San Francisco Bay Conservation and Development Commission

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**TO:** Marc Zeppetello, Retired Annuitant Staff Counsel

**FROM:** Britne Clifton, BCDC Climate Adaptation Specialist

**SUBJECT:** **Technical Memorandum: Amending the Commission's regulations to make habitat projects up to 1,000 acres in area eligible for administrative permits**

# Summary

This memo proposes and provides technical information supporting amendments to section 10601 of the Commission's regulations to allow more habitat restoration, enhancement, and establishment projects ("habitat projects" hereafter), including nature-based adaptation efforts, with an area of up to 1,000 acres to qualify for administrative permits.

- Allowing more habitat projects to obtain administrative permits will simplify the approval process, making it easier for them to move forward.
- Unlike major permits, administrative permits do not require public hearings or Commission votes, and they have lower application fees.
- Streamlining the process for habitat projects will help achieve the Commission's goals to support the long-term adaptation and survival of Bay habitats as sea levels rise.

# Background

The Commission has taken several major steps to facilitate habitat restoration and nature-based adaptation projects over the past several years.

- In 2019, the Commission adopted a comprehensive set of amendments to the San Francisco Bay Plan to allow greater flexibility in authorizing fill that would help Bay habitats survive as sea levels rise. The amendments, commonly referred to as the Fill for Habitat Amendment, allow more flexibility around placing fill for habitat projects,

and require that shoreline protection projects incorporate natural and nature-based features, including Nature-based Solutions[1], where practicable.[2]

- In 2022, building on the Fill for Habitat Amendments, the Commission amended section 10601 of its regulations to include certain habitat projects and Nature-based Solutions as "minor repairs or improvements." These amendments made many smaller habitat projects and projects that incorporated natural or nature-based features eligible to be authorized by administrative permits.

# Goals of this change

This proposal builds on the Commission's recent work and would expand the number of habitat projects that would qualify for administrative permits. The proposed amendments to section 10601 are intended to:

- **Accelerate implementation** of projects designed to reduce risk to Bay habitats from sea level rise.
- **Expedite permitting with a clearer, more predictable, and less burdensome process** for projects that align with regional habitat goals to facilitate habitat projects and shoreline adaptation as sea level rises.
- **Align BCDC's permitting program with other regulatory agencies** that have undertaken streamlining efforts for habitat projects.

# Proposed amendments

## What the proposed amendments would accomplish

The proposed amendments to section 10601, which are discussed in the next section, would increase the number of habitat projects eligible for administrative permits and provide a clear standard for determining what projects would qualify for such permits by:

[1] Nature-based Solutions are also commonly referred to as "NbS"

[2] In addition to amending or adding 30 Bay Plan findings on numerous factual matters, the Commission amended or added the following Bay Plan policies: (a) Fish, Other Aquatic Organisms and Wildlife Policies 2 through 7; (b) Tidal Marshes and Tidal Flats Policies 4 through 12; (c) Subtidal Areas Policies 4 through 6 and 8 through 10; (d) Shoreline Protection Policies 1, 5, 6, and 7; and (e) Dredging Policies 11.a, 11.b, and 11.c.

- **Increasing size limits for habitat projects**: Increase the maximum area of habitat restoration, enhancement, and establishment projects eligible for administrative permits to 1,000 acres, from the current limits of 20,000 square feet (0.46 acres) in the Bay and certain waterways jurisdictions and 50 acres in salt pond and managed wetland jurisdictions.
- **Simplifying jurisdictional classifications:** Allow restoration projects to be considered comprehensively, in terms of their overall project area and objects, rather than considering individual project components located in each type of area of Commission jurisdiction.
- **Providing a clear determination between permit types:** To qualify for an administrative permit, the permit applicant for a habitat project with an area of up to 1,000 acres must demonstrate that the project would result in a net increase in habitat resources or functions.

## Text of the proposed amendments

The proposed amendments to section 10601 of the regulation are as follows. Deleted language is shown as a ~~strikeout~~, and new language is shown as <u>underlined</u>.

