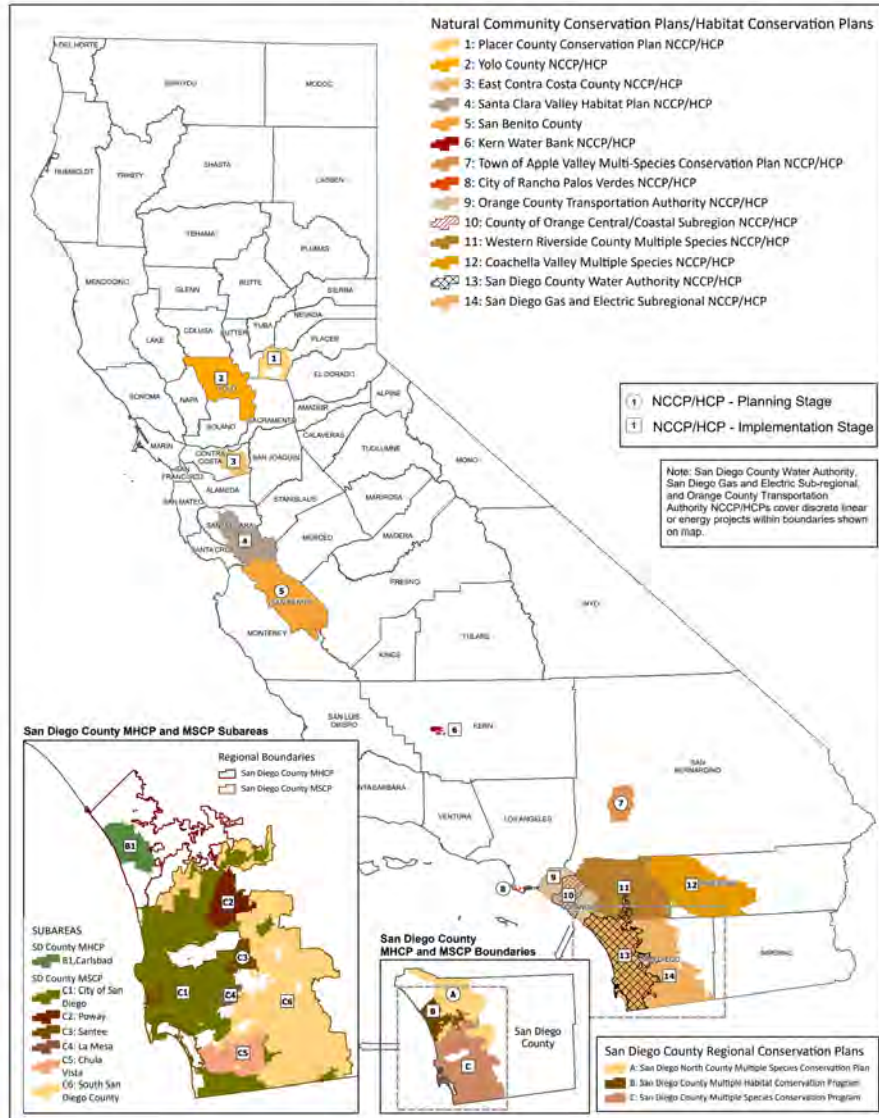
19 species currently have credits available in a conservation bank for purchase



Alternatives to Endowments - NCCPs

CALIFORNIA NATURAL COMMUNITY CONSERVATION PLANS

August 2023



Natural
Community
Conservation
Plans

17 approved
NCCPs

Alternatives to Endowments – Escrow Agreement & Pledge of Revenue

Agreement No. D10-011

ESCROW AGREEMENT

1
2 THIS ESCROW AGREEMENT (hereinafter referred to as "AGREEMENT"), for
3 purposes of identification hereby
4 of August, 2010, is by an
5 subdivision of the State of Calif
6 "COUNTY"), the Treasurer-Tax Colle
7 referred to as "ESCROW AGENT"), an
8 Fish and Game (hereinafter referre
9 ESCROW AGENT establishing and the
10 held by the ESCROW AGENT for the p
11 contingency fund equivalent to thr
12 the wildlife corridor habitat miti
13 fully defined herein, associated w
14 Project, establishing the terms an
15 held in the escrow account by DFG
16 matters as are expressed herein.

RESOLUTION OF THE BOARD OF SUPERVISORS OF ORANGE COUNTY, CALIFORNIA August 24, 2010

WHEREAS, County of Orange (COUNTY) intends to construct the Alton Parkway Extension and associated flood control improvements between Irvine Boulevard and Commercentre Drive in the cities of Irvine and Lake Forest (Project) and has negotiated appropriate mitigation for this action with the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service and the California Department of Fish and Game (DFG); and,

WHEREAS, the mitigation for the Project as agreed upon between COUNTY and DFG consists of the construction of the wildlife movement corridor and non-native invasive plant removal and enhancement of off-site mitigation lands pursuant to the Project's final approved Habitat Mitigation Monitoring Program; and,

WHEREAS, this Resolution establishes a Pledge of Revenue to guarantee the successful implementation of the non-native invasive plant removal and enhancement of off-site mitigation lands and long term management of the wildlife movement corridor; and,

WHEREAS, the U.S. Fish and Wildlife Service (USFWS), Carlsbad Office, issued a Biological Opinion (BO) to the U.S. Army Corps of Engineers for the effects of the Project on the least Bell's vireo (*Vireo bellii pusillus*, "vireo") and the Coastal California Gnatcatcher (*Poliptila californica*, "gnatcatcher") that, based upon the Biological Assessment, determined that the level of anticipated take is not likely to result in jeopardy to the vireo and that there is no impact to gnatcatcher critical habitat; and,

WHEREAS, the BO contains specific conservation measures that are intended to mitigate for the effects of the Project on the vireo and vireo critical habitat including but not limited to the construction of the wildlife movement corridor and non-native invasive plant removal and enhancement of off-site mitigation lands; and,



Alternatives to Endowments – Cash/Credit/Bonds

Financial Assurances

Other forms of financial assurances that CDFW may accept:

- Cash deposit
- Letter of Credit issued by insurance company
- Surety Bond
- Demand Guarantee

