

San Francisco Bay Conservation and Development Commission

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To: Bay Fill Policies Working Group Members

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Subject: Consolidated Public Comments on the Fill for Habitat Bay Plan Amendment (BPA 1-17)

Policy, Finding, or Topic	Synthesized comments
General Comments	
Proposed policy changes will increase burden in some way	Concern that language changes will increase regulatory burdens by requiring more monitoring, adaptive management, funding plans. Mitigation should not be required.
Policy changes should do more to streamline restoration permitting	<ul style="list-style-type: none">• Eliminate permit fees• Reduce monitoring requirements• Create a regionwide permit• Limit the compliance timeline/post-project obligations• Allow dredged sediment to dry out
Encourage stronger acknowledgement of the need to respond to increasingly dynamic conditions.	We are in an increasingly dynamic environment impacted by a combination of accelerating processes and impacts. The amendment should acknowledge the need to be adaptive and responsive to these changes, and recognize the need to keep up with current scientific understanding and recommendations from regional experts and collaboratives.
Encouraging projects to contribute to regional goals and the restoration of complete ecosystems	Although we support regional goals and the restoration of complete ecosystems, these objectives may not be compatible with the needs of certain special status species. There may be instances where project proponents should forego contributing to regional habitat goals because more local opportunities exist to create specific habitat for select species. Therefore, GGAS recommends that adaptive management measures be permitted or possibly encouraged for the purpose of restoring or protecting specific habitat for select species.

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Limit fill activities; measure impacts; restrict excessive fill	We urge the project proponents to limit activities and measure impacts so that a reliable basis for determining the scope of allowable fill will derive from the best available science. The Plan should seek to avoid cumulative and significant impacts to sensitive habitat, nesting birds, rare sensitive plants and other wildlife by restricting excessive fill and identifying and enhancing resiliency in sensitive habitats.
Artificial separation among habitat locations	The language throughout multiple sections (Fish. i, Tidal Marsh I, Subtidal j) makes an artificial separation implying that eelgrass and oyster-related work is always located in the subtidal zone (mostly submerged below mean lower low water (MLLW)), and the majority of references to intertidal habitats are restricted to vegetated wetland or mudflat (above MLLW), but it is key to note most of these habitats have both subtidal and intertidal ranges.
Focus on broader species/habitat range	Oyster beds --> shellfish beds; oyster reefs --> nearshore reefs Reference beaches, sand, gravel, rocky intertidal Not enough focus on protecting habitats other than tidal marsh, and on protecting species other than endangered species
Comments on topics that were not included in the scope of this amendment	
Encouraging policy changes regarding beneficial reuse	<ul style="list-style-type: none"> • Promote policy or regulatory changes that will make beneficial use of sediment available in multiple ways for restoration while still precluding fill that would cause detriment to natural habitats where they don't provide net habitat benefits. • The draft Findings and Policy Changes should be revised to more accurately represent the broad consensus that significant volumes of dredged sediment will be needed at habitat sites in tidal waters to maximize habitat restoration and sea level resiliency. The current understanding regarding the need for reuse of dredged sediment and where such use is most appropriate is described in the staff analysis but has not been sufficiently incorporated into the draft findings and policies. • A policy to ensure dredgers direct dredged sediments for reuse in marsh restoration projects is critical. It will do no good to encourage beneficial reuse if the material is not available.

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Public Access requirement concerns	<ul style="list-style-type: none"> • Restoration projects should be exempt from public access requirements • Public access should only occur in appropriate locations • Fill for ecotones and transitional habitat could obstruct existing public views...how to appropriately consider this in project assessment? • If primary purpose of wildlife refuges is wildlife protection, does that mean public access requirements here are lower?
Recognize the value of fill in defending existing development and infrastructure from rising sea level	<ul style="list-style-type: none"> • Amendments should consider recognizing the value of fill in protecting development and infrastructure • Draft Policy Changes should be clarified to demonstrate that fill for necessary shoreline protection projects to protect public health and safety is important to facilitate the adaptation of Bay area communities to rising sea level, including in areas where there are no or very limited opportunities for restoration.
Policy-Specific Comments	
Major Conclusions and Policies 4	<ul style="list-style-type: none"> • "Restoring, enhancing, or creating coastal ecosystems that provide habitat for native fish, other aquatic organisms, or wildlife; enhance coastal resilience; and provide services such as water filtration and carbon sequestration. Sourcing clean fill, i.e. dredged material. for these purposes will be especially important to replenish wetlands to facilitate the adaptation of habitats and provide a natural buffer to alleviate the sediment deficit due to rising sea level." • Encourage use of the term "beneficial fill" to differentiate from traditional fill for development purposes. • Recommend including waterfowl and other waterbirds; recommend including subsidence reversal in discussion of services provided. • 4g: Suggest adding the following as last sentence: "There is broad agreement and recognition, including among scientists and resource agencies, that fill will be essential to the successful restoration and expansion of tidal marsh and other aquatic habitat in SF Bay." • Ensure that language added here is consistent, if not the same, as language for draft policy change #9 under Tidal marshes and tidal flats on page 24. This should be a