> Section 10601. "Minor repairs or improvements" means any activity for which a Commission permit is required, that is either (a) necessary to the health, safety, or welfare of the public in the entire Bay Area, (b) consistent with the Government Code sections 66600 through 66661 and the San Francisco Bay Plan, or (c) consistent with the Public Resources Code sections 29000 through 29612 and Suisun Marsh Protection Plan or with the certified Suisun Marsh Local Protection Program, and that falls into one or more of the following categories:
>
> (a) with respect to activities in San Francisco Bay and areas within the Commission's "certain waterways" jurisdiction:
>
> ...
>
> ~~(9) habitat restoration or enhancement activities that would not exceed 20,000 square feet in the Bay or a certain waterway, would include the minimum amount of fill necessary to improve wildlife habitat, and would not have significant adverse habitat conversion impacts; and~~
>
> ~~(10) extraction or dredging of no more than 10,000 cubic yards of materials to enhance tidal connectivity or restore habitat or the disposal of such materials within an existing site for such purposes.~~

...

(c) with respect to activities in salt ponds and managed wetlands:

...

~~(3) habitat restoration or enhancement activities that would not exceed 50 acres in salt ponds or managed wetlands and would include the minimum amount of fill necessary to improve wildlife habitat; and~~

~~(4) extraction or dredging of no more than 10,000 cubic yards of materials to enhance tidal connectivity or restore habitat or the disposal such materials within an existing site for such purposes.~~

...

(e) with respect to activities anywhere in the Commission's jurisdiction:

...

(5) any habitat restoration, enhancement, or establishment project ("habitat project") up to 1,000 acres in total area that will result in a net increase in habitat resources or functions.

(A) if a habitat project will restore or enhance an existing habitat type (for example, restore degraded tidal marsh to healthy tidal marsh), the permit application must include all the information described in San Francisco Bay Plan Tidal Marshes and Tidal Flats Policy 6 or Subtidal Area Policy 3, as applicable to the project site, and an analysis and evaluation of the project that demonstrates the project will result in a net increase in habitat resources or functions;

(B) if a habitat project will result in the conversion of a distinct habitat type to another habitat type (for example, convert subtidal habitat to tidal marsh), the permit application must include all the information described in San Francisco Bay Plan Tidal Marshes and Tidal Flats Policy 6 or Subtidal Area Policy 3, as applicable to the project site, and either:

(i) the results and all supporting data from an evaluation of the project using the Aquatic Resource Type Conversion Evaluation Framework, version 2.0, Southern California Coastal Research Project, Technical Report 1110 (March 2022) ("Framework"),

showing that the project achieved a positive score in all three Framework modules which shall be sufficient to demonstrate the project will result in a net increase in habitat resources or functions; or

(ii) an analysis and evaluation of the project that demonstrates the project will result in a net increase in habitat resources or functions.

(C) The Commission hereby adopts and incorporates by reference the Aquatic Resource Type Conversion Evaluation Framework, version 2.0, Southern California Coastal Research Project, Technical Report 1110 (March 2022), pages 1-39 and 61-67 (Appendix B). The Framework is posted on the Commission's website and available upon request from staff.

...

## A clear standard for a habitat project to qualify for an administrative permit

Proposed section 10601(e)(5) provides that to qualify for an administrative permit, the permit applicant must include all the information described in San Francisco Bay Plan Tidal Marshes and Tidal Flats Policy 6 or Subtidal Area Policy 3, as applicable to the project site, and must demonstrate that the project will result in a net increase in habitat resources or functions. To meet this standard, section 10601(e)(5) distinguishes between two different kinds of habitat projects:

- a project that will restore or enhance an existing habitat type, and
- a project that will result in the conversion of a distinct habitat type to another habitat type

It is necessary to distinguish between these two different kinds of habitat projects because the approach to determine whether a project meets the "net increase of habitat resources or functions" depends on whether a project includes habitat type conversion.

It may be easier to demonstrate that a habitat project to restore or enhance existing habitat will result in a net increase in resources or functions because of the nature of the project. However, habitat projects that result in the conversion of one type of habitat to another may result in a net loss of some habitat types and associated ecosystem functions and other negative impacts unless properly designed and implemented. In many areas of the

Bay, especially where habitats are particularly threatened by sea level rise and an absence of upland migration space, habitat type conversion may be required to offset habitat loss due to climate change effects and ensure that fish, other aquatic organisms, wildlife, and plants have habitat into the future. Thus, robust and reliable evaluation is necessary to identify habitat projects that will support habitat resilience.