Endowments - Fiscal Impacts to Counties

- \$ Acquire land
- \$ Dedicate easement
- \$ 3rd Party holder Land Trust
- \$ Habitat restoration
- \$ Monitoring
- \$ Compliance inspections
- \$ Management
- \$ CDFW processing fees
- \$ Holding fees
- \$ Annual expenses

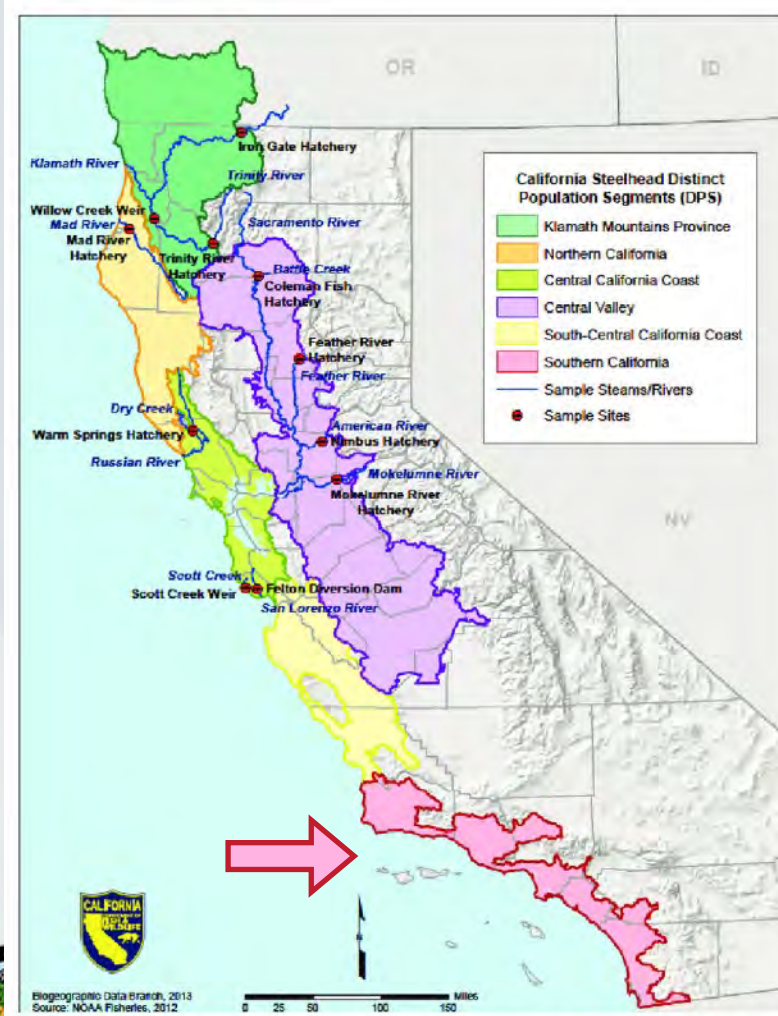
Applicant must determine total lifetime cost of mitigation **in perpetuity** = “Property Analysis Record” PAR

Applicant must submit Financial Assurance upfront ...*and also...* perform the land acquisition and restoration measures.

Even if the County owns the land that will be used for mitigation, their endowment still needs to include funding to purchase an “alternative site” in the event the County-owned property does not work out.

Other Impacts to Counties – New Listings

Southern Steelhead Trout
Added to State Endangered List in 2024



The six steelhead trout District Population Segments and locations of study sampling sites in California.

4 Species of Bumble Bees
Candidate status in 2024



Other Impacts to Counties - Discretion

Lack of standardized mitigation ratio calculations and discretion exercised by each region can lead to differing interpretations across the State, permitting delays, protracted legal reviews and ultimately distrust and overreach.



CONSERVATION EASEMENTS



Conservation Easements

California Code, Fish and Game Code - FGC § 1797.5

(e) “Conservation easement” means a perpetual conservation easement, as defined by **Section 815.1 of the Civil Code**, covering the real property that comprises the bank site.

California Civil Code § 815.1

For the purposes of this chapter, "conservation easement" means any limitation in a deed, will, or other instrument in the form of an easement, restriction, covenant, or condition, which is or has been executed by or on behalf of the owner of the land subject to such easement and is binding upon successive owners of such land, and the purpose of which is to retain land predominantly in its natural, scenic, historical, agricultural, forested, or open-space condition.



Conservation Easements



Home

Fishing

Hunting

Licensing

Conservation

Learning

Hold or Manage Mitigation Land

Process Updated April 5, 2021

Government Code § 65967(c) requires a state or local agency to exercise due diligence when approving governmental entities, special districts, and non-profit organizations proposed to hold conservation easements (CE) or manage and steward mitigation lands.

When CDFW issues permits for a project, the project applicant may be required to transfer an interest in real property to CDFW or to another entity to mitigate the impact that the project will have on fish and wildlife resources. That interest in real property may involve a transfer of fee title, the granting of a conservation easement, or both.

Pursuant to its regulatory authority under Fish and Game Code, CDFW shall exercise due diligence when reviewing the qualifications of any entity seeking to hold conservation easements for mitigation lands or any entity or individual seeking to manage and steward mitigation lands.

Staff in CDFW regions will review the qualifications of the entity proposed on a project-by-project basis. Because this determination is made on a project-by-project basis, a single entity may be approved to hold one CE or manage certain mitigation lands but denied to hold another CE or manage other mitigation lands.

CDFW may provide a checklist, to entities proposed to hold conservation easements or manage and steward mitigation lands, requesting a list of documents to review the entity's qualifications. Document requests are based on the entity type, previous submittals, and property specific information.

CDFW no longer willing to hold CEs



CASE STUDIES



Case Study – County of Orange Escrow Agreement

San Diego Creek Emergency Project

- 2003 Emergency Flood Capacity Project
- CDFW issued Consistency Determination
- OC Flood Control District negotiated an alternative form of financial assurance – Pledge of Revenue and Escrow Agreement (\$1 mil).
- Initial mitigation unsuccessful. Proposed new mitigation but CDFW staff stated that they are not allowed to amend a Consistency Determination.
- CDFW currently not willing to claim escrow account to take on replacement agreement.



