

Proposed Site-Specific Metals Objectives Policy for Copper and Zinc

CEQA Scoping Meeting

February 17, 2022, 4:00-6:00 pm



STORMS, Division of Water Quality

California Water Boards



California Water Boards' Mission Statement

To preserve, enhance, and restore the quality of California's water resources and drinking water for the protection of the environment, public health, and all beneficial uses, and to ensure proper water resource allocation and efficient use, for the benefit of present and future generations.

Meeting Agenda

- Meeting Logistics
- CEQA Background & Purpose of Today's Meeting
- Stormwater Strategy
- Project Description
- Biotic Ligand Model
- Proposed Policy Elements
- CEQA Process
- Process and Timeline
- Scoping Comments

Scoping Meeting Logistics

- Meeting is being recorded
- Participants will be muted until comment period
- Chat to everyone feature is disabled
- Comments can be emailed during the presentation to:

STORMS@waterboards.ca.gov

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California Environmental Quality Act (CEQA)

- California's charter for environmental protection
- Establishes a process for state and local agencies to consider environmental impacts of proposed projects
- CEQA process includes public participation through meetings and opportunities to comment on draft documents

Purpose of Today's Meeting

- Learn about the Proposed Site-Specific Metals Objective Policy for Copper and Zinc
- Provide input on the scope and content of environmental information included in the draft Substitute Environmental Document (SED)
- All comments on scope and content of the environmental analysis are welcome

Providing Feedback on CEQA Scoping

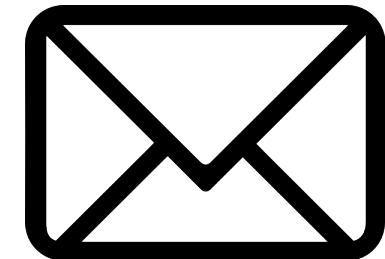
- Oral Comments (today's meeting) following today's staff presentation



- Written Comments

- STORMS@waterboards.ca.gov

- Due by March 7, 2022 at 12:00 pm**



CEQA SCOPING MEETING

Stormwater Strategy

Amanda Magee, Senior Engineering Geologist &
STORMS Unit Manager



Water Boards Stormwater Strategy

Lead the evolution of stormwater management

- Stormwater is a valuable resource
- Support policies for collaborative watershed-level stormwater management and pollution prevention
- Remove obstacles to funding and develop resources
- Integrate regulatory and non-regulatory interests
- Strategy to Optimize Resource Management of Stormwater Website:
 - www.waterboards.ca.gov/water_issues/programs/stormwater/storms/docs/stormwater_capture_finalcombined.pdf



CEQA SCOPING MEETING

Proposed Project Description



Proposed Project Description

- Develop a new water quality control policy applicable to *fresh waterbodies* of California.
- Policy will describe the protocols and procedures to support the development of site-specific water quality objectives for copper and zinc in freshwaters.
- Regional Boards, permittees and stakeholders must apply the methodology when developing site-specific objectives for copper and zinc.
- Project will **not** establish new site-specific objectives!

Rationale for Project

- Over 130 listings for Aluminum, Copper, Nickel, Lead and Zinc in freshwaters of California.
 - 85 of these listings for Copper and Zinc.
- Current water quality objectives that resulted in these listings are not based on current scientific models.
- Expansion of an ongoing project by the Los Angeles Regional Water Board to address copper using the Biotic Ligand Model.