## 1. Requirements for projects that restore or enhance existing habitat

If a habitat project will restore or enhance an existing habitat, the permit application must include:

- all information described in San Francisco Bay Plan Tidal Marshes and Tidal Flats Policy 6 or Subtidal Area Policy 3, as applicable to the project site. Both Tidal Marshes and Tidal Flats Policy 6 and Subtidal Area Policy 3 require a habitat project to include:
    - clear and specific long-term and short-term biological and physical goals
    - success criteria
    - a monitoring program
    - an adaptive management plan, as appropriate
- Tidal Marshes and Tidal Flats Policy 6 also requires an analysis of the design of the project including an analysis of:
    - how the project's adaptive capacity can be enhanced so that it is resilient to sea level rise and climate change
    - the impact of the project on the Bay's and local embayment's sediment transport and budget
    - localized sediment erosion and accretion
    - the role of tidal flows
    - potential invasive species introduction, spread, and their control
    - rates of colonization by vegetation
    - the expected use of the site by fish, other aquatic organisms and wildlife
    - an appropriate buffer, where feasible, between shoreline development and habitats to protect wildlife and provide space for marsh migration as sea level rises

  - site characterization
  - how the project adheres to regional restoration goals
  - whether the project would be sustained by natural processes
  - how the project restores, enhances, or creates connectivity across Bay habitats at a local, sub-regional, and/or regional scale.

- Subtidal Area Policy 3 also requires an analysis of the design of the project including an analysis of:
  - the ecological need for the project
  - the effects of relative sea level rise
  - the impact of the project on regional and local sediment budget and transport
  - localized sediment erosion and accretion
  - the role of tidal flows
  - potential invasive species introduction, spread, and control
  - rates of colonization by vegetation, where applicable
  - the expected use of the site by fish, other aquatic organisms and wildlife
  - characterization of and changes to local bathymetric features
  - how the project will adhere to the best available and regionally appropriate science on subtidal restoration and conservation goals
  - whether the project would be sustained by natural processes.

The permit application for a project that will restore or enhance an existing habitat must also include an analysis and evaluation of the project that demonstrates the project will result in a net increase in habitat resources or functions. This analysis will be based on the project description and design and the required information described in applicable Bay Plan policies.

By requiring a permit application for a habitat restoration or enhancement project to include all the information described in these policies, as applicable to the project site, with an analysis and evaluation of the project demonstrating that the project will result in a net increase in habitat resources or functions, the proposed regulation establishes a clear standard for determining whether a habitat restoration or enhancement project qualifies for an administrative permit.

## 2. Requirements for projects that include the conversion of one distinct habitat type to another

If a habitat project will result in the conversion of a distinct habitat type to another habitat type, section 10601(e)(5) allows a permit applicant to use either of two alternative approaches to demonstrate a net increase in habitat resources or functions. As with a habitat restoration or enhancement project, the permit application must include:

- all the information described in San Francisco Bay Plan Tidal Marshes and Tidal Flats Policy 6 or Subtidal Area Policy 3, as applicable to the project site, as described above and
- either:

  (1) an analysis of the design and evaluation of the project that demonstrates a net increase in habitat resources or functions; or

  (2) the results and all supporting data from an evaluation of the project using the Aquatic Resource Type Conversion Evaluation Framework, version 2.0, Southern California Coastal Research Project, Technical Report 1110 (March 2022) ("Framework"), showing that the project achieved a positive score in all three Framework modules.

The Framework consists of three modules to assess the overall net environmental benefit of a habitat project. The three modules address:

(1) feasibility/suitability;

(2) site-specific assessment of function and condition; and

(3) regional context.

**Module 1:** In module 1, feasibility is evaluated using a standardized checklist to rate how well various criteria have been met, along with justifications for each assigned rating. Module 1 is comprised of two parts, each of which is scored separately: (1) suitability for the landscape setting and context, and (2) difficulty or intensity of management necessary to support the future habitat after construction and in perpetuity.

**Module 2:** Module 2 provides an approach for evaluating the relative change in function between the original and ultimate habitat type to support an evaluation of whether such a habitat type conversion is acceptable and/or desirable.