Case Study – County of Placer NCCP

Placer County Conservation Program

- Adopted/permitted federal Habitat Conservation Plan (HCP) and State-approved NCCP
- 404/401 Programmatic Permits
- In Lieu Fee Program for state/federal compensatory wetland mitigation
- All lands held under these “regulatory” programs/permits are required to have conservation easements with management plans backed by an endowment
- Permits were very challenging to get—competing regulations and objectives
- Endowment was challenging to set up and move out of the County treasury to a third party community foundation in order to achieve better returns



Case Study – County of Los Angeles CE

Conservation Easement on land not owned by the County

County is required to establish a conservation easement on a property that they do not own. They are concerned about being held accountable for something that they are dependent on a third party to pursue.



Case Study – Merced County Permitting Delays

RE-CATEGORIZED

State allegedly ghosted Merced's attempts to get permission to clear creeks for months before the floods

JUNE 11, 2024 • by Jesse Vad, SJV Water



Water surrounds a neighborhood in western Merced after Bear Creek overflowed its banks in January 2023 storm. CITY OF MERCED

SPONSORED



SANTA CLARITA VALLEY
WATER AGENCY

<https://sjvwater.org/state-ghosted-merced-attempts-to-get-permission-to-clear-creeks-for-months-according-to-a-lawsuit-then-the-floods-came/>



Case Study – County of Orange Inconsistent Mitigation Ratio

Addition of rip rap to earthen engineered channels

Initial mitigation ratio was 0.66:1 and 1:1 for impacts to Waters of the State (total impact of 2.97 acres). Mitigation installation estimated at \$1.16 mil over five years (Permittee responsible mitigation).

Additional 0.25-acre of rip rap added to project:

- Purchased enhancement credits from Mitigation Bank
- Required to mitigate at a 2:1 ratio (\$125k)



NEXT STEPS



Next Steps

Endowments

Revisit recommendation #4 from the June 2017 Little Hoover Commission Letter Report (#238):

The Legislature should require state government permitting agencies to develop guidelines that **encourage greater flexibility regarding endowments** to finance mitigation lands that offset impacts of infrastructure projects strengthening California's defenses against climate change impacts. State agencies also should make greater use of alternatives already identified and allowed in statute.



Next Steps

Endowments

Revisit Senator Correa's Bill – SB 1446 (2010)

The County of Orange, with support from the California State Association of Counties, collaborated with Senator Correa to draft SB 1446.

SB 1446 proposed that a local government be deemed to have met the financial assurance requirement if it:

- Certified that it was financially stable and able to pay its debts.
- Appropriated sufficient moneys through its annual budget process to fund the maintenance and management of its mitigation obligations, and the cost of monitoring compliance with, and the effectiveness of, those measures.



Next Steps

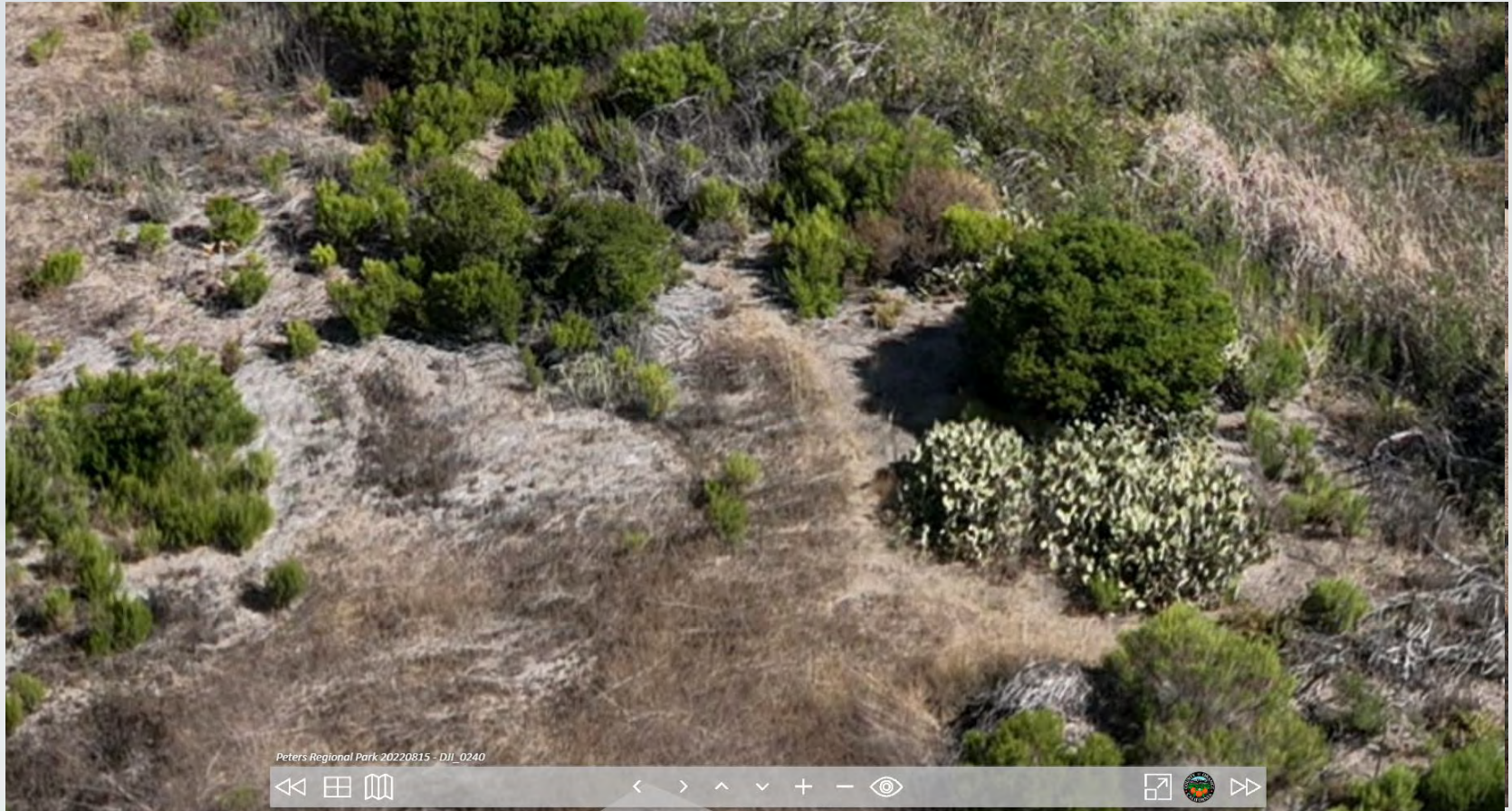
Conservation Easements

Use new technology to provide visual oversight of mitigation lands in lieu of a third-party grantee (CDFW would remain a third-party beneficiary on a Restrictive Covenant).