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	<p>statement that clearly explains that adding fill to tidal marshes and other aquatic habitats is justifiable fill for successful restoration in the long term.</p> <p>We suggest incorporating an additional justifiable use of fill in the Major Conclusions and Policies section to include: h. Protecting existing or planned public infrastructure or shoreline assets. The existing “justifiable filling” scenarios do not adequately consider the economic impact of fill placement and we urge you to incorporate this consideration.</p>
Major Conclusions and Policies 5	<ul style="list-style-type: none"> • 5a: After "Filling..." insert the following before "...can negatively affect..": "not for the purpose of well-designed habitat restoration". • 5a: Add "for development" after "Future filling" (2nd sentence). • 5a 3rd sentence: Replace "..delicate balance created by nature, and.." with "highly modified and urbanized setting.."; Add "non-maintenance" before "dredging project". • 5b: This section does not reflect current science; suggest deleting. At least change "almost always increases" in first sentence to "may increase". • 5b: "Filling can increase the danger of water pollution...". • 5b: This wording is too strong. I agree that artificial fill generally does this, but many restoration projects can help decrease water pollution by leading to marsh development, establishment of oysters and other filter feeders, or adding more substrate for submerged aquatic vegetation to grow. This beneficial effect of some forms of fill should be acknowledged by adding language to that effect to the policies. • We recommend adding a letter under Section 5 (maybe new letter c after current b) noting that habitat restoration projects use beneficial fill to achieve positive environmental effects, including habitat creation and improved water quality, and, in multi-benefit wetland restoration projects, can include other benefits, such as protection of the shoreline from erosion through wave attenuation, flood protection, and sea level rise adaptation. It is not just an ancillary effect, but the main goal of the beneficial fill in the project.

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	<ul style="list-style-type: none"> • BFWG- differentiate between "beneficial" and traditional fill; discuss the tradeoffs involved with fill and that there can also be net benefits
Fish, Other Aquatic Organisms, and Wildlife Finding a	<ul style="list-style-type: none"> • Add native or commercially important before "Fish..." • Think about intent behind adding 'plants and seaweed' and clarify language around that. • Consider habitat types other agencies protect, such as eelgrass, other native Submerged Aquatic Vegetation (SAV),and wetlands.
Fish, Other Aquatic Organisms, and Wildlife Finding b	Sediment concentration...should this be turbidity? What are we trying to get at here?
Fish, Other Aquatic Organisms, and Wildlife Finding c	The comment on this was really more about public access...see above.
Fish, Other Aquatic Organisms, and Wildlife Finding e	Change "or" to "and" as follows" essential fish habitat and critical habitat".
Fish, Other Aquatic Organisms, and Wildlife Finding i	<ul style="list-style-type: none"> • Change "this time" to "the time of publication...". • Please clarify that the Subtidal and Baylands Goals also include recommendations for intertidal habitats (intertidal shellfish, intertidal aquatic vegetation, rocky intertidal, intertidal beaches, etc.) The language currently makes many references to intertidal as always wetland/mud, and subtidal as always submerged oyster and eelgrass, but these habitats are intertidal as well. Also, please include USFWS Tidal Marsh Recovery Plan (2013) in the list of regional frameworks.

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Fish, Other Aquatic Organisms, and Wildlife Finding j	<ul style="list-style-type: none"> • Please consider editing the language in element (j) to state explicitly that some near-term habitat conversions due to fill may be offset over the long-term by habitat conversions driven by sea level rise. Therefore, the net loss of habitat types and associated ecosystem functions due to fill may be temporary, and may lead to a long-term net gain. • Suggested language change: "Current models indicate that sea level rise may degrade or convert Bay habitat types. However, projects that place fill to ensure that important fish,...understood. Therefore, fill must be placed strategically to minimize short-term habitat loss while protecting Bay habitats over the long-term from the impacts of sea level rise." • Suggested sentence addition: "However, habitat projects intended to convert an area from a plentiful habitat type to a scarcer one with higher ecological value or to habitats that will be more critical as sea level rises should be encouraged and should be considered self-mitigating." • In first sentence delete "convert" and substitute "changed". In addition, delete last two sentence and insert the following: "The best available science will need to guide decisions that will cause habitat type conversion to ensure the viability of species or habitats locally, within an embayment, or on a regional scale. A Wetlands Regional Monitoring Program would be an appropriate approach to determine the best available science to inform agencies, landowners and interested stakeholders on rates and distribution of change of wetland types so that ecologically appropriate decisions and/or interventions/actions can be made." • BFWG: reflected comments above--should talk about positives of type conversion and how type conversion will happen inevitably (SLR) and therefore project type conversion offsets those effects