**Module 3:** Module 3 provides approaches to consider how type conversion may support or detract from the larger regional functions and connections that individual aquatic resources contribute to and how the project contributes to regional goals[3].

The three Framework modules provide a uniform and scientifically rigorous approach to assess potential habitat type conversion impacts. The Framework evaluates expected habitat functional losses and gains resulting from habitat type conversion, including over time considering sea level rise.

The Framework also supports streamlined decision-making. By providing a uniform method to assess potential impacts of habitat type conversion across various projects, the Framework allows project sponsors to self-assess and then demonstrate to Commission staff if their project can qualify for an administrative permit. This standard is superior to a qualitative (or narrative) approach which lacks clarity and introduces uncertainty.

Proposed section 10601(e)(5) provides that if a permit application includes the results and all supporting data from an analysis and evaluation of the project using the Framework which shows that the project achieved a positive score in all three Framework modules, this shall be sufficient to demonstrate the project will result in a net increase in habitat resources or functions.

# Why the changes are proposed

## 1. Taking a more ambitious approach to accelerate habitat projects

When the amendments to section 10601 were adopted in 2022 (specifically, the addition of subsections 10601(a)(9), (a)(10), (c)(3), and (c)(4)), the size limits for habitat projects were established in comparison to limitations for other types of Bay fill projects. At the time, the goal was to allow more beneficial habitat projects to be processed as administrative permits, but in retrospect the scale that was selected was overly conservative and did not fully reflect the benefits provided by large-scale projects in preserving the long-term health of Bay habitats. The approach was a starting point, designed to introduce flexibility while maintaining relative consistency with how much fill was considered "minor" in other contexts.[4]

[3] Regional goals include, but are not limited to Baylands Habitat Goals, Estuary Blueprint, Subtidal Habitat Goals, the Adaptation Atlas, multiple Joint Ventures, regional conservation or recovery plans, habitat conservation plans, watershed plans, and others.

[4] In addition, the justification for amendments to section 10601(a) and (c) adopted in 2022 that limited habitat projects eligible for an administrative permit to 20,000 square feet in the Bay and certain waterways jurisdictions was derived in part by looking to the amount of fill permitted under the U.S. Army Corps of

The current size limits in sections 10601(a)(9), (a)(10), (c)(3), and (c)(4) are too small for many meaningful restoration projects to qualify, particularly those intended to restore ecosystem functions within the Bay. The current size limits are best suited for small-scale pilot and demonstration projects.

### *The proposed amendments will accelerate habitat projects*

- **Add section 10601(e)(5) to increase the maximum area for habitat projects eligible for administrative permits to 1,000 acres.** This change will reduce regulatory burdens on projects capable of making greater progress toward regional goals on ecosystem restoration.
    - **Large projects would still require major permits.** Larger scale restoration projects and landscape-scale projects, like Hamilton Wetlands Restoration (1,560 ac), Alviso & Ravenswood Complexes (2,309 ac), Sears Point (1,046 ac), Montezuma Wetlands (4,735 ac), and South Bay Salt Ponds (2,209 ac), are highly complex and transformative projects that merit close review and discussion by the Commission at a public meeting.
    - **More habitat projects would qualify for administrative permits.** The proposed amendments would allow habitat projects to benefit from administrative processing at a rate similar to other projects. Between 2019 and 2024, approximately 4% (42 of 957) of all projects were processed as a major permit or a material amendment, and the rest were processed administratively.[5] However, during the same period, 28% (5 of 18) of habitat projects were processed as a major permit or material amendment. With the proposed amendment, more habitat projects would be processed administratively, at rates similar to non-habitat projects. If the proposed rules had been in place previously, during the same period (2019-2024) approximately 11% of habitat projects would have been processed as major permits and material amendments and approximately 89% of habitat projects would have qualified for administrative processing.

Engineers' (USACE's) Nationwide Permit (NWP) 43 (for stormwater management facilities), NWP 57 (for electric utility line and telecommunications activities), and NWP 58 (for utility line activities). However, this is not an apples-to-apples comparison, given those limitations are for infrastructure. A better comparison is NWP 27 for Habitat Restoration or Enhancement Projects, which does not impose an area limit. While NWP 27 was acknowledged in the justification for the 2022 regulation changes, the importance of the lack of a project size limit was not articulated in the staff recommendation.