Next Steps

Conservation Easements



Next Steps

Reduce uncertainty from broad discretion

- Develop tools such as a mitigation ratio check list similar to the Army Corps of Engineers.
- Recognition of municipal government appropriations process. Endowments work well for the development community, but not for public agencies.
- Allow for flexibility in the form of site protection [easements] on local government owned land.
- CDFW could become signatory to in lieu fee programs, which operate similar to mitigation/conservation banks but provide better implementation flexibility for municipal governments.



Next Steps

Explore cooperative agreements

There are provisions in the Fish and Game Code that allow CDFW to enter into cooperative agreements with various entities, including federal agencies, other states, political subdivisions of California, and private individuals or organizations. These agreements are aimed at the management and protection of species listed as endangered or threatened under CESA.

As an alternative form of mitigation, CDFW could develop a mitigation fund for species such as the candidate bumble bees to prepare management and recovery plans.



Wrap Up

Build on current momentum of County interest to address challenges on the horizon

1. April 2023 outreach to CSAC on these topics / August collaboration meeting
2. June 2024 collaboration meeting

Participation from the following counties:

- Los Angeles
- Orange
- Placer
- Riverside
- San Diego
- Santa Barbara
- Ventura



Conclusion

- Municipal agencies do not disappear.
- Counties do not have a history of non-compliance with mitigation.
- Counties do not wish to avoid CESA compliance nor avoid mitigation obligations.

The 'ask' of CEAC...

Form a Statewide working group and initiate discussions with the California Natural Resources Agency to address counties concerns.



Thank you!

Thank you for your time today.

I would also like to thank the following individuals for their contribution to this presentation:

Sarah Ahmed – County of Los Angeles

Nardy Khan – County of Orange

Gregg McKenzie – County of Placer

Joan Valle – County of Riverside

Gail Getz – County of San Diego

Andrew Raaf – County of Santa Barbara



Wrap Up

OC Environmental Resources Mitigation Program

Jennifer Shook

Jennifer.Shook@ocpw.ocgov.com

(714) 955-0615



Attachment Two
Seven Counties Coalition

Seven Counties Coalition



Total Population of 7 Counties: 22,451,479



Population of the 7 Counties is 56% of All California

7 Southern California County Populations



Santa Barbara: 449,461



Ventura: 843,077



Los Angeles: 9,992,643



San Bernardino: 2,196,504



Orange: 3,203,504



Riverside: 2,451,199



San Diego: 3,315,091

Congressional Districts


Total of 30 Congressional Districts within the 7 Counties



****Some County Congressional Districts Representatives may overlap counties****

Washington DC Trip

July 30-31, 2024

- Section 408 Permissions
 - Climate Change
 - Army Corps Construction Backlog, Aging Infrastructure & Deferred Maintenance
 - Efficient and Effective Permitting
 - Improving Federal Partnership to Manage Waterway Encampments
- 
- A large orange triangle is positioned in the bottom right corner of the slide, pointing towards the top right.



Thank You



THE IMPORTANCE OF COLLABORATING ON COASTAL FLOOD PROTECTION

Presentation to BAFPAA

Jenn Hyman, P.E., Senior Engineer, BCDC

October 21, 2024

AGENDA

1. BCDC jurisdiction and design review of flood safety protection
2. Sea level rise and “the Bay Area Flood Protection System”
3. Research needs

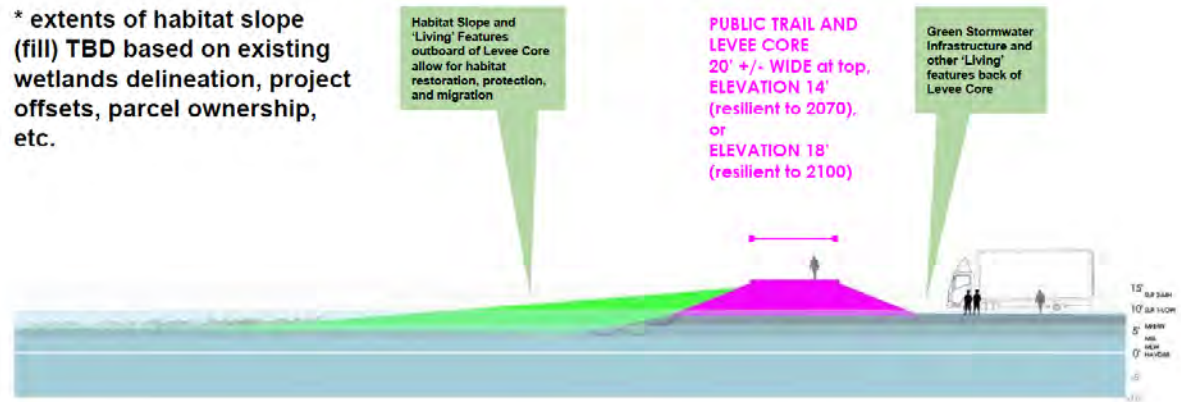
Generalized Sectional Approach - Calibrated to Sites*

* extents of habitat slope (fill) TBD based on existing wetlands delineation, project offsets, parcel ownership, etc.