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Fish, Other Aquatic Organisms, and Wildlife Finding k	<ul style="list-style-type: none"> • We suggest using the phrase “drown (e.g., low marsh to mudflat), downshift (e.g., high marsh to low marsh), or erode” instead of “be inundated by” to more accurately reflect the processes that lead to habitat loss. • After the sentence “Placing sediment in appropriate locations will be needed to ensure that Bay species have sufficient habitat into the future,” please add the following sentence: “In addition, placement of oyster reefs or other beneficial fill in intertidal and subtidal areas will also be needed to enhance habitat, and can help with sea level rise adaptation through wave attenuation.” • In the second sentence, delete "declining sediment supply" and replace with "changing" sediment supply. Suggest better reflection of current scientific understanding of the Bay's sediment supply in the Staff analysis section and by extension in the Findings, which has summarized the issue as "declining sediment supply".
Fish, Other Aquatic Organisms, and Wildlife Finding l	<ul style="list-style-type: none"> • Placement of fill to assist habitats in adapting to long-term sea level rise projections may not be immediately necessary and may result in unnecessary habitat type conversion and other impacts to the Bay . • We suggest using the term “beneficial fill” to differentiate it from traditional fill. • Placing fill incrementally is not always feasible and will have a higher cost. • Would the Commission require repeated permitting processes for this smaller repeat placements? • We recommend creating more flexibility in this finding so that sediment availability, restoration project demand, and logistics can all be considered. Current, regions-specific sea level rise predictions should guide conservation planning and implementation to ensure we have ample bay habitat types, including upland transition and adjacent undeveloped uplands, into the future. Specific mixes of habitats should be evaluated based on habitat restoration project goals and objectives, sea level rise projections, and other considerations such as feasibility of getting dredge or upland material to the site both now and in the future. • The assumptions made on impacts should be analyzed on a case by case basis using best available science, especially

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	<p>since it is likely that some places in the Bay will experience impacts from sea level rise more rapidly than others and designs to implement projects should be in response to site specific conditions that may include proposals for placement of large volumes of fill to achieve the project purpose which is long term success of restoration projects.</p>
<p>Fish, Other Aquatic Organisms, and Wildlife Policy 2</p>	<ul style="list-style-type: none"> • Staff may want to consider amending the statement “Protection of habitats may entail placement of fill to ensure that they persist into the future with sea level rise” to mention that placement of fill can also improve ecological functions in the near-term. For example, in the near term, the construction of marsh mounds can improve the provision of high tide refugia in marsh interiors near the home ranges of listed species such as Ridgway’s rail and salt marsh harvest mouse. However, marsh mounds may not be an effective strategy to ensure the long-term resilience of extensive tidal marsh plains. • Wording is unclear. Does this include any native species, and threatened and endangered species and species that the CDFW, NMFS, and USFWS have determined are candidates? Is "substantial public benefits" described somewhere? If not, recommend removing this language. • Remove this section and defer to California Department of Fish and Wildlife, National Marine Fisheries Service, and US Fish and Wildlife Service to provide conservation measures for state and federal threatened and endangered species. There are multiple issues with the draft policy, as described below.
<p>Fish, Other Aquatic Organisms, and Wildlife Policy 5</p>	<ul style="list-style-type: none"> • Recommended change: "The Commission may permit fill or a justified amount of dredging necessary to enhance or restore fish, other aquatic organisms and wildlife habitat; or a justified amount of fill to provide public facilities for wildlife observation, interpretation and education." • We recommend removing “minor amount of fill” to provide public facilities for wildlife observation, interpretation, and education. Please make it consistent with other language allowing the placement of fill that is necessary to achieve the objectives of the project.

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	<ul style="list-style-type: none"> • I also encourage its expansion to include a minor amount of fill for improvements to existing levees and berms that would allow associated wetland or other habitat restoration projects to proceed. As the Commission likely knows, the existing salt pond berms do provide some of that current protection but are inadequate to allow restoration to proceed now or to resist impacts associated with sea-level rise.
Fish, Other Aquatic Organisms, and Wildlife Policy 6	<ul style="list-style-type: none"> • Placement approach should be decided on a site by site basis--don't prioritize one approach over the other. • Revise to emphasize the latter part of statement -allowing for fewer, large placements of fill as the minimum amount necessary -while considering the former -small, repeated fills -as part of an adaptive management strategy as needed and covered under the main project permit. • Recommend adding the following sentence: "The Commission will cover smaller repeat placements under a single permit rather than requiring a new permit process for each placement." • One of the major challenges for projects that was not mentioned in Background Report Section 4, but is briefly mentioned in Section 5 (bottom of page 20), is finding, acquiring, transporting, and offloading an adequate amount of clean fill for restoration project use. This currently is a major challenge for existing restoration projects throughout the Bay. Adding limits to the volume of fill placed at one time in any one area will add to the challenges of completing restoration projects and may prove to be cost preventative. • Recommend changing text to: "Habitat restoration or enhancement projects in the bay that need fill to adapt to rising seas should use best available and regionally applicable science possible to support recommendations for fill quantities and should relate fill quantities to habitat restoration project goals, objectives, and timelines." • Revise as follows: Habitat restoration or enhancement projects in the Bay that need fill to adapt to rising seas may plan for repeated placements of fill over time to allow habitat to adapt incrementally to sea level rise projections unless small, repeated fills are not feasible or larger