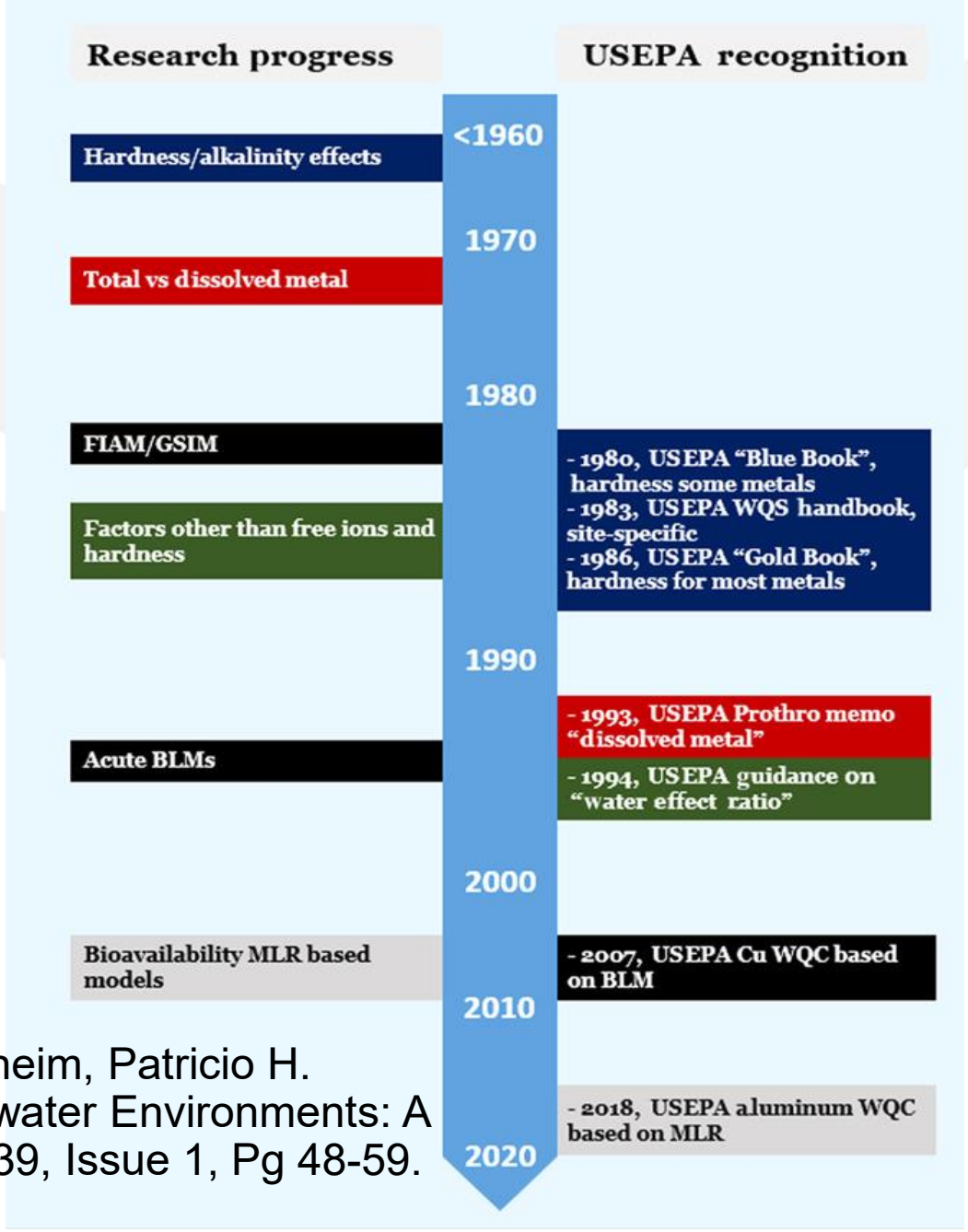