Habitat Slope and 'Living' Features outboard of Levee Core allow for habitat restoration, protection, and migration

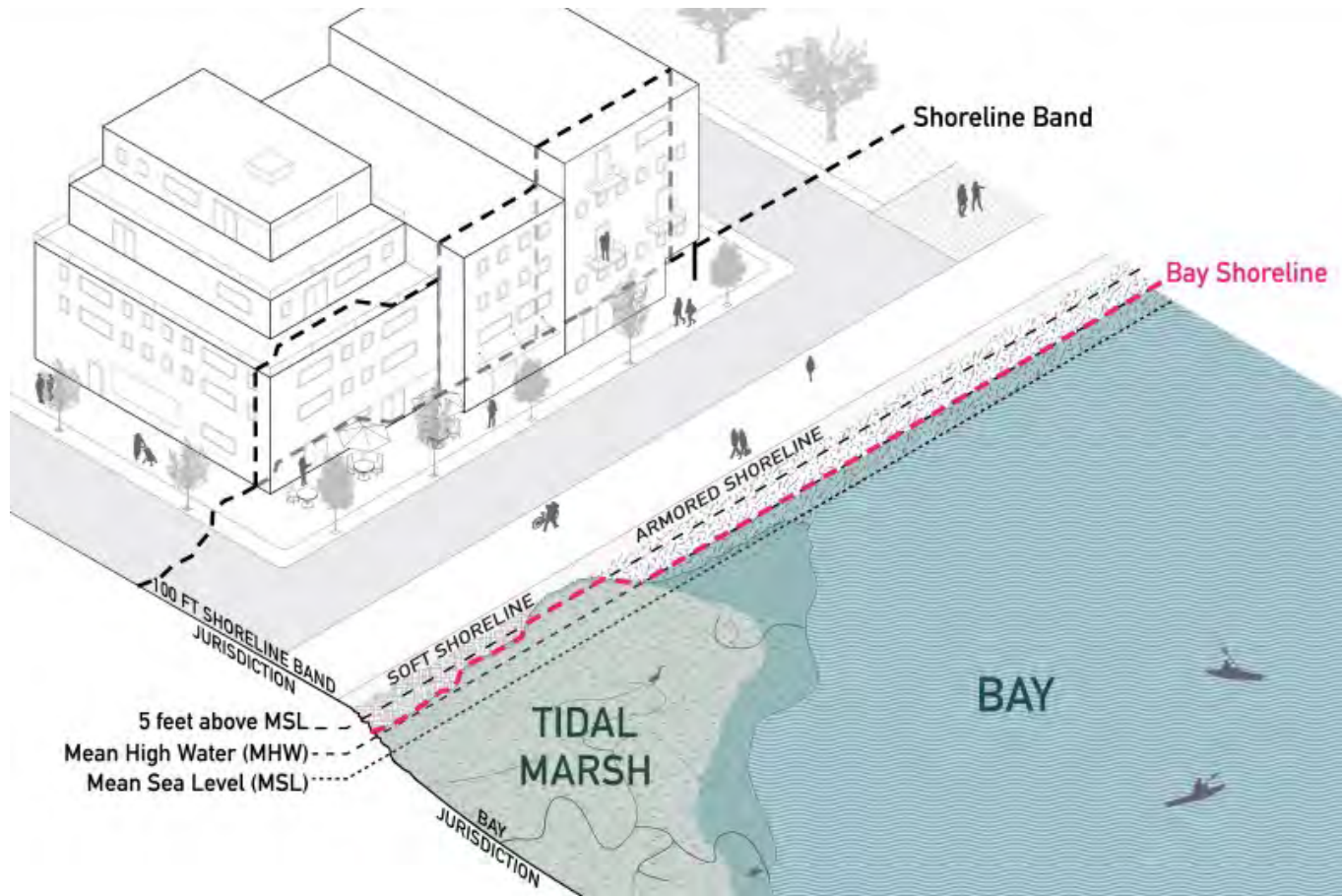
PUBLIC TRAIL AND LEVEE CORE 20' +/- WIDE at top, ELEVATION 14' (resilient to 2070), or ELEVATION 18' (resilient to 2100)

Green Stormwater Infrastructure and other 'Living' features back of Levee Core



From North Richmond Living Levee & Shoreline Adaptation, Planning & Preliminary Design, March 29, 2023, WCWD, Mithun, ESA

BCDC JURISDICTIONAL AREA

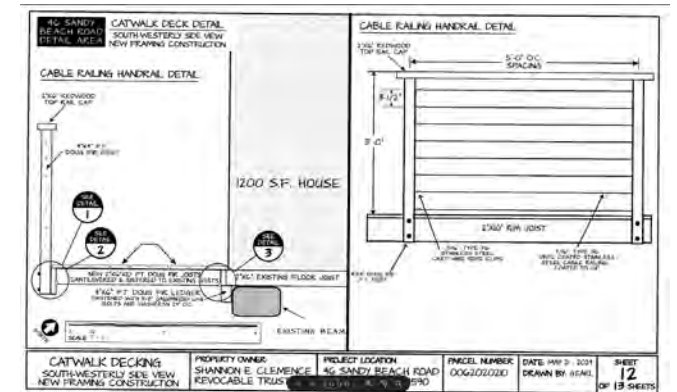


- In-Bay, 100-foot shoreline band, salt ponds, and certain waterways
- In-Bay = Areas of tidal action, up to MHW or to the top of wetland vegetation but no higher than MSL + 5 feet
- 100-foot shoreline band = 100 feet upland from the In-Bay line
- All Bay fill after 9/17/65 counts

BCDC Climate Change Policy Guidance, 2021

MCATEER-PETRIS ACT – FLOOD SAFETY PROVISIONS

- 66605(e)
 - That public health, **safety**, and welfare require that fill be constructed in accordance with **sound safety standards** which will afford reasonable protection to persons and property against the hazards of unstable geologic or soil conditions or of **flood or storm waters**;
- This section applies to Bay fill and has no constraint on the size of the project



Residential Plan for a deck over the Bay

SF BAY PLAN SAFETY OF FILLS POLICIES

- Policies

- 1. The Commission has appointed the Engineering Criteria Review Board (ECRB) ... to: (a) establish and revise **safety criteria** for Bay fills **and structures** thereon; (b) review all except minor projects for the adequacy of their specific **safety** provisions, and make recommendations concerning these provisions; (c) prescribe an **inspection** system to assure placement **and maintenance** of fill according to approved designs; ...
- 2. Even if the Bay Plan indicates that a fill may be permissible, no fill or building should be constructed if **hazards** cannot be overcome adequately for the intended use in accordance with the criteria prescribed by the Engineering Criteria Review Board.
- These ECRB policies apply to all except minor Bay fill projects.
- The Senior Engineer is the Secretary of the ECRB