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	<p>placements of fill achieve more significant habitat and related project goals while minimizing negative impacts to Bay habitats and species.</p> <ul style="list-style-type: none"> • Other issues could include availability of sediments on ongoing basis, a lack of storage areas where sediments can be stockpiled as necessary to allow repeated applications, or incompatibility with the project design. • Instead of "should plan for repeated placement " change to something like "consider repeated placement if it would reduce resource impacts, is compatible with the project design and is feasible." • BFWG raised concerns about the potential for this to open up to bad actors. • It might be clearer if instead of just jumping into it if there was a phrase in here – habitat, restoration, enhancement projects in the Bay should account for the possibility of temporal loss. So it is very explicit that temporal loss is part of what we are concerned about.
<p>Fish, Other Aquatic Organisms, and Wildlife Policy 7</p>	<ul style="list-style-type: none"> • Recraft to clarify that we are not living in a static environment and to clarify intent. We are living in a changing environment in a period of increasingly rapid change. Balances (number and relative abundance) of species and habitats within embayments or at a regional scale could change through time. Projects may well cause negative impacts to existing habitats, and these might be justifiable. • Revise as follows: "Allowable fill for habitat projects in the Bay should (a) maximize net habitat benefits within an embayment or on a regional scale consistent with regional goals; (b) avoid and minimize to the extent practicable negative impacts to existing habitats and species; (c) be scaled appropriately for the project and necessary sea level rise adaptation measures." • Recommend changing text to, "Allowable fill for habitat projects in the bay should be scaled appropriately for the project and necessary sea level rise adaptation measures and should not result in the loss of species within an embayment or on a regional scale".

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	<ul style="list-style-type: none"> • Section 7(a). Amorphous and hard to achieve -recommend removing-there are numerous examples where the benefits of allowing fill for habitat projects in the Bay would outweigh negative impacts to existing habitats. • Suggest amending “Allowable fill for habitat projects in the Bay should (a) not cause substantial negative impacts to existing habitats...” to state “should (a) not cause substantial long-term negative impacts to existing habitats...” Suggest removal of "not significantly alter the balance of species" because the balance of species can be difficult to measure and changes difficult to predict. • Section 7(c). There is no known way to measure this. Clarify who must measure this and when. The way this is written precludes proactive actions to prepare habitats for marsh transgression-we recommend broadening language to reflect managed retreat/moving upslope. • BFWG: 7c - concern that this wouldn't allow the restoration of endangered species; Look at broadening the ability for restoration by reworking C. We could say broaden it to allow consideration of restoration of degraded habitats.
Fish, Other Aquatic Organisms, and Wildlife Policy 8	<ul style="list-style-type: none"> • Wondering if there was some language we wanted to add about protective levees that are needed to be fortified so that the dike can be breached to allow more restoration. • Define "deep subtidal" • Staff should consider revising language about habitat “inundation and loss” to more specifically reference drowning and downshifting (vertical processes), and erosion (lateral process). Staff might also consider including beaches and other coarse shoreforms in this language, as they currently protect marshes in multiple locations (e.g., Bair Island, Point Pinole, and Robert’s Landing) and may be an effective strategy to protect marshes in other Bay regions. • Revise last sentence to: "A justified amount of sediment placement for any habitat project in deep subtidal areas may be authorized if sediment placement will maximize the habitat restoration or enhancement benefits provided by the project."
Tidal Marshes and Tidal Flats Finding I	<ul style="list-style-type: none"> • The 2018 SF Bay sediment synthesis report from SFEI and the U.S. Geological Survey (USGS) states that “Since the step decrease in suspended sediment concentrations in WY 1999 (Schoellhamer et al. 2011), there has been no statistically significant trend in sediment supply from the Delta to the

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	<p>Bay.” It therefore may be more accurate to describe the decline in sediment supply from the Delta to the Bay as a step decrease, and not a decline that is current or constant. Staff may also want to reference the sediment synthesis report to include language that states that trends in future sediment supply to the Bay are uncertain, largely due to the influence of large floods on sediment delivery (and the influence of climate change on the potential frequency, duration, and severity of future flood events).</p> <ul style="list-style-type: none"> • Recommend incorporating language that allows for multiple approaches to restore and sustain marshes. In the long term, fully connected tidal systems with intact processes are ideal, but in the short-term there may be other ways to help jump start the process, such as subsidence reversal and other actions requiring more intensive management.
Tidal Marshes and Tidal Flats Finding k	Last sentence - recommend changing to, " ...these functions and services are limited in the long-term unless connected to other higher elevation areas of land."
Tidal Marshes and Tidal Flats Finding q	<ul style="list-style-type: none"> • Staff may want to consider including language that acknowledges that some existing tidal marshes throughout the estuary will likely not be sustained into the future solely through natural processes (for example, isolated urban marshes that cannot be feasibly connected to watershed sediment supplies and have limited opportunities for landward transgression). Because some of these marshes sustain regionally important populations of special-status species, however, they may justify consistent intervention over time to support regional ecological services. • Recommend reframing this finding to recognize the estuary is a very dynamic place, and to recommend that project proponents consider natural processes in siting and planning their projects. It is important to recognize even when habitat restoration and enhancement projects don't achieve their goals and objectives on the timelines we anticipate, that they are providing valuable functions and services as well as habitats for birds, fish and other wildlife. For example, creating managed wetland systems in historic baylands may provide habitats that otherwise would not exist {e.g. Haire Ranch) for the short-term until a longer-term goal is made {such as full tidal restoration option). This doesn't mean that creating hundreds of acres of wetlands from Agricultural ground shouldn't occur and isn't valuable. This practice will