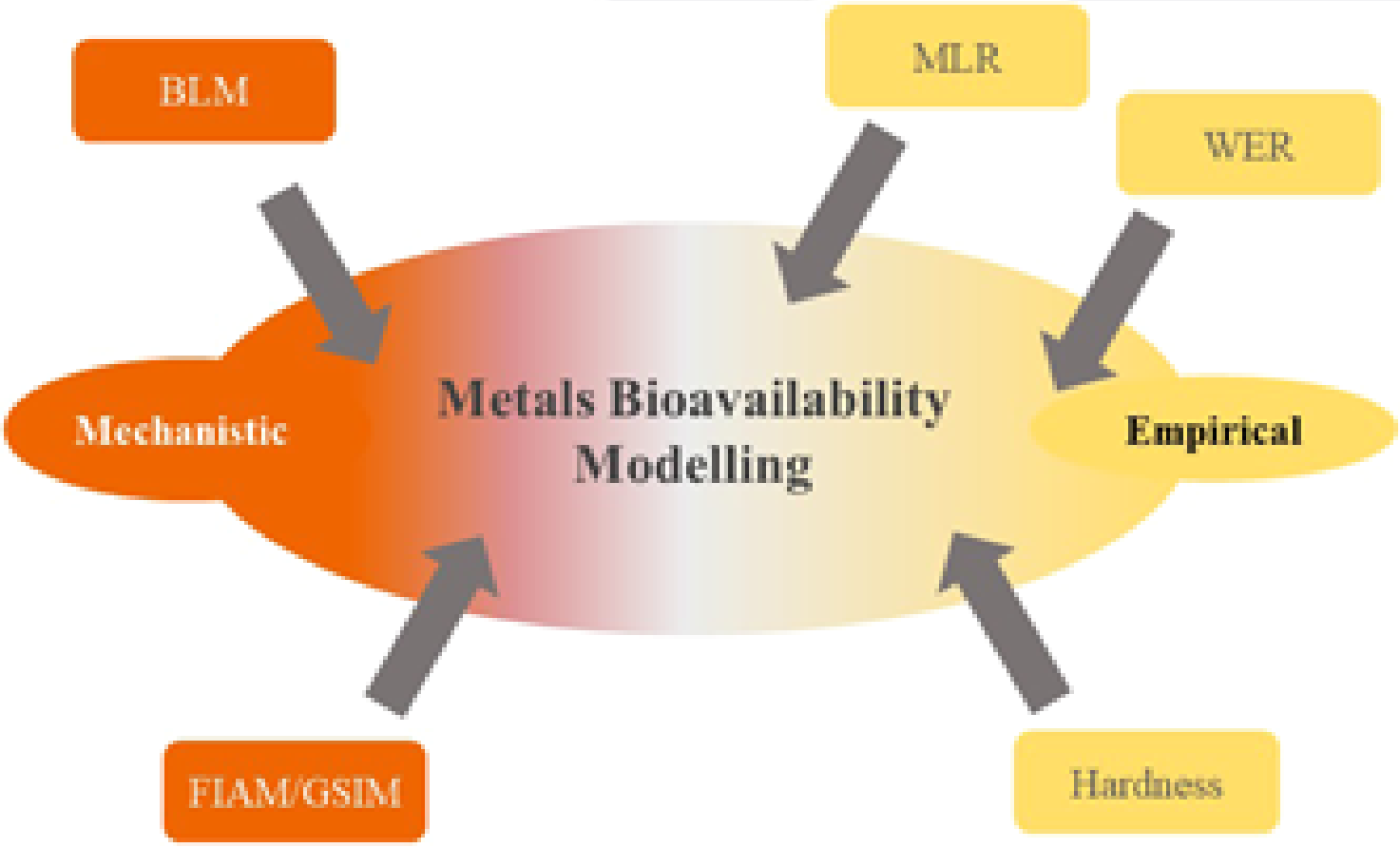
CEQA SCOPING MEETING