[5] As administrative, regionwide, or abbreviated regionwide permits, excluding a handful of emergency permits.

- **Allow flexibility for placement of fill and extraction of material.** The existing regulations establish which habitat projects qualify for administrative permits based upon multiple variables, including the maximum amount of fill allowed within each jurisdiction and the amount of "extraction or dredging of [...] materials to enhance tidal connectivity or restore habitat or the disposal of such materials within an existing site for such purposes."
  Under the existing regulations, the maximum amount of extraction or dredging that qualifies for an administrative permit is 10,000 cubic yards in the Bay, certain waterways, salt ponds, and managed wetlands jurisdictions. The proposed amendments would not set specific limits on reuse of these materials. Instead, this approach would look at the full scope of the project and whether it would result in a net increase in habitat resources and/or function.
- **Align regulations with the current scientific understanding around successful restoration methods.** The proposed amendments reflect the expanded understanding of the best available science and established techniques involved in habitat projects. As the knowledge and best practices behind habitat projects have increased, greater streamlining is now appropriate to enable wider adoption and quicker delivery of projects.

## 2. Simplifying the regulatory framework to consider a habitat project in its entirety rather than evaluating project components separately in relation to different areas of the Commission's jurisdiction

The regulations currently establish which projects are eligible for an administrative permit by breaking down the individual components of the project across the various areas of the Commission's jurisdictions, including Bay, certain waterways, salt ponds, managed wetlands, Suisun Marsh, and 100-foot shoreline band. Though this distinction can be useful in categorizing whether a project qualifies for an administrative permit, it can be confusing and limiting when planning habitat projects that span different areas of Commission jurisdiction and involve converting one type of habitat to another. This is because the existing regulations provide for dissimilar amounts of restoration activities in different jurisdictional areas. Additionally, habitat features rarely align with human-defined boundaries and should, rather, be considered in the full site context rather than according to Commission jurisdictional areas.

### *The proposed amendment will simplify the regulatory framework*

- **Allow habitat projects to be categorized according to total size.** The proposed amendment places habitat projects with total project area of up to 1,000 acres. This change will allow habitat projects to be considered in their entirety rather than continue to distinguish between the amount of the activity that might occur in any one jurisdictional area. By simplifying the regulatory framework in this way, project proponents can more easily chart out their regulatory approval process.
- **Better align with the ecosystems being restored.** When an area within the Bay is being restored, the design typically includes areas within different areas of the Commission's jurisdiction. Because nature doesn't typically follow boundary designations, making such delineations by jurisdictional area early in the project's design may be difficult for project proponents and permit analysts. A cumulative size based on the total project area better serves projects by reducing disparate rules based on different jurisdictional areas.

## 3. Updating the Commission's regulations to be consistent with streamlining efforts of other resource agencies

California's Climate Adaptation Strategy recommends using habitat and nature-based projects as a potential adaptation method to reduce the need for engineered "hard" shoreline protection and to provide valuable, functional coastal habitat (CNRA 2018). The California State Coastal Conservancy's Climate Change Policy also supports the use of habitat features within projects for their ability to improve the resilience to future sea level rise and other effects of climate change (SCC 2011).

Most other state and federal agencies involved in permitting the types of habitat projects that would benefit from the proposed amendment to add section 10601(e)(5) have already taken aggressive measures to streamline and reduce regulatory burdens for habitat projects. The California Department of Fish and Wildlife, State Water Resources Control Board, National Marine Fisheries Service, U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service have all adopted programmatic approvals for various types of habitat projects, and a change to make more such

projects eligible for administrative permits at BCDC would make progress toward similar streamlining for projects that advance regional habitat and adaptation goals. [6]