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	<p>halt and possibly reverse subsidence as organic matter builds elevation, as seen at Viansa wetlands.</p> <ul style="list-style-type: none"> • Remove "Siting a project in a location...wasted resources." and replace with "Projects shall be appropriately sited at suitable elevations where natural processes exist to sustain it".
Tidal Marshes and Tidal Flats Finding r	<ul style="list-style-type: none"> • Please add the sentence "Some pilot demonstration projects may need to move forward with careful implementation and monitoring, even with data gaps or no information." The purpose of the pilots is to gather this information for the first time. • Will these projects be made somewhat easier to permit by the current updates and policy changes? • For clarity it would be helpful to know the distinction between pilot and demonstration projects in this context or if assumed to be synonymous
Tidal Marshes and Tidal Flats Finding s	<ul style="list-style-type: none"> • In the staff analysis please revise the sentence to state "The San Francisco Estuary Partnership, San Francisco Estuary Institute, San Francisco Bay National Estuarine Research Reserve, State Coastal Conservancy, Environmental Protection Agency and SF Bay Regional Water Quality Control Board, in partnership with various local, state, and federal agencies, are developing the Wetland Regional Monitoring Program." • We also encourage the recommendation to more specifically call out the Wetland Regional Monitoring Program as an effort to advance coordinated regional monitoring." This statement is repeated on pg. 23. Also with input from a broad Steering Committee that includes BCDC. • Your recommendations document refers to "surrogate" monitoring locations multiple times – and we assume that may be similar to this benchmark network. We suggest that this term be explicitly defined, or changed to more typical vernacular such as benchmark or reference site. • Recognize that coordinated regional monitoring will only work well if BCDC is part of the coordinated regional monitoring and does not add additional monitoring requirements. Otherwise, the applicant may choose to forego participation.

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Tidal Marshes and Tidal Flats Finding t	<ul style="list-style-type: none"> • Adaptive management can be used for restoration projects because they are complex systems and because there is uncertainty, not necessarily due to "high levels of uncertainty." • BFWG: Would like to see reference to use of adaptive management as a mechanism for communicating best available science to the community.
Tidal Marshes and Tidal Flats Finding u	<ul style="list-style-type: none"> • Consider the appropriate use of the term “monitoring” versus the term “research.” They should not be used interchangeably. Monitoring is the functional assessment of the methods and goals of a specific project or projects, whereas scientific research is intended to test a hypothesis. Research may be more long term and its ability to be conclusive depends on project size, number of design replicates, and variability of conditions affecting the outcome. We recommend using the term “monitoring” in the regulatory context, as research should not be required for permitting. • Recommend changing to frame in terms of project goals and objectives, existing condition relative to proposed restored condition, location, and surrounding infrastructure/built environment. Further, risk should not be conflated with project size, therefore we recommend using risk, alone, as the driver for intensive monitoring and adaptive management, rather than project size, lifespan, or uncertainty
Tidal Marshes and Tidal Flats Policy 4	<ul style="list-style-type: none"> • Consider expanding “local government land use and tax policies” to “state, regional, and local government land use, tax, and funding policies” to include the often-considerable roles of Caltrans, the Metropolitan Transportation Commission and county transportation agencies, and related agencies in land use planning and in setting conditions for project funding that can lead to adverse impacts. • Move this paragraph into the "Finding" column rather than the "Policy" column. • If this language is incorporated, recommend modifying either to an elevation contour measured from mean higher high water, or connecting with adjacent wetland and aquatic habitats, or consistent with San Francisco Bay Joint Venture Implementation Plan Revision recommendations, in preparation.

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	<ul style="list-style-type: none"> • As BCDC does not have the authority to require local jurisdictions to change their policies or ordinances, it might send a stronger message to change Policy 4 to alert local governments and developers that BCDC will require applicants to demonstrate why their project should take precedent over restoration and/or will not impede future nature based SLR efforts. • BFWG: Regarding how to handle, it is already in there, so removal would send a message, but having it separated out now makes it more conspicuous, so may attract issues/negative attention.
Tidal Marshes and Tidal Flats Policy 5	<ul style="list-style-type: none"> • Staff may want to consider including language that acknowledges that some existing tidal marshes throughout the estuary will likely not be sustained into the future solely through natural processes (for example, isolated urban marshes that cannot be feasibly connected to watershed sediment supplies and have limited opportunities for landward transgression). Because some of these marshes sustain regionally important populations of special-status species, however, they may justify consistent intervention over time to support regional ecological services. • Recommend reframing to recognize managed retreat, as well as short term benefits. • BFWG: Add a clause about "helping to recover endangered species" • Make sure that we don't sequester sub-tidal into its own section too much because a lot of times we are constructing things like eel grass beds or oyster reefs to protect tidal marshes and the placement is specifically within those tidal marshes and flats. So I just want to call out the multi-objective that integrated it is not just for sub-tidal.
Tidal Marshes and Tidal Flats Policy 6	<ul style="list-style-type: none"> • Please separate out the three added requirements in a new sentence that states, "If appropriate to the scale and scope of the project, design and evaluation of the project should also include..." These new analysis requirements should not necessarily be required of projects that may require periodic maintenance, such as protection and enhancement of small eroding tidal marshes in urban areas that provide educational and recreational benefits. • This reflects a substantial number of new requirements (adaptive management plans, additional analyses during