Biotic Ligand Model

Chris Beegan, Engineering Geologist



History of Metals Criteria



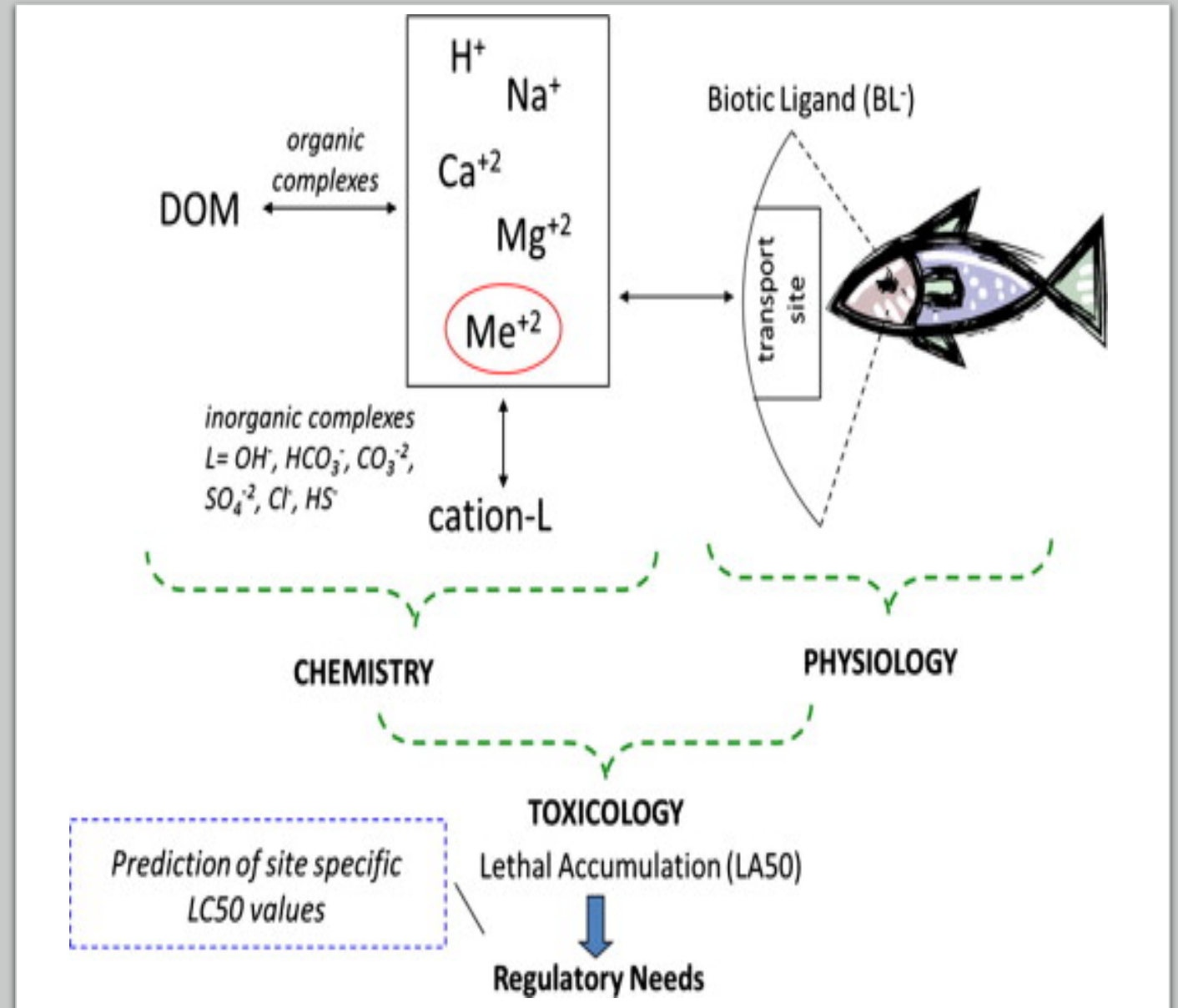
William Adams, Ronny Blust, Robert Dwyer, David Mount, Eirik Nordheim, Patricio H. Rodriguez, Doug Spry. Bioavailability Assessment of Metals in Freshwater Environments: A Historical Review. Environmental Toxicology and Chemistry. Volume 39, Issue 1, Pg 48-59. 2020.