Cargill salt pond berms, Photo by J. Hyman

SF BAY PLAN CLIMATE CHANGE POLICIES

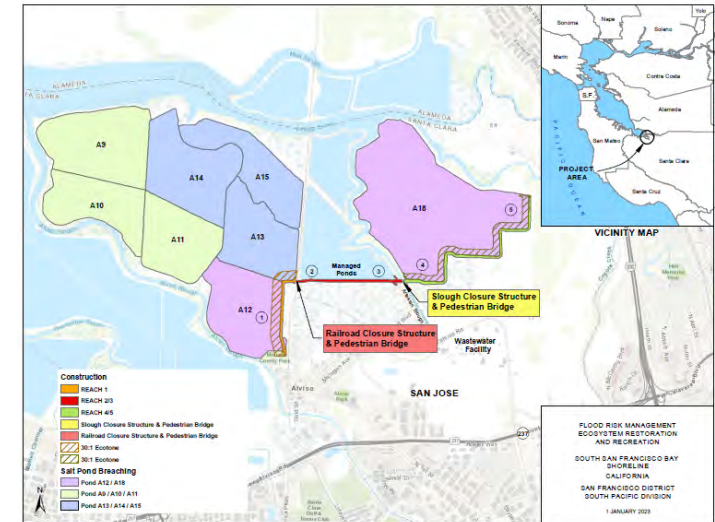
- Applies within BCDC jurisdiction, including the Shoreline Band
- Policy 2. When planning shoreline areas or designing larger shoreline projects, a risk assessment should be prepared by a qualified engineer and should be based on the estimated **100-year flood elevation** that takes into account the best estimates of future sea level rise and current flood protection....
- Policy 3. To protect public safety...., all projects—other than repairs of existing facilities, small projects that do not increase risks to public safety, interim projects and infill projects within existing urbanized areas—**should be designed to be resilient to a mid-century (2050) sea level rise projection**. If it is likely the project will remain in place longer than mid-century, **an adaptive management plan should be developed** to address the long-term impacts that will arise based on a risk assessment using the best available science-based projection **for sea level rise at the end of the century (2100)**.
- These policies apply to public access, resulting in elevated Bay Trails on the shoreline



Moffat & Nichol, Treasure Island Development Project, Sea Level Rise Risk Assessment and Adaptation Strategy for Rising Sea Levels, Aug 1, 2016

AGENCIES SETTING DESIGN AND O&M STANDARDS FOR LEVEE & FLOODWALL SAFETY IN SF BAY

- **FEMA** accreditation imposes FEMA and USACE standards, O&M Plan required, sea level rise not a design criteria
- **USACE** sets design and O&M standards for floodwalls they fund; O&M responsibility transferred to the local municipality (e.g. Valley Water and the South SF Shoreline Levee)
- Some **County Flood Control Districts** set standards and maintain levees (e.g. Valley Water)
- In Solano County there are some **special districts** formed to maintain levees for land reclamation
- BCDC **ECRB** – reviews major projects with Bay Fill; minor and upland projects are not reviewed



The US Army Corps of Eng South Bay Shoreline Levee Project. Valley Water is a partner in the project.

PROJECTS WITHOUT LEVELLE DESIGN STANDARDS



SOURCE: Aerial Imagery, Esri

Tisconia Marsh Restoration and Sea Level Rise Adaptation Project - D201600888.01

Figure 2

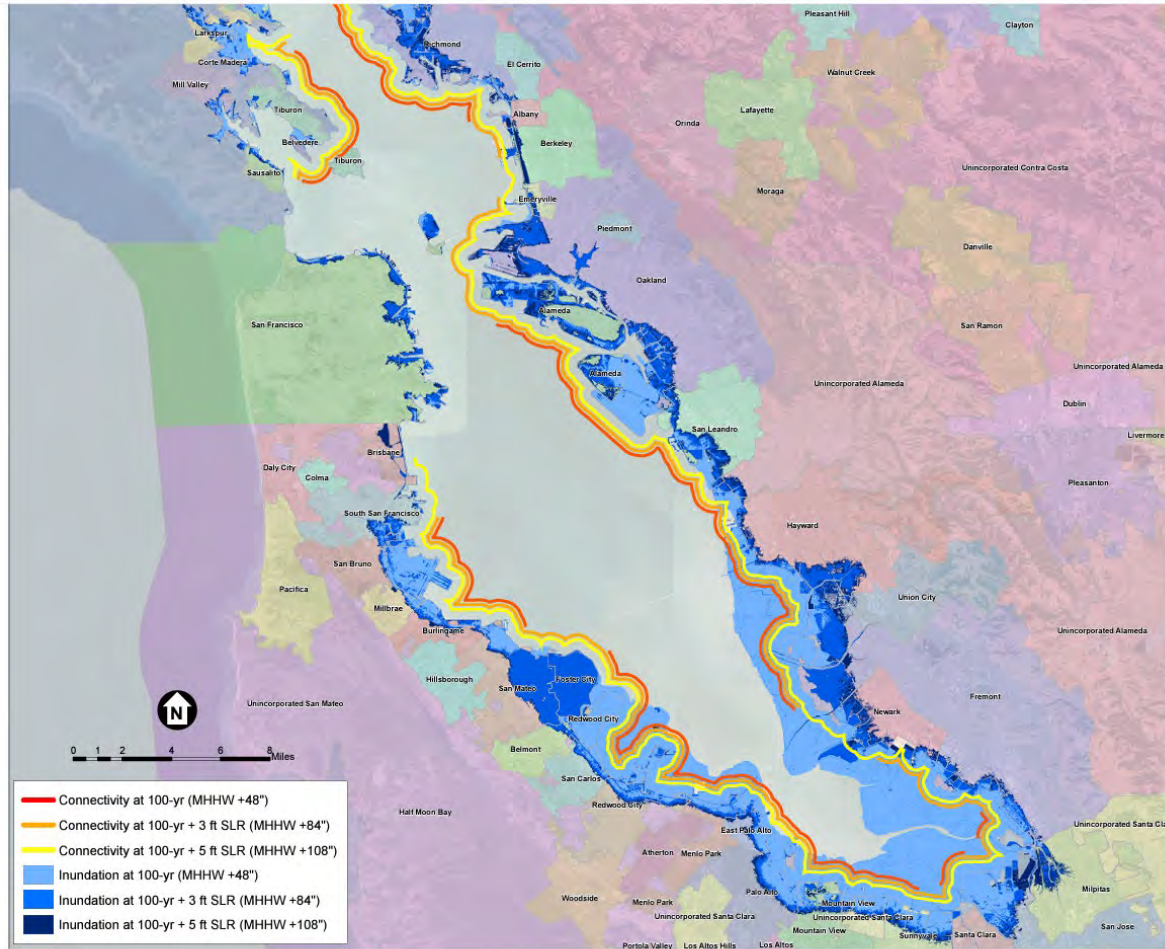
Site Shoreline and BCDC Jurisdiction Areas