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	<p>design and evaluation) that will add cost and time to project delivery. Recommend removing factors, such as additional analyses and intensive and lengthy monitoring plans, that increase cost, timeline, and complexity of conserving habitat. The more onerous requirements are, the less projects will be implemented by 2030 in accordance with the Goals Report Science Update (2015). Add language that recognizes both short term and long-term benefits of projects.</p> <ul style="list-style-type: none"> • In first sentence, change "program" to "plan" before "a monitoring" and delete "to assess benefits, impacts, the likelihood of success, and sustainability of the project." As an alternative, end the first sentence after " ... monitoring plan." And begin next sentence with "To assess benefits, impacts, the likelihood of success, and sustainability of the project, design and evaluation of the project should include ... • BFWG: want to make sure these criteria apply to actual project management rather than just how the project is justified. Will it actually be carried out in accordance with those principles?
Tidal Marshes and Tidal Flats Policy 7	<ul style="list-style-type: none"> • Recommend making amount, duration, extent of monitoring and complexity of adaptive management plan consistent with risk, and inversely proportional to habitat benefits. Monitoring data that is collected should be limited to the minimum level needed to ascertain a project is meeting its goals and objectives. Furthermore, to the extent monitoring data are collected, we recommend that these data are meaningful, and are analyzed to inform future actions on a regional scale. • Delete requirement to “have a funding plan” and replace with “Habitat project proponents should determine the cost of monitoring and adaptive management, commensurate with the size and complexity of the project, and incorporate the cost into the project budget.” • We suggest providing an exemption to the funding plan requirement for government agencies. • Please consider eliminating this requirement or adding a definition limiting the “ funding plan” to a demonstration that cost estimates for monitoring and management were included in the project budget and that the project proponent has a reasonable expectation (and not a guarantee) of obtaining that level of funding over time.

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	<ul style="list-style-type: none"> • Revise the second sentence as follows: "Monitoring and adaptive management plans should have a funding component, commensurate with the level of monitoring and adaptive management required for the project." • It should be clarified that a requirement for a funding plan does not mean funding must be confirmed, but could consist of possible sources that would be approached and confirmed at later time. • BFWG raised some concern but generally concluded that monitoring is necessary, so that having a funding plan where necessary is helpful.
Tidal Marshes and Tidal Flats Policy 8	<ul style="list-style-type: none"> • The staff analysis should note that the proposed Wetland Regional Monitoring Program (WRMP) is being developed by multiple entities, including SFEI, the San Francisco Estuary Partnership (SFEP), the SF Bay National Estuarine Research Reserve (NERR), the U.S. Environmental Protection Agency, and the Water Board, with input from a broad Steering Committee that includes BCDC. • In the staff analysis please revise the sentence to state "The San Francisco Estuary Partnership, San Francisco Estuary Institute, San Francisco Bay National Estuarine Research Reserve, State Coastal Conservancy, Environmental Protection Agency and SF Bay Regional Water Quality Control Board, in partnership with various local, state, and federal agencies, are developing the Wetland Regional Monitoring Program." • We encourage the recommendation to more specifically call out the Wetland Regional Monitoring Program as an effort to advance coordinated regional monitoring. This statement is repeated on pg. 23. • Your recommendations document refers to "surrogate" monitoring locations multiple times – and we assume that may be similar to this benchmark network. We suggest that this term be explicitly defined, or changed to more typical vernacular such as benchmark or reference site. • Add the following: "Monitoring required for habitat restoration projects should be coordinated with regional efforts and other monitoring to improve the value and usefulness of data, and if possible reduce the cost of project-based monitoring."

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	<ul style="list-style-type: none"> • Recognize that coordinated regional monitoring will only work well if BCDC is part of the coordinated regional monitoring and does not add additional monitoring requirements. Otherwise, the applicant may choose to forego participation.
Tidal Marshes and Tidal Flats Policy 10	<ul style="list-style-type: none"> • In first sentence, delete "should encourage and" and insert "may". • Delete "when the potential benefits are greater than the potential risks. These projects should ... " • Combine first and second sentences then to read as follows: "The Commission may authorize pilot and demonstration projects that include appropriately detailed ..." • Delete third sentence "Project outcomes should be analyzed and reported expeditiously, so that findings can be applied to future projects." Replace with "Pilot project outcomes and lessons learned should be analyzed and reported expeditiously and shared widely but are not intended to preclude permitting of other pilots projects." • We suggest encouraging both demonstration projects and projects based on proven techniques. While demonstration projects are certainly to be encouraged, giving preference to them could, over time, mean delays for projects based on proven methods. Projects that are using well-vetted methods should also be encouraged, along with demonstration projects. This could be done in Policy 10 or in a separate policy. • Will these projects be made somewhat easier to permit by the current updates and policy changes? (comment made directly on finding)