Existing Copper and Zinc Criteria

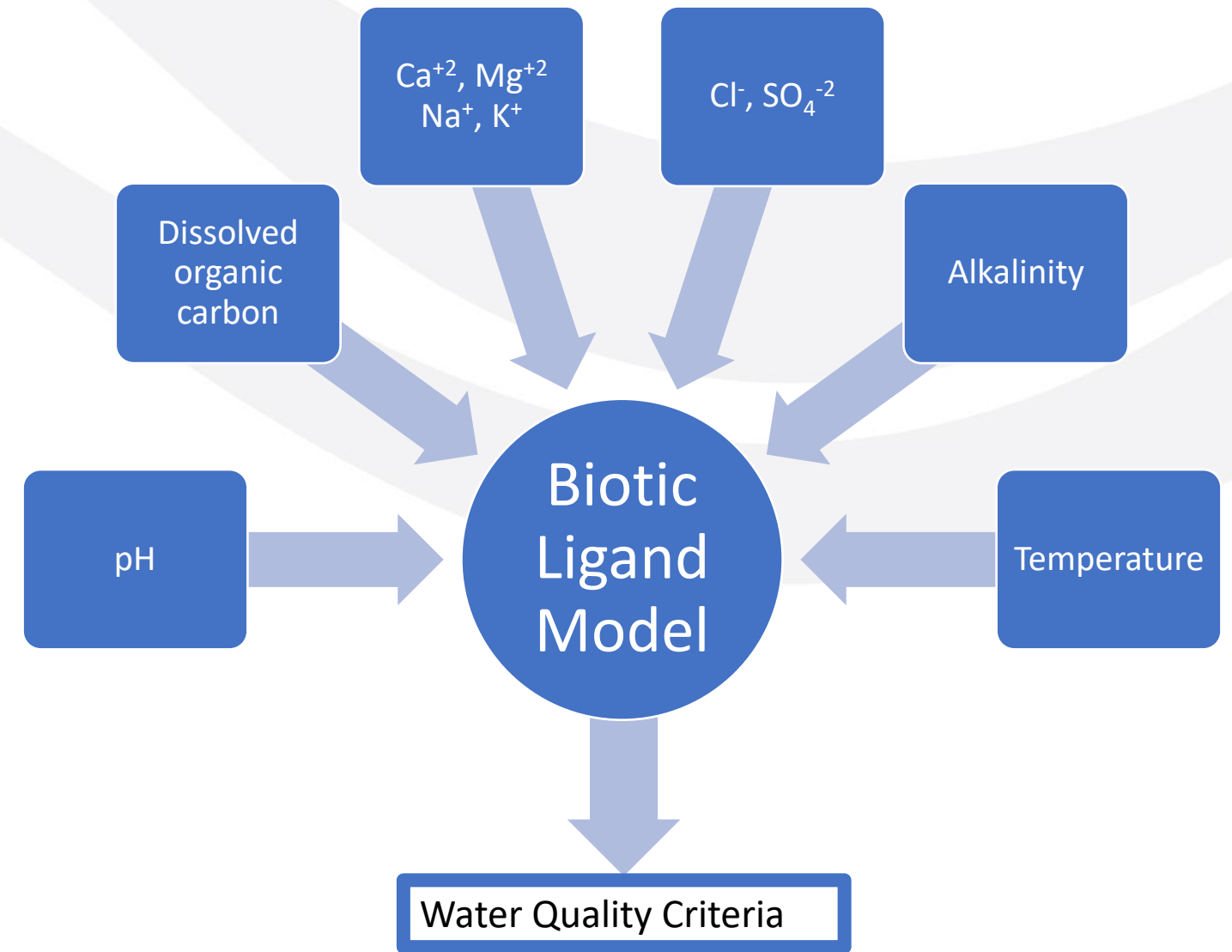
- California Toxic Rule/National Toxics Rule
- Based on 1985 EPA aquatic life methodology
- Criteria defined as function of two variables to address bioavailability
 - Hardness
 - Water Effect Ratio
- Hardness adjustment is required
 - Ca/Mg not the primary variables controlling bioavailability
- Water Effects Ratio default value set at 1
 - Can develop site specific WER based on EPA guidance

Biotic Ligand Model

- Basis for U.S.EPA Copper Criteria (2007)
- Accounts for
 - Metal Speciation and formation of inorganic and organic complexes
 - Metal accumulation on the gill surface or other biologically active membrane surface
 - Cation competition with binding sites on the biotic ligand
 - Relates metal accumulation to aquatic toxicity



Biotic Ligand Model Inputs



Biotic Ligand Model Desktop Software

- Front End – Easy to use data entry and output tables
 - Drop down menus to select metal or endpoint
 - Instantaneous criteria calculation for single or multiple stations
 - Fixed Monitoring Benchmark can be used to calculate long term criteria or limit from instantaneous criteria
 - Capable of performing more refined analysis when considering other endpoints or sensitive species.