1. Projects not FEMA accredited or USACE-funded.
2. Privately funded projects on private property
3. Projects outside BCDC jurisdiction
4. Very small projects/restoration projects

Tisconia Marsh has a levee set back mostly out of BCDC jurisdiction

THE BAY AREA FLOOD PROTECTION SYSTEM



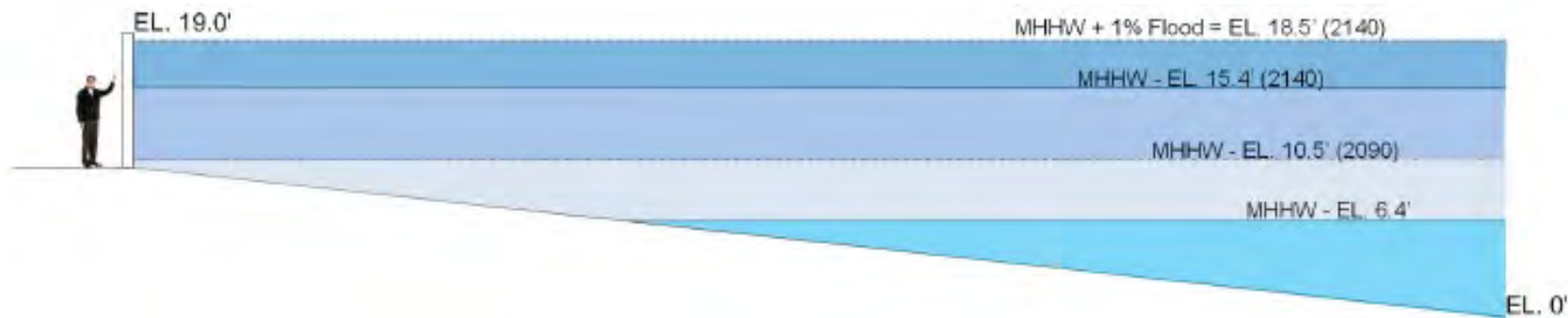
CHARG

SLR flood connectivity between jurisdictions, by CHARG

- BCDC permits projects on a parcel by parcel basis
- Individual flood control projects are being constructed
- Elevated Bay Trails are being constructed as raised berms
- These individual projects will need to link up someday to work as a **flood protection system (FPS)**
- This FPS will need uniform design standards
- “Accurate” sea level rise projections are needed to know when the FPS needs to be completed

NEED FOR COASTAL DESIGN STANDARDS

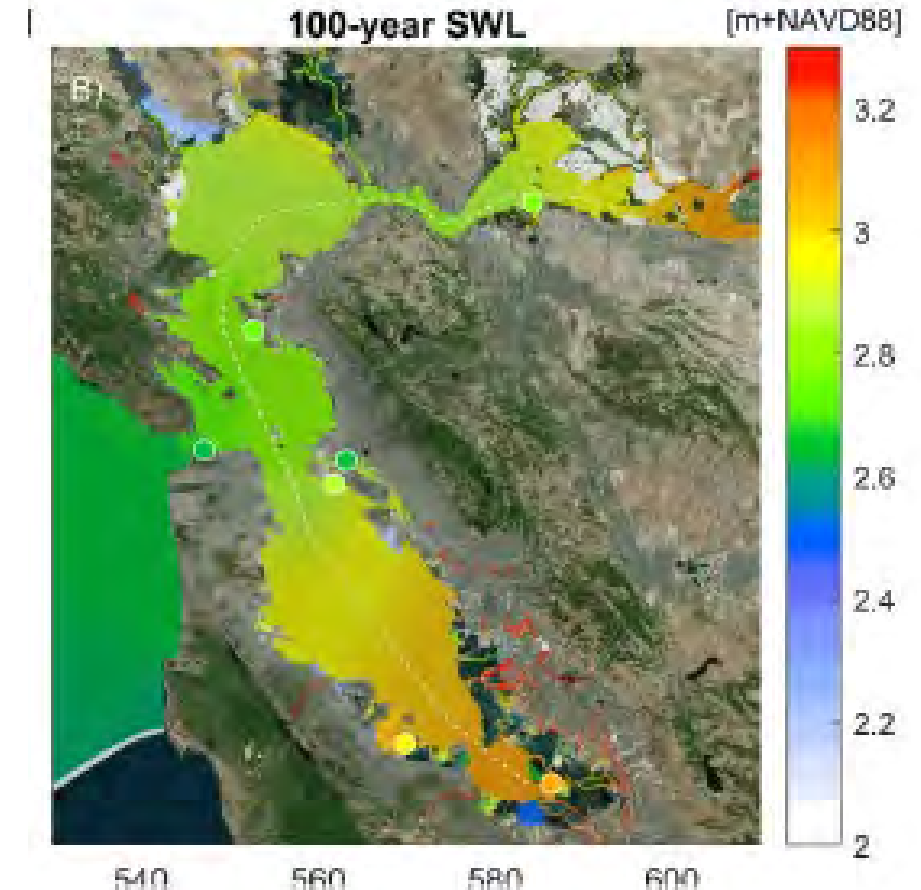
1. With sea level rise (SLR), Bay levels will be higher than the ground levels behind levees and floodwalls, and failure could result in mass drowning fatalities.
2. Levees and floodwalls installed today will be old decades from now when SLR risk is much greater
3. Segments of levees and floodwalls must be continuous to function, and are only as effective as their weakest segment