Policy, Finding, or Topic	Synthesized comments
Tidal Marshes and Tidal Flats Policy 11	<ul style="list-style-type: none"> • Recommend adding clarifying language to indicate this will be done on a regional scale, such as wetlands regional monitoring program, not individual restoration projects. • In first sentence, delete "and action" and insert "which may include pilot and demonstration projects" • 11a: Insert after "... investigate fill placement approaches" and insert "and the beneficial reuse of dredged sediment"
Subtidal Areas Finding j	<ul style="list-style-type: none"> • Change to "...hybrid materials that integrate native shell, native sand, and concrete, for example,..." We suggest using the term "grey-green" or otherwise make sure to define hybrid. • Consider including aged concrete for habitat purposes - Oyster shells are expensive and challenging to procure. If oyster restoration efforts continue to be scaled up, it may become increasingly difficult to get 'baycrete'
Subtidal Areas Finding k	<p>Recommend BCDC be open to authorizing pilot and demonstration habitat enhancement projects where proof of concept exists from similar landscapes, such as thin layer deposition used on east and gulf coasts.</p>
Subtidal Areas Finding l	<p>We suggest that the staff analysis include the addition of the following statement: "...regional monitoring can provide benefits that are different from and complementary to project-based monitoring and may provide opportunities for uses of surrogate monitoring especially when these efforts are linked to management questions. "</p>
Subtidal Areas Finding n	<ul style="list-style-type: none"> • Recommend removing size as a consideration for adaptive management. Relate adaptive management to potentially significant impacts to habitats or species rather than size. • BFWG: Concept of adaptive management as mechanism for communicating best available science/lessons learned should be included.
Subtidal Areas Finding o	<ul style="list-style-type: none"> • Regarding the part that states "...Projects with higher levels of uncertainty or risk may require more intensive monitoring and adaptive management.", Some well-vetted techniques like seawalls have major impacts and no monitoring requirements. Improve language so there isn't an undue burden on innovative new projects seeking nature-based solutions. Recommend removing this finding. This is arbitrary. If finding is retained, recommend reframing to recognize beneficial nature of habitat restoration projects

Policy, Finding, or Topic	Synthesized comments
	rather than asking project proponents to prove their projects are beneficial. See comments under Page 19. Section q.
Subtidal Areas Policy 3	<ul style="list-style-type: none"> • Many pilot projects are small and testing concepts that can be scaled up and applied in future. Therefore, they often don't have long-term goals for the project itself. Regarding 3(c), add "if appropriate to scale of project"; for 3(d), info is not always available. • For 3c, delete "Bay's" and insert "local"
Subtidal Areas Policy 4	<ul style="list-style-type: none"> • Same comments as Policy 7 in Tidal Marshes/Tidal Flats • Recommend removing size as a monitoring trigger.
Subtidal Areas Policy 5	<ul style="list-style-type: none"> • Same comments as Policy 8 in Tidal Marshes/Tidal Flats • Move to "Finding" column
Subtidal Areas Policy 7	<ul style="list-style-type: none"> • Remove last clause: "if the Commission finds..is feasible". • At end of sentence delete "that no other method of enhancement or restoration except filling is feasible." and replace with "filling is the best available method of enhancement, restoration or sea level rise adaptation." • BFWG: some concern about "if the Commission finds...feasible" also • Insert "subtidal" after "authorized for";
Subtidal Areas Policy 8	Same comments as Policy 10 in TM/TF
Subtidal Areas Policy 9	We suggest amending subsection (c) to state "sediment dynamics, including sand <i>and oyster shell</i> transport, and wind and wave effects on sediment movement" to highlight the importance of oyster shell features in the Bay, and how little is currently known about the processes and conditions that support these features.

Policy, Finding, or Topic	Synthesized comments
Dredging: changing dredged material to dredged sediment	<ul style="list-style-type: none"> • We support this change, if sediment includes all grain sizes from clay to boulders. • The word choice in this proposed change seems unnecessarily limiting. Please clarify whether bay muds, cobbles, or other sizes of material are considered sediments. If so, then I have no objection to the terminology change. • Changing dredged "material" to "sediment" throughout this section may unnecessarily limit the use of upland soils as potential suitable fill in certain appropriate scenarios. • BFWG discussion: add justification/explanation of this change to Staff Analysis
Dredging Finding n	<p>We already are building scientific and technical knowledge that supports the "need for" and "potential effects of" using suitable dredged material for habitat restoration. More studies are certainly warranted to iteratively refine the science. Perhaps modify language to generally state "Continuation of Baywide studies to support the use of dredged sediment for eelgrass or other shallow water habitat enhancement or restoration."</p>
Dredging Policy 11a(1)	<p>The bar set for determining how and when a study is complete and conclusive is not clear. It should be clarified what types of studies would the Commission consider necessary and conclusive in deciding the advisability of disposal for beneficial purposes.</p>
Dredging Policy 11a(1) (b)	<p>Suggest deleting this sentence as it no longer reflects our current critical need to maximize use of suitable dredged sediment for restoration actions.</p>
Dredging Policy 11a(1)(c)	<ul style="list-style-type: none"> • Change text saying "the amount of dredged sediment to be used would be the minimum amount necessary to achieve the purpose of the project" to say "...the minimum necessary to achieve the purpose of the project, considering the project purposes may include the creation of high-value habitat, enhancement of ecological functions, and sea-level rise adaptation that require large amounts of fill." • Concern about the minimum amount necessary language. Suggest rephrasing to "the amount of dredged sediment allowed to be used would be limited to that which provides additional benefits in terms of habitat values, ecological functions, and sea-level rise adaptation;" or something similar to that.
Dredging Policy 11a(1)(d)	<p>Suggest deleting this sentence; water quality may be temporarily impacted from dredged material disposal, but the restoration will</p>