CEQA SCOPING MEETING

Proposed Policy Elements

Chris Beegan, Engineering Geologist



Policy Elements

- Project planning and applicability
- Use of Biotic Ligand Model, or other site-specific models
- Analytical requirements
- Number of samples and stations
- Seasonality and dry versus wet weather
- Approach to derive site specific objective from biotic ligand model outputs
- Protection of downstream beneficial uses
 - Downstream freshwater segments
 - Marine and estuarine waters potentially affected by the project
- Additional policy elements to be identified

CEQA SCOPING MEETING

CEQA Process

Chris Beegan, Engineering Geologist



California Water Boards

California Environmental Quality Act (CEQA)

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Purpose of CEQA Scoping Meeting

Receive input on:

- Scope or range of project actions
- Project alternatives
- Reasonably foreseeable methods of compliance
- Significant environmental impacts to be analyzed
- Cumulative Impacts (if any)
- Mitigation measures to reduce environmental impacts
- Inconsequential Issues to eliminate from detailed study

Water Quality Planning Process and Opportunity for Public Input*

- **CEQA Scoping Meeting*** (today)
- Undergo Formal Scientific Peer Review
- Release Public Draft Provisions and Staff Report for public comment*
- Public Hearing*
- Release Final Provisions and Staff Report
 - Prepare Response to Comments and Peer Review
- Board Meeting*
- Submit to Office of Administrative Law
- Submit to U.S. EPA

CEQA SCOPING MEETING

Comment Options



Comments

All comments should be related to the project's CEQA analysis and may identify:

- Scope or range of project actions
- Project alternatives
- Reasonably foreseeable methods of compliance
- Significant environmental impacts to be analyzed
- Cumulative Impacts (if any)
- Mitigation measures to reduce environmental impacts
- Inconsequential Issues to eliminate from detailed study

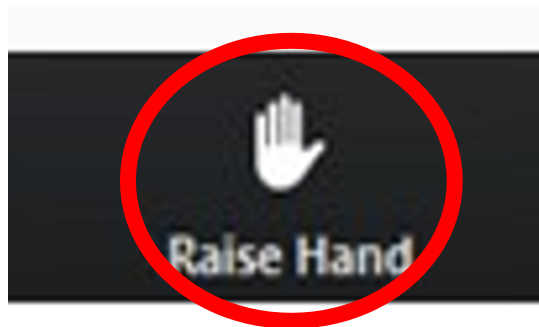
All comments may be made public

Participation Instructions

Everyone will remain muted until called upon

Computer Commands

- To raise your hand, find the “Raise Hand” button on your screen



Phone Commands

- *9 to raise hand
- *6 to mute/unmute



Oral Comments

- Please wait for the moderator to invite you to comment
- Please state your first and last name
- Please include applicable affiliations with agencies or organizations

Telephone Commands (if calling in using a telephone):

*9 to raise hand

*6 to unmute

Written comments can be sent anytime via email to:

STORMS@waterboards.ca.gov

Subject line: "Scoping Meeting"

Written Comments

CEQA Scoping Public Comment Deadline – **March 7, 2022 at 12 pm**

Written comments can be sent via email to:

STORMS@waterboards.ca.gov

Subject line: "CEQA Scoping Comment"

OR delivered to:

State Water Resources Control Board – Division of Water Quality

Attention: Chris Beegan

P.O. BOX 100, Sacramento, CA 95814 (mailed)

1001 I Street, 15th Floor, Sacramento, CA 95814 (hand delivered)

All comments may be made public

Project Updates

Project webpage:

- waterboards.ca.gov/water_issues/programs/stormwater/storms/proj_cuzu_sso_desc.html
- Or bitly.com/copperzinc

Subscribe to Stormwater Strategy email list:

- Visit bitly.com/swrcb_subscribe
- Select "Water Quality," check box for "Stormwater Planning"
- Add your name and email and click subscribe.

Thank You

Chris Beegan: Chris.Beegan@waterboards.ca.gov

Amanda Magee: Amanda.Magee@waterboards.ca.gov

Public Comments: STORMS@waterboards.ca.gov