### *The proposed changes are consistent with how other agencies permit habitat projects*

- **Administratively permit habitat projects that qualify for a programmatic approval from other resource agencies.** The proposed amendment to add section 10601(e)(5) would reduce some of the uncertainty and higher costs (lower application fee, fewer consultant hours, and less staff time spent) associated with applying for a major BCDC permit for certain habitat projects, allowing such projects to maximize the benefits of streamlining efforts at other agencies.
- **Better align with other agencies' approaches to streamlining.** Various types of habitat projects are already eligible for streamlined programmatic approvals from other agencies. Many of these programmatic approval pathways do not impose project size limitations, and instead base eligibility on the type of habitat project, the methods of construction, and other factors. Other programmatic approaches do impose size limitations on the project, but limitations are consistent throughout a given agency's jurisdiction, unlike the Commission's existing regulations.[7] The proposed changes to the Commission's regulations would help applicants and staff determine whether a project that qualifies for an expedited permitting path at other natural resource agencies would also be eligible for a Commission administrative permit.
- **Requiring evidence to support that projects will result in a "net increase in habitat resources and/or function" within (e)(5) removes ambiguity over**

[6] Some examples of programmatic approaches to restoration that do not include a size limitation on the project include: (1) State Water Resources Control Board, Order for Clean Water Act Section 401 Water Quality Certification and Waste Discharge Requirements for Restoration Projects Statewide, Order WQ 2022-0048 (Aug. 16, 2022) ("SWRCB General Restoration Order"); (2) the United States Army Corps of Engineers, Nationwide Permit 27 – Aquatic Habitat Restoration, Enhancement, and Establishment Activities (reissued Dec. 11, 2021) ("Corps Nationwide Permit 27"), and (3) the United States Fish and Wildlife Service's Programmatic Biological and Conference Opinion California Statewide Restoration Programmatic Consultation FWS Reference: 2022-0005149-S7 U.S. Fish and Wildlife Service Region 8 (Feb. 2025) ("FWS's Biological Opinion for Restoration").

[7] Examples include the SWRCB Amended Order for Clean Water Act Section 401 General Water Quality Certification for Small Habitat Restoration Projects, General Order Number SB12006GN (March 27, 2013) ("Order for Small Habitat Restoration Projects"), California's Department of Fish and Wildlife (CDFW) Habitat Restoration and Enhancement Act (HREA) (Jan. 1, 2015), California Environmental Quality Act (CEQA) Categorical Exemption 15333 – Small Habitat Restoration Projects, 14 C.C.R. § 15333 ("CatEx 15333") (Sept. 7, 2004)

**whether projects that involve habitat type conversion should qualify for administrative permits.** Applicants will be able to use the Aquatic Resource Type Conversion Evaluation Framework Version 2.0, which includes authors from EPA and reviewers from within the Bay Restoration Regulatory Integration Team (BRRIT), to meet the "net benefit" requirement. This data-driven framework was designed for use by regulatory agencies to assess if habitat type conversion impacts were justified.

## 4. The proposed amendments to facilitate habitat projects are consistent with the Commission's laws and policies.

The proposed amendments to section 10601, particularly proposed section 10601(e)(5) are consistent with the Commission's laws and policies including the McAteer-Petris Act, the Suisun Marsh Preservation Act, the Bay Plan, and the Suisun Marsh Protection Plan.

The McAteer-Petris Act recognizes San Francisco Bay as the most valuable single natural resource of the entire region (Government Code 66600). Similarly, the Suisun Marsh Preservation Act recognizes that the Suisun Marsh represents a unique and irreplaceable resource to the people of the state and nation, and establishes that it is the policy of the state to preserve and protect the resources of the Marsh. Public Resources Code section 29002.

Allowing habitat projects up to 1,000 acres that result in a net increase in habitat resources and function to be authorized under administrative permits is consistent with the goals of the McAteer-Petris Act and the Suisun Marsh Preservation Act to preserve and protect the natural resources of the Bay and Suisun Marsh. Moreover, authorizing such habitat project under administrative permits is consistent with the authority granted to the Commission under the McAteer-Petris Act to develop regional strategies as needed for addressing the impacts of, and adapting to, the effects of sea level rise (Government Code 66646.2.)

The proposed amendment is also consistent with and promote numerous policies in the Bay Plan and the Suisun Marsh Protection Program to preserve and enhance the quality and diversity of habitat. These policies include but are not limited to:

- **Bay Plan Fish, Other Aquatic Organisms and Wildlife Policy 1:** "To assure the benefits of fish, other aquatic organisms, and wildlife for future generations, to the greatest extent feasible, the Bay's tidal marshes, tidal flats, and subtidal habitat should be conserved, restored, and increased."