Policy, Finding, or Topic	Synthesized comments
	have long-term positive impacts on beneficial uses and water quality.
Dredging Policy 11(a)(4)	Suggest deleting this sentence as it no longer reflects our current critical need to maximize use of suitable dredged sediment for restoration actions and requires mitigation if have net loss of area or volume. Restoration projects, if designed according to all the other policies, will result in net ecological and societal gain, so focusing on volume and area seems short-sighted. Suggest instead focusing on best available science.
Dredging Policy 11b	<ul style="list-style-type: none"> • We do not support simply removing the policy. We do not completely agree with STB that Dredge Policy 11b should be updated to restrict all non-minor subtidal fill for habitat projects pending the completion of the MHEP. However, we do support amended language that would limit projects whose primary driver is the disposal of dredge material rather than habitat restoration and we support language that continues to hold MHEP accountable for its required benefits. • See Army Corps letter for line edits to staff analysis of DP 11b • This outcome can best be accomplished by modifying Dredging Policy 11b to require that “the Commission should not authorize dredged sediment disposal projects in the Bay and certain waterways to create, enhance or restore sub-aquatic habitat in shallow water, except for projects using a minor amount of dredged sediment, until the Oakland Middle Harbor Enhancement project authorized by the Commission is completed successfully and provides the required benefits, including remedial action for temporal loss of benefits.”
Bay Plan Map 4 Policy Addition	Addition is supported by Coastal Conservancy and SBSP; opposed by Army Corps, Port of Oakland, and Save the Bay
Dredging Policy 11b - Proposed new language	Create flexibility over lifetime of this plan to scale up these projects for beneficial reuse. Recommend adding", and support scaling them up when and if additional information supports doing so."
Shoreline Protection Finding h	Regarding staff analysis: Change penultimate sentence to reflect that tidal marshes and tidal flats do not attract waterbird species of large enough size to be of concern to airports.

Policy, Finding, or Topic	Synthesized comments
Shoreline Protection Finding i	Given that different types of natural and nature-based approaches would be appropriate in different portions of the shoreline (see the Adaptation Atlas), staff may want to consider developing a framework for evaluating mitigation needs for these types of projects on a regional or sub-regional basis, and clarify expectations for the role regional mitigation banks may play in addressing these needs.
Shoreline Protection Policy 4	<ul style="list-style-type: none"> • Do not require projects to evaluate things that are not feasible or appropriate. This is not a cost they should not have to bear. • Because of the potentially significant public safety hazard posed by placing wildlife attractants near airports, the exemption should be mandatory where natural and nature-based features might attract wildlife. The Airport proposes updating the exemption language slightly to state : "Airports shall be exempt from incorporating natural and nature-based features that could endanger public safety, such as by attracting potentially hazardous wildlife ." • BFWG: A lot of discussion regarding the use of the term "All", and the terms "wherever feasible and appropriate". Question of whether all projects should actually be considering nature based solutions. Also this conversation referenced a divide between what existing shoreline protection and new shoreline protection should have to do. Should existing projects that are working on improvements have to consider incorporating natural features?
Shoreline Protection Policy 5	Recommend reframing to recognize natural resources as separate from public access.
Shoreline Protection Policy 6	Recommend adding, "for techniques that have not been tested in similar conditions and support scaling them up when and if additional information supports doing so."
Shoreline Protection general comments	<ul style="list-style-type: none"> • Understanding that different parts of the Bay have different habitat needs and that projects will need to be assessed in a regional context, some shoreline areas will require tidal flood protection to increase shoreline resiliency, but conditions in these areas may not support habitat restoration. We suggest that the new Draft Policy Changes address how mitigation would be assigned to these projects. • We also suggest that the Draft Policy Changes be clarified to demonstrate that fill for necessary shoreline protection projects to protect public health and safety is important to

Policy, Finding, or Topic	Synthesized comments
	<p>facilitate the adaptation of Bay area communities to rising sea level, including in areas where there are no or very limited opportunities for restoration. (Valley Water and BPC)</p> <ul style="list-style-type: none"> • Sometimes fill that is necessary for shoreline protection, ecotones, and transitional habitat creation could obstruct existing public views, despite potential creation of new public access trails. We suggest that the new Draft Policy Changes address conflicts with other Bay Plan policies regarding existing Bay views. • More explicitly reference to fill for levee/berm fortification needed to allow wetland restoration to go forward
<p>Shoreline Protection suggested policy additions</p>	<ul style="list-style-type: none"> • Recommend that staff include a policy in this section that encourages applicants to “hold the line” as far landward as possible, and minimize the amount of baylands that are isolated behind protective infrastructure. This policy should highlight the role that phased, place-based adaptation pathways can play in identifying opportunities for the long-term landward transgression of defenses from tidal flooding (managed retreat), which can over time create space for the restoration of complete tidal wetland systems and other nature-based adaptation measures. Phased adaptation pathways, which are described in greater detail in the Adaptation Atlas, provide a framework for identifying appropriate suites of action at different SLR thresholds, and create a mechanism for addressing uncertainty and allowing for flexibility over time. Such a policy could be linked to Policy (4) under Tidal Marshes and Tidal Flats, which encourages the public acquisition and restoration of “restorable lands.” • Strongly suggest adding a policy that allows adding fill that is specifically for improvements to existing levees and berms associated with a habitat restoration project, in order to allow the associated wetland or other habitat restoration work to proceed without decreasing shoreline protection or increasing flood risk. In many places around the Bay, the existing berms of former salt ponds, grazing areas, dredge disposal sites, or other hydraulically isolated areas currently provide protection but are inadequate to allow restoration to proceed now or to resist impacts associated with sea-level rise unless they are raised or otherwise improved. These types of improvements should be formally permissible under the Commission’s Bay Fill Policy.