From USACE and Port of SF, SF Waterfront Coastal
Flood Study, App B.2 – Coastal Life Safety

NEED FOR BAY MODELING OF OUR UNIQUE ESTUARY

- 2/3 of the \$ damage projected for the state due to sea level rise will fall within SF Bay
- “Accurate” tidal datums and extreme tides needed
- “Accurate” timing of sea level rise projections that account for future changes in Bay geometry needed



Nederhoff (Deltares) et al, Drivers of Extreme Water Levels in a Large, Urban, High-energy Coastal Estuary – A Case Study of the San Francisco Bay, Coastal Engineering, 2021.

NEED FOR RESEARCH ON GROUNDWATER RISE IMPACTS



Photo of sunny day flooding from groundwater rise, from Shallow Groundwater Response to Sea-Level Rise by Pathways Climate Institute and SFEI, 2022.

- Not just a nuisance but a safety hazard
- Could mobilize contaminants
- Leaky storm drains are a conduit
- Likely to be addressed by extensive coastal pumping and shoreline barriers
- Barriers may slow but will not stop GW rise
- Pumping could cause land subsidence
- Analysis of GW rise is essential for all flood control projects but is complicated to model

LET'S COLLABORATE



A sheetpile wall on a levee in Foster City:
Fostercitylevee.org

- FPS Safety Standards
- Bay Modeling, Storm Drainage, and Groundwater Rise Research
- Pre-application Project Planning
- Please reach out!
- Jennifer.hyman@bcdcc.ca.gov

QUESTIONS?



Steel sheet pile flood walls in New Orleans after Hurricane Katrina.

[/https://biotech.law.lsu.edu/climate/ocean-rise/against-the-deluge/01-new_orleans_levees.pdf](https://biotech.law.lsu.edu/climate/ocean-rise/against-the-deluge/01-new_orleans_levees.pdf)

The SFBRA Advisory Committee (AC) met on September 13, and here's a summary of BAFPAA-pertinent items:

- The AC heard an update on the WRM (**Wetlands Regional Monitoring**) draft performance measures, including new map-based habitat metrics. SFEI has produced a new 2020 [Baylands Habitat Map](#) (first update since 2009) quantifying the extent, patch size, patch shape and connectivity. SFBRA projects contributed to 16,600 acres of connected habitat. Technology updates mean these metrics can now be more easily updated (though it's still not exactly 'easy'). Expect a new Baylands Habitat Map to be produced every 5 years or so.

The AC had a healthy discussion on the performance metrics chosen, questioning whether BCDC's mandate for public access is in conflict with habitat quality. In other words, if a project fully satisfies BCDC's trail requirements, wouldn't the project's metrics on habitat connectivity and extent suffer? This is especially important when these performance measures may be used to report project success to regulators and funders.

- Dave Halsing gave an update on the 15,000-acre [South Bay Salt Pond Restoration](#) project, focusing on the history of the project and the current project phasing. The project has previously received SFBRA funding, and questions raised by funding application reviewers (including yours truly) led to Dave's presentation to the AC.

Dave's presentation did note that the Eden Landing portion of the project had been deferred "by nearly a decade" to address Alameda County FCD's concerns about the project's effects on Old Alameda Creek. Hopefully, ACFCD's view of the resolution of the issues matches the rosy picture reported by Dave.

- The AC received an update on SFBRA metrics to be released in an upcoming **annual report**. Some highlights:
 - The BRRIT has now fully permitted 10 projects
 - The SFBRA authorized expenditures of \$25.2m to 11 projects in the last funding round.
 - The SFBRA will be adding social equity metrics to the habitat metrics in the next annual report. There is some discussion about transitioning away from Economically Disadvantaged Communities (EDC) to communities suffering from Environmental Justice (EJ) issues. The SFBRA People and Wetlands Workgroup is heading up this discussion.
- **8th Request for Proposals** was released in July and were due on October 14. Received proposals will be screened for eligibility, then sent to AC volunteers for detailed review and scoring. Given the make up of the AC, there are previous few screening volunteers that are focused on flood protection. Interested in changing that? See next item.

Eighteen project proposals were received with a total ask of over \$41m. Given there is typically about \$20m available in each grant round, the odds of receiving funding aren't too bad. Sadly, the only BAFPAA member to apply was the County of Marin. San Francisquito Creek JPA, EPRPD, City and County of San Francisco, City of Alameda, Napa RCD, Suisun RCD were some of the other project applicants. As I mentioned in my last BAFPAA update:

- My personal recommendation is that Flood Control Districts with shoreline facilities (sorry Zone 7 😞) give serious thought to partnering with an eco-groovy non-profit and put in an application. SLR Resiliency projects with significant community outreach seem to be very competitive, and the addition of flood protection (even if its restoring lost capacity) can be very attractive.

<soapbox>

Some projects will be getting Measure AA funds. Why not yours? For example, earlier this year, the Lower Walnut Creek Restoration project received *another* \$3m to cover cost overruns on the public access portion of the project, favoring project partner John Muir Land Trust. If you have a shoreline project, or one that addresses SLR, do think about applying. The SFBRA is somewhat unique in that it does consider funding for design and permitting in addition to project construction.

</soapbox>

- **The AC is looking for new members.** Before I expressed interest, Roger warned me that the AC is populated heavily with those most focused on equity issues, and light with those with a more technical background. Yes, we have technical folks from the RWQCB, SFEI, and Save the Bay on the AC, but currently I am the only one with a Flood Control District background. Do come join me. Total commitment is meeting 4-6 times a year (location recently moved to 1515 Clay Street in Oakland) with optional application review (and follow up zoom meetings to discuss results) each fall. [Details on the SFBRA AC webpage here](#). Deadline to apply is November 7, 2024.

Respectfully Submitted to my BAFPA peeps!

--Paul R. Detjens (Flood Control Emeritus Dude)