

STATE OF CALIFORNIA  
REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT: Christina Toms  
MEETING DATE: April 13, 2022

**ITEM: 7**

**Proposed Basin Plan Amendment on Climate Change and Aquatic Habitat Protection, Management, and Restoration – Public Hearing**

**DISCUSSION:**

This is a hearing to receive comments on a proposed amendment (Appendix A) to the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) and associated staff report (Appendix B). The proposed Basin Plan amendment includes information on climate change and how it might affect the region's waters. It describes efforts made to support the long-term resilience of aquatic habitats in the region. It includes a suite of questions and information that may be relevant when the Water Board permits dredge or fill activities in or near the region's shorelines, especially climate adaptation projects. It updates references, corrects errors, and makes minor, non-substantive edits for clarity. It addresses one of the Water Board's highest priority Basin Plan projects as established in recent Triennial Reviews of the Basin Plan. The Basin Plan amendment is informational and contains no new regulations.

**BACKGROUND:**

Globally and in the San Francisco Bay region, climate change is manifesting as higher temperatures; rising sea and groundwater levels; changes in the timing, frequency, intensity, and duration of precipitation and runoff; more frequent and severe storm surges, floods, and droughts; drowning and downshifting of wetlands; and landscape aridity that increases the risk of catastrophic wildfires. These changes are impacting the health and resilience of the region's built and natural communities and pose a special threat to the region's waters, including wetlands. These threats are especially acute in and near the San Francisco Baylands and low-lying areas of the Pacific coast, where climate change impacts to watersheds are compounded by impacts from rising sea and groundwater levels.

Efforts to respond to and prepare for climate change through the construction of traditional infrastructure and armoring, such as levees, seawalls, engineered flood control channels, and rock revetments, can exacerbate harm to vulnerable shoreline communities and aquatic ecosystems. On the other hand, nature-based infrastructure, and hybrid measures that integrate nature with engineered structural approaches, can help create resilient shorelines that support co-benefits, such as recreation and habitat for native species. Moreover, they may perform better than traditional engineered "grey" infrastructure and cost less over time. Projects that maximize the use of nature-based features and minimize reliance on grey infrastructure generally have fewer cumulative impacts than projects that rely solely on grey infrastructure.

**The proposed Basin Plan amendment would, along with updated information, include the following:**

- A new section in Chapter 1 (Introduction) that describes the effects of a changing climate on water quality and the need to address these effects on a landscape scale; and
- A new section in Chapter 4 (Implementation Plans) to help inform the planning, permitting, and implementation of projects that will protect and restore the beneficial uses of the region's coastal waters.

- The new section in Chapter 4 includes references to the multiple collaborate regional science and guidance documents, including the 1999 and 2015 Baylands Ecosystem Habitat Goals reports and the San Francisco Bay Shoreline Adaptation Atlas, that provide information related to the protection and improvement of the region's coastal waters. It also includes a list of questions and references related to climate change and adaption that may be relevant to Water Board permitting of dredge and fill activities in or near coastal waters. When permitting these activities under existing laws and regulations, the Water Board is required to ensure that adverse impacts to waters of the state have been avoided, minimized, and then compensated. Understanding the reasonably foreseeable influence of climate change provides important context for assessing whether dredge and fill activities have been designed to avoid, minimize, and/or compensate for impacts to waters of the state. The questions include:
- Is the proposed project design, as well as assessment of its near-term and long-term impacts at site- and landscape-scales, based on the best available science describing climate change and its influence on the environment?
- Is the proposed project designed as part of a phased adaptation strategy that anticipates potential future projects and accommodates these projects in a manner that protects future beneficial uses of the site and its landscape?
- Is the proposed project designed within a landscape-scale, cross-jurisdictional framework, such as an operational landscape unit?
- Does the proposed project utilize practicable natural and/or nature-based design features, or a combination of traditional and nature-based features?
- For a proposed dredge or fill activity, what are the near- and long-term direct, indirect, and cumulative impacts to the acreage, functions, and values of waters of the state when considering the reasonably foreseeable conditions from climate change?

The process of amending the Basin Plan is a certified regulatory program under the California Environmental Quality Act and exempt from the requirement to prepare an environmental impact report. Instead, an amendment to the Basin Plan must be accompanied by a substitute environmental document. The staff report, including the environmental checklist, is the substitute environmental document.

Written comments on the Basin Plan amendment and staff report are due on April 22, 2022. Subsequently, staff will prepare a response to comments document and, if necessary, revise the amendment and staff report, with the intention of bringing this item back to the Board for adoption in June.

#### **APPENDICES:**

- A. Proposed Basin Plan amendment
- B. Draft staff report

Appendix A  
Basin Plan Amendment

Appendix B  
Draft Staff Report and Supplemental  
Environmental Document