- **Bay Plan Fish, Other Aquatic Organisms and Wildlife Policy 3:** "In reviewing or approving habitat restoration projects or programs the Commission should be guided by the best available science, including regional goals, and should, where appropriate, provide for a diversity of habitats for associated native aquatic and terrestrial plant and animal species."
- **Bay Plan Fish, Other Aquatic Organisms and Wildlife Policy 6:** "Allowable fill for habitat projects in the Bay should (a) minimize near term adverse impacts to and loss of existing Bay habitat and native species; (b) provide substantial net benefits for Bay habitats and native species; and (c) be scaled appropriately for the project and necessary sea level rise adaptation measures in accordance with the best available science. The timing, frequency, and volume of fill should be determined in accordance with these criteria."
- **Bay Plan Water Quality Policy 6:** "…planting native vegetation and other appropriate measures should be evaluated and implemented where appropriate."
- **Bay Plan Water Quality Policy 7:** " Whenever practicable, native vegetation buffer areas should be provided as part of a project to control pollutants from entering the Bay, and vegetation should be substituted for rock riprap, concrete, or other hard surface shoreline and bank erosion control methods where appropriate and practicable."
- **Suisun Marsh Protection Plan, Environment Policy 1:** "The diversity of habitats in the Suisun Marsh and surrounding upland areas should be preserved and enhanced wherever possible to maintain the unique wildlife resource."
- **Suisun Marsh Protection Plan, Land Use and Marsh Management Policy 1:** "…Within the primary management area…both land and water areas should be protected and managed to enhance the quality and diversity of the habitats."

In addition to the individual Bay Plan policies noted above, the proposed section 10601(e)(5) is consistent with and promotes the goals of the 2019 Bay Plan Fill for Habitat Amendments. The Fill for Habitat Amendment aimed to accelerate habitat restoration and ensure the survival of Bay habitats as sea levels rise. While the amendments to sections 10601(a) and (c) adopted in 2022 provided more flexibility for placing fill for habitat projects, they did not differentiate natural and nature-based projects from traditional "gray" shoreline hardening projects. The quantities of fill allowed for "minor repairs and improvements" were only slightly larger (20,000 square feet for habitat projects), in some cases no larger (10,000 square feet for natural or nature-based features), for environmentally beneficial projects, compared to

traditional, gray infrastructure. The currently proposed amendments reflect the urgency of habitat restoration and the spirit of the new Bay Plan policies.

### *How the proposed amendment aligns with the objectives of the Fill for Habitat Amendments*

- **Align with the policy objectives of the Fill for Habitat Amendments.** The Fill for Habitat Amendments recognize the positive effects of filling related to habitat restoration in response to rising sea levels. The amendments also encourage pilot and demonstration projects to further scientific understanding of the Bay and investigate how new approaches may support habitat survive as sea levels rise.
- **Allow more habitat projects to be authorized under administrative permits without increasing likelihood of harm to the Bay.** The Bay Plan recognizes that more fill in the Bay for habitat projects could result in some adverse impacts and conversions of some habitat types to another (such as marsh to upland to allow future marsh migration), the consequences of which may be difficult to predict. To address the potential harm, policies require additional habitat monitoring and the development of adaptive management plans that include additional steps that would address potentially significant inadvertent impacts. These controls would be expected to be included as part of the project for it to be approved under an administrative permit. If they are not included (or are not adequately protective) in the application, the Executive Director may impose such controls as conditions of approval for a project.
- **Promote regional restoration goals.** Tidal Marshes and Tidal Flats Policy 5 states that, as recommended in the Baylands Ecosystem Habitat Goals Update report (2015), approximately 65,000 acres of areas diked from the Bay should be restored to tidal action and supported to maintain a healthy Bay ecosystem on a regional scale. By expediting and providing greater streamlining for habitat projects that will result in a net increase in resources or function, the proposed amendments to section 10601 will enable the Commission to better support feasibly achieving such an expansive regional restoration goal for the Bay.
- **Adapt to rising sea levels.** While habitat is valuable because of the natural benefits it provides to wildlife, the ecosystem services provided to the Bay from habitat projects can, and often do, include increased resilience to sea level rise, wave attenuation, flood risk reduction, water quality improvement, pollution abatement, ambient cooling, and other beneficial services.